# Introduction

Researchers disagree whether turnover (intentions) and retirement (intentions) are similar or not. While some authors assume that the same characteristics explain these intentions (Hanisch and Hulin 1991; Hanisch 1995), others argue that turnover and retirement comprise qualitatively different labour market transitions (Adams and Beehr 1998; Schmidt and Lee 2008). However, because retirement and turnover research developed apart from each other, there has been very little cross-fertilization between the two of them. Given that older workers are generally less likely to switch employers, while younger workers cannot yet retire, it seems logical to make a distinction between these intentions (Louis 1980; Schreurs et al. 2011a) and use different theoretical notions to explain them. This is also reflected in research, as on the one hand prior literature on (intended) retirement focuses on individual personal characteristics, such as health, income or education (Adams and Beehr 1998; Griffeth, Hom and Gaertner 2000; Hanisch and Hulin 1991; Kim and Feldman 1998; Schmidt and Lee 2008). On the other hand, research on turnover (intentions) mainly studies work characteristics, e.g. autonomy or physical demands, as possible antecedents (Hom et al. 1992; Lee and Mitchell 1994; Mobley, Horner and Hollingsworth 1978; Mobley et al. 1979). By directly comparing turnover and retirement intentions, we are able to approach the question as to whether or not personal and work characteristics are related differently to these two intentions.

We extend prior research by considering the influence of work characteristics on both turnover and retirement intentions. Traditionally, studies of voluntary job turnover focus in particular on work characteristics, such as work quality (Hayward et al. 1989, Hayward, Friedman and Chen 1998). Also, there is much research linking job

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satisfaction, organizational or occupational commitment to turnover (intentions), resignation (intentions) or absenteeism (Falkenburg and Schuyns 2007; Griffeth, Hom and Gaertner 2000; Hom et al. 1992; Mobley 1977; Mobley, Horner and Hollingsworth 1978; Mobley et al. 1979; Podsakoff, LePine and LePine 2007). More recently, some researchers have started to link work characteristics with the intention to retire (Adams and Beehr 1998; Mein et al. 2000; Schmidt and Lee 2008; Siegrist et al. 2006) and the decision to retire (Beehr 1986; Hayward, Friedman and Chen 1998; Wang and Shultz 2009; Siegrist and Wahrendorf 2010). We take personal resources into account that motivate individuals in combination with the job resources provided by organizations (Van den Broeck et al. 2011). Furthermore, we differentiate between personal and job demands. In particular, we investigate to what extent the fit between individual and organizational characteristics affect turnover and retirement intentions.

We address our two research goals by developing a theoretical framework that integrates the Job Demands-Resources model (Bakker and Demerouti 2006) and literature on Person-Environment Fit (Kristof-Brown, Zimmerman and Johnson 2005) into a rational actor model. Even though these theories originally stem from different fields, they have proven helpful in deriving testable hypotheses for work withdrawal (Blekesaune and Solem 2005; Schreurs et al. 2011a; Schreurs et al. 2011b; Sutinen et al. 2005). In the resulting model, job demands and personal demands are regarded as costs and job resources and personal resources contribute to the benefits from work. Thus, the present study aims at offering three contributions to the existing literature. First, it provides an empirical comparison of turnover and retirement intentions. Second, it provides a theoretical framework integrating insights from different theories. Finally, we

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examine a large heterogeneous set of data on older Dutch employees to test our hypotheses. The Study on Transitions in Employment, Ability and Motivation (STREAM) includes information regarding about 15,000 respondents in the Netherlands (Ybema et al. forthcoming). Respondents between the ages of 45 and 64 were the target group in order to model transitions in the labour market for older workers, but also to assess this group's health and work motivation. Whereas some of the prior studies include only one (organizational) sector (Andrews, Manthorpe and Watson 2005; Boumans, de Jong and Vanderlinden 2008; Sutinen et al. 2005), the STREAM data offers data from several sectors.

## Distinguishing between turnover and retirement intentions

On the one hand, switching jobs and retiring refer to a similar employee decision, namely leaving the organization that they currently work for. This decision is addressed in withdrawal theory (Hanisch and Hulin 1991; Smith, Holtom and Mitchell 2011) and work-role theory (Adams et al. 2002; Smith, Holtom and Mitchell 2011). The decision to retire, however, also involves the decision to end one's career. Work-role theory thus states that retiring involves detaching from all work roles, i.e. the job, organization, and career (see e.g. Adams et al. 2002). In comparison, it is not likely that workers making a job-to-job transition will change their career completely; this means that they – compared to people who retire – 'only' have to detach from their job and possibly the organization, but not from all work roles (Louis 1980). What is more, while the likelihood of turnover decreases with age, the likelihood of retirement increases. Following this reasoning, it can be expected that turnover and retirement require different theoretical explanations.

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Most studies either investigate turnover intentions or retirement intentions. Available research shows that personal characteristics, such as health and income, can push individuals towards retirement. Being unhealthy has an arguably stronger effect on retirement than on turnover as it limits workers' ability to stay in the workforce (Adams and Beehr 1998; Griffeth, Hom and Gaertner 2000; Hanisch and Hulin 1991; Kim and Feldman 1998; Schmidt and Lee 2008). If work becomes too much of a burden as health declines, retirement may be regarded as a solution to withdraw from the labour market, but this does not hold true for switching employers. Regarding income, it is often expected that people with higher income may find it appealing to retire, in particular if they can receive relatively attractive pension benefits. For the turnover intention, income may play a less prominent role (Adams and Beehr 1998; Kim and Feldman 1998; Schmidt and Lee 2008). In comparison to retirement, work characteristics seem to be more relevant for the explanation of turnover intentions, as indicated by literature on work quality, satisfaction or commitment (Falkenburg and Schuyns 2007; Griffeth, Hom and Gaertner 2000; Hayward et al. 1989; Hayward, Friedman and Chen 1998; Hom et al. 1992; Lee and Mitchell 1994; Mobley, Horner and Hollingsworth 1978; Mobley et al. 1979; Podsakoff, LePine and LePine 2007).

Few studies directly compare retirement and turnover intentions (Adams and Beehr 1998; Hanisch and Hulin 1991; Schmidt and Lee 2008). Regarding personal characteristics, Schmidt and Lee (2008) find that health is negatively related to both retirement and turnover intentions, indicating that better health implies less withdrawal intention. In contrast, Adams and Beehr (1998) do not report significant relationships between health and either of the withdrawal intentions. Furthermore, with respect to work

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characteristics, the two studies agree that retirement income satisfaction is not related to these two withdrawal intentions (Adams and Beehr 1998; Schmidt and Lee 2008). However, they do find that occupational commitment is negatively related to both intentions, meaning that greater commitment decreases withdrawal intentions. Additionally, these studies assess that valuing one's job is significantly related to workers' turnover and retirement intentions. In summary, research comparing turnover and retirement intentions is scarce and the little available evidence is ambiguous. Most studies presume that personal characteristics have a stronger relationship to retirement intentions, while work characteristics are more relevant for individuals' turnover considerations. Little evidence is found that personal or work characteristics play an equally important role for both withdrawal intentions. In the following, we use insights from theoretical frameworks to discuss both similarities and differences between turnover and retirement intentions.

#### Similarities and differences between turnover and retirement

As elaborated above, it is often assumed that work characteristics add more to the explanation of turnover intentions while personal characteristics add more to the explanation of retirement intentions. Due to the increasing interest in the role of work characteristics for retirement decisions, in the following we will use literature and theories from different fields to derive expectations regarding the relationship between work characteristics and both turnover and retirement intentions. Sometimes this may lead to different expectations for turnover and retirement intentions, while some characteristics may be related to the two withdrawal intentions in a similar way. Similarly

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to Mobley's turnover model (1977), we assume that workers are rational actors who weigh the costs and benefits of their actions. After assessing the resources and demands and the associated higher pay-offs, individuals make their labour market decisions in favour of the alternative with the higher returns (Hom et al. 1992; Lee and Mitchell 1994; Mobley, Horner and Hollingsworth 1978; Mobley et al. 1979).

#### Personal resources

Work-related individual motivators are part of individuals' resources and may affect work withdrawal (Knoop 1994; Van den Broeck et al. 2011). Workers' individual motivators provide information about the aspects of work they find most important. Usually, two types of motivators (or 'values') are distinguished, namely intrinsic motivators and extrinsic motivators (Frey 1997). Workers valuing intrinsic aspects of work are said to be motivated by work itself or the possibilities to learn on the job. Workers valuing extrinsic job aspects are motivated by the incentives that accompany work, such as receiving status or a high income. Having these motivators is not an either-or situation, because it is possible that workers are motivated by intrinsic and extrinsic aspects of the job at the same time (Feather and O'Brien 1986).

Because individual motivators as a personal resource might increase the value of work, withdrawal from work through retirement is less likely among workers who are highly motivated by intrinsic or extrinsic aspects of work. Workers who enjoy their work and derive motivation from it will be less inclined to retire. However, the opposite may be true when it concerns peoples' intention to switch employers. Workers with high intrinsic or extrinsic motivation might also be those whose goal it is to advance their

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knowledge, increase their skills or gather new experiences at a different organization or a different workplace. Workers' motivation might also be interpreted as a good work attitude or curiosity to discover something new. Workers with a high level of personal resources, i.e. those who are highly motivated, might thus be related to a greater intention to switch employers for advancement. Based on this distinction between the intention to retire and switch employers, we arrive at separate hypotheses regarding personal resources.

*Hypothesis 1a: Individual intrinsic and extrinsic motivators will be positively related to the intention to switch employers.* 

*Hypothesis 1b: Individual intrinsic and extrinsic motivators will be negatively related to the intention to retire.* 

#### Job demands and job resources

Along with these personal resources, every job consists of job demands and job resources. The Job Demand-Control model (Karasek 1979) is rooted in studies about stress and ill health and states that job demands refer to "physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs." (Bakker and Demerouti 2006: p. 321). Examples of such aspects are work pressure or a high physical demand. Job resources are the counterpart of job demands. They are "physical, psychological, social, or organizational aspects of the job that are [...] (1) functional in achieving work goals; (2) reduce job demands and the associated [...] costs; (3) [or] stimulate personal growth,

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learning, and development." (Bakker and Demerouti 2006: p. 321). Examples of job resources are career opportunities, autonomy, or job control. Whereas job demands involve higher costs of working, job resources constitute greater benefits.

In this study, we investigate physical demands as part of job demands. Physical demand may be among the reasons for older workers to consider retiring, because retirement enables workers to withdraw from a demanding job (Hayward et al. 1989, Hayward, Friedman and Chen 1998). Prior research shows that high job demands, e.g. physical demand, lack of decision authority, insecurity, conflicts at the workplace or a lack of social support, increase the chance of early retirement (Blekesaune and Solem 2005; Boumans, de Jong and Vanderlinden 2005; Lund and Villadsen 2005; Schreurs et al. 2011b; Sutinen et al. 2005) or work as antecedents of ill health or stressors (Podsakoff, LePine and LePine 2007; Schreurs et al. 2011a; Schreurs et al. 2011). The physical demands of work are often more inherent to the type of occupation than the employer. Thus, when making a job-to-job transition, the physical demand of the job will be less likely to change. Based on the assumption that individuals can withdraw from job demands through retirement rather than by switching employers, we hypothesize that:

#### Hypothesis 2: Physical demands will be positively related to the intention to retire.

Job resources counterbalance job demands and are therefore regarded as a benefit from work. Higher job resources increase the value of work and thereby decrease the chances of early retirement (Boumans, de Jong and Vanderlinden 2005; Schreurs et al. 2011a; Sutinen et al. 2005) or ill health and stressors (Van den Broeck et al. 2011). We regard autonomy, i.e. people's freedom to use their own judgement in the workplace, as a

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possible job resource. People who have more autonomy benefit from being able to independently make decisions in their work, which decreases the costs of work. Moreover, the workplace might offer specific resources, so-called organizational motivators or environmental supplies (Kristof-Brown, Zimmerman and Johnson 2005, Piasentin and Chapman 2006). Again, these supplies or motivators of the organization might be related to intrinsic or extrinsic values. If the organization supplies work-related situations that workers find beneficial, workers will derive greater benefits from their work. These job resources, the autonomy and intrinsic and extrinsic organizational motivators, will decrease workers' withdrawal intentions. We therefore hypothesize:

Hypothesis 3a: Job resources will be negatively related to the intention to switch employers.

Hypothesis 3b: Job resources will be negatively related to the intention to retire.

# Personal demands

Not only might individual (intrinsic and extrinsic) motivators function as a personal resource, they can also be a fit or misfit with the organization the employee is working in. If individual motivators are not aligned with people's jobs, this might contribute to the demands workers experience in their job. This is because they are faced with a non-motivating or undesirable work situation. If, however, organizational motivators are in accordance with one's own expectancies, workers might benefit from this. In the Person-Environment Fit (P-E fit) literature (Kristof-Brown, Zimmerman and Johnson 2005) this fit (or misfit) is referred to as the supply-value fit, while others refer to the same concept as needs-supplies fit (Piasentin and Chapman 2006). It assesses whether environmental

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supplies, such as work characteristics supplied by the organization, fit the individuals' demands, such as their motivators or needs (see also Van den Broeck et al. 2011). If there is a mismatch between individual motivators and organizational motivators, this can be regarded as a personal demand, indicating that employees do not receive what they want. This is also considered in literature about (job) satisfaction; different authors state that satisfaction is defined by the difference between what people want and what they have (Locke 1969; Michalos 1985; Wu 2008). If the gap between wanting and having is greater, the individuals' satisfaction is lower. Employees whose motivations are not fulfilled by their current organization, experience such a gap between 'want' and 'have' or, stated differently, a supply-value misfit. A misfit between individual and organizational motivators is assumed to increase the personal demands and thus the costs of the work. Withdrawing from a job such as this by switching employers or retiring might therefore become a valuable alternative. In line with this, we hypothesize that:

Hypothesis 4a: A misfit between individual and organizational motivators will be positively related to the intention to switch employers.

*Hypothesis* 4*b*: *A* misfit between individual and organizational motivators will be positively related to the intention to retire.

## Data and methods

To test our hypotheses empirically, we make use of the STREAM data (Study on Transitions in Employment, Ability and Motivation) (Ybema et al. forthcoming). This longitudinal survey conducted by TNO will include four waves. Questionnaires are filled out online, using the Internet panel of Intomart GfK. Approximately 25,000 respondents

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were invited to participate in the study, based on their age and work status. The overall response rate in the study was 71 per cent (N=15,118). This resulted in a stratified sample of 12,055 employees, 1,029 self-employed persons, and 2,034 non-working persons, distributed more or less similarly across four age groups, i.e. 45-49, 50-54, 55-59, and 60-64 years of age. We make use of the first wave, which was collected in the fall of 2010.

We restrict our current study to employees only (N=12,055). We exclude selfemployed and inactive respondents from the analyses (N= 3,063), because these two groups may differ from employees with regard to important variables. In comparison to employees, self-employed persons can influence job demands and resources to a greater extent, for example.

# **Operationalization**

The dependent variable *intention to retire* is operationalized by asking the respondent "do you plan to stop working within the following 12 months?". The *intention to switch employers* is operationalized with the question "do you plan to switch employers within the following 12 months?". For both variables, respondents can provide answers on a scale from 1 to 5; 1 means "definitely not", 2 "probably not", 3 "perhaps", 4 "yes, probably", 5 "yes, definitely". We recode the variable to categories zero to four, with a higher value corresponding with higher intentions.

On average, the turnover intention is highest in the youngest age group, those between 45 and 49 years of age, and lowest in the oldest age group (60-64 years). Also for the age group of 50-54 year-old workers and those between 55 and 59 years old there is a significant difference in comparison to the youngest group (see Figure 1). In contrast,

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the retirement intention is lowest in the youngest age group, and highest in the age group closest to retirement. Again, all older age groups have a significantly higher average retirement intention than the youngest age group.

# \*\*\* Figure 1 about here \*\*\*

As we are interested in comparing the intention to switch employers with the intention to retire, we exclude respondents who indicated that they were thinking about switching employers and at the same time were considering retirement within the following twelve months (N=212). This decision is guided by two reasons. First, individuals who intend to retire and intend to switch employers within the following twelve months are indifferent about which transition to make. Second, we are not interested in studying workers who seek 'any possible way' to withdraw from the labour market (i.e. those who are indifferent), but want to compare the intention of turnover with the intention of retirement.

## Independent variables

We report the mean, standard deviation, range and, if appropriate, the Cronbach's Alpha of all independent variables in Table 1. We operationalize job demands as physical demand. *Physical demand* is measured by five items asking respondents whether they "always", "often", "sometimes", "hardly ever" or "(almost) never" (a) have to use a lot of physical power like lifting, pushing, pulling, carrying in their work, (b) use machinery generating rocking or shaking motions, (c) have to work in an uncomfortable position, (d)

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have to work a lot standing up, (e) have to work a lot kneeling or crouching. The five items were included into a mean scale (range 0-4) with higher values indicating a greater/ more frequent physical demand (Cronbach's Alpha = 0.85).

Personal resources, i.e. individuals' motivators, are measured for intrinsic and extrinsic aspects. To operationalize individual intrinsic and extrinsic motivators, respondents indicated on a four-point scale whether they found certain aspects of their work "not very important", "somewhat important", "rather important", or "very important". Individual intrinsic motivators (InIM) are measured by three items asking how important respondents find (a) having interesting work, (b) having possibilities for learning and development, and (c) working independently (Cronbach's Alpha= 0.66). Individual extrinsic motivators (InEM) include five items that ask how important the respondents find (a) being valued, (b) having a good salary, (c) having good job security, (d) a good work atmosphere, and (e) having a good supervisor (Cronbach's Alpha = 0.69). Because items of InIM and InEM belong to the same item battery, we conducted a principal components factor analysis to ascertain that these two dimensions are discernible. The factor analysis supports our theoretical idea. Only the item "being valued" has high factor loadings on both InIM and InEM. Due to theoretical reasoning, we add this item to InEM and generate mean scales of these two dimensions of work values (range 0-3).

Job resources are measured by autonomy as well as organizational motivators. *Autonomy* is operationalized by four items for which respondents could indicate whether they (always/ often/ sometimes/ hardly ever/ (almost) never) have autonomy in their work. The items ask whether respondents can decide themselves (a) how to execute their

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work, (b) the order of their tasks, (c) the work speed, or (d) whether they are allowed to come up with work-related solutions themselves. Again, items were recoded in such a way that a higher value indicates greater autonomy (range 0-4) and were included into a mean scale (Cronbach's Alpha = 0.82). The organizational intrinsic and extrinsic motivators are operationalized by the same items as the InIM and InEM scales, but are asking the respondents specifically whether they achieve specific objectives in their current organization. Organizational intrinsic motivators are measured by asking the workers whether they (a) have interesting work, (b) have possibilities for learning and development, and (c) can work independently, at their current employer. Organizational extrinsic motivators are operationalized by the five items asking the workers whether (a) being valued, (b) having a good salary, (c) having good job security, (d) a good work atmosphere and (e) having a good supervisor are realized at their current employer. For the three organizational intrinsic motivators (OrIM) and the five organizational extrinsic motivators (OrEM) respondents indicated whether the work aspect under consideration is "not at all", "a bit", "rather strong", or "very much" apparent in their current job. We add the three OrIM items (Cronbach's Alpha = 0.68) and the five OrEM items (Cronbach's Alpha = 0.75) to two mean scales (range 0-3).

The *misfit between individual and organizational motivators* is operationalized in the following way: For each intrinsic and extrinsic item, respondents were asked whether they found it important to have, for example, learning and development possibilities (i.e. their individual motivator: InIM, InEM) and to which extent this learning possibility existed at their current employer (i.e. organizational motivator: OrIM, OrEM). These variables indicate either the 'want' or the 'have' and we can, according to satisfaction

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research or supply-value fit (needs-supplies fit) literature, use them to define the havewant discrepancy (Michalos 1985; Wu 2008). For each pair of items, the individual motivator (InIM, InEM) minus the organizational motivator (OrIM, OrEM) indicates whether or not a misfit exists. If respondents report high individual motivators ('want'), but these are not realized in their organization ('have'), they have a positive mismatch; they have no mismatch if individual motivators are realized in the organization or if their organization provides motivators that they did not indicate that they were motivated by. According to Michalos (1985), those people who have more than they expected are less dissatisfied than those who have less than they wanted. Therefore, we decide that negative values – those who realize ('have') more than they are motivated by ('want') – cannot be obtained; these people are regarded as having no mismatch. After calculating the mismatch, we sum the intrinsic (Cronbach's Alpha = 0.61) and extrinsic items (Cronbach's Alpha = 0.74), the intrinsic and extrinsic mismatch in individualorganizational motivators<sup>1</sup>.

# \*\*\* Table 1 about here \*\*\*

In Table 1 we report the descriptive results for the dependent variables, the intention to retire and the intention to switch jobs, and the independent variables. Generally, the following picture arises: on average, individuals report rather high personal resources and

<sup>&</sup>lt;sup>1</sup> The fit between individual values and organizational resources can be operationalized in several ways. In addition to the misfit measure based on difference scores, we also included a different measure to check the consistency of our results. For each participant, a correlation coefficient was constructed that indicated whether values that were relatively more important for the participant were provided to a greater degree by the organization. This correlation coefficient was based on intrinsic and extrinsic motivators that were also used in our personal demands measures. When including this alternative operationalization of the fit between individual values and organizational resources in our analyses, we find comparable results to the ones presented here.

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job resources. For example, the mean reported individual intrinsic motivation is 2.25 on a scale ranging from zero to three. The standard deviation of 0.54 indicates that there is not too much variation between individuals, because 68 per cent of all workers in our sample report an intrinsic motivation of between 1.71 ( $\mu$  - SD= 2.25-0.54) and 2.79 ( $\mu$  + SD= 2.2.5+0.54). Compared to high resources, individuals on average report rather low job demands and personal demands. For example, the average physical demand in a job is 0.78 in our sample, which is low considering that it is measured on a scale from zero to four.

In addition to this descriptive information, we report the correlations between the independent variables in Table 2. Due to the fact that all variables measure work-related characteristics, the correlations are rather large. For example, we find a high positive and significant correlation between individuals' intrinsic motivators and their extrinsic motivators, indicating that workers who are more intrinsically motivated are generally also more extrinsically motivated (r= 0.367). We also see that individual intrinsic and organizational intrinsic motivators are positively related (r= 0.440). Negative correlations are, for example, found between the mismatch between individual and organizational extrinsic motivators and organizational extrinsic motivators (r= -0.794). This means that workers who perceive a greater mismatch are generally less motivated by organizational characteristics.

#### \*\*\* Table 2 about here\*\*\*

Control variables

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Being that it is known from previous research that individuals' personal characteristics affect work withdrawal, we include the variables named hereafter as control variables in our model. In Table 3 we report the mean, standard deviation and range of these variables. To provide some insight into our sample, we also include relevant information from this table in the text below. Gender is a dummy variable indicating male respondents (57% men). The respondents' age is the age at the time of the interview and ranges from 45 to 64. The mean age in the sample is about 54 years. The variable asking for respondents' health is measured on a five point scale, ranging from zero ("bad") to four ("excellent"), with higher values referring to better health. The mean health of 2.3 indicates that respondents rate their health "good" or better, on average. Education is measured by two dummy variables distinguishing "low" and "middle" from "high" (reference) education. Low education (26% of respondents) applies if respondents did not finish school, finished primary school, or obtained a degree from lower vocational training. Middle education (39% of respondents) refers to those who finished secondary schooling such as advanced vocational training. Respondents with higher education (the remaining 35% of respondents) are those who have a degree from advanced technical college or hold a university degree. The respondents' household *income* was assessed by asking them to indicate on a five point scale what the financial situation of their household was like. Higher values indicate that the household income is more sufficient. The mean in the sample is about 2.5, indicating that most people regard their income as being sufficient. The type of employment contract distinguishes workers with a permanent contract (reference category, 92% of respondents) from those with a temporary contract or leased employees (8% of respondents). 31 per cent of respondents

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work in *part-time employment* (less than 30 hours a week), while 69 per cent have a fulltime contract (30 hours or more, reference category). The *tenure* in the current position is measured in years; the mean tenure is 11 years. 28 per cent of the workers supervise other employees; this is measured with the dummy variable *supervisor*. Finally, we include a variable indicating the *employees' industry of employment*. This variable contains 14 categories, 13 of which are included as dummies in the analyses. The category 'being employed in industry' is the reference category.

# \*\*\* Table 3 about here \*\*\*

## Methods

Respondents answer whether they intend to switch employers or intend to retire on a fivepoint scale ranging from "definitely not" to "yes, definitely". The measurement level of these five possible categories is ordinal rather than interval or ratio, because we do not know for sure whether, for example, the step from "definitely not" to "probably not" is as big as the one from "perhaps" to "yes, probably". Therefore, we do not implement linear regression analyses but ordinal logistic regression. Ordinal logistic regression accounts for the fact that the steps between the different categories might not always be the same (Long 1997). The output of an ordinal regression is comparable to that of a logistic regression with the only difference being that it does not report a constant. Rather, in ordinal logistic regression several cut-points are calculated for the values where the different categories of the dependent variable are separated. The coefficients of the ordinal logistic regression can be interpreted in log-odds or odds ratios.

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The results of the ordinal logistic regression are given in Table 4. We first estimate a model including only the control variables (Model 0, upper part of Table 4), both for the intention to switch employers (first three columns) and the intention to retire (latter three columns). For this first model, we report the four cut-points for the ordinal dependent variable, and the adjusted R-squared in the last row.

## Results

#### Personal characteristics (control variables)

We briefly discuss the coefficients of the individual (control) variables to provide an idea whether personal characteristics are related differently to the turnover and retirement intentions (see Table 4, Model 0). The reported associations between the personal (control) variables and the intention to switch employers and the intention to retire show that some personal characteristics are related in the same way to both withdrawal intentions. We find that men are more likely to intend to switch employers (b=0.104, p<0.05) and also are more likely to intend to retire than women (b= 0.259, p<0.001). Furthermore, the better people's health is, the lower the likelihood that they intend to switch employers (b= -0.131, p<0.001) and also the less likely they are to intend to retire (b= -0.388, p<0.001). This might hint at the idea that unhealthy workers seek to withdraw from the labour market, independent of whether this is through turnover or retirement. We also find that temporary employment is positively associated with both withdrawal intentions. This means that people in temporary employment are significantly more likely to intend to retire (b= 0.190, p<0.05). For other variables, we find different outcomes: being older (b=

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-0.106, p<0.001), having more income (b= -0.145, p<0.001), or having a longer tenure (b= -0.026, p<0.001) decreases the likelihood to intend to switch employers. At the same time, older workers (b= 0.174, p<0.001), those with a higher income (b= 0.105, p<0.001), and those with a longer tenure (b= 0.011, p<0.001) are significantly more likely to intend to retire. With regard to education level, we assess that workers with medium and low education are less likely to intend to switch employers than workers with high education. Regarding the adjusted R-squared, we see that personal characteristics serve as slightly better predictors for the intention to retire (adj.  $R^2 = 0.11$ ) than they do for the intention to switch employers (adj.  $R^2 = 0.08$ ). With some reservation we can say that this provides slight support for prior studies stating that the intention to retire is explained more by personal characteristics. Our results, however, also show many significant associations between the intention to switch employers and personal characteristics.

# \*\*\* Table 4 about here \*\*\*

#### Interpretation of independent variables

In addition to the control variables that were included in Model 0, we include the independent variables in the following models (see the lower part of Table 4). Given the fact that the coefficients of the control variables (Model 0) do not change tremendously, we do not report them again. We add the independent variables in separate models. This means that in Model 1 the measures for personal resources are added: individual intrinsic and extrinsic motivators; in Model 2, we include physical demand, which is our measure of job demands; in Model 3 autonomy, organizational intrinsic and extrinsic motivators

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(measures for job resources) are estimated, and in Model 4 our measures for personal demands, i.e. the mismatch between individual and organizational motivators (intrinsic and extrinsic), are included. Due to the high correlation between some independent variables (see Table 2), we always include independent variables (e.g. physical demand in Table 4, Model 2) but exclude this/these variable(s) before estimating the following model. For each of these models, we also report the adjusted R-squared to provide some measure for the model fit.

# Personal resources

We expected that workers' (intrinsic and extrinsic) personal resources are positively related to their intention to switch employers (Hypothesis 1a). Our results show that workers with a higher individual intrinsic motivation (InIM) are more likely to intend to switch employers (b= 0.263, p<0.001). Regarding the extrinsic motivation (InEM), we do not find support for our assumption. Workers who were motivated by the pay and status of the job (InEM), for example, appeared to be less likely to switch employers (b= 0.369, p<0.001). As already indicated in prior research, extrinsic motivators might add less to employees' functioning than intrinsic motivators (Knoop 1994). As suggested in Self-Determination Theory (Van den Broeck 2011; Vansteenkiste et al. 2007) the reason for this might be that needs such as competence and relatedness are more likely to be fulfilled with intrinsic motivators. We can therefore not support our hypothesis. Regarding the intention to retire, we expected a negative association with the personal resources InIM and InEM (Hypothesis 1b). Our results show negative significant associations between individual intrinsic (b= -0.112, p<0.05) or extrinsic motivators (b= -0.112, p<0.05) or extrinsic motivators (b= -0.112, p<-0.05) or extrinsic motivators (

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0.367, p<0.001) and the intention to retire. This supports hypothesis H1b: workers who have higher individual motivators that they can use as resources seem less likely to intend to retire.

# Job demands and job resources

In Model 2 (Table 4) we do not find a significant association between physical demand and the intention to switch employers (b= 0.040, p>0.05). As explained above, we assume that switching employers does not change the physical demand. However, we discussed that retiring might be a solution to withdraw from a physically demanding job. This idea is supported by our analyses showing that workers with a higher physical demand are significantly more likely to intend to retire (b= 0.163, p<0.001). We can therefore support the hypothesis that physical demand is positively related to the intention to retire (Hypothesis 2). This finding is in line with prior research showing that people retire earlier from jobs with a high physical demand (Hayward et al. 1989, Hayward, Friedman and Chen 1998).

In Model 3, we include the measures for job resources. We do not find a significant relation between autonomy and both the turnover (b= 0.053, p>0.05) and retirement (b= 0.034, p>0.05) intention. Regarding the other job resources, the organizational intrinsic or extrinsic motivators, we find the expected relationship (Model 3): both intrinsic (b= -0.272, p<0.001) and extrinsic (b= -1.146, p<0.001) organizational motivators are negatively related to the intention to switch employers. We also see negative associations for intrinsic (b= -0.339, p<0.001) and extrinsic (b= -0.348, p<0.001) organizational motivators with regard to the intention to retire. Generally, this

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indicates that workers who have higher organizational intrinsic or extrinsic motivators are less likely to intend to switch employers and are also less likely to intend to retire. This confirms our Hypotheses 3a and 3b, because it indicates that workers with more resources in their work are less likely to withdraw from their job. Prior research investigating job resources mostly used measures such as pleasure in one's work, social support and job control (Boumans, de Jong and Vanderlinden 2005; Schreurs et al. 2011a; Sutinen et al. 2005).

# Personal demands

Finally, we include the variables assessing the misfit between individual (intrinsic or extrinsic) motivators and organizational (intrinsic or extrinsic) motivators as measures for personal demands (Model 4). Results indicate that having both an individual-organization mismatch with respect to the intrinsic values (b= 0.639, p<0.001) and with respect to the extrinsic values (b= 0.639, p<0.001) and with respect to the extrinsic values (b= 0.639, p<0.001) and with respect to the extrinsic values (b= 0.692, p<0.001) is positively related to the intention to switch employers. This means that workers whose motivators do not exist in their current organization are more likely to intend to switch employers. These findings are in line with the expectations formulated based on the supply-value (mis)fit literature or the P-E fit literature and confirm Hypothesis 4a. Also for the intention to retire, our results show that having a mismatch between the individual and the organization with respect to intrinsic (b= 0.225, p<0.001) or extrinsic values (b= 0.160, p<0.01) is significantly and positively related to the intention to retire. Thus, we can also support Hypothesis 4b. Employees might regard a greater misfit between what they want and what they have as a personal demand that increases their likelihood to withdraw from work through turnover

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or retirement.

# **Conclusion and discussion**

With an ageing workforce, the question as to how to keep older workers motivated and committed is highly relevant. From the point of view of organizational and public policies, this requires more insight into the antecedents of turnover and retirement for this specific age group of employees (Dalessio, Silverman and Schuck 1986). The aim of the present study was to provide answers by comparing turnover and retirement intentions and by hypothesizing about possible associations with work-related characteristics. Furthermore, we constructed a rational actors framework based on the Job Demands-Resources model and the Person-Environment fit literature. This allowed us to derive hypotheses about the relationships of job demands, job resources, personal resources and personal demands with the turnover and retirement intentions.

*Implications for study and practice.* The results regarding the association of these work-related characteristics with turnover and retirement intentions provide interesting information for policy and human resource management, as they show that some characteristics affect the two withdrawal intentions, turnover and retirement, differently. Employers or policy workers might want to differentiate pathways to integrate older workers into the labour market or increase or prolong their participation. This is true in particular for the factors that play out differently with regard to the two intentions that workers can have, namely intrinsic motivation and physical demand. Influencing the intrinsic motivation of workers may be difficult for employers. Nevertheless, as the results show, knowing whether people within the organization are intrinsically motivated

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may be a good start. To prevent workers who are intrinsically motivated from moving to other organizations, the development of human resource practices that create stronger commitments to the organization are advised. Such practices consist of providing autonomy and ways to utilize the skills of workers, for example (Koster 2011). A strategy aimed at retaining intrinsically motivated workers, however, will do little to lower the intention to retire, given that these workers are less likely to retire. To achieve the latter objective, human resource management will have to focus primarily on keeping the current job intrinsically motivating. Coaching and mentoring may be a means of establishing that. The fact that the intention to retire is related to the physical demand of the job, whereas this does not affect turnover intentions, demonstrates that extending the careers of older workers requires adaptations of their jobs in terms of how exhausting they are. Both employers and governments may play a role in this respect by developing career paths that enable workers to move to less physically demanding work if this is necessary, which are backed up by institutions that ensure the rights of workers to do so.

*Implications for careers theory and research.* By investigating whether workrelated characteristics can significantly add to the explanation of retirement intentions, we contribute to prior literature. We differentiate between job demands and job resources, and additionally include personal resources and personal demands to the field of Job Demands-Resource theory (Van den Broeck et al. 2011). Our analyses reveal that organizational motivators in particular relate to a lower likelihood of withdrawal intentions; or, stated differently, they might increase older workers' labour market participation. Moreover, if there is no mismatch between individual and organizational motivators and individuals can achieve the things that they find important at their

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organization, they are less likely to withdraw from work. These findings point at ways for organizational policies to increase older workers' attachment to the labour market and possibly also prolong their working life. More research might elaborate on the role that personal and job characteristics play in the withdrawal intentions of older workers. Developing organizational measures that improve older workers' work quality and their level of satisfaction might be possible goals for further research.

In addition to comparing the two work withdrawal intentions and the role of work characteristics, we contribute to the present literature by making use of representative data for employees between 45 and 64 years of age in the Netherlands. Research on the work characteristics of older workers is still scarce. However, policy or organizational measures could be implemented in order to increase their labour market participation and delay their retirement. With the ageing of the population and the expected solidarity problem of the welfare state, policy measures to activate older workers are especially relevant.

# Study limitations

Along with these contributions, some of the study's limitations have to be discussed as well. Studying the intention to switch employers and the intention to retire generally does not provide insight into whether people will actually make these transitions. This means that noting that people who experience higher physical demands are, for example, more likely to intend to retire does not mean that these people will actually retire earlier than others. However, Mobely (1977) assumes in his turnover model that intentions are the direct precursors for behaviour. Hanisch (1995) states that in 80 per cent of the cases an

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intention is actually translated into real behaviour. Falkenburg and Schyns (2007) go even further by arguing that actual transitions on the labour market might be biased by macroeconomic characteristics, such as the unemployment rate. Thus, assessing the relationship between work characteristics and the intended transition (instead of the transition itself), they reason, might provide a more accurate notion of the antecedents of turnover or retirement than the relationship with real behaviour would. The problem of whether intentions actually translate into behaviour could be solved by using longitudinal data. As the STREAM data does not yet include multiple waves, longitudinal analyses will only be possible in the future.

Furthermore, the cross-sectional character of this study does not allow the association between two variables to be interpreted as a causal relationship. This also implies that we cannot assess whether changes in demands or resources would also translate into changes in withdrawal intentions. It does appear from our research, however, that job and personal demands and resources significantly relate to the intention to switch employers and the intention to retire. Studies using several waves of this study will be able to assess whether this association persists over time.

We operationalize the intention to retire with the question "do you plan to stop working within the following 12 months?". This question does not directly ask respondents about their intention to retire, but rather their intention to stop working. For two reasons we are confident that we actually assess the intention to retire. First, we clearly see that 'planning to stop working' scores highest in the oldest age category (Figure 1). If respondents would interpret that question as a general 'withdrawal' from the labour market, the outcome should be more equal for all age groups. Second, using the

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term 'stopping to work' might be a more appropriate way of phrasing this question. This is because workers have different ways to retire. They might choose to take early retirement benefits, retire with disability benefits, or retire at the official age for retirement. These different ways to retire clearly represent older workers' wish to 'stop working' through a form of 'retirement'.

A last limitation of our study is that, compared to prior research, we cannot include measures of work attitudes, such as organizational commitment or job satisfaction in our analyses. It has often been found that these characteristics are related to more absenteeism or more retirement (intentions) (Falkenburg and Schuyns 2007; Griffeth, Hom and Gaertner 2000; Hom et al. 1992; Mobley 1977; Mobley, Horner and Hollingsworth 1978; Mobley et al. 1979; Podsakoff, LePine and LePine 2007). Because the available data does not provide information that is comparable to information used in prior research, we cannot compare our results to those of other researchers in this respect.

Future research might want to build upon the differentiation between retirement and turnover intentions and investigate similarities and differences more extensively. This will provide insight into older workers' labour market participation, their transitions, and possible incentives to keep them employed longer. Also the study of work-related characteristics of retirement might provide possibilities for researchers and policy makers to develop strategies for increasing older workers' job satisfaction and thus prolonging their working life.

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Figure 1: Turnover and retirement intentions of older workers (N total=10,849).

# Tables

	Mean	SD	Range	Cronbach's Alpha
Intentions				
Retirement intention	0 37	0.85	0 - 4	
Turnover intention	0.61	0.91	0 - 4	
Personal resources				
Individual intrinsic motivators	2.25	0.54	0 - 3	0.68
Individual extrinsic motivators	2.42	0.47	0 - 3	0.75
Job demand				
Physical demand	0.78	0.88	0 - 4	0.85
Job resources				
Autonomy	2.90	0.76	0 - 4	0.82
Organizational intrinsic motivators	1.85	0.60	0 - 3	0.66
Organizational extrinsic motivators	1.78	0.59	0 - 3	0.69
Personal demands				
Mismatch individual - organizational motivators (intrinsic)	0.50	0.51	0 - 3	0.62
Mismatch individual -organizational motivators (extrinsic)	0.79	0.59	0 - 3	0.74

Table 1: Descriptive results for (in-)dependent variables (N= 10,849).

	1	2	3	4	5	6	7
1 – Individual intrinsic motivators	1						
2 – Individual extrinsic motivators	0.367*	1					
3 – Physical demand	<b>-</b> 0.117 <sup>*</sup>	$0.119^{*}$	1				
4 – Autonomy	$0.210^{*}$	-0.008	-0.201*	1			
5 – Organizational intrinsic motivators	0.440*	0.112*	-0.162*	0.332*	1		
6 – Organizational extrinsic motivators	0.201*	0.128*	-0.147*	0.210*	0.606*	1	
7 – Mismatch individual - organizational motivators (intrinsic)	0.373*	0.205*	0.099*	-0.164*	-0.616*	-0.439*	1
8 – Mismatch individual - organizational motivators (extrinsic)	0.064	0.407*	0.199*	0.204*	-0.461*	<b>-</b> 0.794 <sup>*</sup>	0.536*
Note: * p<0.05							

Table 2: Correlations of independent variables (N=10,849).

<b>r</b>	Mean	SD	Range	
Personal characteristics				
Male	0.57		0 / 1	
Age	54.09	5.44	45 - 64	
Good health	2.30	0.86	0 - 4	
Education (ref.=high)				
low	0.26		0 / 1	
middle	0.39		0 / 1	
Sufficient income	2.46	0.99	0 - 4	
Temporary employment	0.08		0 / 1	
Part-time employment	0.31		0 / 1	
Tenure position	11.23	10.00	0 - 49	
Supervisor	0.28		0 / 1	
Industry of employment				
(ref.=Industry)				
Agriculture	0.01		0 / 1	
Energy, Water	0.01		0 / 1	
Construction	0.03		0 / 1	
Transport and Communication	0.06		0 / 1	
Commerce	0.07		0 / 1	
Gastronomy	0.01		0 / 1	
Financial services	0.04		0 / 1	
Commercial services	0.07		0 / 1	
Education	0.13		0 / 1	
Health and social work	0.19		0 / 1	
Public administration,	0.12		0 / 1	
government agency	0.15		0/1	
Else, service sector	0.03		0 / 1	
Else	0.12		0 / 1	

*Table 3*<sup>•</sup> Descriptive results for control variables (N=10.849)

$(0^{-4})(1^{-1})(1^{-1})(1^{-1})$						
	Intention to switch employer			Intention to retire		
	Coef.	SE	adj. R <sup>2</sup>	Coef.	SE	adj. R <sup>2</sup>
Control variables (Model 0) <sup>1</sup>						
Men (ref.=women)	$0.104^{*}$	(0.051)		$0.259^{***}$	(0.063)	
Age	-0.106***	(0.004)		$0.174^{***}$	(0.006)	
Health	-0.131***	(0.024)		-0.388***	(0.030)	
Education (ref.=high)						
low	-0.874***	(0.059)		-0.059	(0.071)	
middle	-0.510***	(0.048)		0.019	(0.062)	
Sufficient income	-0.145***	(0.021)		$0.105^{***}$	(0.027)	
Temporary employment	$0.857^{***}$	(0.072)		$0.190^{*}$	(0.090)	
Part-time employment	-0.055	(0.055)		$0.445^{***}$	(0.065)	
Tenure position	-0.026***	(0.002)		0.011***	(0.002)	
Supervisor	0.007	(0.047)		0.008	(0.059)	
		· /			<b>`</b>	
Cut-point 1	<b>-</b> 6.483 <sup>***</sup>	(0.232)		10.598***	(0.323)	
Cut-point 2	-4.935***	(0.228)		12.102***	(0.329)	
Cut-point 3	-3.635***	(0.229)		12.604***	(0.332)	
Cut-point 4	-2.567***	(0.236)	0.078	13.172***	(0.335)	0.108
		· /			<b>`</b>	
Independent variables (separate						
models) <sup>2</sup>						
Personal resources (Model 1)						
Individual intrinsic motivators	0.263***	(0.044)		-0.112*	(0.051)	
Individual extrinsic motivators	-0.369***	(0.048)	0.081	-0.367***	(0.057)	0.112
Job demand (Model 2)						
Physical demand	0.040	(0.026)	0.078	0.163***	(0.031)	0.109
5						
Job resources (Model 3)						
Autonomy	0.053	(0.030)		0.034	(0.034)	
Organizational intrinsic motivators	-0.272***	(0.047)		-0.339***	(0.056)	
Organizational extrinsic motivators	-1.146***	(0.047)	0.129	-0.348***	(0.054)	0.119
		(			()	
Personal demands (Model 4)						
Mismatch individual –	0.639***	(0.046)		$0.225^{***}$	(0.056)	
organizational motivators (intrinsic)						
Mismatch individual –	$0.692^{***}$	(0.042)	0.118	0.160**	(0.049)	0.111
organizational motivators (extrinsic)					```	

Table 4: Results for ordinal logistic regression on the intention to switch employer (0-4) and the intention to retire (0-4) (N= 10 849)

Note: \* p < 0.05, \*\* p < 0.01, \*\*\* p < 0.001

<sup>1</sup> We included industry of employment (14 separate categories) to the regression analyses. Coefficients not reported. <sup>2</sup> We include the independent variables in separate models; these are Model 1 to Model 4.