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Paid work between age 60 and 70 years in Europe: a matter of socio-economic status?

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Abstract

Over the past years, older persons' workforce participation has increased and, after years of studying early retirement, the focus has gradually shifted to workforce participation between age 60 and 70 years. Those are the years directly below and above the mandatory retirement age in most of the European countries. We investigate the influence of socio-economic status (SES) on older persons' workforce participation. Moreover, we study whether the importance of private pensions in a country modifies the effect of SES. Survey data from eleven European countries are analysed in multilevel analyses. Results show that paid work in old age is the domain of persons with high SES. Moreover, a high share of private pensions in a country diminishes the influence of occupational prestige on men's workforce participation. This suggests that older persons with low SES deserve particular attention in labour market reforms. Additionally, it suggests that pension reforms be monitored concerning their effects on social inequalities.

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Introduction

Over the past years, older persons' labour force participation rate has increased (Eurostat 2009). This development signals a trend reversal, considering that early retirement and unemployment in later life were common phenomena during previous decades (Casey 2009; Gould 2006; Kim 2009; Szinovacz & Davey 2005). The trend reversal was driven by a confluence of the needs of governments, employers and of the older persons themselves. Governments sought to reduce the pressure on payas-you-go financed pension schemes exerted by population ageing and economic crises (Hemerijck et al. 2009; Organisation for Economic Cooperation and Development [OECD] 2006; Pierson 2006). They did this by restricting the access to early retirement schemes and by raising the public pension age (OECD 2006; Taylor-Gooby 2008). Employers are confronted with an increasing labour shortage, which makes it more important for them to keep older persons in employment (Van Dalen et al. 2009). Older persons, finally, face an increasing risk of poverty. This risk has increased recently, because unemployment spells have become more common and retirement savings have been lost due to stock market crashes and the economic crisis (Butrica et al. 2009; Esping-Andersen 1996). Older persons might have to counter this development by working longer.

Studies from the United States document that paid work in old age is common there, sometimes even when pension benefits are already received (Choi 2001; Hardy 1991; Hayward et al. 1994). Recent statistics show that work after retirement age also occurs in Europe (International Labour Organization 2007). Studies on this phenomenon in Europe, however, are still missing. The present article fills this lacuna by studying the workforce participation of Europeans aged 60-70 years. This age bracket covers the years directly below and directly above the mandatory retirement age in most European countries (European Commission 2007). It thereby covers the time most strongly affected by decisions about early retirement and work after pension age.

A person's workforce participation does not only depend on age. One strand of research, for example, shows that workplace characteristics influence older persons' workforce participation (Beehr et al. 2000; Frederiksen & Westergaard-Nielsen 2007). Generally speaking, occupations with high job autonomy and a low stress-level motivate persons to work longer. Another strand of research focuses on the influence of retirement regulations on older persons' workforce participation (e.g. Ebbinghaus 2006; Hartlapp & Kemmerling 2008). The effect of these regulations is particularly strong, which is why governments use them to manipulate older persons' workforce participation rates. A third strand of research studies the influence of an individual's characteristics, such as gender, health status and socio-economic status (SES) (Choi 2001; Van der Meer 2006). Among those characteristics, SES is particularly interesting. It describes the position a person occupies within society on grounds of wealth, educational level and occupational prestige (Shaw et al. 2007). While SES is mostly acquired throughout one's youth and middle-age, its effects are still visible in old age (Shaw et al. 2007). It therefore reflects the accumulation of advantages and disadvantages throughout the life-course. Regarding older workers, it has been found to influence the need, possibility and desire to work (Gouldner 2001; Kim 2009). We will extend the knowledge on the effects of SES by studying a first research question: To what extent do wealth, educational level and occupational prestige influence the workforce participation of Europeans aged 60–70 years?

The fact that SES describes a person's position within society ties its effects to social structures. For example, the effect of SES on a person's workforce participation depends on gender roles. Women's labour force participation rate is lower than men's because of social norms and women's responsibility for familial care-giving (Hult 2008; Lewis et al. 2008a, 2008b). As a consequence, men and women balance the need, possibility and desire to work created by SES against different norms and obligations. To give another example, the effect of SES on a person's workforce participation varies with the importance of private pensions in a country. Governments sometimes stimulate the investment in private pension schemes as a supplement to public and occupational pensions (Myles 2002; OECD 2008). In contrast to public and occupational pensions, private pensions are not affected by budget cuts in welfare states and

companies. This makes them particularly attractive in times of economic crisis (Hemerijck et al. 2009). However, the possibility to invest in private pension schemes depends on a person's wealth, with wealthy persons having more possibilities. Some scientists, therefore, speculate that a shift towards private pensions might increase wealth-related inequalities in pensions (Korpi & Palme 1998; Schils 2008). Consequently, wealth might become more important for when a person can afford to retire. We will expand the knowledge of the effect of the prevalence of private pensions in a country on the influence of SES by answering a second research question: To what extent does the prevalence of private pensions modify the effect of SES on the workforce participation of Europeans aged 60–70 years? With this research question, we will not only test the influence of private pensions on the effect of wealth suggested by other studies. We will also explore whether the influence of the other dimensions of SES, namely educational level and occupational prestige, are affected by private pensions.

This article answers the research questions through multilevel analyses. The data analysed stem from the Survey of Health, Ageing and Retirement in Europe. It allows for comparison between eleven European countries, representing different levels of prevalence of private pensions. We will analyse men and women separately to account for gender differences in the workforce participation rate and in the effects of SES.

Socio-Economic Status (SES) and Older Persons' Workforce Participation Rate

The three measures of SES we are studying are wealth, educational level and occupational prestige. Those measures can be associated with each other, but they do not have to be. An association can arise because educational level influences which occupations can be chosen. The occupations, then, generate wealth and occupational prestige (Shaw et al. 2007). However, these associations can be weakened out for several reasons. First, wealth is influenced by more than one's occupation. Wealth summarises the income and assets a person accumulated throughout his or her life. Apart from a person's income it therefore also reflects a person's spending patterns, inheritances, gifts and transfers within

families (Galobardes et al. 2006; Shaw et al. 2007). Wealth seems more relevant than income among women and older persons, because both groups might draw heavily on transfers or savings (Galobardes et al. 2006; Sorensen 1994). Second, women often have to balance work and caring tasks within the family. They can, therefore, not always translate a high educational level into occupations with high prestige and income (Gannon et al. 2007). Finally, it still occurs that women receive a lower salary than men in the same job (Kunze 2008). This weakens the link between occupational prestige and wealth. We will analyse wealth, educational level and occupational prestige separately in this article to account for the possible disparity between them. In the following paragraphs, we discuss how each measure of SES might influence the workforce participation of older persons.

Wealth and Older Persons' Workforce Participation

Wealth reflects the economic side of SES. It refers to purchasable goods and the opportunities derived from them (Shaw et al. 2007). In the case of older persons' workforce participation, it is influential in two ways. First, it reduces the need for paid work in later life. Disproportionately many wealthy persons invest in private pension schemes. Those schemes allow them to bring forward retirement (Schils 2008). Moreover, wealth allows people to bear their everyday expenses without generating income through paid work. This softens the financial consequences of retirement, thus increasing possibilities for early retirement (Beehr et al. 2000).

Second, personal preferences influence wealth and older persons' workforce participation. Persons valuing paid work are more likely to work, thereby generating wealth. Persons preferring leisure time or family relations over work, in contrast, are less likely to work (Hakim 2004). This mechanism will probably be weaker for women than for men due to women's lower wages (Kunze 2008).

The two opposed effects of wealth make it necessary for persons to decide what they value more: material situation or personal preferences. We assume that the material situation has a stronger effect on an individual's behaviour than preferences and, therefore, hypothesise: Wealthy older persons are particularly unlikely to work for pay (Hypothesis 1).

Educational Level and Older Persons' Workforce Participation

Educational level represents the knowledge-related side of SES. On the one hand, it refers to opportunities derived from information. On the other hand, it indicates when a person left the educational system and joined the workforce.

In an information society, a high educational level makes persons attractive as employees (Gouldner 2001). This increases their chance of finding and keeping employment in old age (Hayward et al. 1994). At the same time, especially persons with a high educational level need to work in later life. Due to their long educational phase, they start working and therewith earning pension entitlements at a later age (McDaniel 2003). Consequently, they reach the minimum period of contribution to pension schemes at a later age. This phenomenon is particularly important among women, because familial care-giving duties add periods without paid work to their life-course (Kim 2009). We sum those considerations in a second hypothesis: Older persons with a high educational level are particularly likely to work for pay (Hypothesis 2).

Occupational Prestige and Older Persons' Workforce Participation Occupational prestige is closely tied to paid work. It indicates the desirability of an occupation and the degree of success employees in an occupation are assumed to have (Goldthorpe & Hope 1974; Magnusson 2009).

Persons in prestigious occupations are held in high esteem and with respect. They receive deference because of their job and usually have autonomy in their work tasks (Ganzeboom & Treiman 2003; Treiman 1977). This makes paid work more agreeable for them, increasing their desire to work (Beehr et al. 2000). Moreover, persons in prestigious occupations often have specialised skills. Those skills make them particularly valuable to their employers, motivating employers to prevent early retirement (Hayward et al. 1994; Rose & Harrison 2007). We summarise the effect of occupational prestige in a third hypothesis: Older persons with high occupational prestige are particularly likely to work for pay (Hypothesis 3).

Private Pensions and Older Persons' Workforce Participation

Current welfare state reforms often strengthen private pension schemes. These schemes are directly financed by the individual citizens and the details of the schemes can be negotiated to fit the individual's preferences (OECD 2008). As a result, a person's investment in private pension schemes reflects his or her financial situation, financial literacy and preferences (Schils 2008). Governments are attracted to private pension schemes, because these schemes do not require any public funding. This is important when governments try to cut expenditures, for example, as a counter to increasing pension claims in ageing populations (Myles 2002). When shifting the focus to private pensions, governments put more responsibility on the individual. Individuals can then only afford to retire when they personally made sufficient contributions to their own pension plan. Periods without contributions due to, for example, unemployment or childrearing consequently have a negative impact on one's pension prospects. This contrasts with public pension schemes, where students, unemployed persons and mothers often accumulate some entitlement to a pension (European Commission 2007; OECD 2006). A shift towards private pensions, thus, aggravates the effect of periods of non-employment on old age poverty.

Private pension schemes do not only influence older persons' workforce participation rate, they also influence which groups of older persons work. They have this capability because of the kind of redistribution they achieve and the population groups they address (Korpi & Palme 1998; Schils 2008). Private pension schemes redistribute wealth across a person's life-course. Contributions a person makes to his or her own pension plan during middle age are distributed back to him or her in old age (Myles 2002). This kind of pension scheme is open to anyone with sufficient disposable wealth, be it wealth generated through paid work, inheritances or transfers, income from rent or return on investment.

The redistribution achieved by private pension schemes differs from the one achieved by other kinds of pension schemes, that is to say public and occupational pensions (Korpi & Palme 1998). Public pension schemes are usually organised by the state, covering almost the entire population. This kind of pension scheme redistributes wealth across a person's lifecourse, just like private pension schemes do (Myles 2002). Additionally, it

can redistribute wealth between population groups (Korpi & Palme 1998; Schils 2008). For example, lower and upper limits to public pension benefits redistribute wealth from persons with high to persons with low wealth (Myles 2002). Another example is the inclusion of periods of studying and of raising children in the calculation of pension levels (European Commission 2007; OECD 2006). This approach redistributes wealth from persons with long to persons with disrupted working histories. In practice, this often means redistributing from men to women (De Vroom & Bannink 2008). By redistributing wealth between population groups, public pensions partly level pension benefits. Consequently, they partly level older persons' need to engage in paid work (Schils 2008).

Occupational pension schemes, finally, redistribute wealth across the life-course, similar to private and public pensions. What differentiates them from the other two kinds of pension schemes is the group of persons covered (Myles 2002). In countries with mandatory occupational pension schemes, all persons engaging in paid work are covered. Differences in pension benefits usually stem from income differences. In countries with voluntary occupational pension schemes, only some persons engaging in paid work are covered (OECD 2008, 2009). Those persons often are in prestigious occupations, having occupational pensions included in their remuneration packages (Crystal & Shea 1990; Hayward et al. 1994; Rose & Harrison 2007; Taylor & Earnshaw 1995).

The observations just presented show how different kinds of pension schemes can create different kinds of stratification among older persons. Usually, the three kinds of pension schemes exist side by side, with their relative importance varying between countries. Considering the share of private pension benefits among all old age benefits can give us an indication of stratification in older persons' workforce participation. It can give us an indication of how important wealth, educational level and occupational prestige are for older persons' workforce participation.

Wealth enables persons to invest in private pension schemes, which can allow them to bring forward retirement (Kim 2009; Schils 2008). However, persons with a strong preference for work might work to a later age and see the accumulation of benefits in private pension schemes as a mere side-effect (Hakim 2004). We, again, assume that the material situation has a

stronger effect on a person's behaviour than preferences and, therefore, hypothesise: A high share of private pensions in a country makes wealthy older persons less likely to work for pay (Hypothesis 4).

A high educational level increases a person's financial literacy, meaning his or her capability to manage personal finances (Hershey et al. 2007; Lusardi & Mitchell 2007; Oehler & Werner 2008). This skill is particularly important when navigating the market for private pensions. Private pension schemes usually have multiple providers, which makes their regulations and benefits heterogeneous within a country (OECD 2008). It thus becomes challenging for individuals to keep an overview of the pension market. A high educational level might increase the chance that a person picks the most suitable private pension scheme for his or her particular situation. He or she might, therefore, have a bigger chance to bring forward retirement, if this is desired. Consequently, we formulate the fifth hypothesis: A high share of private pensions in a country indicates little need for well-educated older persons to work for pay (Hypothesis 5).

Occupational prestige does not only determine a person's status in society, it also gives an indication of the behaviour expected from a person (Magnusson 2009; Treiman 1977). A high share of private pensions in a country might create the expectation that persons with high prestige have invested in these schemes. Using these schemes to retire early might, thus, become a sign of occupational prestige. We therefore formulate a sixth hypothesis: A high share of private pensions in a country makes older persons with high occupational prestige less likely to work for pay (Hypothesis 6).

Methods

Sample

We use data from the Survey of Health, Ageing and Retirement in Europe, a longitudinal study on activities, SES and social networks of persons aged 50 and older (Börsch-Supan & Jürges 2005). From the main sample of the first wave, collected in 2004 and 2005, we obtain data from eleven European countries. This data contains information on 3999 men and 4453 women aged 60–70 years. Because of missing values, 456 men and

519 women have to be excluded. An analysis shows that those values are missing at random. We then split the dataset in two, according to gender. This is necessary because we analyse men and women separately. This way, we can detect gender differences in the effects of SES. In each dataset we randomly select one person per household, which corrects for clustering within households. This leads to the exclusion of two men and ten women, who were partners in same-sex relationships, siblings, siblings-in-law and other relatives. About 3541 men and 3924 women remain for the analysis. Among men, the average sample size is 322 and the range 143 (Switzerland) to 469 (Germany) cases per country. Among women, the average sample size is 357 and the range 140 (Switzerland) to 478 (Belgium) cases per country.

Measures

The dependent variable is whether a person spends any time on paid work (answer categories: yes/no). The answer was coded as "yes" when a person states that he or she spent any time on a main or a secondary job. Table 1 shows that paid work is more common among men (23%) than among women (13%) aged 60–70 years. This gender difference can be explained with the lower retirement age for women than for men in some countries and with a lower labour force participation rate among women than among men (Hult 2008; Komp et al. 2009). Sweden, Denmark and Switzerland are the countries where paid work between age 60 and 70 years is particularly common. Belgium and France, in contrast, are the countries where the workforce participation rate in this age group is at its lowest. The country differences roughly correspond to differences in retirement regulations (Komp et al. 2009).

The explanatory variables are wealth, educational level, occupational prestige and the share of private pensions in a country. A tolerance-test shows that the variables wealth, educational level and occupational prestige are only weakly correlated (tolerance > 0.7).

Wealth is measured with the variable "household net worth", which states the current value of all financial and real assets minus liabilities. It was measured at the household level in 100,000€ and adapted to the individual level using the square root scale (Atkinson et al. 1995). To correct for outliers, the highest 5% per gender and country were set to the

Table 1. Sample descriptive statistics for explanatory and explained variables, per gender and country

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	Wealth (1000€)	Occupational prestige (scale 0–100)	Educational level (years)	Share private pensions (%)	Paid work (yes/no)
	Mean (SD)	Mean (SD)	Mean (SD)	Country- average	Percentage (%)
Men					
A	137 (125)	42 (13)	12 (3)	0.7	11.7
В	233 (201)	44 (15)	10 (4)	0.8	10.6
DK	238 (301)	44 (15)	12 (3)	1.4	40.1
F	214 (208)	43 (13)	8 (6)	0.1	5.4
D	150 (152)	44 (12)	14 (3)	3.0	22.0
GR	115 (116)	42 (11)	9 (5)	0.4	26.1
IT	157 (147)	40 (11)	7 (4)	0.0	19.3
NL	161 (164)	45 (15)	11 (4)	5.4	17.0
E	140 (153)	36 (12)	7 (4)	0.7	18.9
S	246 (331)	47 (15)	10 (3)	7.6	42.3
CH	400 (400)	45 (14)	12 (4)	1.8	51.7
Total	189 (223)	43 (14)	10 (4)	2.0	22.8
Women					
A	119 (118)	32 (16)	10 (4)	0.4	9.9
В	221 (204)	32 (20)	9 (4)	0.2	5.0
DK	170 (191)	39 (15)	11 (3)	1.5	19.7
F	186 (163)	37 (16)	7 (5)	0.1	7.3
D	133 (132)	37 (15)	13 (3)	1.5	13.0
GR	86 (70)	41 (8)	7 (4)	0.5	8.5
IT	133 (119)	38 (9)	6 (4)	0.3	6.9
NL	158 (172)	32 (17)	11 (3)	2.7	10.3
E	117 (114)	18 (18)	6 (4)	0.1	8.0
S	214 (282)	42 (15)	10 (3)	6.0	35.3
CH	317 (313)	38 (15)	11 (4)	1.2	32.1
Total	161 (185)	35 (17)	9 (4)	1.3	13.3

Note: A, Austria; B, Belgium; DK, Denmark; F, France; D, Germany; GR, Greece; IT, Italy; NL, Netherlands; E, Spain; S, Sweden; CH, Switzerland; SD, standard deviation.

value of the 95th percentile. Correspondingly, the lowest 5% per gender and country were set to the value of the 5th percentile. Table 1 shows that the average man (mean: 189,000€) is wealthier than the average woman (mean: 161,000€) in our sample. This can be explained by the fact that men usually have higher earnings than women (Kunze 2008). The average wealth among men and women is particularly high in Switzerland and particularly low in Greece.

The educational level is measured as years of education. Table 1 shows that the average time spent in education is slightly higher among men (10 years) than among women (9 years). This difference can be explained with gender-specific norms that see women's place in the household (Hawley Mcwhirter 1997). Germans aged 60–70 years spent comparatively much time in education, while Italians, Spaniards, Greeks, and Frenchmen in this age group spent comparatively little time in education. Those differences might result from country-specific requirements of years at school for educational degrees (Brauns et al. 2003). It might also result from persons leaving the educational system after achieving different educational degrees. In Germany, for example, it is uncommon to attend primary education only. People usually continue on to secondary and sometimes also tertiary education. In France, in contrast, it is uncommon to stop with a secondary education. People either leave the educational system after primary or after tertiary education. In Italy, Spain and Greece, however, the majority leaves the educational system after finishing primary education (Huijts et al. 2010).

Occupational prestige is measured with the Standard International Occupational Prestige Scale (SIOPS; Ganzeboom & Treiman 2003). We used the SIOPS-values of the last job for our analysis, because it best describes the situation before retirement. The original SIOPS-scale reaches from 0 to 100. In our analysis we rescaled it to reach from 0 to 1. Table 1 shows that the average occupational prestige is higher among men (43 SIOPS-units) than among women (39 SIOPS-units). This can be explained in two ways. First, women are usually employed in jobs with lower prestige than men (Magnusson 2009). Second, the non-employment rate is higher among women than among men (Hult 2008; Lewis et al. 2008a, 2008b).

The share of private pensions in a country is expressed as the average percentage of private pension benefits of all old age and early retirement pension benefits received. We calculated this percentage among persons aged 60–70 years only. The calculation required three steps. First, we calculated the percentage of private pension benefits of all old age and early retirement pension benefits each person received the previous year. Then we weighted the cases with a population weight. Finally, we calculated the average per person. Table 1 shows that only a small share of old age pension benefits stems from private pensions. This share is lower among women (1.3%) than among men (2.0%). The gender difference arises because compared to men, women receive a lower salary and have a lower workforce participation rate. The share of private pensions is comparatively high in Sweden and the Netherlands. It is comparatively low in Greece, Italy, Spain and France. Those country differences are in line with the country differences described by the OECD (2009).

The control variables are "age", "health status", "minors in the household", "respondent provides help", "marital status" and "presence of a retired partner". Age is a common control variable, included in almost all studies on workforce participation. Its influence is explained in several ways, some of them seeing age as a marker for psychological development and social roles, other seeing it as an indicator for closeness to a mandatory retirement age (Carstensen 1995; Cumming & Henry 1961; Gauthier & Smeeding 2003; Kohli 2007). In our study, age is measured in years. The modal man and the modal woman in our sample are 65 years old.

Health status influences a person's physical capability to engage in paid work. Poor health, according to the assumption, makes is difficult to engage in paid work, which leads a person to abstain from paid work (Gauthier & Smeeding 2003; Van Solinge & Henkens 2007). In this study, we operationalised health status as limitations in one's activities of daily living (answer categories: yes/no) (Katz 1983). Neither the modal man nor the modal woman in our sample is limited in his or her activities of daily living.

The provision of informal care and help can compete with paid work. Especially, women are expected to provide informal care, which is sometimes named a reason for women's low labour force participation rate (Hult 2008; Lewis et al. 2008b). In this study, we use two variables to

capture the provision of informal care and help: one determining whether there are "minors in the household", a second one determining whether the "respondent provides help" (answer categories for both variables: yes/no). Neither the modal man nor the modal woman in our sample has minors in the household or provides help to anybody.

The partnership situation influences older persons' workforce participation in two ways. First, marital status shows whether a person needs to provide for him or herself or whether income can be pooled within a household. This changes older persons' considerations concerning retirement. Second, the timing of retirement is sometimes coordinated within couples. A person might delay or bring forward retirement in order to synchronise with his or her partner's retirement plans (Moen et al. 2006; Van Solinge & Henkens 2005). We merged both characteristics of partner status, meaning "marital status" and "partner's employment status" in one variable with the following answer categories: "married, partner retired", "married, partner not retired", "never married", "widowed" and "divorced or separated". The modal man and the modal woman in our sample were married to a person who was not retired.

Analysis

The data is analysed in multilevel models, using the program MlwiN 2.02. The levels of analysis are countries and individuals nested within those countries. We conduct the analyses for men and women separately to account for gender-specific effects of SES. The analysis is carried out as logistic regression, using Markov Chain Monte Carlo for estimation. In preliminary analyses we tested whether any countries were outliers. We did not find outliers and, therefore, kept all eleven countries for our analyses.

The main analyses are carried out in four steps. First, we calculate a model with the control variables only (Model 1). Then we add the explanatory variables at the individual level: wealth, educational level and occupational prestige (Model 2). Then, we add the explanatory variable at the country level, meaning the share of private pensions (Model 3). Last, we add cross-level interactions between the explanatory variables at the individual- and at the country-level (Model 4).

For all calculations, continuous variables are centered on their grand mean and categorical variables are assigned their modal category as the reference category. We use fixed effects in all models.

Results

SES and the share of private pensions in a country have some influence on older persons' workforce participation. This can be read from Table 2, which gives information on the model fit. Adding SES to the model considerably improves the model fit for men and women. This is visible in the lower deviance in Model 2 compared to Model 1. Adding the share of public pensions in a country did not improve the model fit among men and women. This is visible in identical deviances in the Models 2 and 3. Adding interaction effects between the share of public pensions and SES, finally, improves the model fit among men (the deviance drops by 8 points), but not among women.

More information on older persons' workforce participation can be found in Tables 3 and 4. Those tables show the coefficients for the complete model (Model 4) for men and women. To make them more easily interpretable, we calculated standardised coefficients following Hox (2002). Moreover, we present point estimates for the modal man respectively woman in our sample. Those estimates help us portray the effect of changes in a single variable. They, moreover, help us compare the

Table 2. Older persons' workforce participation: model comparison

	Model 1	Model 2	Model 3	Model 4
Men				
Unexplained variance: country-level	1.027	0.935	0.982	0.985
Unexplained variance: individual-level	1	1	1	1
Deviance	2881	2759	2759	2751
Women				
Unexplained variance: country-level	0.925	0.708	0.371	0.387
Unexplained variance: individual-level	1	1	1	1
Deviance	2397	2337	2337	2338

Note: The value 1 for the unexplained variance at level 1 is a scale factor due to the kind of analysis, not an actual value (Hox 2002).

Table 3. Older men's workforce participation: regression coefficients and standard errors

	Unstandardised (SE)	Standardised
Constant		
Constant	-1.17 (0.27)***	n.d.
Control variables: individual-level		
Age	-0.24 (0.02)***	-1.82
Partner status: married, partner retired	-1.54 (0.13)***	-1.77
Partner status: divorced or separated	- 0.43 (0.20)*	-0.24
Partner status: widowed	- 0.57 (0.26)*	-0.27
Partner status: never married	0.13 (0.21)	0.07
Provided help	0.08 (0.10)	0.09
Minor in household	0.25 (0.15)	0.20
Health status	- 0.92 (0.26)***	-0.54
Explanatory variables: individual-level		
Wealth	0.10 (0.03)***	0.55
Education	0.04 (0.01)*	0.38
Prestige	2.90 (0.44)***	0.93
Explanatory variable: country-level		
Private pensions	0.10 (0.12)	0.60
Explanatory variables: cross-level		
Private pensions wealth*	0.01 (0.01)	0.17
Private pensions education*	0.00 (0.01)	0.05
Private pensions prestige*	- 0.04 (0.02)**	-0.55

^{*}p < 0.05; **p < 0.01; ***p < 0.001.

Note: SE, standard errors; n.d., not defined. The reference categories are "married, partner not retired" (partner status), "no help provided" (help provided), "no minor in household" (minor in household) and "no limitations in activities of daily living" (health status). The standardised coefficients were manually calculated from the unstandardised coefficients. This approach preserves the variance components (Hox 2002).

likelihood that the same man or woman, respectively, would work for pay in different countries.

A high SES increases older persons' likelihood to work for pay. Among women, only occupational prestige has a significant effect. Among men, occupational prestige, wealth and educational level have significant effects. The effect of occupational prestige is stronger among men than among women. Among men, persons with the highest possible prestige value (100

Table 4. Older women's workforce participation: regression coefficients and standard errors

	Unstandardised (SE)	Standardised
Constant		
Constant	-1.87 (0.20)***	n.d.
Control variables: individual-level	, ,	
Age	- 0.19 (0.02)***	-1.77
Partner status: married, partner retired	-1.92 (0.17)***	-2.68
Partner status: divorced or separated	-0.18(0.19)	-0.15
Partner status: widowed	- 0.46 (0.17)**	-0.52
Partner status: never married	0.05 (0.23)	0.03
Provided help	0.10 (0.12)	0.14
Minor in household	0.38 (0.19)*	0.34
Health status	-0.22(0.22)	-0.18
Explanatory variables: individual-level		
Wealth	0.06 (0.03)	0.34
Education	0.03 (0.02)	0.39
Prestige	2.28 (0.43)***	1.11
Explanatory variable: country-level		
Private pensions	0.03 (0.01)**	1.63
Explanatory variables: cross-level		
Private pensions wealth*	0.00 (0.01)	0.01
Private pensions education*	0.01 (0.01)	-0.14
Private pensions prestige*	-0.02(0.02)	-0.22

^{*}p < 0.05; **p < 0.01; ***p < 0.001.

Note: SE, standard errors; n.d., not defined. The reference categories are "married, partner not retired" (partner status), "no help provided" (help provided), "no minor in household" (minor in household), and "no limitations in activities of daily living" (health status). The standardised coefficients were manually calculated from the unstandardised coefficients. This approach preserves the variance components (Hox 2002).

SIOPS-units) are 61% more likely to work for pay than persons with the lowest possible prestige value (0 SIOPS-units). Among women, the difference is only 47%. Among men, 100,000€ additional wealth increases the likelihood to work for pay by 2%. Ten additional years in education increase a man's likelihood to work for pay by 8%.

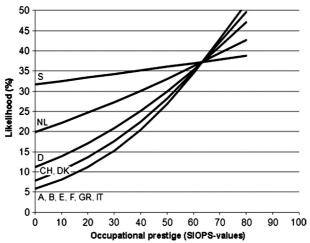
The effect of SES partly depends on the share of private pensions in a country. This share modifies the effect of occupational prestige among

men. The higher the share of private pensions in a country, the less likely are older persons with high occupational prestige to engage in paid work. At a share of about 8.5%, the effect of private pensions cancels out the effect of occupational prestige. Occupational prestige, consequently, has no influence on older men's workforce participation any more. In countries with a share of private pensions higher than 8.5%, prestige makes older men less likely to engage in paid work. No country in our sample surpasses the critical share of 8.5% of private pensions. Accordingly, we find a positive correlation between occupational prestige and older men's likelihood to engage in paid work in all countries studied. Figure 1 displays the effect of occupational prestige on older men's likelihood to engage in paid work, accounting for the share of private pensions in a country. In the figure, countries with similar shares or private pensions were summarised in order to facilitate the readability of the figure.

Besides the explanatory variables, some of the control variables also have a significant influence on older persons' likelihood to engage in paid work. First, the constant shows that the modal man in our sample has a likelihood of 24% to engage in paid work. The modal woman in our sample has a likelihood of 13%. Those values correspond to the values mentioned in the sample descriptive statistics (Table 1). Second, age influences older men's and older women's likelihood to engage in paid work. Men aged 70 years are 42% less likely to engage in paid work than men aged 60 years. Among women, the difference is 23%. Third, the partner status influences the likelihood to engage in paid work among older men and older women. Compared to older men with a working wife, older men with a retired wife (17%), older divorcees or separated men (7%) and older widowers (9%) are less likely to engage in paid work. Compared to older women with a working husband, older women with a retired husband (11%) and older widows (4%) are less likely to engage in

¹The probability cannot be read directly from Tables 3 and 4. It has to be calculated, exploiting the fact that the result of our equation is the logit of a probability (p), which equals the natural logarithm of p/1-p. If we impute values into this equation, e.g. the ones for the modal man, respectively, woman in our sample, we can calculate the corresponding probability. Such a probability is particularly easy to interpret. We, therefore, calculated probabilities showing the effects of the coefficients.

Figure 1. Occupational prestige and the likelihood that older men work for pay, per country



Notes: (a) The calculations were made for the modal man in our sample. (b) Occupational prestige is measured on a scale from 0 to 100. However, in our sample we have only got values up to 78. We can, therefore, make no statements about the highest prestige-values.

paid work. Fourth, poor health makes older men 13% less likely to engage in paid work. Fifth, the presence of minors in the household makes older women 2% less likely to engage in paid work. Finally, women in countries where pension benefits stem entirely from private pensions would be about 1% more likely to work for pay than women in countries where no private pension benefits are distributed.

Discussion

This article studies the workforce participation of Europeans aged 60–70 years, underlining that paid work still occurs in this age group. It thereby complements knowledge gathered in the numerous studies on early retirement (Kim 2009; Schils 2008). Additionally, it ties in with discussions on active ageing, which stress that older persons are capable of working

for pay (Walker 2006). Our analysis showed that paid work is more common among male than female Europeans aged 60–70. It moreover showed that influences on workforce participation differ across gender. This article, therefore, also extends our knowledge of gender differences in labour force participation and in old age in general (Arber et al. 2003; Hult 2008; Van der Meer 2006).

The workforce participation of older Europeans depends on SES. Generally speaking, paid work in old age is the domain of persons with high SES. Among men, wealthy persons with a high educational level and high occupational prestige are particularly likely to work. Among women, persons with high occupational prestige are particularly likely to engage in paid work. This underlines the importance of adopting a differentiated perspective on older persons' workforce participation. Policy-makers seeking to strengthen paid work should not only monitor how many persons work, but also who works. Those who need support to find a job in old age are not primarily well-educated individuals with high occupational skills. Instead, older persons with little education and little work-related skills need support to find their place in the labour force. Considering that education takes place in one's youth and work-related skills are acquired throughout one's middle age, governmental support cannot only focus on old age. Rather, it would have to accompany persons throughout their lifecourse, making sure that they acquire the necessary work-related skills whenever possible. This suggestion is in line with the recommendations on how to restructure welfare states made by Esping-Andersen et al. (2002).

Wealth is a measure of SES we found to be relevant for older men's, but not for older women's workforce participation. The wealthier older men, the more likely they are to engage in paid work. This effect is opposed to the effect formulated in Hypothesis 1. We expected wealthy persons to be less likely to engage in paid work, because of a reduced need for income generation. The effect we found can be explained with the preference theory presented by Hakim (2004). According to her, individuals valuing work over leisure time and family-oriented activities are more likely to engage in paid work and, thereby, accumulate wealth. This explanation resembles the explanation of the effect of occupational prestige in that it also stresses the importance of a person's quest for well-being and satisfaction with life. At the same time, it highlights that material needs

might not be the most important driving force when it comes to older persons' workforce participation. This conclusion is particularly interesting nowadays, where older persons might have lost some of their retirement savings due to stock market crashes and the economic crisis. Following Hakim's considerations and our findings, we would expect two different types of reaction to those events: Persons valuing leisure time would adapt to a lower level of wealth, while persons valuing work would maintain or even increase their workforce participation, thus increasing their wealth. As a result, inequalities in older persons' wealth would increase. This expectation is in line with the considerations made by Atkinson (2009) and Fitoussi (2009).

Admittedly, wealth does not only influence older persons' workforce participation, the reverse is also true. When older persons engage in paid work, they generate income, which increases their wealth. However, Galobardes and colleagues (2006) pointed out that the relative importance of wealth and income changes over the life-course, with income becoming less important in old age. The reason is that persons usually stop generating income upon retirement. From that point on, they mainly rely on transfers and on the assets accumulated throughout their lives, for example, in the form of real estate property or pension funds. When approaching retirement, persons will, consequently, pay more attention to their overall wealth than to their income. Future studies still need to determine at which point exactly this shift in perspective occurs.

Educational level is another measure of SES that is only relevant for men's, but not for women's engagement in paid work. In accordance with Hypothesis 2, we found older men with a high educational level to be particularly likely to work for pay. There are two explanations for his effect. First, well-educated persons have higher chances of finding employment (O'Rand & Henretta 1999). They possess the skills necessary for adapting to a changing working environment, due to, for example, progress in information technology. Consequently, they are employable until a late age. This explanation underlines the importance of adult education and life-long learning programmes. Supporting such programmes might, therefore, be of central importance for governmental intervention striving to increase older persons' workforce participation. A second explanation is that the influence of educational level results from the need to reach the

minimum contribution period to pension schemes. Persons with a high educational level start contributing to pensions schemes at a later age and, consequently, reach the minimum period of contributions at a later age. In this case, restricting the access to pension schemes could be suitable means for increasing older persons' workforce participation.

Occupational prestige is the only measure of SES relevant for older men's and older women's workforce participation. The higher the occupational prestige, the more likely an older person is to engage in paid work. This finding is in line with Hypothesis 3. We explained the effect in three ways. First, persons in prestigious occupations have specialised skills, which makes them valuable to their employers (Hayward et al. 1994; Rose & Harrison 2007). Second, prestige elicits respect, which makes social interaction at the workplace more pleasant (Beehr et al. 2000). Third, prestigious occupations are characterised by autonomy, which makes work tasks more pleasant (Ganzeboom & Treiman 2003; Treiman 1977). The appropriateness of the third interpretation became obvious in preliminary analysis, where we tested the explanatory and control variables for multicollinearity. We found that the workplace characteristics "autonomy at work" and "supervising others" were strongly correlated with occupational prestige and, consequently, discarded them from the group of control variables. The relevance of occupational prestige for older persons' workforce participation puts the focus on the quality of work places and job satisfaction. Although these factors are harder to manipulate than, for example, the mandatory retirement age, it might be worthwhile addressing them when seeking to encourage older persons' workforce participation.

Comparing the importance of private pensions across countries, the effect of SES on older persons' workforce participation remains relatively stable when the importance of private pensions in a country is higher. Neither the effect of wealth nor the effect of educational level changes, which means that we have to reject the Hypotheses 4 and 5 of this study. The influence of occupational prestige on older men's engagement in paid work, however, differs when the importance of private pensions in a country is higher. In accordance with Hypothesis 6, the influence weakens when the share of private pensions in a country is higher. We assume that the effect of occupational prestige might be annihilated or even reversed

when the share of private pensions reaches values higher than the ones in our sample. Additional studies are needed to test this assumption.

The modifying effect of the share of private pensions can be explained with a shift in the symbols of occupational prestige. In countries where private pension schemes play a prominent role, persons in prestigious occupations might be expected to have invested in private pension schemes and, consequently, have the possibility to retire early. Early retirement can, thus, become a symbol of occupational prestige and persons with high occupational prestige might retire early to prove their status in society. This explanation relates to the ones about the effects of occupational prestige and wealth in that it underlines the importance of soft factors, in this case symbols and social expectations. Most discussions about the effect of private pensions on social inequalities, however, focus on material changes. The main argument is that wealthy persons have the means to invest in private pension schemes and, consequently, the possibility to retire early. This possibility is assumed to be seized wherever it opens up (Korpi & Palme 1998; Schils 2008). Our study does not question that wealthy persons are the primary beneficiaries of private pension schemes. Instead, it stressed that an opportunity for early retirement does not always need to be seized. Personal preferences and agreeable working conditions can keep older persons in paid work, even when the opportunity for early retirement arises. We therefore suggest that future studies on early retirement and on older persons' workforce participation include personal preferences, working conditions, social norms and social expectations in their considerations.

In addition to advancing our knowledge of the influence of SES on older persons' workforce participation, this article also provides insight into gender differences in older persons' engagement in paid work. First, we found older women to be less likely to engage in paid work than older men, which is in line with the results of previous studies (Hult 2008; Lewis et al. 2008a, 2008b). Second, we found influences on older persons' workforce participation to differ between men and women. SES has a more developed influence among older men and it influence also changes with the share of private pensions among men only. It thus seems that discussions about social inequalities in older persons' workforce participation are mainly relevant for the male life-course. While discussing influences on older

women's labour force participation, one would consequently have to focus mainly on the control variables in our study, such as marital status and the presence of minors in the household. We therefore suggest that political programmes seeking to strengthen older women's labour force participation always consider women's role within the family. This suggestion ties in with the results of previous studies, for example, Kubicek and colleagues (2010).

Besides its merits, this study also has some limitations. First, we estimated the effects of SES, but did not test the explanations for the effects. We derived those explanations from the literature. Consequently, we sometimes presented alternative explanations for the same effect. Occupational prestige, for example, was described to be effective through an agreeable working environment and through employers' interest in keeping those employees. Future studies have to determine to what extent each of the alternative explanations applies. Second, we tested the influence of private pension schemes with one indicator only: the share of private pension benefits in the overall old age and early retirement benefits. Other possible indicators, such as the amount of pension benefits and the split between mandatory and voluntary schemes were excluded for the sake of clarity. Moreover, we did not determine the influence of country characteristics associated with private pensions, such as the share of self-employed persons or of persons working in agriculture. This study can therefore be seen as a contribution to our knowledge about the effect of pension schemes, putting it in line with the studies of inter alia Korpi and Palme (1998) and Schils (2008). However, it still leaves several aspects of pensions schemes to be explored in future studies. Third, we studied older persons' workforce participation only with respect to the question of whether older persons were working. We did not study how much time older workers spend on their jobs. The effect of SES and private pension schemes might be different, when working time instead of workforce participation is analysed. Additional studies are needed to compare social inequalities in older persons' working time to social inequalities in older persons' workforce participation.

Summing up, this article studies the workforce participation of Europeans aged 60–70 years. It thereby suggests a more active perspective on older persons than the numerous studies on early retirement do. We found paid work in old age to be the domain of persons with high SES.

This connection between SES and paid work was stronger developed among men than among women. This suggests that older persons with low SES deserve particular attention in reforms seeking to increase the workforce participation rate. Moreover, we found a high share of private pensions in a country to diminish the influence of occupational prestige on older men's workforce participation. This suggests that recent reforms strengthening the role of private pension schemes might have decreased social inequalities in older men's workforce participation. Workforce participation in old age thus seems to be connected to different kinds of social inequalities, across genders and across SES levels.

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