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Original Article

Inequality among Older Workers in the Netherlands: A Life Course and Social Stratification Perspective on Early Retirement

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Abstract

This study integrates a life course and social stratification perspective to examine early retirement in the Netherlands. Event history analysis of retrospective life course data from four rounds of the Family Survey Dutch Population reveals that employment career characteristics are strongly associated with early retirement. The results also show that educational differences in early labour force withdrawal persist when controlling for work history: lower-educated older men are more likely to exit employment before the age of 65 years, irrespective of their employment trajectories. Furthermore, working-class elderly face higher risks of disability and unemployment than members of the service class and the self-employed, because their occupational careers are more volatile and because they often work in the industrial sector for a long period of their lives. Against the background of ageing populations and policy measures to stimulate employment of older people, these findings suggest that social inequalities in old age could grow, as particularly less-educated and low-skilled older workers may not be able to prolong their employment career.

Introduction

Like many European countries, the Netherlands faces the challenge of rapid demographic ageing. Active ageing policies to extend older people's working lives are the dominant response throughout Europe to keep public pensions affordable. The Dutch government abolished (or at least severely limited) opportunities to retire early, and the age at which people are eligible to draw state pension gradually increased from 65 to 67 years. Although the consequences of these policy reforms are still to be revealed, many fear that social inequalities in old age will grow (Wahrendorf, Dragano and Siegrist, 2013). One of the main concerns is that less-educated and low-skilled older people could face great difficulties in working later into life and will be forced out of the labour market.

A considerable amount of literature has been published on the determinants of early labour market withdrawal of older workers. These studies cover a wide range of factors, including employers' actions and attitudes, financial incentives, health, institutional features, partner characteristics, and work-related factors (e.g. Hofäcker, 2010; Engelhardt, 2012; Van Solinge and Henkens, 2014). Far fewer studies have explicitly approached early retirement from a social stratification perspective. Two edited volumes by Blossfeld and colleagues (Blossfeld, Buchholz and Höfacker, 2006; Blossfeld,

Buchholz and Kurz, 2011) showed that members of the service class and the self-employed retire later than people in the working class. Radl (2013) improved upon this work by providing a theoretical framework that combines well-established push and pull theories with a social stratification approach. Empirically, Radl found that (un)skilled manual workers, manual supervisors, and even lower sales and service workers carry a higher risk of involuntary early retirement compared to the upper service class. Voluntary early retirement is also more prevalent among these social classes, except for routine workers. They retire at an older age, as do members of the higher service class and self-employed people.

Thus far, social stratification research on early retirement has concentrated on the influence of education and social class, while paying little attention to life course trajectories. The primary objectives of this study are to examine to what extent the employment history of older men affects early retirement and to assess whether educational and social class differences in early retirement are attributable to varying occupational careers. For example, early retirement is more frequent among people with lower levels of education, but is this directly the result of their lower qualifications, or do less educated people have more volatile employment careers and is that why they eventually retire prematurely? We examine retirement before the age of 65 years as well as early retirement through disability or unemployment before that age. This study seeks to answer the following questions: (i) *To what extent is early retirement of older men related to their employment career, educational level, and social class, and* (ii) *to what extent do educational level and social class still exert an influence on early retirement of older men once we take their employment career into account?* Our focus lies on men, because female labour market participation is quite low among the cohorts under study. Additionally, the vast majority of women who do work in later life are employed part-time and mostly move into inactivity when they leave the labour market.

We use retrospective occupational career data from four rounds (1998, 2000, 2003, and 2009) of the Family Survey Dutch Population (FSDP) to answer our research questions. We apply sequence and cluster analysis to identify typical employment biographies of older men. We subsequently investigate whether these distinct career patterns shape early retirement behaviour by applying event history analysis, which offers opportunities to make causal inferences. Next to the employment career clusters that summarize the main types of employment over the life course (e.g. full-time, part-time, or self-employed), we cover various other aspects of one's employment history, such as periods of employment in the industrial and public sector, and disability and unemployment episodes. This allows to assess whether the employment trajectories of people with different educational degrees and in different social classes explain heterogeneity in early retirement. We primarily argue that non-standard or precarious employment careers limit the accrual of pension benefits, which, in turn, lowers opportunities for early retirement. By connecting social stratification research to a life course perspective, we are able to make both theoretical and empirical progress.

Employment Careers in the Netherlands

Occupational careers are becoming increasingly less standardized due to globalization and flexibilization of the labour market, implying that atypical or precarious employment and discontinuous work histories are more prevalent nowadays (Widmer and Ritschard, 2009). The current study covers a wide range of birth cohorts (from 1916 to 1960) that entered the labour market before 1988 and more than 95 per cent even before 1979. It stands to reason that those cohorts are largely protected from globalization and labour market flexibilization (Buchholz *et al.*, 2009). In fact, a standardized work biography (i.e. education–full-time employment–retirement) is quite common among older men from these cohorts.

Figure 1 provides some more insight into the employment careers of males aged 50 years and older in the Netherlands. It shows the distribution of employment type at each age between 15 and 65 years. Although the distribution, in principle, says nothing about the ordering or timing of states within individual employment biographies, it immediately becomes clear that older men were mostly (full-time) employed during their careers. The proportion of early retired men sharply increases from the age of 55 years, which reflects the massive use of generous early retirement schemes. The share of disabled people increases with age as well. On the one hand, this can be explained by the fact that social security arrangements were also an early retirement option. On the other hand, actually becoming disabled is more likely due to ageing or a physically demanding job. Figure 1 further reveals that unemployment is a problem that few Dutch older men in these birth cohorts encounter, which is partly a result of the strict employment protection legislation for older workers with permanent contracts. However, people who become unemployed later in life are very likely to stay long-term unemployed (OECD, 2014).

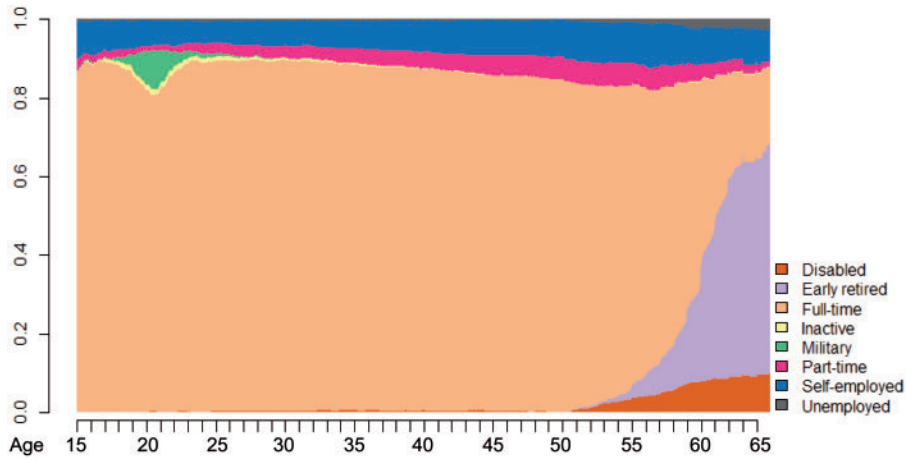

Figure 1. Proportion of Dutch older men in a given state at a given age

Source: FSDP 1998, 2000, 2003 and 2009.

Theories and Hypotheses

Prior research has emphasized the role of push and pull factors in early employment exit (Ebbinghaus, 2006). The economic pull approach argues that older workers maximize their benefits and minimize costs. According to this approach, people try to maximize their lifetime earnings and they would rationally decide to retire once the expected income in retirement outweighs the (dis)advantages of staying in the labour force. Financial incentives to retire early, available time for leisure activities, and spousal influences are an important part of the retirement decision (Henkens and Van Solinge, 2002). Generous early retirement schemes provided such incentives and pulled many older workers into early retirement (Schils, 2008). This certainly was the case in the Netherlands until the late 1990s. Given that people generally have a preference for leisure over work and given that early retirement options provided nearly equal income as staying employed, early retirement was regarded as an offer one could not refuse. Even social security arrangements could be regarded that way.

Retirement behaviour is, of course, not only determined by individual and institutional pull factors, but also by push factors, which highlight the role of restrictions. Looking only at pull factors oversimplifies the decision-making process and neglects the notion that retirement can be involuntary. Older workers could, for instance, be forced to withdraw from the labour market due to ill health (Van Solinge and Henkens, 2007). Other constraints are negative age stereotypes within firms or among employers (Karpinska, Henkens and Schippers, 2013) and corporate downsizing (Van Dalen and Henkens, 2013).

It is now well established that both push and pull factors contribute significantly to the understanding of retirement timing (e.g. De Preter, Van Looy and Mortelmans, 2013). Moreover, push and pull factors differentially affect older workers belonging to different social classes (Radl, 2013). We propose that a synthesis of push and pull theories, on the one hand, and a social stratification approach, on the other, can further benefit from a life course perspective. Permanent exits from the labour market are not isolated transitions, but must be seen as part of one's life course. Earlier life experiences are systematically linked to outcomes in later life, which may cause growing inequality when disadvantages accumulate over the life course (DiPrete and Eirich, 2006). Existing research recognizes the critical role played by educational, family, health, and work trajectories in understanding early retirement behaviour (Damman, Henkens and Kalmijn, 2011). We pay particular attention to work trajectories, arguably the most salient domain of the life course when studying early retirement. We derive hypotheses on several aspects of the employment career, arguing that part-time employment and self-employment for major parts of one's career as well as disrupted and volatile careers make early retirement more difficult because of lower pension accrual. In a next step, we link those aspects to social stratification characteristics and hypothesize to what extent diverging occupational careers can explain educational and social class differences in early retirement.

The Impact of Employment Type

We first consider how different career patterns may lead to disparities in pension entitlements and how this, in turn, affects early retirement. Continuous full-time employment is beneficial in the Netherlands, as its pension system is based on the accumulation of pension rights and savings. Older men who have stable careers are able to accrue higher (occupational) pension benefits (e.g. people who have long tenure in an organization), which enables early retirement. Traditional career paths thus pull older workers into early retirement.

Other kinds of employment careers should typically reduce the likelihood of early retirement. Those careers are less prevalent in the Netherlands, but certainly present, as Figure 1 suggested. Employment histories characterized by more and longer periods of part-time work (between 12 and 35 h a week), for example, cause more uncertainty. Part-time jobs offer lower salaries, fewer benefits, and less stability (Kalleberg, 2009). Accumulating financial resources is harder for people who work part-time than it is for full-time employees. A history of part-time employment increases older women's likelihood to extend paid work because of financial reasons (e.g. Finch, 2014). Analogously, men with a history of part-time work will have lower levels of pension wealth than men with a history of full-time work. This also applies to the self-employed, who generally cannot contribute to (obligatory) occupational pension schemes and have to rely on their own pension savings (OECD, 2014). However, many men who are self-employed during their careers do not regularly save for retirement. They often reinvest profits in their business and, consequently, have to extend their working lives. Although some self-employed people may own a successful and profitable company, many self-employed people have low earnings, which limits their saving potential (OECD, 2014). It could also be more difficult for them to retire early, because they are highly attached to their company and intrinsically motivated to continue working. Finally, career trajectories that involve (many) changes in the type of employment and in employers could affect retirement timing. People who experience varying kinds of employment and switch between employment types, such as periods of part-time employment, self-employment, or inactivity, accumulate less pension rights and cannot maximize their income, forcing them to stay in the labour force longer. To summarize, we expect that older men who were part-time employed (*H1a*), self-employed (*H2a*), or varyingly employed (*H3a*) for major parts of their career are less likely to retire early than older men who were mainly employed full-time.

Part-time and varying employment over the major part of the career may also contribute to an increased risk of other exit pathways. Both forms of employment come along with more uncertainty, may weaken the position of older people in competition for jobs, and expose them to a higher risk of early retirement via disability or unemployment. However, atypical work patterns will limit the entitlements to social security benefits compared to consistent employment, making early employment exit less likely. These opposing forces could potentially cancel each other out, although we still anticipate that greater involvement in part-time (*H1b*) and varying employment (*H3b*) over the life course increases the likelihood of becoming disabled or unemployed in the late career opposed to employment biographies dominated by full-time employment. Self-employment trajectories, by contrast, should decrease this likelihood (*H2b*). People who work for an employer usually pay social security taxes on their earnings, whereas self-employed people receive large tax exemptions and often do not have disability insurance. Approximately half of all self-employed persons in the Netherlands are not covered by disability insurance (De Jong *et al.*, 2009). Moreover, those who rely on income from self-employment may have difficulties making ends meet, which means they cannot afford to quit working.

The Impact of Employment Sector

Pension entitlements are not only determined by the type of employment career, but may also depend on employment sector. Early retirement seems to occur more frequently, for instance, among employees in the public sector (Hayward, Friedman and Chen, 1998; Schils, 2008). In the Netherlands, they were indeed among the first to profit from the generous early retirement schemes. Particularly those working for the government retired at relatively young ages. Civil servants build up substantial occupational pension savings over the course of their careers. A higher number of years of employment as civil servant thus leads to higher pension accrual. The public sector is also a sheltered sector (e.g. strict employment protection legislation and stronger unionization), so elderly who work in the public sector are well-protected against labour market risks, like unemployment after company restructuring. We expect that older men who were employed in the public sector for a higher number of years are more likely to retire early (*H4a*), but less likely to become disabled or

unemployed (*H4b*) compared to older men who were employed in the public sector for a lower number of years.

Another sector of importance could be the industrial sector. Industrial workers might be likely to take advantage of early exit packages to avoid becoming obsolete as a result of deindustrialization. Research does indeed suggest that older employees in the industrial sector retire at younger ages than those in the service sector (De Preter, Mortelmans and Van Looy, 2012). Furthermore, after years and years of working in, for example, the construction, mining, or manufacturing sector, jobs can take their toll. People in these sectors are exposed to harsh working conditions and environments, which may induce adverse health outcomes and, ultimately, early retirement through disability or unemployment. In summary, we expect that older males who worked in the industrial sector for a higher number of years are more likely to retire early (*H5a*) and are also more likely to become disabled or to be pushed into unemployment (*H5b*) compared to older workers who were employed in the industrial sector for a lower number of years.

The Impact of Employment Interruptions

As a last aspect of employment histories, we discuss career volatility and its impact on early retirement. Specifically, we look at episodes of disability and unemployment. Such disruptions in the work career limit the possibilities to accumulate pension rights and savings. Intermittent career patterns are related to worse job positions and lower income compared to consistent employment. Over the life course, these differences may add up to significant retirement inequalities. Raymo and colleagues (2010) found that job loss is associated with reduced chances of early retirement. We hypothesize that older workers who experienced spells of disability and unemployment across the employment career are less likely to retire early (*H6a*). Conversely, we anticipate that disability and unemployment spells before the late career increase the risks of disability or unemployment later in life (*H6b*). Career interruptions may discourage workers and, therefore, they might be less interested to invest in their careers. Human capital development among older workers who have moved in and out of employment is also interrupted, making them less attractive to employers. Finally, previous disability and unemployment may have scar effects (Gangl, 2006). Employers might consider older workers who have been disabled or unemployed as less competent and less productive. Career volatility can thus be regarded as a push factor.

The Impact of Education

Previous research has found that there still exists a strong early exit culture among lower-educated elderly (Radl, 2012). Less-educated workers also enter the labour market at a younger age, so they retire earlier (Blossfeld *et al.*, 2011). Educational level may thus directly influence early retirement over and above the effect of the occupational career.

There are also reasons to expect that education indirectly affects early employment exit via the employment career. Employment biographies are strongly determined by educational attainment. The concept of cumulative disadvantage comes into play here. Lower-educated individuals have less human capital and are considered as less productive by employers than their higher-educated counterparts. Job applicants with lower educational degrees are less likely to be hired, and if they are hired, they generally end up in lower-paying, less-prestigious jobs (Wolbers, 2000). They could be less motivated to continue working, as their jobs involve relatively little autonomy and offer less recognition. Their employment careers are also characterized by discontinuities and precariousness (Buchholz *et al.*, 2009). Although educational differences in employment careers are more pronounced among younger cohorts, such differences should also be apparent in older cohorts.[1] This implies that, regardless of birth cohort, lower-educated older workers accumulate less pension rights and savings and might have to postpone (early) retirement to ensure sufficient old-age income. Note that this financial necessity argument contradicts previous research that showed that lower-educated older workers are more likely to retire early than higher-educated older workers (Blossfeld *et al.*, 2011; Radl, 2012). We hypothesize that lower-educated older men are more likely to retire early than higher-educated older men, but educational differences should become less pronounced once we take employment history into account (*H7a*). We also expect that lower-educated older workers are at higher risk of disability or unemployment compared to higher-educated ones and, again, that differences between educational levels become less apparent when we adjust for work history (*H7b*). Older people with lower educational credentials possess less human capital, are less employable, and are also less likely to participate in lifelong learning activities, making them vulnerable to job loss.

The Impact of Social Class

Several studies have documented that earlier employment experiences remain associated with early retirement, even when the preretirement opportunity

structure is controlled for (Raymo *et al.*, 2011; Halpern-Manners *et al.*, 2015). We capture the preretirement situation with social class, which has largely been ignored by retirement scholars, despite a few notable exceptions (e.g. Blossfeld *et al.*, 2011; Radl, 2013). We are interested in whether social class still exerts an influence on early retirement, net of factors that summarize the employment career.

One would expect that working-class elderly earn lower wages than older people in higher social classes, which does not enable them to retire early. Yet, older workers in lower social strata are less employable. They may also be more likely to exit from the labour market before the statutory retirement age, because they have acquired worse job positions that do not contain intrinsically motivating characteristics. In a cross-national study conducted by Radl (2013), it was shown that unskilled manual workers, members of the upper service class, and the self-employed do not retire early. It should be no surprise that self-employed older people extend their working lives, but to what extent is the lower propensity of manual workers to retire early a consequence of their employment history? Next to income from work prior to retirement, manual workers accrued less pension entitlements compared to service class members due to their lower career earnings and lower pension savings. This would explain why they do not retire early. If they stay healthy, they perhaps cannot afford to leave the labour market. Hence, we expect that (unskilled) manual workers are less likely to retire early than members of the service class and the self-employed (*H8a*), but once we control for employment career, social class differences should become less pronounced (*H8b*).

Finally, older manual workers run high employment risks. First of all, they suffer from poorer working conditions, increasing the risk of disability. This can also be the result of a long employment career in which they are exposed to harsh working conditions or physically demanding tasks. Ongoing deindustrialization further worsens their situation. Low-skilled working-class elderly are overrepresented in the shrinking industrial sector, which puts them at risk of job loss. Their skills might become obsolete, and if they are not able to adapt to technological change, they might get pushed out of the workforce. Compared to older people in higher social strata, older working-class members have a lower employability level and they are confronted with many employment constraints. Those constraints could stem from accumulated disadvantages across the life course. Consider, for example, an individual in a lower social class who becomes unemployed. Scar effects and stigmatization may hinder opportunities in subsequent career stages (Gangl, 2006), leading to discontinuous employment careers that, in turn, increase the likelihood of early retirement. Our last hypothesis is that (unskilled) manual workers are more likely to become disabled or unemployed than service class members and self-employed older people (*H9a*), although such differences should become smaller after including work history (*H9b*).

Research Design

Data Description and Construction

We used four rounds (conducted in 1998, 2000, 2003, and 2009) of the FSDP to test our hypotheses. The FSDP is a large-scale life course study among the 18- to 70-year-old population of the Netherlands. The survey consists of a structured face-to-face interview by means of computer-assisted personal interviewing. Unique features of the FSDP are that both primary respondents and their partners are interviewed and that it employs retrospective questioning. All waves are highly comparable in its design (with respect to data collection, sampling procedure, etc.). The response rate in 2003 was slightly higher (52.6 per cent) compared to 1998 (47.3 per cent), 2000 (40.6 per cent), and 2009 (44.2 per cent). These response rates may seem rather low at first glance. However, one has to keep in mind that both partners must have participated. More information is available in the data documentation (for the most recent round, see Kraaykamp, Wolbers, and Ruiter, 2009).

A person-month file was constructed on the basis of retrospective occupational career information.[2] As the focus of the current study lies in older men and their employment careers, this procedure resulted in job trajectories for 1,662 males who are 50 years and older. For each month of their working life, which starts the moment they left full-time education, we have information on whether respondents were employed. If not, it is known if the respondent was unemployed, disabled, inactive, early retired, or in the military. In case of employment, several job characteristics were measured, such as the occupational title, the number of working hours per week, and if it involves self-employment.[3]

Defining the Risk Set and Outcome Variable

Respondents enter the risk set at the age of 50 years and only if they are employed at that age. From that moment on, we consider them 'at risk' of experiencing a transition from employment into early retirement or social security (disability or unemployment). Older men who do not experience an event are treated as right-censored

observations. Some individuals work until the statutory retirement age of 65 years, while other people reach the age at the moment of the survey and are therefore no longer observed. Older men who are less than 65 years are thus also part of the risk set. For example, a respondent who is 60 years old and does not experience an event is treated as right-censored. This respondent may retire at the age of 61 years, but is simply not observed until that age. The final data set consists of 140,734 person-months that represent the late career of 1,662 older males.

Early retirement is defined as quitting work before the age of 65 years. Approximately one out of four older men in our risk set retired early (438 events). Early employment exit and entry into social security comprises two pathways: disability and unemployment. Unfortunately, the number of unemployment events is too low to analyse separately. Unemployment rates for older people have always been low in the Netherlands, although unemployment may also be underreported. Almost 10 per cent of all respondents experienced disability or unemployment in late working life (158 events). For most older men, experiencing an event means their definitive withdrawal from the labour market. Only 38 individuals (2 per cent) re-entered employment.[4]

Measurements

The independent variables are educational level, social class, and characteristics that summarize employment careers prior to the age of 50 years. Educational level refers to the highest degree obtained, which consists of the categories elementary, lower general, intermediate vocational, higher vocational, and university education. Social class is a time-varying covariate and based on the EGP class schema (Erikson and Goldthorpe, 1992). We distinguish seven classes: higher professionals, lower professionals, non-manual workers, self-employed, members of the higher working class, skilled manual workers, and unskilled manual workers.

We added several variables to measure the occupational history of respondents before the age of 50 years. Employment biographies are represented by the number of years employed in the public and industrial sector as well as the number of spells of social security.[5] In addition, we applied sequence and cluster analysis with the TraMineR package in R to identify typical career patterns (Gabadinho *et al.*, 2009). The data set contains a succession of states—a sequence—for each respondent to describe their employment trajectory. There are seven mutually exclusive and distinct states: full-time employed, part-time employed, self-employed, unemployed, disabled, inactive, and military service. Each sequence consists of 420 months, starting from the age of 15 years and ending at the age of 50 years. Using the optimal matching procedure and performing Ward clustering, we came to a four-cluster solution. We labelled the clusters 'full-time employment', 'part-time employment', 'self-employment', and 'varying employment'.[6] We describe the clusters in more detail in the results section. Additional information about the sequence and cluster analysis is available online as supplementary material.

Finally, all models contain a dummy variable indicating if the respondent is born before 1950 (these birth cohorts were in their late employment career during the time that the generous early retirement schemes were available) and the following time-varying control variables: age, partner's labour force status, working hours, years in labour force, and monthly unemployment rates (source: statline.cbs.nl). The estimates of the control variables are provided as online supplementary material. Table 1 provides descriptive statistics of all variables.

Method of Analysis

We employed competing risks discrete-time event history models to estimate the influence of the employment career, educational level, and social class on early retirement. Model 1 contains educational level, social class, and all control variables. The employment career variables were added in Model 2 to assess the extent to which the effects of education and social class are mediated by occupational history.[7] To specify the baseline hazard function, we tested various specifications of age (linear, quadratic, dummies for each age, etc.) and assessed the model fit. On the basis of this comparison, we opted for three age groups: 50–54, 55–59, and 60–64 years.

Results

Employment Careers of Dutch Older Men

We first examine the employment career clusters that later serve as independent variables in the event history analysis. Figure 2 depicts the state distribution plots of the four clusters. The panel above left is almost fully characterized by older men who were full-time employed before they turned 50 and is by far the largest group. On the right-hand side of this plot, part-time employment makes up most of this small cluster. A lot of older males within the part-time employment cluster either worked part-time across their entire career or

Table 1. Descriptive statistics ($N_{person\text{-}months} = 140{,}734$)

	Range	Mean	SD
Labour force status			
Employed	0/1	0.996	
Early retired (438 events)	0/1	0.003	
Social security (158 events)	0/1	0.001	
Educational level			
Elementary	0/1	0.158	
Lower general	0/1	0.279	
Intermediate vocational	0/1	0.213	
Higher vocational	0/1	0.201	
University	0/1	0.149	
Social class			
Higher professionals	0/1	0.185	
Lower professionals	0/1	0.235	
Non-manual workers	0/1	0.114	
Self-employed	0/1	0.072	
Higher working class	0/1	0.089	
Skilled manual workers	0/1	0.111	
Unskilled manual workers	0/1	0.193	
Employment career cluster			
Full-time employment	0/1	0.675	
Part-time employment	0/1	0.046	
Self-employment	0/1	0.103	
Varying employment	0/1	0.177	
Years employed in public sector	0–46.7	5.042	11.100
Years employed in industrial sector	0–42.8	11.600	13.917
Number of social security spells	0–3	0.073	0.292
Age category			
50–54 years	0/1	0.571	
55–59 years	0/1	0.333	
60–64 years	0/1	0.097	
Birth cohort (born before 1950)	0/1	0.838	
Labour force status partner			
Partner employed	0/1	0.440	
Partner non-employed	0/1	0.439	
No partner	0/1	0.121	
Working hours	1–100	42.818	11.162
Years in labour force	15.8–53.8	40.873	5.632
Unemployment rate	1.2–10.7	6.071	1.817

Source: FSDP 1998, 2000, 2003 and 2009.

started working part-time after a period of full-time employment. The grouping on the lower left-hand side is mostly formed by self-employment, including people who became self-employed after they had a full-time job. Full-time employment is again the dominant state in the final group. In addition, this cluster contains more part-time employment, self-employment, and inactivity states compared to the full-time employment cluster. We see that many older men within this group experienced different kinds of employment, like a period of part-time employment, self-employment, or inactivity.

Table 2 shows that older men who obtained a lower educational degree are more likely to have been in continuous full-time employment before the age of 50 years than their higher educated counterparts. The opposite is true for both the part-time and varying employment career cluster in which older men with a higher vocational and university degree are overrepresented. Higher-educated people often have more flexible jobs in which work schedules can more easily be adjusted. Their work histories may also show higher degrees of mobility within and between jobs.

Multivariate Findings

The estimates of the event history models are presented in Table 3. We start with discussing the results regarding the employment career variables in Model 2 (*H1a* to *H6b*). We then discuss the findings with respect to the effects of education and social class on the basis of Model 1 and whether these effects change when we add the employment history in Model 2 (*H7a* to *H9b*).[8]

The results in Model 2 show that—in line with *H1a*, *H2a,* and *H3a*—career trajectories characterized mainly by part-time employment, self-employment, and varying types of employment decrease the likelihood of early retirement compared to full-time work histories. This supports our line of reasoning about the accumulation of pension rights and savings. Interestingly, older men who experienced different types of employment during their occupational career are less likely to become disabled or unemployed in later life, which contradicts *H3b*. We will come back to this finding when we discuss the results with respect to social class. Part-time employment and self-employment over the major part of the career do not affect the risk of entry into social security, not supporting *H1b* and *H2b*.

The number of years across the life course that an older worker was employed in the public sector is not related to early retirement. We thus cannot confirm *H4a* and *H4b*. Employment sector only matters when we look at years employed in the industrial sector. The higher the number of years that employees worked in the industrial sector before the age of 50 years, the higher the probability of early retirement via social security. This corroborates *H5b*. However, the number of years employed in the industrial sector does not influence early retirement, which does not support *H5a*.

Next, previous episodes of disability and unemployment are an important part of the story. Older men who

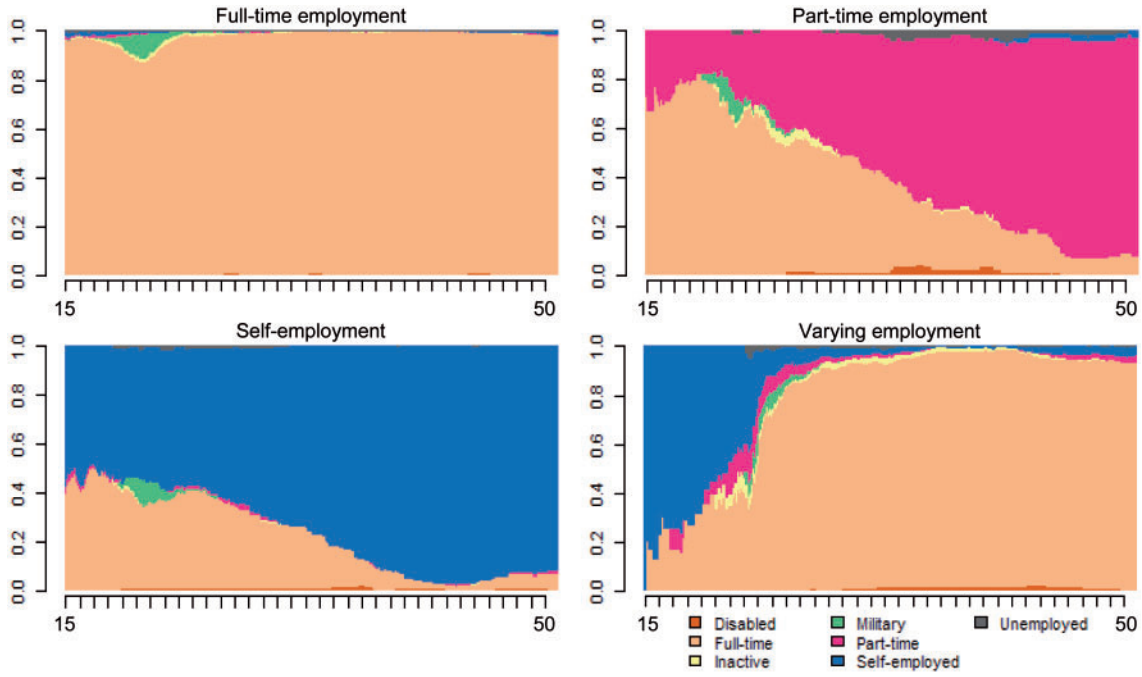

Figure 2. State distribution plots of employment career clusters

Source: FSDP 1998, 2000, 2003 and 2009.

Table 2. Employment career clusters by educational level ($N = 1,662$)

	Full-time	Part-time	Self-employed	Varying employment	Total (per cent)
Elementary	79.8	4.5	12.1	3.6	100
Lower general	86.9	2.0	7.2	3.9	100
Intermediate vocational	73.5	4.7	9.7	12.0	100
Higher vocational	57.1	7.4	5.2	30.3	100
University	32.8	10.8	8.6	47.8	100
Total (per cent)	68.8	5.4	8.2	17.6	100

Source: FSDP 1998, 2000, 2003 and 2009.

have faced a spell or multiple episodes of social security across their employment career are less likely to retire early. At the same time, they are more likely to definitively exit the labour market through disability or unemployment. Hence, *H6a* and *H6b* are supported. Discontinuous career patterns seem to force older men to extend their working lives, while they simultaneously run higher risks of disability and unemployment when they continue to work.

Model 1 shows clear and marked educational differences. Lower-educated older men are more likely than older men who hold a university degree to retire early. These differences persist when we control for employment history in Model 2. Although nearly all estimates become smaller after adding the employment career variables, the significance levels do not change. Educational disparities in early retirement cannot be fully attributed to diverging career trajectories of people with different educational levels. Education strongly affects employment exit over and above one's employment biography. All in all, these results do not support *H7a* and *H7b*.

Finally, we pay attention to social class differences. It was hypothesized that older working-class males are less likely to retire early than older men in the service class and those who are self-employed. As can be seen from Model 1, this holds for the comparison between unskilled manual workers and self-employed people, but

Table 3. Results of multinomial logistic regression analysis of early retirement, logit coefficients, and average marginal effects ($N_{individuals} = 1{,}662$; $N_{months} = 140{,}734$)

	Early retirement				Social security			
	Logit		AME		Logit		AME	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Educational level								
Elementary	1.537***	1.289***	0.005***	0.004***	3.052***	2.755***	0.003***	0.003***
Lower general	1.379***	1.013***	0.004***	0.003***	2.327***	2.027***	0.003***	0.003***
Intermediate vocational	1.089***	0.802***	0.003***	0.002***	1.878***	1.747***	0.002***	0.002***
Higher vocational	0.881***	0.674***	0.003***	0.002***	1.289**	1.293**	0.001**	0.001**
University	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Social class								
Higher professionals	0.262	0.482*	0.001	0.001*	−0.640*	−0.242	−0.001*	0.000
Lower professionals	0.054	0.316	0.000	0.001	−0.505∼	−0.255	−0.001∼	0.000
Non-manual workers	0.230	0.412*	0.001	0.001*	−0.323	−0.014	0.000	0.000
Self-employed	−0.488*	−0.039	−0.001*	0.000	−0.874*	−0.633	−0.001*	−0.001
Higher working class	0.250	0.371∼	0.001	0.001∼	−0.652∼	−0.404	−0.001∼	0.000
Skilled manual workers	0.313∼	0.327∼	0.001∼	0.001∼	−0.455	−0.540∼	−0.001	−0.001∼
Unskilled manual workers	ref.	ref.	ref.	ref.	ref.	ref.	ref.	ref.
Employment career cluster								
Full-time employment		ref.		ref		ref.		ref
Part-time employment		−0.635∼		−0.002∼		−0.109		0.000
Self-employment		−0.994***		−0.003***		−0.124		0.000
Varying employment		−1.439***		−0.004***		−1.623***		−0.002***
Years employed in public sector		−0.005		0.000		0.004		0.000
Years employed in industrial sector		0.009		0.000		0.019*		0.000*
Number of social security spells		−0.498*		−0.002*		0.685***		0.001***
Intercept	−5.588***	−3.068***			−2.442**	−0.690		
LL	−3,648	−3,567			−3,648	−3,567		
Pseudo R^2	0.131	0.150			0.131	0.150		

Note: All models are controlled for age category, birth cohort, working hours, years in labour force, labour force status partner, and unemployment rate. Estimates are available online.

Significance levels: $\sim P < 0.10$; $^{*}P < 0.05$; $^{**}P < 0.01$; $^{***}P < 0.001$ (two-tailed tests).

Source: FSDP 1998, 2000, 2003 and 2009.

not for the contrast between unskilled manual workers and professionals or non-manual workers. Therefore, we only find very limited support for *H8a*.

What is surprising is that, in Model 2, differences between social classes are more pronounced than in Model 1, indicating suppression effects. Holding constant the characteristics of the employment career, we observe that statistically significant differences arise between, on the one hand, unskilled manual workers, and on the other hand, higher professionals, non-manual workers, and higher working-class members. This suggests that certain aspects of social class in the later career are of importance with regard to early retirement. For example, older workers in the upper service class earn higher wages, which allows for early labour market withdrawal, independent of pension claims. Put differently, unskilled manual workers cannot afford to retire early. In summary, *H8b* is confirmed when looking at the difference between unskilled manual workers and self-employed elderly, but clearly rejected for all other comparisons between social classes. Note that the dummy variable for the self-employment career cluster is statistically significant and not the self-employment dummy variable regarding social class. This finding suggests that a lack of retirement savings, strong attachment to their company, or both are important drivers of self-employed people's prolonged employment career.

Conversely, the analysis of entry into social security neatly follows our predictions. Model 1 shows that all social classes—except for non-manual workers—have a lower likelihood to become disabled or unemployed compared to unskilled manual workers, confirming *H9a*. More importantly, Model 2 shows that these social class differences are almost fully accounted for by

employment history. Hence, the findings strongly support *H9b*. It seems that unskilled manual workers are mostly full-time employed over the course of their life, work more years in the industrial sector, and experience episodes of disability and unemployment. This would also explain the negative effect of the varying employment career cluster. This cluster, for the most part, consists of higher-educated older men in higher social classes who experience higher levels of overall mobility throughout their career. Finally, when adding the employment career characteristics separately in Model 2, we observe that especially the number of years employed in the industrial sector is responsible for the social class differences.

Conclusions and Discussion

Prior social stratification research has focused on educational level and social class as causes for inequality in retirement timing rather than employment history (Radl, 2013). The purpose of the current study was to integrate a life course and social stratification perspective to examine early retirement of older men in the Netherlands. This complementary approach proved fruitful. Not only are one's employment career, education, and social class important predictors of early retirement, but they also are strongly connected.

While policy measures of the Dutch government to promote working longer have indeed increased labour force participation of older people, the risks of disability and unemployment in later life have increased as well (Visser *et al.*, forthcoming). The findings of this study support the view that particularly educational inequalities in early retirement are pronounced and could even become more so in the future. This study also determined that labour market disadvantages may accumulate over the life course, especially for the lower educated. Less-educated people more often work in the industrial sector throughout their lives and their employment careers are more frequently interrupted by disability and unemployment. Ill health and depreciation of their human capital may severely hamper the prolongation of their working lives and push them out of the labour market, which has negative consequences in terms of old-age income (Heisig, 2015). These issues raise the question whether older workers, in particular lower-educated ones, are able and willing to continue working.

Furthermore, we demonstrated that early retirement through social security of working-class elderly is mainly due to their employment history. Unskilled manual workers are more likely to experience episodes of disability and unemployment, making them unattractive for employers. In addition, they spend a long period of their lives working in the industrial sector, which likely increases health risks. Although many older men in the Netherlands enjoyed stable employment careers, occupational trajectories are becoming increasingly less standardized (Widmer and Ritschard, 2009). Discontinuous careers may force older people to retire later to guarantee sufficient income in retirement. At the same time, those careers can put older people at risk of being pushed out of the labour market.

Despite the fact that we included partner characteristics, the scope of this study was limited to men. More research is required to determine to what extent (non-standard) employment histories of women affect their retirement behaviour. For instance, many women in the Netherlands work part-time, which could affect their retirement decision. Further studies could also examine the links between life spheres. We directed our attention to employment trajectories, which is obviously an important dimension of the life course when studying retirement behaviour, but only tells part of the story. This study confirms previous findings and contributes additional evidence that suggests that characteristics of the employment career directly influence early retirement, next to indirect effects through the preretirement situation (Damman *et al.*, 2011; Raymo *et al.*, 2011). However, earlier experiences in other life domains, like family and health, need to be incorporated as well to further understand how (dis)advantages accumulate and compensate each other over the lifespan.

Notwithstanding these limitations, this study highlights the importance of the employment career, education, and social class for early retirement inequalities. In the context of an ageing society and with prolonged employment of older people becoming ever more important, the challenge is to ensure that disadvantaged older workers remain employable and are protected against forced early retirement. For example, policymakers and employers could promote lifelong learning and employability-enhancing practices to counter the disadvantages that lower-educated people and members of the working class accumulate across their life course. It is also vital to look at different, more flexible types of employment exit, such as bridge employment and phased retirement. In conclusion, policy initiatives to deal with an ageing workforce need to address the challenges faced by different groups of older people, particularly less-educated and low-skilled older workers. When policies do not

take their specific needs into consideration, inequality may well increase.

Notes

1 We did not find significant interaction terms between educational level and birth cohort, indicating that the effect of educational level does not differ for younger and older cohorts.

2 To improve the reliability of the life course data, the interviewers were thoroughly trained in helping the respondents fill in a timeline grid. Moreover, recall bias seems to be limited with regard to retrospective occupational career data (De Graaf, Poortman and Ultee, 1996).

3 Not all rounds of the FSDP distinguish between permanent and temporary contracts. This is unfortunate, as occupational pensions were not available for many temporary workers in the Netherlands in the past.

4 Multiple spells are usually analysed using multilevel models. These models would not converge because of the limited number of recurrent events. Moreover, the variation in the dependent variable across individuals is practically zero. We decided to allow multiple spells, as the results of the analysis of multiple spells do not substantially differ from the results when we only consider first transitions.

5 A dummy variable indicating whether a respondent was never employed in the industrial sector is not significant, whereas the duration variable remains (marginally) significant. If we remove the duration variable and only keep the dummy variable, the effect is also not significant. As the correlation between the dummy and duration variable is −0.747, we only present the duration variable in our final models.

6 The correlation between the self-employment career cluster (measured before the age of 50 years) and the EGP class category self-employed (measured after the age of 50 years) is 0.472, so multicollinearity is not an issue.

7 We also considered whether the effects of the employment career characteristics are moderated by educational level or social class. Unfortunately, these interactions models did not converge.

8 To compare estimates across models, we present average marginal effects (Mood, 2010). The proportion of events is, however, very low, because of the way the data set has been constructed (i.e. a person-month file), which translates into non-meaningful effect sizes.

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