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# Expected and preferred retirement age in Germany

## Introduction

Increasing life expectancies and decreasing fertility rates are threatening the financial sustainability of Europe's pension systems [23]. In response policy makers introduced measures to delay retirement timing and prolong working life. State subsidized programs that allowed older workers to retire with comparably low pension deductions were abolished. In addition, the official statutory retirement age at which a full pension could be drawn was raised. Going even further a flexible statutory retirement age was implemented in Sweden [24] and in the United Kingdom the statutory retirement age was completely abolished [27]. These efforts to delay retirement were supported by the World Health Organization (WHO) and the European Union (EU), which both promote the paradigm of active aging. In addition, employers are implementing human resource measures to enable older workers to work for longer and, thus, retain valuable experience for the companies [20, 22]. Consequently, employment rates of older workers and the average retirement age are rising [10]; however, besides the actual behavior of current pensioners it is crucial to also study future retirees' opinions about retirement timing as expectations and preferences when to retire have proven to be a good proxy for future retirement behavior [24, 28]. Taking Germany as an example, this study investigated the attitudes of future retirees towards timing of retirement. The German situation is suitable for research on how older workers have adapted retirement expectations and preferences to the pen-

sion system reforms as the policy shift from early to later retirement in Germany was one of the most fundamental in Europe [2, 3]; however, concerns were raised that the reforms might also cause problems for low skilled workers who now have to postpone their retirement due to financial necessity [13, 14]. Using the prospective retirement age instead of the actual retirement age, the question as to whether the reforms cause social inequality in the retirement process was investigated. By including both the expected and the preferred retirement age, the study goes beyond the scope of earlier work and found that in particular older workers in vulnerable labor market positions with low education, low income and low professional positions expect to retire significantly later than they would like to. This indicated that they are forced to involuntarily extend their working life and supports concerns of rising social inequality in the transition from work to retirement. After a brief introduction to the concepts of preferred and expected retirement age, a description of the German pension system reforms is given. The data, method of analysis and results are presented. Based on the latter conclusions were drawn and implications were derived.

## Preferred and expected retirement age

The preferred retirement age is the age at which an individual would like to retire without considering contextual determinants. These include institutional and workplace characteristics [29] and, as Esser states [11, p. 17] a situation in which

"[...] financial consequences in case of retirement need not to be considered." In contrast, the expected retirement age is a realistic evaluation of when an individual will actually retire, taking into account the pension system regulations, the institutional and workplace context and potential pension deductions accompanying early retirement [11]. Juxtaposing the preferred and expected retirement age yields the following three scenarios: 1) the preferred and the expected retirement ages coincide, which means the person expects to retire at the same time as is actually wanted, 2) the preferred retirement age is higher than the expected one. This is, for example, the situation in which an older employee would like to work longer than the official retirement age but the pension system regulations, the employer's ageist attitude or health do not permit it. Applying Jensen's [17] classification of retirement types this would fall into the "push" category. Older workers actually are or have the perception of being "pushed" into involuntary or forced retirement, although they would have liked to postpone their labor force exit. 3) The expected retirement age is higher than preferred, where workers have the impression that they have to work longer than they would like to. This might be the case when an older worker wants to retire but expects to prolong the working life to ensure a decent pension or to fulfil peers expectations of late retirement. This scenario can be described as involuntary or forced work. These workers fit into the "stuck" category of the classification [17]. They are "stuck" with their job as they have to remain in employment involuntarily

due to financial or social pressure, although they would like to retire as soon as possible.

### Reforms of the German pension system and the consequences

When hit by the oil crisis and facing international competition in the 1970s, German employers, policy makers and trade unions agreed on a policy of early retirement to push older workers out of the labor market and, hence, decrease younger workers' unemployment rates [18, 25]. Several early retirement possibilities were implemented, in particular via unemployment and disability insurance, the early retirement option in the public pension scheme and the block model of the old age part-time program. These offered older workers generous compensation for retiring earlier than the statutory retirement age, which they willingly accepted [3, 26]. As a result the retirement age and employment rate of older workers decreased. From 1970 until 2000 the employment rate of male workers aged 55–64 years fell from 80 to 50 % [4]. A culture of early retirement was established and retiring before the statutory retirement age was perceived as the rule rather than the exception, not only by older workers and trade unions but also by employers, policy makers and the public [12, 25]. As the consequences of this policy became visible, German policy makers had to acknowledge the financial pressure it caused on the pension system. In addition, employers had problems finding qualified workers in certain industries [21]. Policy makers therefore abandoned the idea of early retirement and introduced several reforms aimed at prolonging the working life of older employees, such as stopping early retirement opportunities and increasing the statutory retirement age [1, 12, 18]. Employers implemented age management measures to delay retirement and sustain the work force in their companies [9]. Together with a general positive economic development, the increasing participation of women in the labor market and a higher skill level of the new older workers, these measures resulted in rising employment rates for

older workers [5]. This positive development, however, has recently been dulled by warnings that the reforms might not only increase employment rates of older workers but also cause new social inequality in the transition from work to retirement [14]. The concern is that low-skilled blue-collar workers with low incomes in particular are struggling to meet the requirements of the new policy of late retirement. While they extensively used various early retirement opportunities in the past, they nowadays postpone their retirement despite unfavorable working conditions [13]. An increasing proportion of these workers are even working beyond the official retirement age. Previous studies suggested that this increase is mainly due to monetary reasons. Hofäcker and Nauman [14, p. 478] commented: “Your results suggest that – in contrast to the higher educated who tend to voluntarily desire late exit – lower-educated workers may be driven by a financial need to remain employed.” Low-skilled workers have to work and contribute longer to the public pension system to ensure a sufficient pension, whereas higher educated workers often stay employed because of a high identification with their gainful work and not for monetary reasons. In addition, low-skilled workers often suffer from poorer quality of working life [27], while the more highly skilled counterparts benefit from supportive employers and better workplace surroundings and, hence, have a better quality of working life. Applying this argument to future pensioners and their attitudes towards retirement timing, one would assume that the expected retirement age for low-skilled older workers is much higher than they would like. They are forced to involuntarily prolong their working life for financial reasons, while they would prefer to retire earlier. Higher skilled workers, in contrast, have better individual resources and more support from their employers and can therefore adjust their expected retirement age to their preferred retirement age more easily. Consequently, the discrepancy between expected and preferred retirement age should be smaller. In the next part of this study, the following assumption is tested:

low-skilled workers would prefer to retire earlier than they expect to, while for high-skilled workers the expected and preferred retirement age concur.

### Material and methods

#### Dataset and sample

The analysis was based on data derived from the German survey “Employment after retirement”, which was conducted in 2008 [19]. In this study 1500 male and female employees aged from 55 to 65 years, an age at which most people predict their retirement age quite precisely [24], were asked about their attitudes towards the retirement transition and a potential re-entry into the labor market after retirement. This population sample is well-suited for the analysis as the respondents saw their predecessors retire in the context of the early retirement policy but have to make their own retirement decision under the new paradigm of a longer working life. They are among the first to be affected by the increased official retirement age while not having access to the early retirement options [1].

#### Dependent variable

To test whether a discrepancy between the expected and desired retirement age existed, two questions were used. In the first the respondents were asked when they would prefer to retire, regardless of potential deductions from their pension. In the second question the employees were asked when they expected to retire, taking into account the potential deductions from their pension. The answers were coded in years and months. For a fictional respondent reporting an expected retirement age of 66 years and 10 months but who wished to retire at the age of 64 years, the difference is 2 years and 10 months. Based on this difference, the respondents were sorted into three groups: 1) those for whom the expected and preferred retirement age was the same, 2) those who expected to retire earlier than they would prefer and 3) those who expected to retire later than they would prefer.

## Independent variables

In accordance with previous studies on transition to retirement, education and professional position were utilized to measure older workers' skill levels [14, 19]. The professional position is based on the respondents' self-evaluation of their occupational status and is included in the regression with the two categories of middle-low and high. Education is coded according to the International Standard Classification of Education (ISCED) scheme with low (ISCED 0–2), medium (ISCED 3–4) and high (ISCED 5–6) education. To test the assumption that low-skilled workers involuntarily delay retirement due to financial necessity, the respondents' monthly household income after taxes was included as an additional independent variable. Income is divided into three categories, namely low (less than 2000 euros per month), middle (between 2000 and 3000 euros per month) and high (more than 3000 euros per month). Furthermore, gender, age, health status and company size were added to the models. These factors have been shown to affect the correlation of expected and preferred retirement age with education, professional position and income [11, 15, 29]. Age was included because the rise of the official retirement age is a stepwise process [1] that affects the younger birth cohorts more than the older ones. Older workers with poor health have the option of retiring early via disability insurance and larger companies in Germany still have their own early retirement programs [2]. The size of the company was coded into four categories: less than 10, between 10 and 50, between 51 and 250 and more than 250 employees. The respondents rated their own health with a 5-point Likert scale ranging from 1 (= very good) to 5 (= very poor). The answers were coded in a binary variable with the categories good health (= very good and good) and poor health (intermediate, poor and very poor).

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### Abstract

**Background.** Over the last 10 years the German pension system has undergone several reforms including the abandonment of early retirement policies and an increase in the statutory retirement age. Consequently, the average retirement age has increased and future retiree cohorts have adjusted the retirement expectations and preferences as to when they would like to retire.

**Objective.** This study was carried out to examine discrepancies between the expected and the preferred retirement age of older workers in Germany and to investigate how these discrepancies differ between groups of older workers.

**Material and methods.** Based on data from the survey "Employment after retirement", the expected and preferred retirement ages of 1500 workers aged 55 years and older were compared. Regression analyses were used to investigate the influence of

educational level and professional position on deviances between the expected and preferred retirement ages.

**Results.** On average older workers would like to retire 1.75 years earlier than they actually expect to. The deviance is significantly larger for employees with a lower professional position, lower income and lower educational level.

**Conclusion.** The discrepancy between expected and preferred retirement ages, in particular for older workers in vulnerable labor market positions, indicates a potential social inequality regarding the choice of retirement timing. This must be acknowledged when considering further reforms of the German pension system.

### Keywords

Retirement · Occupational status · Social class · Public policy · Social inequality

## Erwartetes und gewünschtes Renteneintrittsalter in Deutschland

### Zusammenfassung

**Hintergrund.** In den letzten zehn Jahren wurde das deutsche Rentensystem mehrfach reformiert. Unter anderem wurden Frühverrentungsmöglichkeiten abgeschafft und das gesetzliche Renteneintrittsalter angehoben. Daraufhin stieg das durchschnittliche Renteneintrittsalter. Zukünftige Rentner haben ihre Erwartungen und Präferenzen, wann sie in Rente gehen würden, an die Reformen angepasst.

**Fragestellung.** In diesem Beitrag wird die Diskrepanz zwischen erwartetem und gewünschtem Renteneintrittsalter von älteren Arbeitnehmern in Deutschland untersucht. Es wird analysiert, ob sich dabei Hinweise auf soziale Ungleichheiten finden lassen.

**Material und Methoden.** Basierend auf Daten der Erhebung „Weiterbeschäftigung im Rentenalter“ wurden das erwartete und gewünschte Renteneintrittsalter von 1500 Arbeitnehmern in einem Alter von  $\geq 55$  Jahren gegenübergestellt. Mit Regressionsanalysen wurde der Einfluss von Bildung

und beruflicher Stellung auf die Diskrepanz zwischen erwartetem und gewünschtem Renteneintrittsalter untersucht.

**Ergebnisse.** Im Durchschnitt wollen ältere Arbeitnehmer 1,75 Jahre früher in Renten gehen, als sie erwarten. Der Unterschied ist größer für Arbeitnehmer mit niedriger beruflicher Stellung, niedrigem Einkommen und niedriger Bildung.

**Schlussfolgerung.** Dass besonders Arbeitnehmer mit niedriger Bildung und niedriger beruflicher Stellung erwarten, länger zu arbeiten, als sie wollen, deutet auf soziale Ungleichheiten beim Übergang vom Erwerbsleben in den Ruhestand hin. Dies sollte bei zukünftigen Reformen des Rentensystems in Deutschland beachtet werden.

### Schlüsselwörter

Renteneintritt · Renteneintrittserwartungen · Soziale Schichten · Staatliche Regelungen · Soziale Ungleichheit

**Table 1** Expected and preferred retirement age in years and differences between them

	N (%)	Retirement age (years)			Scenarios of retirement attitudes (%)		
		Expected (E)	Preferred (P)	Difference	P = E	P > E	P < E
Total	1392	63.58	61.83	-1.75	31.9	5.9	62.2
<b>Explanatory variables</b>							
Professional position							
High	37.68	63.85	62.42	-1.43	33.27	9.1	57.68
Medium or low	62.32	63.48	61.47	-2.00	31.05	3.9	64.96
Education							
ISCED 0–2	13.70	63.49	61.12	-2.37	24.49	4.08	71.43
ISCED 3–4	55.66	63.44	61.56	-1.88	31.09	4.61	64.30
ISCED 5–6	30.64	64.02	62.73	-1.29	34.57	8.40	57.04
Income							
Low income	38.01	63.58	61.55	-2.02	28.66	5.17	66.16
Medium income	30.96	63.51	61.74	-1.76	31.36	6.17	62.47
High income	31.03	63.80	62.26	-1.55	34.35	7.12	58.52
<b>Control variables</b>							
Health							
Good health	55.01	63.93	62.29	-1.64	33.93	6.34	59.72
Poor health	44.99	63.23	61.28	-1.96	29.40	5.47	65.13
Gender							
Male	48.33	63.91	62.21	-1.70	29.70	7.93	62.36
Female	51.67	63.34	61.46	-1.87	33.98	4.02	62.00
Age group							
55–59 years	70.47	63.30	61.14	-2.15	28.40	4.50	67.11
60–65 years	29.53	64.35	63.39	-0.96	39.80	9.20	51.00
Company size							
Less than 10 employees	14.10	63.35	61.82	-1.53	41.28	7.56	51.16
10–50 employees	25.59	63.62	61.93	-1.69	32.61	4.97	62.42
51–250 employees	37.00	63.73	61.88	-1.86	28.83	5.85	65.32
More than 250 employees	23.30	63.54	61.63	-1.92	31.11	5.71	63.17

ISCED International Standard Classification of Education

## Results

On average the respondents would prefer to retire at the age of 61.83 years and expect to retire at the age of 63.58 years (Table 1). The average difference between the preferred and expected retirement age was 1.75 years, meaning that the majority of older employees anticipated that they will have to work about one and a half years longer than they would like to. The scatterplot (Fig. 1) shows in more detail how the answers were distributed among the three described scenarios: 1) for 31.9% of the

respondents the expected and the preferred retirement age were in accordance with each other ( $P = E$ ). In Fig. 1 they lie on the diagonal grey line. 2) Only a very small proportion of older workers (5.9%), indicated by the black dots below the line, wished to work longer than expected ( $P > E$ ). 3) The biggest group (62.2%), above the line, would prefer to retire earlier than expected ( $P < E$ ). Fig. 2 depicts in two curves the expected and the preferred retirement age and clearly shows that older workers use specific age benchmarks when stating their prospective retirement age: over

40% of the respondents wanted to retire at 60 years and almost 30% expected to retire at 65 years, the previous official retirement age, indicating that they perceived these as reference points for their retirement age. A detailed look at Table 1 shows the expected and preferred retirement age for different groups of older workers. The deviance between expected and preferred retirement age is larger for older workers with lower education, low income and in medium or low professional positions than for those with medium and high education, high income and in high professional positions. The descriptive results support the hypothesis of social inequality, as workers in lower professional positions with low wages tended to expect to work longer than they want to, whereas the expected and preferred retirement age for workers in higher positions concur.

For the multivariate analysis, multinomial logistic regression was used with a dependent variable consisting of three groups: 1) those for whom expected and preferred retirement age is the same, 2) those who expect to retire earlier than they prefer and 3) those who expect to retire later than they prefer. The latter group was used as the reference category. In Table 2 average marginal effects based on the estimations are reported. They show a percentage change in the probability of either expecting to work longer than preferred or having the same expected and preferred retirement age relative to the reference category. The three explanatory variables, level of education, income and professional status, show a significant positive effect. Those with better education, high income and in high professional positions have a higher likelihood that their expected and preferred retirement age will concur or that their expected retirement age is lower than preferred. In contrast, the expectation among the low-skilled workers that they will have to work longer than they would like to is significantly greater. This finding substantiates the assumption that low-skilled workers involuntarily have to remain in employment longer than they want to, most likely due to financial necessities. Those with a high skill level seem to have more choices regarding their retire-

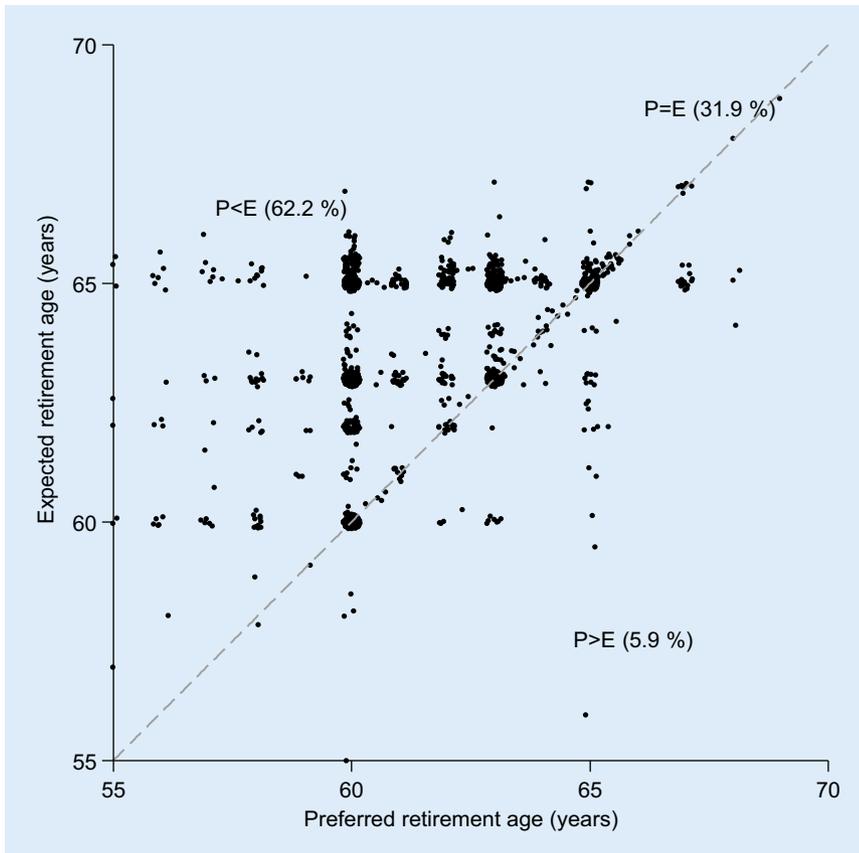


Fig. 1 ▲ Scatterplot of expected and preferred retirement age in years

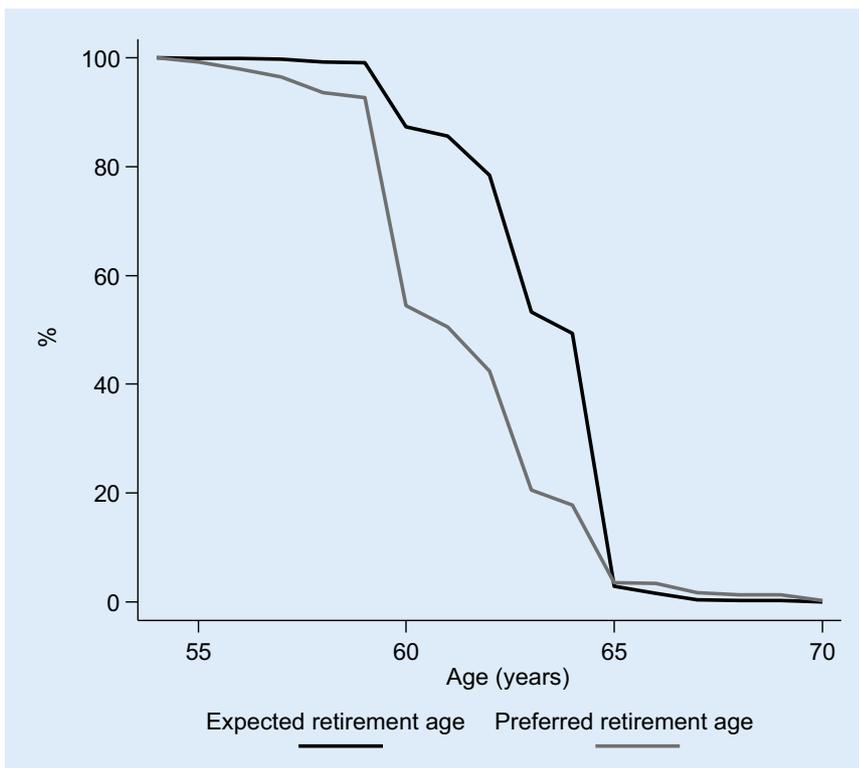


Fig. 2 ▲ Curve of the expected and preferred retirement age in years

ment timing and can synchronize their expected and preferred retirement ages.

## Discussion

The results show that older workers in Germany want to retire at an average age of 61.83 years. This is consistent with previous research showing a preferred retirement age of 61.72 years in Germany [15]. By contrast, the respondents' expected retirement age is much higher (63.58 years), meaning the average employee would like to retire 1.75 years earlier than anticipated. The finding that particularly older workers with low income, low education and low professional positions expect to work longer than they want to is in line with the results of previous studies showing that vulnerable labor market groups feel the financial pressure to work longer and even re-enter the labor market after retirement [13, 14]. This supports concerns of social inequality in the transition from work to retirement [13, 14] with highly qualified workers preferring and having the means to work longer, so-called silver workers [7] and low qualified workers, the precarious workforce [27], who would like to retire early but have to delay their retirement for monetary reasons. It seems as if the first group voluntarily remains in employment, while the latter does so involuntarily in jobs with a low quality of working life [27]. This results of this study complement previous findings by demonstrating that these differences do not only concern the actual employment and retirement behavior but also the attitudes towards retirement. The results imply that at least some of the older workers in Germany will have to work longer than they would like to and they seem to be fully aware of this fact. This causes not only personal frustrations but also stress, work disengagement and lower psychological and social welfare [6, 8]. It is of concern that particularly workers in vulnerable positions, meaning those with low education, low income and in low professional position, are affected.

There are three limitations of the data analysis which should be noted: 1) when contrasting the expected and preferred retirement age it is assumed that the two

**Table 2** Retirement preferences and expectations and explanatory variables, average marginal treatment effects based on multinomial logistic estimations (reference category is expected > preferred; standard error in brackets)

	Expected = preferred		Expected < preferred	
<b>Explanatory variables</b>				
Professional position (ref: medium or low)				
High	0.053*	(0.021)	0.071**	(0.035)
Level of education (ref: ISCED 0–2)				
ISCED 3–4	0.061*	(0.018)	0.028	(0.020)
ISCED 5–6	0.090**	(0.019)	0.074**	(0.034)
Income (ref. low income)				
High income	0.061*	(0.019)	0.079**	(0.018)
Medium income	0.002	(0.012)	0.009	(0.014)
<b>Control variables</b>				
Gender (ref: male)				
Female	0.031	(0.013)	–0.032	(0.012)
Age groups (ref: 55–59 years)				
60–65 years	0.097*	(0.009)	0.075*	(0.014)
Health (ref: poor health)				
Good health	–0.001	(0.011)	0.002	(0.011)
Company size (ref: less than 10 employees)				
10–50 employees	–0.075*	(0.014)	–0.074*	(0.015)
50–250 employees	–0.076*	(0.011)	–0.079*	(0.019)
>250 employees	–0.082*	(0.020)	–0.034	(0.021)
N	1,392			
McFaddens R <sup>2</sup>	0.04			
Log likelihood	–1309.355			
Ref reference category, <i>ISCED</i> International Standard Classification of Education				
* <i>p</i> < 0.1, ** <i>p</i> < 0.05				

are independent of each other. It is plausible, however, that older workers adapt their preferred retirement age to their expected retirement age to reduce the cognitive dissonance between preferences and reality. Longitudinal data might help to disentangle expectations and preferences more explicitly. 2) Unfortunately, the data are cross-sectional, which does not technically allow the inference to be made that education, income and occupational position influence opinions on future retirement timing. 3) The third limitation is that the selective sample lacks information on self-employed, unemployed and inactive homemakers or retired individuals. Those who retired before the age of 65 years might have systematically different retirement expectations and preferences than those still in employment, which could bias the results. When interpreting the data, these caveats must be acknowledged. In addition,

future research should investigate retirement expectations and preferences of self-employed and unemployed older workers.

### Conclusion and implications

A social inequality regarding the choice of retirement timing can be concluded from the findings of this study, as vulnerable older workers show a higher probability of involuntarily delaying their retirement. Although this study was conducted with data from Germany, where the pension system reforms were far-reaching, policy makers in other countries, as well as the European Union and other supranational organizations, should consider these developments when implementing further reforms of the pension system and labor markets. They should realize that a one size fits all approach is not helpful and reforms should be adapted

to the specific needs of different groups of older workers. In addition, trade unions and employers should provide human resource programs that support older workers. They can offer older workers tailor-made measures depending on older workers' personal resources and the type of organization they work for. Such age management measures include, amongst others, an ergonomic workplace, preventive health programs, life working time accounts and age-mixed teams. These might help older workers increase their work ability [16] and make a successful transition from work to retirement possible.

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### Compliance with ethical guidelines

**Conflict of interest.** M. Hess states that there are no conflicts of interest.

The accompanying manuscript does not include studies on humans or animals.

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