



Network for Studies on Pensions, Aging and Retirement

Dutch Employers' Responses to an Aging Workforce

Evidence from Surveys, 2009–2017

*Jaap Oude Mulders
Kène Henkens
Hendrik P. van Dalen*

DESIGN PAPER 127

NETSPAR INDUSTRY SERIES

DESIGN PAPERS are part of the **refereed Industry Paper Series**, which are refereed by the Netspar Editorial Board. Design Papers discuss the design of a component of a pension system or product. A Netspar Design Paper analyzes the objective of a component and the possibilities for improving its efficacy. These papers are easily accessible for industry specialists who are responsible for designing the component being discussed. Authors are allowed to give their personal opinion in a separate section. Design Papers are presented for discussion at Netspar events. Representatives of academic and private sector partners, are invited to these events. Design Papers are published at the Netspar website.

Colophon

Netspar Design Paper 127, June 2019

Editorial Board

Rob Alessie – University of Groningen
Iwan van den Berg – AEGON Netherlands
Mark-Jan Boes – VU Amsterdam & ABN Amro
Mark Boumans – PGGM
Kees Goudswaard – Leiden University
Arjen Hussem – PGGM
Bert Kramer – University of Groningen & Ortec Finance
Fieke van der Lecq (Chair) – VU Amsterdam
Roderick Molenaar – Robeco
Raymond Montizaan – Maastricht University
Alwin Oerlemans – APG
Maarten van Rooij – De Nederlandsche Bank
Peter Schotman – Maastricht University
Koen Vaassen – Achmea
Mieke van Westing – Nationale Nederlanden
Peter Wijn – APG
Marianne Zweers – a.s.r.

Design

B-more Design

Lay-out

Bladvulling, Tilburg

Editors

Frans Kooymans, Frans Kooymans-Text and Translation
Netspar

Design Papers are publications by Netspar. No reproduction of any part of this publication may take place without permission of the authors.

CONTENTS

<i>Abstract</i>	4
<i>Nederlandse samenvatting</i>	5
1. <i>Introduction</i>	6
2. <i>Demographic and policy context in the Netherlands</i>	8
3. <i>Methods</i>	11
4. <i>Costs and productivity of an aging workforce</i>	13
5. <i>Investing in older workers' work ability</i>	16
6. <i>Retirement age norms</i>	19
7. <i>Older workers and shortages on the labor market</i>	21
8. <i>Future policy reforms</i>	23
9. <i>Discussion</i>	25
<i>References</i>	26

Affiliations

Jaap Oude Mulders – NIDI-KNAW / University of Groningen

Kène Henkens – NIDI-KNAW / University of Groningen, University Medical Center
Groningen, University of Amsterdam

Hendrik P. van Dalen – NIDI-KNAW / University of Groningen, Tilburg University

Abstract

Employers are central actors in shaping employment opportunities for older workers and facilitating longer working lives. In this article, we examine how employers have adapted their attitudes and organizational policies and practices to deal with an aging workforce. We do so by comparing data from two large surveys on the subject of workforce aging among employers in the Netherlands, held in 2009 and 2017. The situation in the Netherlands forms an interesting case study as the country is in the midst of transitioning from a society with high rates of early retirement to one with comparatively high employment participation rates of older workers and an increasing statutory retirement age. The results show that employers have strong concerns regarding the costs of employing an aging workforce and about the potentially negative effects of aging on organizational productivity. At the same time, however, employers have become much more active in offering human resource practices aimed at accommodating and training older workers, and employers are generally more supportive of work at higher ages. Overall, we identify a growing sense of urgency among employers to invest in longer working lives and to ensure the long-term work ability of older workers. However, there is still a strong desire among employers for policy changes that offer a lower statutory retirement age for workers in physically demanding jobs or a more attainable form of part-time retirement to ease the transition to longer working lives.

Nederlandse samenvatting

Werkgevers spelen een centrale rol bij het faciliteren van mogelijkheden tot langer doorwerken voor oudere werknemers. In dit artikel onderzoeken we op welke manieren werkgevers hun houding en gedrag hebben aangepast in reactie op een vergrijzende arbeidsmarkt. Dit doen we door data van twee grootschalige enquêtes over een vergrijzende arbeidsmarkt onder Nederlandse werkgevers, uit 2009 en 2017, met elkaar te vergelijken. Dit is met name interessant omdat Nederland een transitie heeft doorgemaakt van een land waar vervroegde uittreding gangbaar was, naar een land met relatief hoge arbeidsparticipatie van oudere werknemers en een stijgende pensioenleeftijd. De resultaten laten zien dat werkgevers erg bezorgd zijn over de stijgende kosten en potentieel dalende productiviteit van oudere werknemers. Tegelijkertijd zijn werkgevers veel actiever geworden in het nemen van maatregelen die oudere werknemers ondersteunen in het langer doorwerken, en vinden zij werken tot op hogere leeftijd over het algemeen minder problematisch dan vroeger. Er is een groeiend besef van urgentie onder werkgevers om te investeren in oudere werknemers om langer doorwerken te faciliteren. Toch blijft er ook een wens bestaan voor beleid dat een lagere pensioenleeftijd voor werknemers in zware beroepen mogelijk maakt, of deeltijdpensioen beter toegankelijk maakt, om zo de transitie naar een langere carrière vloeiender te maken.

1. Introduction

Population aging is driving the need for longer working lives in developed countries across the globe (OECD, 2017). As the relative share of older individuals in both the workforce and the overall population increases, there are many initiatives to implement policy reforms to promote labor market participation and postpone the timing of retirement of older workers. It is clear that these reforms have substantial implications for the current generation of older workers. They have to work many more years than they had anticipated in order to collect their pension benefits. In many cases, older workers have had to postpone their retirement unexpectedly. This has sometimes led to resentment, disillusionment, and a drop in motivation (Van Solinge & Henkens, 2017).

As the participation of older workers increases, the implications for employers and organizations employing these older workers are likely to be substantial. Employers are confronted with greater numbers of older workers in their organizations, who are likely to stay employed for a longer time than both the older workers themselves and their employers had envisioned (Oude Mulders, 2016). However, how employers deal with these issues remains a largely unanswered question. While most research in this field has focused on the employee's perspective of working longer, research from the employer's perspective is relatively scarce. Understanding how employers view the aging workforce and how they adjust their human resource (HR) policies and practices in response to an aging workforce is crucial for a better understanding of the labor force dynamics of aging societies (Henkens et al., 2017). After all, employers are essential actors in shaping employment opportunities for older workers, and their attitudes and conduct may constrain the options that are available for older workers. In this paper, we therefore address these issues, focusing on the situation in the Netherlands, a country that was characterized by high rates of early retirement not long ago, but that has meanwhile transitioned to a society with comparatively high labor market participation rates of older workers and a higher age at which workers leave employment (Visser et al., 2016).

Our central research question is: *In what ways have employers adapted their attitudes and organizational policies and practices to deal with an aging workforce?* We study this question by comparing the results of two surveys about the effects of an aging workforce on attitudes and organizational policies and practices among Dutch employers. One of these surveys was conducted in 2009, the other one in 2017. In our comparison of employers' policies and practices from 2009 and 2017, we focus on what we consider to be five central issues that concern employers in an aging society. First,

we study how employers view the development of labor costs and labor productivity – main factors associated with the employment of older workers – in a continuously aging society. Second, we examine the extent to which employers use specific HR practices to manage an aging workforce, in particular policies directed at increasing the employability of older workers. Third, we focus on the development of employers' age-related workplace norms over time. We look at how norms about the appropriate moment of retirement have changed in tandem with the increase of the statutory retirement age and the actual age of labor force exit. Fourth, we study changes in employers' recruitment practices as earlier research has shown that many employers have age biases in their recruitment of new personnel, leading to high levels of old age unemployment. An important question in this regard is whether the position of older workers has improved in recent years. Fifth, we study employers' preferences for future public policy adjustments, aimed at a better functioning of the labor market in an aging society. Although this study is carried out in the Netherlands, we believe that our analyses provides useful insights for other countries that are developing retirement reforms to deal with an aging population.

The remainder of this article is organized as follows. We will first discuss the demographic and policy context of the Netherlands, providing information about the extent of population aging and the policy changes that have led to increased labor market participation and increasingly longer working lives. Next, we briefly discuss the methods applied in the two surveys that we analyze, held in 2009 and 2017 among a representative sample of Dutch employers. Then we discuss the empirical findings, focusing on the topics described above. In our analyses we will focus on the changes in employers' responses over time. Sectoral differences are not especially focused on in this article, and we will mention sectoral differences only where they seem relevant. Finally, in the discussion section we analyze the main changes in employers' attitudes and conduct and discuss possible future developments.

2. Demographic and policy context in the Netherlands

The population of the Netherlands, like that of most other developed countries, is aging rapidly and will continue to age for several decades. This is mainly the result of two demographic developments that coincided in the post-World War II period: declining fertility rates and increasing life expectancy. First, fertility rates have declined sharply, especially in the period from 1950 and 1990. For example, Dutch women born in 1935 had on average 2.5 children, whereas women born in 1965 had on average 1.8 children, a rate which has since stabilized and is projected to remain at this level (Van Duin & Stoeldraijer, 2014). Second, life expectancy has increased substantially in the same period. For example, life expectancy at age 65 was on average 14 and 17 years for men and women, respectively, in 1960 but had increased to 20 and 22 years for men for women, respectively, in 2014. While the rate of increase in life expectancy has slowed down a little, the trend towards longer lives is projected to continue (Deeg et al., 2018; Van Duin & Stoeldraijer, 2014).

These demographic developments will give rise to changes in the relative shares of different age groups in the population. It is estimated that the relative share of older people (i.e., aged 65+) in the Netherlands will increase from approximately 18% now to about 26% in 2040, whereas the share of people in the traditional working age (i.e., aged 20–64) will decrease from approximately 59% now to 52% in 2040. Population aging is currently expected to stabilize around the year 2040, meaning that the relative shares of different age groups will remain roughly the same from that point onwards, and that there will be no return to a population age structure with larger representation of younger people (Van Duin & Stoeldraijer, 2014).

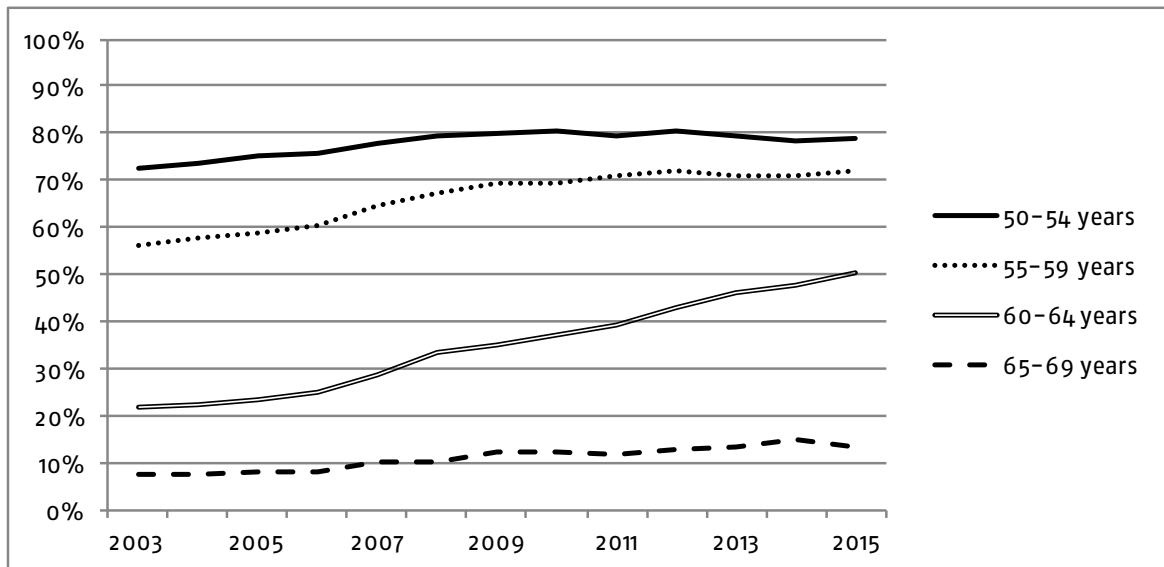
Like in other countries, these demographic developments have put the sustainability of social security and pension systems in the Netherlands under pressure. The Dutch government has therefore in recent years implemented numerous labor market and retirement-related policy reforms to alleviate some of the effects of population aging on government finances. The main focus of these reforms is to prevent and discourage early retirement from the labor market, a phenomenon that was very common until the early 2000s. In the Netherlands, collectively financed early retirement schemes were designed in the 1970s and 1980s to deal with the growing problem of high unemployment, declining industries, and growth stagnation. These schemes allowed older workers to retire several years before reaching the statutory retirement age of 65, with retirement benefits that were characterized by high replacement rates. In addition, there were generous and flexible 'alternative pathways' to early retirement, most prominently through collectively financed unemployment and disability

benefits (Kapteyn & De Vos, 1998). These generous early exit opportunities created an 'early retirement culture', in which early retirement was encouraged, and older workers were even expected to open up jobs this way for unemployed younger workers (Hofäcker & Unt, 2013). This resulted in very low employment rates for older workers. Around 1990, the employment rate of older workers reached its lowest point, with just over 50% of men and about 20% of women aged 50–65 in employment. While the employment rate of older women had always been low until that time, especially older men were much more often out of employment than prior to 1990.

Since the 1990s, however, governments with aging populations have been reforming their employment and retirement policies to stop the trend of early retirement and instead promote longer working lives. In the Netherlands, the collectively financed early retirement schemes were first converted to schemes with higher retirement ages and a larger component of individual savings. Later, in 2006, all tax support for early retirement schemes was discontinued, thereby effectively ending the government's support for such schemes. Of course, early retirement is still possible, but it is now financed and designed in an 'actuarially fair' manner: whoever wants to retire earlier than the official retirement age will have to incur pension income penalties, thereby making this route far less attractive than it was before (Euwals et al., 2010). In addition, the generosity and accessibility of unemployment and disability benefits has been greatly reduced by policy changes, which has also made early exit from the labor market difficult (Euwals et al., 2012). Finally, in 2012 the Dutch government passed a law that would increase the eligibility age for the flat-rate public pension gradually from 65 to 67 years by 2021, after which it would be tied to changes in average life expectancy at age 65. According to current projections, this will imply that the statutory retirement age will increase to about 71 years by 2060 (OECD, 2017).

These policy changes have strongly impacted the labor force participation of older workers in the Netherlands. This is illustrated in Figure 1, which shows the labor force participation rates of Dutch older workers between 2003 and 2015. We see there an increase in the labor force participation of older workers between ages 50 and 59, but the changes are most pronounced for the 60–64 age group, with participation in this group rising from 22% in 2003 to 51% in 2015. The increase in labor force participation of older workers aged over 65 is also visible, but that is still at a relatively low level. The trend towards later retirement is also evident from the average age at labor force exit, which increased from 61 years in 2006 to 64 years and 5 months in 2015 (Statistics Netherlands, 2016). The pathways of early exit from the labor market have thus been largely closed off, and there is a clear trend towards longer working lives. With the statutory retirement age gradually increasing and the continued adaptation of older

Figure 1: Labor force participation rates of older workers in the Netherlands, 2003–2015.



Source: Statistics Netherlands

workers to work to a higher age, the employment rates of older workers are expected to continue to increase in the coming years.

3. Methods

In this article, we analyze data from two large-scale surveys among Dutch employers on the subject of workforce aging and longer working lives, one held in 2009, the other held in 2017. The 2009 survey was part of a larger European project about employers' practices and policies regarding an aging workforce, which involved data collection among employers in eight European countries (for more details see Conen, 2013). Here, we only use data from Dutch employers. These data were collected through a hardcopy survey between February and May of 2009. In total, 1,077 organizations responded out of 4,700 organizations that were sampled, thus yielding a response rate of 23%. The sample was stratified according to size and sector to ensure sufficient responses from a diverse set of organizations. Sample weights were used in the analysis to correct for the sampling design.

The 2017 survey was similar in subject and design to the Dutch part of the 2009 survey. A similar sampling approach was chosen, with the sample being stratified according to size and sector, but with sample weights constructed to correct for the sampling design. The data were collected between December 2016 and March 2017, with 1,358 responses out of a sample of 6,000 organizations, for a response rate of 23%. The response rate was thus the same as in 2009 and is also comparable to other

Table 1: Descriptive statistics of survey respondents' main characteristics.

		2009	2017
Number of respondents		1,077	1,358
Organizational characteristics			
Sector	Industry and construction	33.17%	34.02%
	Services and trade	33.41%	29.31%
	Public sector	33.42%	36.67%
Size	Small (10–50 employees)	42.16%	33.21%
	Medium (51–250 employees)	33.31%	38.66%
	Large (>250 employees)	24.53%	28.13%
Percentage of older workers		24.14%	32.16%
Respondent characteristics			
Position of respondent	CEO / Director / Owner	29.09%	46.71%
	General manager	23.80%	6.50%
	HR manager	26.32%	26.89%
	HR employee	5.17%	11.78%
	Other	15.62%	8.12%
Age		45.8	51.0
Sex	Male	50.46%	62.66%
	Female	49.54%	37.34%

large-scale employer surveys in organizational research, both in the Netherlands and internationally (Conen et al., 2011; Baruch & Holtom, 2008). Surveys were mailed in hardcopy to the organizations, but this time an online response option was added. Half of the responses were in hardcopy, the other half were online. Table 1 contains unweighted descriptive statistics for the main characteristics of the organizations and respondents that participated in the surveys in 2009 and 2017. Results that are presented subsequently have been weighted to adjust for the sampling design outlined above.

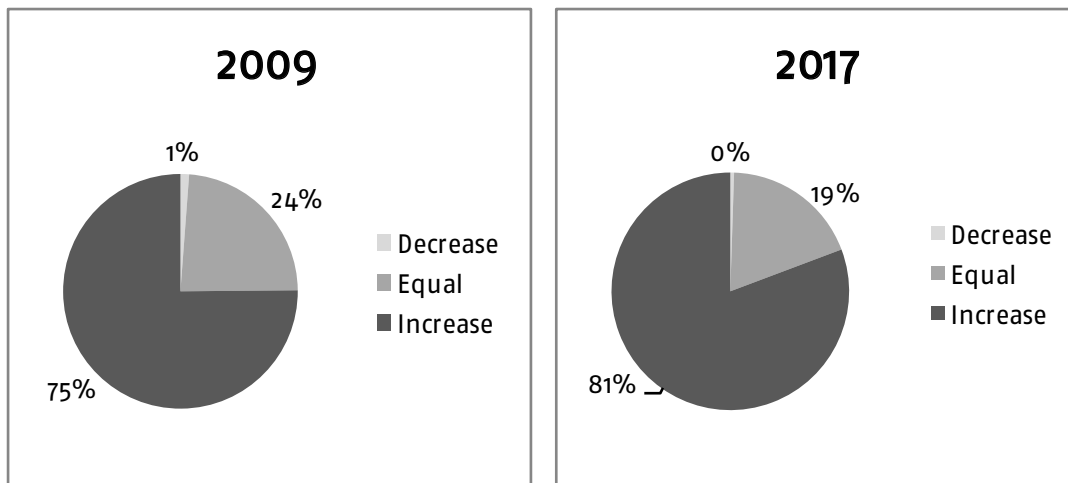
4. Costs and productivity of an aging workforce

One of the key issues associated with the aging of the workforce is that of the actual and/or perceived rise in costs and declining productivity (Conen et al., 2012). In most organizations, wages increase in line with tenure, so that older workers are generally more costly for employers than younger workers. Wage increase with seniority fits within implicit contract theory and is meant to keep workers motivated throughout their entire career within the firm (Lazear, 1979). Although seniority wages are common in most jobs, the extent to which wages rise with tenure differs strongly between organizations, industries, and countries. Earlier research has shown that the presence of the seniority principle in wage setting is more pervasive in the Netherlands than elsewhere, meaning that organizational tenure is rewarded to a larger extent in the Netherlands than in other countries (Conen et al., 2012). This may be partly due to the strong tradition of collective bargaining between employers' and employees' representatives. The Organisation for Economic Co-operation and Development (OECD) has identified the comparatively steep level of seniority-based wages in the Netherlands as a potential problem as population aging continues, and it has recommended a wage-setting mechanism that is based more on performance and less on tenure than the current mechanism (OECD, 2014).

A closely related issue is the development of workers' productivity as they grow older. It is generally acknowledged that workers of different ages have different qualities that may contribute to their productivity, mostly related to their physical and mental capacities and to the experience and knowledge they have built up over the years. For example, older workers are generally considered to possess more 'soft skills', such as better social skills and more commitment to the organization, whereas younger workers are generally considered to possess more 'hard skills', such as mental and physical capacities and the willingness to learn and apply new technologies to the work process (Van Dalen et al., 2010). Still, studies of the relationship between age and productivity have discovered no overall effect of age on general productivity, although links to more specific aspects of job performance have been found (Ng & Feldman, 2008). The extent to which productivity is affected by the aging of the workforce thus seems to depend especially on the type of job and the specific characteristics of the employees. However, negative stereotypes about older workers' productivity remain persistent and may influence the way in which employers respond to an aging workforce (Posthuma & Campion, 2009).

Figure 2 shows how employers think that labor costs within their organizations would develop in the case of continuing workforce aging. The results show a small

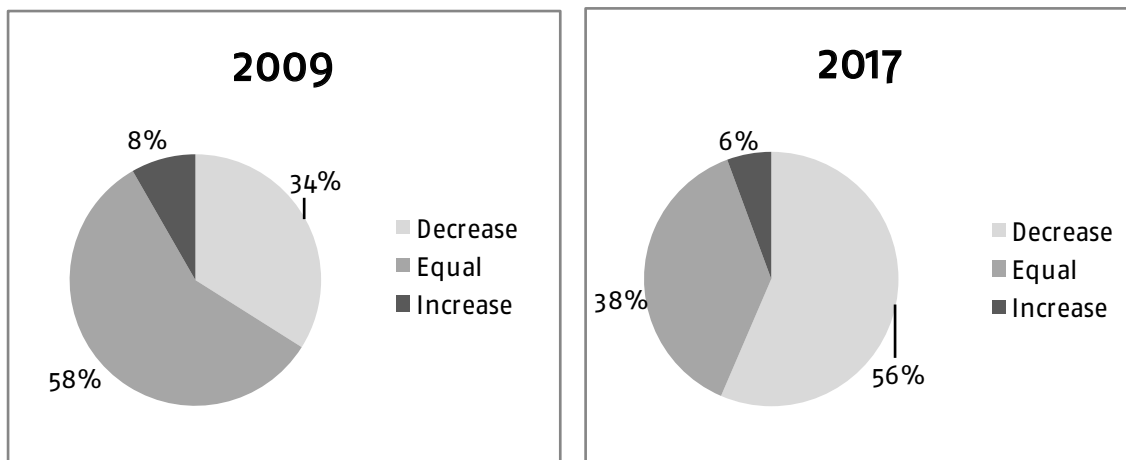
Figure 2: Employers' expectation of labor costs in a continuously aging workforce



Note: Based on the question "If the average age of your workforce were to increase by five years, what would be the effect on labor costs?"

Source: Employers' surveys 2009 & 2017

Figure 3: Employers' expectation of labor productivity in a continuously aging workforce



Note: Based on the question "If the average age of your workforce would increase by five years, what would be the effect on labor productivity?"

Source: Employers' surveys 2009 & 2017

increase in the proportion of employers that expect rising labor costs. In 2009, 75% of employers expected labor costs to increase as a result of aging staff, whereas in 2017 81% of employers thought so. Almost no one expected a decrease in labor costs: in 2009 only 1%; in 2017 none.

Figure 3 shows how employers' expectations of the development of labor productivity in the case of continuing population and workforce aging. Here, the differences between 2009 and 2017 are far more striking. In 2009, 34% of employers expected

a decrease in overall productivity, 58% expected productivity to remain roughly the same, and 8% expected an increase in productivity. In 2017, 56% of employers expected a decrease in overall productivity as a result of aging staff, 38% expected it to remain the same, and only 6% expected an increase. Overall, the results indicate that employers have become more pessimistic about the effects of workforce aging. The growing gap between labor costs and productivity in an aging society can have strong implications because, when wage costs increase while productivity stagnates or declines, profit margins will be under pressure and organizations may need to restructure or downsize.

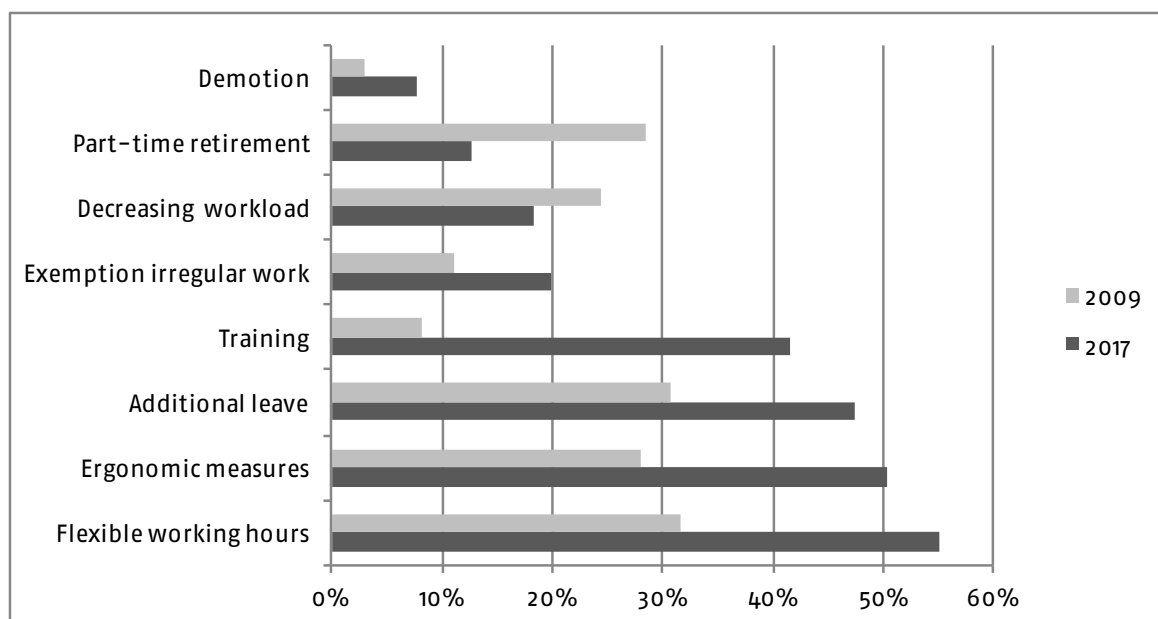
These results are worrisome, because longer working lives are a new 'fact' that employers have to deal with. In particular, the concerns about productivity seem to reflect the decrease in the possibilities for employers since 2009 to provide an easy exit to less productive older workers before the statutory retirement age. Instead, the statutory retirement age has also been increased gradually and will continue to increase in the coming years, so that employers need to employ their older workers even longer in the future. Especially when it comes to heavy physical labor, employers may expect a decline in productivity as employees reach a higher age.

5. Investing in older workers' work ability

While employers' views about the costs and productivity of an aging workforce provide valuable information about why many of them view population aging as a challenge, they do not reveal which strategies or policies employers choose to deal with an aging workforce. This information might be extracted more directly from the HR practices that are specifically applied to stimulate the work ability of employees. The application of specific HR practices serves multiple functions, such as creating better working conditions for different sets of employees, creating opportunities for the personal development of employees, but also signaling an organization's strategic purposes and intentions towards current and prospective staff (Rau & Adams, 2013). HR practices aimed specifically at older workers are especially important for understanding how organizations deal with an aging workforce, since organizations may use their HR practices to, for example, encourage or discourage working until or even after the statutory retirement age (Oude Mulders et al., 2017). Van Dalen et al. (2015) offer a useful taxonomy of age-based HR practices, distinguishing three types: (1) accommodation practices to compensate for the possible decline in physical and cognitive capacities of older workers, (2) development practices to increase the productive capacity of older workers, and (3) exit practices that enable older workers to retire from the labor force, either fully or partially.

Figure 4 shows how often Dutch employers have applied HR practices that affect the working conditions and work ability of older workers. The results clearly show a moderate to strong increase in the application of most of the HR practices, mostly accommodation and development-related, but a decrease in exit practices. More than half of Dutch employers now offer one or more accommodation measures, aimed at compensating the potential age-related loss in physical and cognitive functioning. Offering flexible working hours and ergonomic measures are the most commonly applied accommodative HR practices, with over half of the employers offering such measures. The increase in offering additional leave for older workers is striking, given that this is a HR practice that typically raises the costs associated with employing older workers. Still, the increase in application of this measure shows that many employers believe that allowing older workers to take additional leave improves their work ability in the long run, possibly by reducing the risk of absence due to illness.

Demotion – lowering an employee's rank and salary – is often mentioned by managers and policy makers as a means of increasing the employability of older workers in an aging labor force. However, in practice, demotion is rarely applied (Bowlus & Robin, 2012; Josten & Schalk, 2010). Our results indicate that, although

Figure 4: Employers' application of age-based HR policies

Note: Based on the question "Which of the following HR policies are applied in your organization?"
 Source: Employers' surveys 2009 & 2017

the percentage of organizations that use demotion for older workers as an HR policy instrument has more than doubled, it is still quite rare, making it the least applied policy instrument. Most likely this is due to the fear that demotion will demotivate other employees (Van Dalen & Henkens, 2016; Verheyen & Guerry, 2018).

Even though accommodation measures are clearly applied more overall, the biggest difference in employers' HR practices between 2009 and 2017 is the increase in development-related HR practices of offering training opportunities to older workers: only 8% of employers offered these in 2009, but 40% in 2017. It appears that Dutch employers are embracing the potential benefits of lifelong learning and realize that offering training opportunities to older workers can increase their long-term work potential, which is beneficial to the organization. Finally, there is a clear decline in exit-related HR practices. Offering part-time retirement arrangements to older workers, thereby allowing them to work fewer hours before their full retirement, has decreased considerably, with 29% of employers offering part-time retirement in 2009 and only 13% offering in 2017. This may partly be explained by the phasing out of part-time retirement arrangements that were still available in 2009 for employees born before 1950, but no longer in 2017.

The increase in accommodative and development age-based HR policies should be seen within the specific context of the Dutch labor market. Due to relatively high level of employment protection legislation, it is difficult and costly to dismiss older

workers. Given that the opportunities for early exit from the labor market have also strongly diminished, organizations have a vested interest to ensure the work ability of older workers until they reach their mandatory retirement age, which is tied to the statutory retirement age. This has most likely increased the need to invest in the long-term mental and physical fitness of older workers, driving the increase of development and accommodation HR practices. The decrease of exit opportunities should also be viewed in this context. While many older workers view part-time retirement before full retirement as an attractive option, employers and employees alike have been shown to be reluctant to implement this due to the high costs associated with (partial) early exit from the labor market (Bolhaar & Van Vuuren, 2018). Overall, the changes in age-based HR policies of employers signal a growing sense of urgency among employers to ensure the long-term work ability of older workers.

6. Retirement age norms

The normative context in which decisions regarding the employment of older workers are taken is another factor to consider. Individuals, including organizational actors such as CEOs and leading managers, have normative ideas about such factors as the appropriate timing of retirement, which may affect how they deal with the issue of workforce aging (Oude Mulders et al., 2017; Radl, 2012; Settersten & Hagestad, 1996). Such age-related workplace norms may stem, for example from personal values about the appropriateness of working at a higher age, individual experiences with older workers, and observed attitudes and behavior of others, but also from institutional factors such as a statutory retirement age that is coupled to a public pension and to mandatory retirement regulations.

The *retirement age norm* is a key normative concept that taps into a person's expectations about the appropriate timing of retirement, or at what age workers should retire. It may specify a single age at which one thinks a worker should retire, or it may specify lower and upper boundaries between which the retirement transition should occur. The retirement age norm adhered to by major organizational actors has proven to be a useful predictor of employers' behavior regarding older workers. For example, the retirement age norm influences decisions such as about the retention of older workers (Karpinska et al., 2013) and hiring of (early) retirees (Oude Mulders et al., 2014), but also more broadly organizational practices aimed at extending working lives (Oude Mulders et al., 2017).

Table 2: Employers' age norms regarding the appropriate age of retirement, statutory retirement ages, and average age of labor market exit in 2009 and 2017

	2009		2017	
	Mean	S.D.	Mean	S.D.
<i>Retirement age norm</i>				
Lower boundary	58.9	4.0	59.9	5.4
Upper boundary	66.4	4.8	67.6	5.0
Statutory retirement age	65		66*	
Average age of labor market exit	62.5		64.4**	

Note: Based on the questions "At which age do you generally consider a person too young to retire?" (lower boundary) and "At which age do you generally consider a person too old to work 20 hours a week or more?" (upper boundary)

* The statutory retirement age was gradually increased throughout 2017; it was 66 at the end of 2017. ** Statistic from 2016, as this was the latest available data.

Source: Employers' surveys 2009 & 2017

Table 2 shows the lower and upper boundaries of the retirement age norm adhered to by Dutch employers in 2009 and 2017. The lower boundary indicates the age at which employers believe workers to be generally too young to retire, and the upper boundary indicates the age at which employers believe workers to be too old to work at least 20 hours a week. Additionally, Table 2 shows the statutory retirement age in those years, as well as the average age of actual labor market exit in the Netherlands. The table shows an overall increase in both the lower and upper boundaries of the retirement age norm between 2009 and 2017, with the lower boundary increasing from 58.9 to 59.9 years, and the upper boundary increasing from 66.4 to 67.6 years. The statutory retirement age increased from 65 years in 2009 (applicable until 2012) to 66 in 2017, and it will increase further to 67 in 2021. The average age of labor market exit increased from 62.5 to 64.4 years between 2009 and 2017.

While norms are relatively slow to change, it is interesting to note that the retirement age norm gradually seems to change in response to increases in the statutory retirement age and the average age at labor market exit in recent years. At the same time, the figures show increasing diversity among the age norms of employers. In 2017, 43% of employers reported an upper boundary retirement age norm that was lower than the statutory retirement age, whereas in 2009 only 17% did so. This suggests that employers – while adjusting to higher retirement ages – have concerns about the pace at which the retirement age goes up.

7. Older workers and shortages on the labor market

Longer working lives are not only reflected in continued employment of older workers, but also in unemployed older workers being hired and older workers switching jobs. Traditionally, labor shortages are regarded as the most effective stimulus for the position of older workers in the labor market. In this section we analyze which practices employers turn to when they are confronted with a shortage of suitable personnel. The results from both surveys are presented in Table 3, with the results being divided into subcategories, focusing on certain target groups (such as older workers, females, and migrants), practices aimed at current employees, and practices aimed at reducing labor demand.

The results show that, overall, employers applied a more diverse range of practices in 2017 than in 2009. Looking more closely, we can see that there is an increase in practices aimed at certain target groups, mainly on the employment of women, especially in male-dominated industries and for top positions in organizations. However, there is no change in focus on the hiring of older workers, as merely 10% of employers focus on hiring such workers in case of shortages. This contrasts with findings that showed an increased likelihood of older workers being hired in better economic conditions (Oude Mulders et al., 2018a). Employers also do not focus more

Table 3: Employers' hiring and retention practices in the face of labor market shortages

	2009	2017
Practices aimed at target groups		
Recruiting more women workers	19%	29%
Offering higher wages	16%	17%
Recruiting more older workers	10%	10%
Recruiting staff from abroad	8%	10%
Recruiting former staff who had taken (early) retirement	4%	4%
Practices aimed at current employees		
Encouraging workers to work until the statutory retirement age	17%	17%
Working more hours	7%	11%
Encouraging workers to work beyond the statutory retirement age	8%	6%
Practices aimed at reducing labor		
Outsourcing labor	4%	25%
Substituting technology for labor	15%	22%
Relocating production capacity abroad	4%	5%

Note: Based on the question "If you are or were to be confronted with a shortage of suitable personnel, which practices do you or would you consider?"

Source: Employers' surveys 2009 & 2017

on increasing the productivity of current employees. An equal proportion of employers (17%) in 2017 encourage their employees to work until the statutory retirement age as they did in 2009, whereas encouraging workers to work *beyond* the statutory retirement age decreased from 8% in 2009 to 6% in 2017. Of course, this is likely to relate to the increasing statutory retirement age (see Table 2 or the policy context above), which already led to older workers working longer than before. The biggest increase in employers' practices, however, comes from practices that are aimed at reducing labor demand. Especially outsourcing of labor has become far more popular, with an increase from 4% in 2009 to 25% in 2017. This is likely the result of changing economic conditions: in 2009 the Dutch economy was still feeling the effects of the global financial crisis of 2007–2008 and was experiencing a strong growth of unemployment, whereas in 2017 the Dutch economy had recovered from the economic crises of the previous decade and the labor market encountered shortages in many sectors.

8. Future policy reforms

Obviously not only employers and employees play an important role in the labor market. As mentioned earlier, also the government plays a key role in shaping the context for longer working lives, through its labor market and retirement-related public policies. In the public debate, much attention is given to longer working lives, with many commenters pointing to the growing inequality between lower and higher educated workers and solidarity between generations. Some argue that the current policy, which could lead to a statutory retirement age above age 70 by 2060, is unsustainable, especially for older workers with lower education and those in physically demanding jobs. This is also reflected in the considerable discontent among low educated workers about the public pension reforms that have been implemented (Van Solinge & Henkens, 2017). Many people are calling for additional policy reforms to alleviate the effects of workforce aging and to make longer working lives more attainable.

Table 4 presents a number of possible policy reforms to that end and the extent to which employers support those reforms. It is clear that the higher public pension age is considered to be the biggest issue, especially for physically demanding jobs: 79% of employers support a lower statutory retirement age for workers in such jobs. Almost two third of employers are also in favor of a more flexible labor market, which could be attained by relaxing the current employment protection legislation and making dismissal of employees easier and less costly. While this may reduce the problems associated with workforce aging for employers, it may also lead to increasing unemployment among older workers, especially considering employers' assessments of the costs and productivity of older workers (see Figures 2 and 3). Sixty-one per cent of employers are in favor of governmental stimulation of part-time retirement, as this may make the transition from full-time work to full-time retirement easier.

Table 4: Employers' desired policy reforms

	2017
Lower retirement age for heavy physical labor	79%
More flexible labor market	64%
Stimulating part-time retirement	61%
Stimulating demotion	57%
Decreasing seniority wages	45%

Note: Based on the question "Older workers need to work longer than before. In light of this, which public policies do you consider desirable?"

Source: Employers' survey 2017

Acceptance by workers of part-time retirement instead of full-time retirement may contribute to longer working lives, but it could also hamper the transition, if workers take part-time retirement instead of working full-time without postponing their full retirement. We did not ask how part-time retirement should be stimulated, but tax exemptions for workers taking part-time retirement, or allowing part-time retirees to be economically active, could lead to more part-time retirement. Over half of the employers also would like to see the government stimulating the possibility of demotion, most likely because this could decrease the costs associated with workforce aging and might bring the productivity of older workers in line with their wages. Finally, 45% of employers are supportive of decreasing the level of seniority wages in the Netherlands, as was suggested by the OECD (2014).

9. Discussion

After several decades during which workers and employers used the exit route of early retirement, current retirement reforms force both employers and employees to adjust to the idea of a longer working life (Beehr & Bennett, 2015). The development and implementation of pension reforms aimed at longer working lives are evident in most developed countries. While growing evidence shows how older workers extend their careers in response to these pension reforms, much less is known about the attitudes and behaviors of employers. In this article we have analyzed responses of Dutch employers to workforce aging over the past decade.

The results indicate that employers have become increasingly involved in managing their older employees. With respect to their HR policies and practices, we see a clear tendency to invest in the productivity of older workers. Employers are more inclined to provide training to their older workers than previously. Also, accommodative policies, such as flexible work schedules and ergonomic measures, have become more common. Policies aimed at an early exit route have decreased in number. In addition, workplace norms are increasingly addressing the appropriate retirement age and bringing this in line with the increasing retirement age. One might conclude as such that employers are highly responsive to the higher retirement ages enforced by recent public policy reforms. At the same time, however, the results indicate growing concerns among employers about the lack of flexibility that the pension system offers to employers and older workers to manage the retirement transition. Our findings show that expectations of employers have become far more pessimistic in the past decade about how an aging workforce will affect labor productivity. Furthermore, there is overwhelming support among employers for public policies to support earlier exit for those in physically demanding occupations and for stimulating part-time retirement.

In short, employers' responses to the aging workforce are a double-edged sword: employers are becoming more proactive in investing in the work ability of older workers and accommodating longer working lives, but they also express the need for an early retirement option for older workers whose capacity to work until an advanced age is limited. This may well become a stylized fact of the present and future organization, where employment of workers aged 60 years and older is no longer an exception but the rule.

This article is an edited version of a chapter in an edited volume: Oude Mulders, J., Henkens, K., & Van Dalen, H.P. (2019). How do employers respond to an aging workforce? Evidence from surveys among employers, 2009–2017. In S.J. Czaja, J. Sharit, J. James, & J. Grosch (Eds.), *Current and Emerging Trends in Aging and Work*. Springer.

References

- Baruch, Y. & Holtom, B.C. (2008). Survey response rate levels and trends in organizational research. *Human Relations*, 61(8), 1139–1160.
- Beehr, T.A. & Bennett, M.M. (2015). Working after retirement: Features of bridge employment and research directions. *Work, Aging and Retirement*, 1(1), 112–128.
- Bolhaar, J. & Van Vuuren, D. (2018). Geleidelijke uittreding en de rol van deeltijdpensioen. *Netspar Design Paper 100*.
- Bowlus, A.J. & Robin, J.-M. (2012). An international comparison of lifetime inequality: How continental Europe resembles North America. *Journal of the European Economic Association*, 10(6), 1236–1262.
- Conen, W.S. (2013). *Older workers: The view of Dutch employers in a European perspective*. Amsterdam: Amsterdam University Press.
- Conen, W.S., Henkens, K., & Schippers, J.J. (2011). Are employers changing their behavior toward older workers? An analysis of employers' surveys 2000–2009. *Journal of Aging & Social Policy*, 23(2), 141–158.
- Conen, W.S., Van Dalen, H.P., & Henkens, K. (2012). Ageing and employers' perceptions of labour costs and productivity: A survey among European employers. *International Journal of Manpower*, 33(6), 629–647.
- Deeg, D., Van der Noordt, M., Hoogendijk, E., Comijs, H., & Huisman, M. (2018). Employability after age 65? Trends over 23 years in life expectancy in good and in poor physical and cognitive health of 65–74-year-olds in the Netherlands. *Netspar Design Paper 96*.
- Euwals, R., Van Vuuren, D., & Wolthoff, R. (2010). Early retirement behaviour in the Netherlands: Evidence from a policy reform. *De Economist*, 158(3), 209–236.
- Euwals, R., Van Vuren, A., & Van Vuuren, D. (2012). The decline of substitute pathways into retirement: Empirical evidence from the Dutch health care sector. *International Social Security Review*, 65(3), 101–122.
- Henkens, K., Van Dalen, H.P., Ekerdt, D.J., Hershey, D.A., Hyde, M., Radl, J., Van Solinge, H., Wang, M., & Zacher, H. (2017). What we need to know about retirement: Pressing issues for the coming decade. *The Gerontologist*, Advance Access, June 20, 2017. <http://dx.doi.org/10.1093/geront/gnx095>
- Hofäcker, D. & Unt, M. (2013). Exploring the 'new worlds' of (late?) retirement in Europe. *Journal of International and Comparative Social Policy*, 29, 163–183.
- Josten, E. & Schalk, R. (2010). The effects of demotion on older and younger employees. *Personnel Review*, 39, 195–209.
- Kapteyn, A. & De Vos, K. 1998. Social security and labor force participation in the Netherlands. *American Economic Review*, 88, 164–167.
- Karpinska, K., Henkens, K., & Schippers, J. (2013). Retention of older workers: Impact of managers' age norms and stereotypes. *European Sociological Review*, 29(6), 1323–1335.
- Lazear, E.P. (1979). Why is there mandatory retirement? *Journal of Political Economy*, 87(6), 1261–1284.
- Ng, T.W.H. & Feldman, D.C. (2008). The relationship of age to ten dimensions of job performance. *Journal of Applied Psychology*, 93(2), 392–423.
- OECD (2014). *Ageing and Employment Policies: Netherlands: Working Better With Age*. Paris: OECD Publishing. <http://dx.doi.org/10.1787/9789264208155-en>
- OECD (2017). *Pensions at a Glance 2017: OECD and G20 Indicators*. Paris: OECD Publishing. http://dx.doi.org/10.1787/pension_glance-2017-en

- Oude Mulders, J. (2016). *Organizations, managers, and the employment of older workers after retirement*. Utrecht: Tjalling C. Koopmans Dissertation Series. <https://dspace.library.uu.nl/handle/1874/337479>
- Oude Mulders, J., Henkens, K., Liu, Y., Schippers, J., & Wang, M. (2018a). Managers' interview invitation decisions about older job applicants: Human capital, economic conditions and job demands. *Ageing & Society*, *38*(4), 839–864.
- Oude Mulders, J., Henkens, K., & Schippers, J. (2017). European top managers' age-related workplace norms and their organizations' recruitment and retention practices regarding older workers. *The Gerontologist*, *57*(5), 857–866.
- Oude Mulders, J., Henkens, K., & Van Dalen, H.P. (2018b). Loslaten van de verplichte pensioenleeftijd en het organisatieklimaat rondom langer doorwerken. *Netspar Design Paper* 97.
- Oude Mulders, J., Van Dalen, H.P., Henkens, K., & Schippers, J. (2014). How likely are employers to rehire older workers after mandatory retirement? A vignette study among managers. *De Economist*, *162*, 415–431.
- Posthuma, R.A. & Campion, M.A. (2009). Age stereotypes in the workplace: Common stereotypes, moderators, and future research directions. *Journal of Management*, *35*, 158–188.
- Radl, J. (2012). Too old to work, or too young to retire? The pervasiveness of age norms in Western Europe. *Work, Employment & Society*, *26*(5), 755–771.
- Rau, B.L. & Adams, G.A. (2013). Aging, retirement, and human resources management: A strategic approach. In M. Wang (Ed.), *The Oxford Handbook of Retirement* (pp. 117–135). Oxford, UK: Oxford University Press.
- Settersten, R.A. & Hagestad, G.O. (1996). What's the latest? II. Cultural age deadlines for educational and work transitions. *The Gerontologist*, *36*(5), 602–613.
- Statistics Netherlands (2016b). *Van arbeid naar pensioen; personen 55 jaar of ouder*. Retrieved March 1, 2016 from <http://statline.cbs.nl>
- Van Dalen, H.P. & Henkens, K. (2016). Why demotion of older workers is a no-go area for managers. *The International Journal of Human Resource Management*, Advance Access, October 3, 2016.
- Van Dalen, H.P., Henkens, K., & Schippers, J. (2010). Productivity of older workers: Perceptions of employers and employees. *Population and Development Review*, *36*(2), 309–330.
- Van Dalen, H.P., Henkens, K., & Wang, M. (2015). Recharging or retiring older workers? Uncovering the age-based strategies of European employers. *The Gerontologist*, *55*(5), 814–824.
- Van Duin, C. & Stoeldraijer, L. (2014). *Bevolkingsprognose 2014–2060: Groei door migratie*. The Hague/Heerlen: Statistics Netherlands.
- Van Solinge, H. & Henkens, K. (2017). Older workers' emotional reactions to rising retirement age: The case of the Netherlands. *Work, Aging and Retirement*, *3*(3), 273–283.
- Verheyen, T. & Guerry, M.-A. (2018). Motives for (non) practicing demotion. *Personnel Review*, *40*(2), 244–263.
- Visser, M., Gesthuizen, M., Kraaykamp, G., & Wolbers, M.H.J. (2016). Trends in labour force participation of older men: Examining the influence of policy reforms, normative change and deindustrialization in the Netherlands, 1992–2009. *Economic and Industrial Democracy*, *37*(3), 425–447.

OVERZICHT UITGAVEN IN DE DESIGN PAPER SERIE

- 1 Naar een nieuw pensioencontract (2011)
Lans Bovenberg en Casper van Ewijk
- 2 Langlevenrisico in collectieve pensioencontracten (2011)
Anja De Waegenaere, Alexander Paulis en Job Stigter
- 3 Bouwstenen voor nieuwe pensioencontracten en uitdagingen voor het toezicht daarop (2011)
Theo Nijman en Lans Bovenberg
- 4 European supervision of pension funds: purpose, scope and design (2011)
Niels Kortleve, Wilfried Mulder and Antoon Pelsser
- 5 Regulating pensions: Why the European Union matters (2011)
Ton van den Brink, Hans van Meerten and Sybe de Vries
- 6 The design of European supervision of pension funds (2012)
Dirk Broeders, Niels Kortleve, Antoon Pelsser and Jan-Willem Wijckmans
- 7 Hoe gevoelig is de uittredeleeftijd voor veranderingen in het pensioenstelsel? (2012)
Didier Fouarge, Andries de Grip en Raymond Montizaan
- 8 De inkomensverdeling en levensverwachting van ouderen (2012)
MARIKE Knoef, Rob Alessie en Adriaan Kalwij
- 9 Marktconsistente waardering van zachte pensioenrechten (2012)
Theo Nijman en Bas Werker
- 10 De RAM in het nieuwe pensioenakkoord (2012)
Frank de Jong en Peter Schotman
- 11 The longevity risk of the Dutch Actuarial Association's projection model (2012)
Frederik Peters, Wilma Nusselder and Johan Mackenbach
- 12 Het koppelen van pensioenleeftijd en pensioenaanspraken aan de levensverwachting (2012)
Anja De Waegenaere, Bertrand Melenberg en Tim Boonen
- 13 Impliciete en expliciete leeftijdsdifferentiatie in pensioencontracten (2013)
Roel Mehlkopf, Jan Bonenkamp, Casper van Ewijk, Harry ter Rele en Ed Westerhout
- 14 Hoofdlijnen Pensioenakkoord, juridisch begrepen (2013)
Mark Heemskerk, Bas de Jong en René Maatman
- 15 Different people, different choices: The influence of visual stimuli in communication on pension choice (2013)
Elisabeth Brügggen, Ingrid Rohde and Mijke van den Broeke
- 16 Herverdeling door pensioenregelingen (2013)
Jan Bonenkamp, Wilma Nusselder, Johan Mackenbach, Frederik Peters en Harry ter Rele
- 17 Guarantees and habit formation in pension schemes: A critical analysis of the floor-leverage rule (2013)
Frank de Jong and Yang Zhou
- 18 The holistic balance sheet as a building block in pension fund supervision (2013)
Erwin Fransen, Niels Kortleve, Hans Schumacher, Hans Staring and Jan-Willem Wijckmans
- 19 Collective pension schemes and individual choice (2013)
Jules van Binsbergen, Dirk Broeders, Myrthe de Jong and Ralph Koijen
- 20 Building a distribution builder: Design considerations for financial investment and pension decisions (2013)
Bas Donkers, Carlos Lourenço, Daniel Goldstein and Benedict Dellaert

- 21 Escalerende garantietoezeggingen: een alternatief voor het StAr RAM-contract (2013)
Servaas van Bilsen, Roger Laeven en Theo Nijman
- 22 A reporting standard for defined contribution pension plans (2013)
Kees de Vaan, Daniele Fano, Herialt Mens and Giovanna Nicodano
- 23 Op naar actieve pensioenconsumenten: Inhoudelijke kenmerken en randvoorwaarden van effectieve pensioencommunicatie (2013)
Niels Kortleve, Guido Verbaal en Charlotte Kuiper
- 24 Naar een nieuw deelnemergericht UPO (2013)
Charlotte Kuiper, Arthur van Soest en Cees Dert
- 25 Measuring retirement savings adequacy; developing a multi-pillar approach in the Netherlands (2013)
MARIKE KNOEF, Jim Been, Rob Alessie, Koen Caminada, Kees Goudswaard, and Adriaan Kalwijn
- 26 Illiquiditeit voor pensioenfondsen en verzekeraars: Rendement versus risico (2014)
Joost Driessen
- 27 De doorsneesystematiek in aanvullende pensioenregelingen: effecten, alternatieven en transitiepaden (2014)
Jan Bonenkamp, Ryanne Cox en Marcel Lever
- 28 EIOPA: bevoegdheden en rechtsbescherming (2014)
Ivor Witte
- 29 Een institutionele beleggersblik op de Nederlandse woningmarkt (2013)
Dirk Brounen en Ronald Mahieu
- 30 Verzekeraar en het reële pensioencontract (2014)
Jolanda van den Brink, Erik Lutjens en Ivor Witte
- 31 Pensioen, consumptiebehoeften en ouderenzorg (2014)
MARIKE KNOEF, Arjen Hussem, Arjan Soede en Jochem de Bresser
- 32 Habit formation: implications for pension plans (2014)
Frank de Jong and Yang Zhou
- 33 Het Algemeen pensioenfonds en de taakafbakening (2014)
Ivor Witte
- 34 Intergenerational Risk Trading (2014)
Jiajia Cui and Eduard Ponds
- 35 Beëindiging van de doorsneesystematiek: juridisch navigeren naar alternatieven (2015)
Dick Boeijen, Mark Heemskerk en René Maatman
- 36 Purchasing an annuity: now or later? The role of interest rates (2015)
Thijs Markwat, Roderick Molenaar and Juan Carlos Rodriguez
- 37 Entrepreneurs without wealth? An overview of their portfolio using different data sources for the Netherlands (2015)
Mauro Mastrogiacomo, Yue Li and Rik Dillingh
- 38 The psychology and economics of reverse mortgage attitudes. Evidence from the Netherlands (2015)
Rik Dillingh, Henriëtte Prast, Mariacristina Rossi and Cesira Urzì Brancati
- 39 Keuzevrijheid in de uittreedleeftijd (2015)
Arthur van Soest
- 40 Afschaffing doorsneesystematiek: verkenning van varianten (2015)
Jan Bonenkamp en Marcel Lever
- 41 Nederlandse pensioenopbouw in internationaal perspectief (2015)
MARIKE KNOEF, Kees Goudswaard, Jim Been en Koen Caminada
- 42 Intergenerationele risicodeling in collectieve en individuele pensioencontracten (2015)
Jan Bonenkamp, Peter Broer en Ed Westerhout
- 43 Inflation Experiences of Retirees (2015)
Adriaan Kalwijn, Rob Alessie, Jonathan Gardner and Ashik Anwar Ali
- 44 Financial fairness and conditional indexation (2015)
Torsten Kleinow and Hans Schumacher
- 45 Lessons from the Swedish occupational pension system (2015)
Lans Bovenberg, Ryanne Cox and Stefan Lundbergh

- 46 Heldere en harde pensioenrechten onder een PPR (2016)
Mark Heemskerk, René Maatman en Bas Werker
- 47 Segmentation of pension plan participants: Identifying dimensions of heterogeneity (2016)
Wiebke Eberhardt, Elisabeth Brüggem, Thomas Post and Chantal Hoet
- 48 How do people spend their time before and after retirement? (2016)
Johannes Binswanger
- 49 Naar een nieuwe aanpak voor risicoprofiel-meting voor deelnemers in pensioenregelingen (2016)
Benedict Dellaert, Bas Donkers, Marc Turlings, Tom Steenkamp en Ed Vermeulen
- 50 Individueel defined contribution in de uitkeringsfase (2016)
Tom Steenkamp
- 51 Wat vinden en verwachten Nederlanders van het pensioen? (2016)
Arthur van Soest
- 52 Do life expectancy projections need to account for the impact of smoking? (2016)
Frederik Peters, Johan Mackenbach en Wilma Nusselder
- 53 Effecten van gelaagdheid in pensioen-documenten: een gebruikersstudie (2016)
Louise Nell, Leo Lentz en Henk Pander Maat
- 54 Term Structures with Converging Forward Rates (2016)
Michel Vellekoop and Jan de Kort
- 55 Participation and choice in funded pension plans (2016)
Manuel García-Huitrón and Eduard Ponds
- 56 Interest rate models for pension and insurance regulation (2016)
Dirk Broeders, Frank de Jong and Peter Schotman
- 57 An evaluation of the nFTK (2016)
Lei Shu, Bertrand Melenberg and Hans Schumacher
- 58 Pensioenen en inkomensongelijkheid onder ouderen in Europa (2016)
Koen Caminada, Kees Goudswaard, Jim Been en Marike Knoef
- 59 Towards a practical and scientifically sound tool for measuring time and risk preferences in pension savings decisions (2016)
Jan Potters, Arno Riedl and Paul Smeets
- 60 Save more or retire later? Retirement planning heterogeneity and perceptions of savings adequacy and income constraints (2016)
Ron van Schie, Benedict Dellaert and Bas Donkers
- 61 Uitstroom van oudere werknemers bij overheid en onderwijs. Selectie uit de poort (2016)
Frank Cörvers en Janneke Wilschut
- 62 Pension risk preferences. A personalized elicitation method and its impact on asset allocation (2016)
Gosse Alserda, Benedict Dellaert, Laurens Swinkels and Fieke van der Lecq
- 63 Market-consistent valuation of pension liabilities (2016)
Antoon Pelsser, Ahmad Salahnejhad and Ramon van den Akker
- 64 Will we repay our debts before retirement? Or did we already, but nobody noticed? (2016)
Mauro Mastrogiacomo
- 65 Effectieve ondersteuning van zelfmanagement voor de consument (2016)
Peter Lapperre, Alwin Oerlemans en Benedict Dellaert
- 66 Risk sharing rules for longevity risk: impact and wealth transfers (2017)
Anja De Waegenaere, Bertrand Melenberg and Thijs Markwat
- 67 Heterogeniteit in doorsneeproblematiek. Hoe pakt de transitie naar degressieve opbouw uit voor verschillende pensioenfondsen? (2017)
Loes Frehen, Wouter van Wel, Casper van Ewijk, Johan Bonekamp, Joost van Valkengoed en Dick Boeijen
- 68 De toereikendheid van pensioenopbouw na de crisis en pensioenhervormingen (2017)
Marike Knoef, Jim Been, Koen Caminada, Kees Goudswaard en Jason Rhuggenaath

- 69 De combinatie van betaald en onbetaald werk in de jaren voor pensioen (2017)
Marleen Damman en Hanna van Solinge
- 70 Default life-cycles for retirement savings (2017)
Anna Grebenchtchikova, Roderick Molenaar, Peter Schotman en Bas Werker
- 71 Welke keuzemogelijkheden zijn wenselijk vanuit het perspectief van de deelnemer? (2017)
Casper van Ewijk, Roel Mehlkopf, Sara van den Bleeken en Chantal Hoet
- 72 Activating pension plan participants: investment and assurance frames (2017)
Wiebke Eberhardt, Elisabeth Brüggem, Thomas Post en Chantal Hoet
- 73 Zerotopia – bounded and unbounded pension adventures (2017)
Samuel Sender
- 74 Keuzemogelijkheden en maatwerk binnen pensioenregelingen (2017)
Saskia Bakels, Agnes Joseph, Niels Kortleve en Theo Nijman
- 75 Polderen over het pensioenstelsel. Het debat tussen de sociale partners en de overheid over de oudedagvoorzieningen in Nederland, 1945–2000 (2017)
Paul Brusse
- 76 Van uitkeringsovereenkomst naar PPR (2017)
Mark Heemskerk, Kees Kamminga, René Maatman en Bas Werker
- 77 Pensioenresultaat bij degressieve opbouw en progressieve premie (2017)
Marcel Lever en Sander Muns
- 78 Bestedingsbehoeften bij een afnemende gezondheid na pensionering (2017)
Lieke Kools en Marike Knoef
- 79 Model Risk in the Pricing of Reverse Mortgage Products (2017)
Anja De Waegenaere, Bertrand Melenberg, Hans Schumacher, Lei Shu and Lieke Werner
- 80 Expected Shortfall voor toezicht op verzekeraars: is het relevant? (2017)
Tim Boonen
- 81 The Effect of the Assumed Interest Rate and Smoothing on Variable Annuities (2017)
Anne G. Balter and Bas J.M. Werker
- 82 Consumer acceptance of online pension investment advice (2017)
Benedict Dellaert, Bas Donkers and Carlos Lourenço
- 83 Individualized life-cycle investing (2017)
Gréta Oleár, Frank de Jong and Ingmar Minderhoud
- 84 The value and risk of intergenerational risk sharing (2017)
Bas Werker
- 85 Pensioenwensen voor en na de crisis (2017)
Jochem de Bresser, Marike Knoef en Lieke Kools
- 86 Welke vaste dalingen en welk beleggingsbeleid passen bij gewenste uitkeringsprofielen in verbeterde premieregelingen? (2017)
Johan Bonekamp, Lans Bovenberg, Theo Nijman en Bas Werker
- 87 Inkomens- en vermogensafhankelijke eigen bijdragen in de langdurige ouderenzorg: een levensloopperspectief (2017)
Arjen Hussem, Harry ter Rele en Bram Wouterse
- 88 Creating good choice environments – Insights from research and industry practice (2017)
Elisabeth Brüggem, Thomas Post and Kimberley van der Heijden
- 89 Two decades of working beyond age 65 in the Netherlands. Health trends and changes in socio-economic and work factors to determine the feasibility of extending working lives beyond age 65 (2017)
Dorly Deeg, Maaïke van der Noordt and Suzan van der Pas
- 90 Cardiovascular disease in older workers. How can workforce participation be maintained in light of changes over time in determinants of cardiovascular disease? (2017)
Dorly Deeg, E. Burgers and Maaïke van der Noordt
- 91 Zicht op zzp-pensioen (2017)
Wim Zwinkels, Marike Knoef, Jim Been, Koen Caminada en Kees Goudswaard
- 92 Return, risk, and the preferred mix of PAYG and funded pensions (2017)
Marcel Lever, Thomas Michielsen and Sander Muns

- 93 Life events and participant engagement in pension plans (2017)
Matthew Blakstad, Elisabeth Brügggen and Thomas Post
- 94 Parttime pensioneren en de arbeidsparticipatie (2017)
Raymond Montizaan
- 95 Keuzevrijheid in pensioen: ons brein wil niet kiezen, maar wel gekozen hebben (2018)
Walter Limpens en Joyce Vonken
- 96 Employability after age 65? Trends over 23 years in life expectancy in good and in poor physical and cognitive health of 65–74-year-olds in the Netherlands (2018)
Dorly Deeg, Maaïke van der Noordt, Emiel Hoogendijk, Hannie Comijs and Martijn Huisman
- 97 Loslaten van de verplichte pensioenleeftijd en het organisatieklimaat rondom langer doorwerken (2018)
Jaap Oude Mulders, Kène Henkens en Harry van Dalen
- 98 Overgangseffecten bij introductie degressieve opbouw (2018)
Bas Werker
- 99 You're invited – RSVP! The role of tailoring in incentivising people to delve into their pension situation (2018)
Milena Dinkova, Sanne Elling, Adriaan Kalwij en Leo Lentz
- 100 Geleidelijke uittreding en de rol van deeltijdpensioen (2018)
Jonneke Bolhaar en Daniël van Vuuren
- 101 Naar een model voor pensioencommunicatie (2018)
Leo Lentz, Louise Nell en Henk Pander Maat
- 102 Tien jaar UPO. Een terugblik en vooruitblik op inhoud, doelen en effectiviteit (2018)
Sanne Elling en Leo Lentz
- 103 Health and household expenditures (2018)
Raun van Ooijen, Jochem de Bresser en Marike Knoef
- 104 Keuzevrijheid in de uitkeringsfase: internationale ervaringen (2018)
Marcel Lever, Eduard Ponds, Rik Dillingh en Ralph Stevens
- 105 The move towards riskier pension products in the world's best pension systems (2018)
Anne G. Balter, Malene Kallestrup-Lamb and Jesper Rangvid
- 106 Life Cycle Option Value: The value of consumer flexibility in planning for retirement (2018)
Sonja Wendel, Benedict Dellaert and Bas Donkers
- 107 Naar een duidelijk eigendomsbegrip (2018)
Jop Tangelder
- 108 Effect van stijging AOW-leeftijd op arbeidsongeschiktheid (2018)
Rik Dillingh, Jonneke Bolhaar, Marcel Lever, Harry ter Rele, Lisette Swart en Koen van der Ven
- 109 Is de toekomst gearriveerd? Data science en individuele keuzemogelijkheden in pensioen (2018)
Wesley Kaufmann, Bastiaan Starink en Bas Werker
- 110 De woontevredenheid van ouderen in Nederland (2018)
Jan Rouwendal
- 111 Towards better prediction of individual longevity (2018)
Dorly Deeg, Jan Kardaun, Maaïke van der Noordt, Emiel Hoogendijk en Natasja van Schoor
- 112 Framing in pensioenkeuzes. Het effect van framing in de keuze voor beleggingsprofiel in DC-plannen naar aanleiding van de Wet verbeterde premieregeling (2018)
Marijke van Putten, Rogier Potter van Loon, Marc Turlings en Eric van Dijk
- 113 Working life expectancy in good and poor self-perceived health among Dutch workers aged 55–65 years with a chronic disease over the period 1992–2016 (2019)
Astrid de Wind, Maaïke van der Noordt, Dorly Deeg and Cécile Boot
- 114 Working conditions in post-retirement jobs: A European comparison (2019)
Ellen Dingemans and Kène Henkens

- 115 Is additional indebtedness the way to increase mortgage–default insurance coverage? (2019)
Yeorim Kim, Mauro Mastrogiacomo, Stefan Hochguertel and Hans Bloemen
- 116 Appreciated but complicated pension Choices? Insights from the Swedish Premium Pension System (2019)
Monika Böhnke, Elisabeth Brügggen and Thomas Post
- 117 Towards integrated personal financial planning. Information barriers and design propositions (2019)
Nitesh Bharosa and Marijn Janssen
- 118 The effect of tailoring pension information on navigation behavior (2019)
Milena Dinkova, Sanne Elling, Adriaan Kalwij and Leo Lentz
- 119 Opleiding, levensverwachting en pensioenleeftijd: een vergelijking van Nederland met andere Europese landen (2019)
Johan Mackenbach, José Rubio Valverde en Wilma Nusselder
- 120 Giving with a warm hand: Evidence on estate planning and bequests (2019)
Eduard Suari–Andreu, Raun van Ooijen, Rob J.M. Alessie and Viola Angelini
- 121 Investeren in menselijk kapitaal: een gecombineerd werknemers– en werkgeversperspectief (2019)
Raymond Montizaan, Merlin Nieste en Davey Poulissen
- 122 The rise in life expectancy – corresponding rise in subjective life expectancy? Changes over the period 1999–2016 (2019)
Dorly Deeg, Maaïke van der Noordt, Noëlle Sant, Henrike Galenkamp, Fanny Janssen and Martijn Huisman
- 123 Pensioenaanvullingen uit het eigen woningbezit (2019)
Dirk Brounen, Niels Kortleve en Eduard Ponds
- 124 Personal and work–related predictors of early exit from paid work among older workers with health limitations (2019)
Nils Plomp, Sascha de Breij and Dorly Deeg
- 125 Het delen van langlevensrisico (2019)
Anja De Waegenaere, Agnes Joseph, Pascal Janssen en Michel Vellekoop
- 126 Maatwerk in pensioencommunicatie (2019)
S.K. Elling en L.R. Lentz
- 127 Dutch Employers’ Responses to an Aging Workforce: Evidence from Surveys, 2009–2017 (2019)
Jaap Oude Mulders, Kène Henkens and Hendrik P. van Dalen



Network for Studies on Pensions, Aging and Retirement

This is a publication of:
Netspar
Phone +31 13 466 2109
E-mail info@netspar.nl
www.netspar.nl

June 2019