



Network for Studies on Pensions, Aging and Retirement

# Shades of labor:

Motives of older adults to  
participate in productive activities

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# CONTENTS

<i>Abstract</i>	4
<i>Samenvatting</i>	5
1. <i>Introduction</i>	6
2. <i>Literature review</i>	9
3. <i>Method and Data</i>	17
4. <i>Results</i>	23
5. <i>Discussion and conclusion</i>	31
<i>Appendices</i>	35
<i>References</i>	37

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## Abstract

### **Shades of labor: Motives of older adults to participate in productive activities**

Shifts in population age structure and life expectancy across the globe impact the pension and labor market. In the near future, many more individuals will be retired compared to those who work than is currently the case. This development places traditional retirement age expectations under pressure. This is also the case in the Netherlands, where various measures have been taken by the Dutch government to alleviate pressures on the state pension budget, such as increasing the statutory pension age. Most policy measures focus on a regulatory and financial incentive approach to increase labor market participation. In response, doubts have been raised with respect to the willingness of individuals to participate in the workforce until an older age. However, only relatively little is known about what motivates older adults to stay active in the labor force (e.g., financial vs. social), and whether they perhaps prefer other ways of being productive members of society than by participating in traditional paid labor market activities. Developing such insights can help design communication and HR packages that can sustain the participation of older adults in the job market. Therefore, in this paper, we build on theories of productive ageing and motivation to explore the motives of older adults for engaging in various forms of paid and unpaid activities that produce value to others. We conducted qualitative in-depth interviews and collected quantitative online survey data with a representative sample of 970 older adults in the Netherlands aged 55 to 85. Our analyses reveal four main motives for Dutch older adults to participate in productive activities: financial, social, generativity, and personal (self-esteem). We find a clear variation in the importance of financial versus other motives between individuals that also varies with age. Specifically, we find that adults in the age category 75–85 place less value on financial and personal value than adults in the age category 55–64. Overall, older adults participate in a variety of productive activities that create value to others, and only a subset of these activities take place in traditional labor markets. As expected, we also find that, depending on their motives, older adults participate in different productive activities. Our findings of the different motives and how these vary between individuals offer a valuable starting point for policymakers and managers to promote greater participation in the labor market by older adults. That can be done by tailoring communication, organizational and business goals, and job designs to the needs of older adults.

## Samenvatting

### **Arbeidstinten: motieven van ouderen om deel te nemen aan productieve activiteiten**

De wereldwijde verschuivingen in leeftijdsopbouw en levensverwachting hebben belangrijke gevolgen voor de pensioen- en arbeidsmarkt. Het aandeel gepensioneerden ten opzichte van werkenden stijgt. Deze ontwikkeling zorgt voor druk op de leeftijd waarop mensen met pensioen kunnen gaan. Om deze toekomstige uitdaging het hoofd te kunnen bieden worden ook in Nederland verschillende maatregelen genomen, zoals het verhogen van de wettelijke pensioenleeftijd. De meeste beleidsmaatregelen richten zich op regelgeving en financiële prikkels om de arbeidsparticipatie van ouderen te bevorderen. Er is echter maar weinig bekend over wat ouderen motiveert om langer actief te blijven op de arbeidsmarkt of bij andere productieve activiteiten. We onderzoeken de motieven van ouderen om deel te nemen aan verschillende vormen van productieve activiteiten (d.w.z. zowel betaalde als onbetaalde activiteiten die waarde genereren voor anderen). Hiertoe zijn enquêtegegevens verzameld bij 970 oudere volwassenen in Nederland in de leeftijd van 55 tot 85. De resultaten laten zien dat oudere volwassenen in Nederland aan een grote diversiteit van productieve activiteiten deelnemen. Onze analyse toont dat er vier belangrijke motieven zijn voor ouderen om productief te zijn: financieel, sociaal, altruïstisch ('generativity') en persoonlijk zelf-beeld. We zien dat deze motieven veranderen met leeftijd en dat, afhankelijk van hun motieven, ouderen kiezen voor deelname aan weer andere activiteiten. Deze persoonsgerichte benadering levert inzicht in de motieven van ouderen om deel te nemen aan productieve activiteiten en biedt daarmee waardevolle informatie voor beleidsmakers en organisaties die de deelname van ouderen aan deze activiteiten willen vergroten.

## 1. Introduction

Worldwide, people are living longer, and the world's population of people aged 60 years and older is predicted to reach 2 billion by 2050, up from 900 million in 2015 ("Ageing and health," 2018). This is also the case for the Netherlands, where the number of people over 65 is growing steadily. In 2017, the Dutch population aged 65 years and older amounted to 3.2 million (18% of the total population), which represents an increase of more than 1 million in twenty years. This increase is predominantly related to individuals born between 1946 and 1964, the baby boom generation, of whom the majority are now older than 65 years. In the Netherlands this group of people over 65 is relatively healthy and also lives longer than earlier generations ("Trends in the Netherlands," 2017). These trends in age structure and expected life expectancy have direct consequences for the pension and labor market. For example, it is forecasted that, in the Netherlands, by 2040 two individuals will be doing paid work for each person retired (Torka et al., 2012).

Currently, these challenges are addressed in the Netherlands through an increase in the statutory pension age (SPA). The Dutch government has been involved since more than twenty years in stimulating older employees to stay longer at work (Dingemans, 2016; van Vuuren, 2011). In order to deal with this problem, studies in the field of economics have focused on identifying the determinants of early retirement and labor market participation of the elderly (Dingemans, 2016; Lammers, 2017; Montizaan, 2017; van Vuuren, 2011). These studies are extremely relevant as a demographic shift is taking place, not only in the Netherlands but worldwide.

Parallel to these trends there is an ongoing social debate that getting older is often seen as corresponding to a withdrawal from being productive (e.g., Dosman et al., 2006). It should be noted, however, that the majority of studies conducted by economic scholars focus on the participation of older adults<sup>1</sup> in paid work and do not examine the participation in activities that are not paid, such in spite of the fact that there are also many ways in which older adults can choose to be productive without being paid (Roberts, 2016).

<sup>1</sup> The terms 'older adults', 'the elderly', and 'older people' are used interchangeably in this paper and refer to adults between 55 and 85 years of age.

Non-traditional productive activities of the elderly can include commercial activities<sup>2</sup>, such as starting a new business and being self-employed (e.g. Damman & Van Solinge, 2018; Kautonen, Kibler & Minniti, 2017) as well as non-commercial activities, such as volunteer work or taking care of one's grandchildren (e.g., Okun & Schultz, 2003). Moreover, older adults might combine participation in the labor market with these other commercial and non-commercial productive activities (Damman & Van Solinge, 2017). These active elderly clearly are a sharp contrast to the image of an 'unproductive', inactive older adult, who fills his or her free time with leisure activities (e.g., travelling or reading a book) and coping with health issues (e.g., Kanfer, Frese & Johnson, 2013).

In this paper, we adopt this broader view of both paid and unpaid productive activities that older adults can undertake. This perspective also links up with theories of positive ageing, that focus on the positive contributions to society made by older adults as a vital part of successful ageing (Herzog et al. 1998; Morrow-Howell et al. 2001).

But how can policymakers and organizations interested in retaining older adults best stimulate the elderly to participate in productive activities? To answer this question we need to understand why older adults would want to participate in productive activities. This question drives the main objective of our paper: to investigate the motives of older adults for engaging in various types of productive activities.

By means of a survey we investigate the motives of 970 older adults for participating in various paid and unpaid productive activities. All participants live in the Netherlands and are between 55 and 85 years. To our knowledge no such study has been conducted in the Netherlands so far.

From a policy and managerial standpoint, exploring the motives of individuals for participating in productive activities can provide useful information. By understanding the motives of older adults, more targeted communication that is attuned to these motives can be formulated in order to recruit older workers for regular job positions. For example, the Dutch Council for Public Health and Society (*Raad voor Volksgezondheid en Samenleving, RVS*) recently published a report that emphasized the importance finding appropriate ways to invite older adults to actively participate in society (RVS, 2020). With the increase of self-employment among the older

2 We use the terms 'commercial activity' when referring to salaried activities (i.e. by individuals on a payroll), thus more economically-oriented activities, and we refer to 'non-commercial activities' when referring to activities that are not linked to payroll but more socially oriented. Also, the terms 'commercial activity' and 'non-commercial activity' are used interchangeably with the terms 'paid work' and 'unpaid work', respectively.

population in the Netherlands as a way of extending working lives, an understanding of the underlying motives for such self-employment can be valuable for organizations that wish to promote labor participation among the elderly. For example, the Leyden Academy on Vitality and Ageing just launched its Start-up Plus course (<https://www.startupplus.eu/>), which targets older adults who wish to start their own business. Communication materials targeted towards interesting entrepreneurial older adults to take part in this course can benefit from greater insights in the motives of older adults to start a business.

Additionally, by focusing on the underlying motives of individuals, HR practices that do not discriminate on the basis of age can allow firms to design jobs and tasks that are suitable for older workers by focusing on a match between the person and the organization. A good match between the motives and job roles of older workers is more likely to lead to good job performance (Zacher, Kooij & Beier, 2018). This in turn is more likely to lead older adults to be willing and able to work past the state-imposed retirement age. An organization that takes a more holistic approach in understanding the productive activities of its elderly employees and their motivations can align and manage work-related goals and structural tasks.

Finally, pension funds and insurers can be interested in extending their service orientation beyond pension savings alone by developing a more comprehensive approach to productive ageing. For example, organizations such as Aegon and APG have recently emphasized the need for a broader and more customer-centered approach to retirement (see <https://www.aegon.com/research/reports/annual/aegon-retirement-readiness-survey-2019/> and <https://www.nyenrode.nl/nieuws/nl/empathie-als-nieuwe-klantgerichtheid>). This approach can benefit from a better understanding of why their older clients would wish to participate in productive activities, as this wish motivation might be directly related to their working lives and thus to accruing sufficient pension funds for their actual retirement years.

## 2. Literature review

### *The concept of productive ageing*

The general attitude towards getting older, thus ageing, has not been perceived as very positive in developed countries, as older adults are often perceived as strong consumers of care and pension benefits (e.g., Wiles & Jayasinha, 2013). In this context, demographers talk about 'dependency ratios', which "requires high government expenditures and the intolerable burden dependency placed on younger working people" (Dosman et al., 2006). This attitude has its roots in a rather traditional economic view, by adopting an extremely narrow definition of 'productive activity', namely "an activity which adds to the stock and flow of valued goods and services" (Herzog et al., 1989, p.129), inferring that only paid employment constitutes a productive activity. Based on this definition, the productive level of a country can be measured by simply looking at its gross domestic product (GDP). However, this seriously underestimates the real productivity of a country, as it disregards other activities that are unpaid such as volunteering and informal care giving (Dosman et al., 2006).

In social gerontology, the term 'productive ageing' has been used ever since its introduction in the 1980s by Robert N. Butler and has been adopted by many researchers in their explorations and predictions of the behavior of older adults. Several definitions of 'productive ageing' subsequently emerged. As illustrated above, some definitions take a narrow focus on production, whereas others are more broadly formulated such as that by Herzog et al., (1989). This states that productivity is "an activity that produces valued goods or services, whether paid or not" (p.130). This definition clearly infers that productivity consists of various forms of employment, including civic engagement of individuals to serve and provide value to others in society. In this paper we adopt the broader definition by Herzog et al. (1989) in exploring the underlying motives of older adults to produce value to others.

### *Productive ageing: three broad research streams*

This section provides an overview of the various streams of research of productive ageing. They can broadly be categorized into three themes. The first stream focuses on the definition of productive ageing. Here, as mentioned above, two general views exist. The first view takes an economic standpoint and only includes forms of labor market participation (paid activities) in the definition of productivity. The second view encompasses both paid and unpaid activities. As part of the theorization of productivity, researchers also address the type of activities and identify the following: (1) paid work: activities that are performed for a wage or salary and (2) unpaid work:

domestic activities done for oneself (e.g., gardening, administrative management) and others (e.g., informal care giving or volunteer work). Some studies also distinguish between unpaid work done at home and help provided to others (e.g., Herzog et al., 1989; Fast, Dosman & Moran, 2006). It is important to note that the focus in our paper lies on activities that produce benefits and value to others and that are not undertaken solely for personal pleasure, such as leisure activities (e.g., reading, going on vacation).

The second stream of research focuses on individual differences in productivity, where the broad definition of productivity is mainly applied acknowledged. For instance, Principi et al. (2016) explore the impact of the health status of older adults on volunteering. They focus on various moderating effects of health status and being widowed on volunteering and on the level of income and volunteering. The results show a positive association of an older person's being widowed and having poor health on volunteering. Also, a positive association is observed between high income and older people with mild health problems on volunteering. Van der Meer (2006) furthermore, in a study on among older people in the Netherlands, looks at age, gender, and rural–urban context differences on productive activity participation (paid work, voluntary work, giving support, home maintenance, and housekeeping). Overall, this author observes many gender-related differences. For instance, participation rates for paid work are higher among the younger age group (50–59 years of age). Also, women in their fifties report the highest percentage of caregiving activity. Furthermore, women are more involved in home maintenance and housekeeping than men in all age categories. Regarding the rural–urban context, older men living in an urban region participate less in paid work than older men in rural regions.

Finally, the third research stream refers to literature that explores the valuation of different activities. For instance, what is the value of an hour of volunteering? De Vaus et al. (2003) use different hourly wages associated with different unpaid activities. For instance, for formal volunteering an hourly wage rate is determined based on workers who provide office and administrative support, while the average wage paid to community and social workers is used for estimating the value of informal care giving. In the Netherlands, Werner Brouwer and co-authors stress the need to include unpaid labor in health economy evaluations in general more often (e.g., Krol, Brouwer & Rutten, 2013).

In this paper, by taking a positive view on ageing, we build on the first two research streams. The conceptualization of what constitutes productive ageing essentially determines how we view the participation of older adults in the labor force and in society and consequently the productive activities that we focus on. Moreover,

related to the second stream of research, we are interested in how the motives of older adults drive their participation in these different productive activities that provide value to others in society. In the following section we will focus on the conceptualization of motives, and we build on the literature that particularly addresses the work-related motives of older adults.

### *Work-related motives*

One prominent way of categorizing motives has been to distinguish between intrinsically and extrinsically driven motives (Ryan & Deci, 2000). Also, studies in the field of human development specifically focus on factors of meaning of work for older adults. These studies build on motivation theories and thus are relevant for our study (e.g., Mor-Barak, 1995).

Kanfer, Beier & Ackerman (2013) state that "to-work goals refer to purposive goals and motivation to enter into a formal or informal public work arrangement in which the individual allocates personal resources (e.g., time, attendance, mental and/or physical effort) in exchange for a portfolio of expected intrinsic (e.g., sense of competence) and/or extrinsic (pay, healthcare benefits) outcomes" (p.256). Underlying all goals, which are defined as one's desired state (e.g., being employed), are motivations. These are the psychological drivers of behavior to reach one's goal. At the most general level these motivations are often categorized as either intrinsic or extrinsic. Intrinsic motivation is self-driven since it involves inherent enjoyment and/or interest. Extrinsic motivation on the contrary is driven by an outcome such as, for instance, a reward or a compensation that is provided (Fishbach & Toure-Tillery, 2014).

In the context of prolonged employment (also termed post-retirement or bridge employment, and defined as engagement of older adults in "some form of transitional employment between career employment and complete withdrawal from the labor force" (Van Solinge 2014, p.261)), various studies take this more general approach in distinguishing between extrinsic and intrinsic motives driving the behavior of retirees (e.g., Damman & Van Solinge, 2018; Kautonen, Kibler & Minnit, 2017; Kooij et al., 2010; Van Solinge, 2014). In this context, Atchley's (1989) continuity theory is a well-acknowledged theory; it suggests that people look for consistency throughout their life, which can be achieved by engaging in bridge employment activities. For instance, Feldman (1994) states that this transition implies ending one's enduring career, retiring, and in turn starting to work again (full-time or part-time), either self-employed or in temporary work employment. This allows individuals who are retired from their career job to carry out a work-related role again without experiencing a feeling of "rolelessness" (Wang, Henkens & Van Solinge, 2011). Here, it is not

essential to participate in the same type of work (activity), but rather to be able to preserve the life pattern one values.

Recognition that the group of self-employed older individuals in the Dutch market compared to other European Union member countries has grown tremendously the past years (Kösters, 2017) gave rise to more studies that focus on the motives of older adults to engage in post-retirement self-employment. For instance, Damman and Van Solinge (2018) explored whether the motives of older adults that underlie post-retirement self-employment are more intrinsically or extrinsically driven. The authors compared two groups of senior citizens, namely 'continuers' (individuals that were self-employed and perform their activities past the statutory pension age) and 'starters' (salaried workers that return to the labor market after their retirement but now as self-employed). The results show that, for both continuers and starters, the extended employment is primarily determined by intrinsic motivation (non-financial motives) as compared to extrinsic motivation (financial motives).<sup>3</sup> These results are also in line with the study by Van Solinge (2014), who observed that the choice of an individual to engage in self-employment after post-retirement is driven by intrinsic motivation (through opportunity) rather than extrinsic motivation (through necessity). In contrasting theoretical perspectives on bridge employment, self-employment, and the related motives, the authors highlight that different theories arise based on the specific focus of study.

Within economics a resource-based view is often taken, with specific focus on the available resources of money, time, and health, which assumes that an individual person's decision to engage in self-employment is driven primarily by financial motives. This contrasts with the field of psychology, where role identities and personal values are at the center of observation, and where retirement is seen as a stage in one's development in life. Building on this psychological theory, it is assumed that post-retirement engagement is primarily intrinsically motivated, that is, individuals will continue working as long as they can thereby fulfill personal goals. Also Reynold, Farrow and Blank (2012), who studied the motives of 31 older adults beyond the age of 65 to continue paid work or to enter self-employment, show that the decisions of older people to work beyond statutory pension age are not driven merely by financial needs but also by psychosocial needs (e.g., more social interaction, activities with and without their partners).

3 Damman and Van Solinge also note that these results might not hold in the future, with pension reforms that might lower one's pension income and consequently drive one to work out of financial motives.

In addition to this literature on extrinsic and intrinsic motives for prolonged employment, we build on studies that explore the meaning of work for older adults (Dendinger, Adams & Jacobson, 2005; Kanfer, Beier & Ackerman, 2013; Mor-Barak, 1995). Here, the theoretical argumentation relies on motivation theories that are rooted in need theories (e.g., Alderfer, 1969; Deci & Ryan, 1985; Kanfer, Frese & Johnson, 2017). For example, Mor-Barak (1995) investigated the meaning of work for older adults in their search for a job and argued that the meaning of work can be traced back to Alderfer's (1969) basic human needs theory. This work was done as an expansion of Maslow's pyramid of needs (1943), which includes physiological needs, safety needs, social needs, self-esteem, and self-actualization. More specifically, Alderfer reduced the five needs of Maslow to three, namely: (1) existential need (e.g., salary), (2) relatedness need (friendship, relationship), and growth need (self-fulfillment at work). These three needs correspond closely to the three factors related to the meaning of work: economic, social, and psychological (Mor-Barak, 1995). Consequently, Mor-Barak (1995) identified the following three work-meaning motives: financial, social, and personal. We will discuss these in the following paragraphs.

#### *Financial motives*

Mor-Barak (1995) related the existential needs to **financial motives** to work and found in her study that financial reasons impact the decision of older adults to look for work. Moreover, knowing that many people do not adequately plan financially for retirement, there might be a need to extend one's working life after retirement **to earn money and to pay the bills** or to live up to their living standards. For instance, Dendinger et al. (2005) stated that retirees "may realize that the income they presently have (...) may be inadequate to accommodate their preferred style of living" (p. 25).

#### *Social motives*

**Social motives build on relatedness and social needs.** These are needs that refer to the interaction with others, such as family and friends. Various studies show that social motives have an influence on the decision of older adults to look for work (e.g., Dendinger et al., 2005; Mor-Barak, 1995). Thus, a working place can be the context to address one's social needs. This motive might be particularly crucial for older adults who are retired and as a result experience less contact with people anymore.

### *Personal motives*

**Personal motives relate to self-respect, respect from other people, and the feeling of pride** (Mor-Barak, 1995). Mor-Barak (1995) found that older adults who are unable to find a job within one year attach a higher score to personal reasons compared to older adults who find a job. She explained that this could infer that individuals looking for a job out of personal motives will be unlikely to accept a job offer if their personal needs are not met. This might also be the case for retirees who have left a career job and are now looking to extend their working life. The literature also refers to opportunities for growth and development, status, and wanting to preserve knowledge and skills in case of post-retirement employment (e.g., Ulrich and Brott, 2005).

### *Generativity motives*

We wish to add a fourth motive: generativity. We build on work by Erikson (1993), who claimed that humans go through different stages of psychosocial development in fulfilling their needs. He also referred to this as a developmental crisis theory since individuals must align their psychological needs with the needs of society. Particularly related to our study is the stage that he called generativity versus stagnation, which takes place during middle adulthood (without clear age boundaries). The 'crisis' refers to wanting to give back and produce value to others, thus fostering future generations by sharing our knowledge and experiences, and not to stagnate in the past. **Generativity refers to passing on knowledge and experience to the next generation** (Erikson, 1993). It is important to note that generativity is not limited to caring for and raising children, but also refers to working life and volunteer work (McAdams & De St. Aubin, 1992). One can argue that Mor-Barak's personal motive is similar to Alderfer's (1969) growth needs as they are defined as "all the needs which involve a person making creative or productive effects on himself and the environment" (p. 146). Thus, generativity motives can be a reason for older adults to look for work since they may be inspired to engage in bridge employment in order to pass on their knowledge and experience to others.

### *Social-hedonic and moral motives*

Lastly, we rely on an additional field of literature, that of Internet-mediated sharing, such as Airbnb, which explores the motives of individuals to participate as co-producers in sharing economy activities (e.g., renting out an apartment, Bucher, Fieseler & Lutz, 2016). The reasons for participation in these activities can potentially be valuable input for our study as well. Consequently, we identified two additional

motives: the 'social-hedonic' motive and the 'moral' motive. The social hedonic aspect is comparable to the social motive as identified by Mor-Barak (1995). Bucher et al. (2016), however, added a hedonic aspect to this social part, that of individuals participating in an activity because it is fun and adventurous to do. In the context at hand, older adults might participate in an activity just for the fun of helping others.

The second motive, the moral one, refers to 'doing something because it is the right thing to do.' In the context of sharing, as studied by Bucher et al. (2016), this motive particularly relates to ethical considerations of individuals, such as ecology and sustainability, as reasons for sharing. We expect that older adults might also participate in activities because they find it morally important to be there for others and to produce value for them.

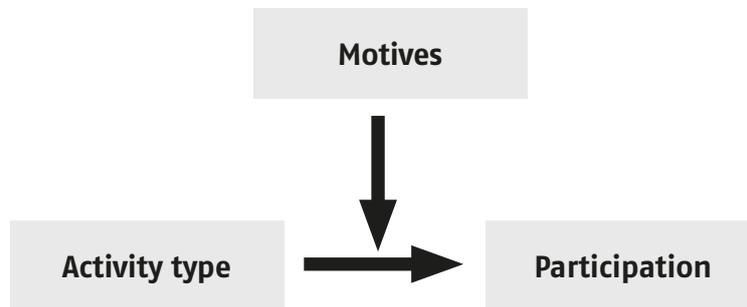
#### *Productive ageing, work-related motives and determinants, and different shades of labor*

It should be noted that much of the literature on the determinants of early retirement and labor market participation of the elderly adopts a narrow definition of productive activities, by focusing on paid and thus commercial activities (Dingemans, 2016; Lammers, 2017; Montizaan, 2017; van Vuuren, 2011). For example, Lammers (2011) investigated the impact of individual determinants (e.g., one's wealth holdings) as well as system effects (i.e., providing unemployment insurance benefits) on the transition of unemployment to employment. Regarding the system effects, she particularly focused on the Dutch job search requirement policy change, whereby older unemployed persons are no longer exempted from applying for jobs. Her results illustrate that wealth has a negative impact on the job search effort, whereas imposition of search requirements increases labor market participation. Dingemans (2016) focused on the determinants of bridge employment.<sup>4</sup> The factors that she investigated can be classified as individual factors (e.g., a person's health or financial situation) or contextual factors (e.g., generosity of the pension system). These studies strictly addressed paid activities and consequently do not represent the full spectrum of 'shades of labor' that we study.

By adopting the broader definition of productive activity stated above – "an activity that produces valued goods or services, whether paid or not" (Herzog et al., 1989, p.130) – we extend labor market activities with activities that constitute more social participation, such as informal care giving, volunteering for an organization,

4 Bridge employment is defined as participation in paid work and simultaneously receiving a pension income (Dingemans, 2016).

*Figure 1. Effect of motives that moderate the impact of activity type on participation in the activity*



taking care of grandchildren, helping neighbors or friends, and participating in the sharing economy. This is what we mean with the phrase 'different shades of labor'. Labor market activities (i.e., commercial, economic activities) only reflect one shade and should be complemented with unpaid activities (i.e., non-commercial, social activities) to reflect the full range of shades.

We thus aim to better understand the underlying motives for older adults to participate in activities that produce value to others. Specifically, we explore how these motives moderate what type of productive activity older adults participate in. See Figure 1 for a visual representation of our model.

### 3. Method and Data

We collected data through in-depth interviews and an online survey. The in-depth interviews served two purposes: first, to validate the survey (scales used and activities selected) and, second, to interpret the survey results in the discussion section. The survey allowed us to draw reliable conclusions, as it is based on a considerable number of participants. We describe the data and methods for both approaches in detail in the following sections.

#### Participants and design

##### *In-depth interviews*

In the fall of 2018, eight older adults between the ages of 54 and 80 were recruited in Rotterdam and surroundings. Potential respondents were approached with a flyer at the farmer's market in Rotterdam, the public library in the Rotterdam city center, and a couple of busy shopping streets in the center. A couple of respondents were also contacted with the help of the recruiters' network. People between 55 and 80 years were approached by the recruiter. A short introduction to the topic was then provided and upon the individual person's agreement to participate in an in-depth interview (date to be set at a later point in time), the recruiter asked respondents about their age, the activities they currently participate in, place of residence, highest completed education level, and contact information. After this pre-selection, eight respondents with a diverse set of productive activities were contacted to take part in the in-depth interview.

Eventually, six women and two men (average age 64.5 years) agreed to participate in the interviews, which were scheduled to take 60 to 90 minutes. Five of these interviewees worked part-time or full-time and three were retired. All interviews were conducted in Dutch. Six interviews took place at the home of the participant and two at the participants' workplace. An expert in conducting qualitative interviews was hired and took the lead to ensure a semi-structured interview protocol. One of the authors was also present during the interviews. First, interviewees were given a short introduction again about the interview, and privacy-related matters were explained. Interviewees were then asked to sign a consent form, confirming that all information was well understood. The interview protocol consisted of key parts that addressed the respondents' (1) daily life, (2) work (in the past, present, or future), (3) activities contributing to society, (4) benefits for participating in these activities, and (5) important

values in their life.<sup>5</sup> In reporting the results (see below) we specifically focus on the type of activities that respondents mentioned as well as their motives for participating therein.

## **Online survey**

### *Sampling*

We used an online panel provided by Research Now SSI<sup>6</sup> to collect data to answer our research question. The main data collection phase took place in February 2019. Two selection criteria were applied. First, we set an age restriction, namely between 55 and 85 years. The lower limit of 55 years was chosen in line with other studies that focus on older adults. The upper limit was chosen in line with sociodemographic shifts, which indicate an increasing number of adults getting older and staying vital. Second, we aimed for a representative gender distribution within each age category. This was not fully achieved, however, because, compared to the overall population, men are slightly overrepresented in the two highest age categories, whereas women are slightly overrepresented in the lowest age category. We received 970 completed survey responses.<sup>7</sup> The responses of six respondents were deleted by the research company due to their 'speeding' through the survey.<sup>8</sup> Table 1 provides an overview of the key characteristics of the samples. The three age categories in the samples (see Table 1) were nearly evenly distributed (around one-third of respondents in each category), with an average age of 69 years. The same applied to gender: 49.7% of the respondents were male and 50.3% were female. Also, more than half of the respondents (56%) completed at least intermediate vocational education (MBO) and more than two thirds indicated that they had a monthly net household income of at least €4,000, with an average monthly net household income between 3001€ and 3500€. Finally, two third of the respondents indicated that they were retired, and almost half of the respondents rated their health as good, with a nearly even distribution across the three age categories.

5 The consent form and the protocol (in Dutch) can be provided upon request.

6 A name change, from Research Now SSI to Dynata, occurred since. Dynata is a reliable research company, and Erasmus University has made use of its services for many years.

7 We do not have any missing values since respondents were required to provide an answer to all questions.

8 'Speeding' implies that the respondents used less than one third of the median time to complete the survey.

*Table 1. Sample Composition (N=970)*

Age	55-64	32.6%
	65-74	33.3%
	75-85	34.1%
Gender	Female	49.7%
	Male	50.3%
Education*	Elementary / basic	2.6%
	Secondary vocational education	38.3%
	Intermediate vocational education	29.5%
	Higher vocational education	26.5%
	Other	3.1%
Retired	Yes	67.6%
	No	32.4%
Monthly household income (net)	≤ 2500€	47.3%
	2501€ – 3000€	11.8%
	3001€ – 3500€	4.7%
	3501€ – 4000€	4.5%
	≥ 4001€	6.5%
	I don't know	5.3%
	I don't want to say	19.9%
Health status	Outstanding	6.3%
	Really good	15.7%
	Good	48.2%
	Average	26.6%
	Bad	3.2%

\*Note on the translation: Elementary = basisonderwijs, secondary vocational education = VMBO, HAVO, VWO, intermediate vocational education = MBO, higher vocational education = HBO / WO

### *Measurement productive activities*

The following question was asked to assess the respondents' participation in the various activities: "Which activities did you participate in during the past two weeks?" Respondents indicated for each activity whether they participated or not. We focused on the following seven productive activities: salaried work (on a payroll) either part-time or full-time; salaried work as self-employed; informal care giving for a family member; volunteer work for an organization; babysitting for grandchildren; help in the community or for friends; and sharing products and services via Internet such as Airbnb, car sharing, or meal sharing (see Table 3 below for an overview of activities).

The activities were selected based on a thorough literature review and outcomes of the in-depth interviews. The interviewees mentioned participating in a variety of activities, which included: part-time or full-time work, including starting their own business; taking care of grandchildren; helping neighbors by preparing meals for them or helping them with garden maintenance or just keeping company. Also other activities were mentioned, including voluntary work such as providing computer courses, helping with driving elderly people to theaters or other events, collecting

charity money, and informal care provided to relatives. Almost all respondents participated in more than one activity. One respondent had also rented out an apartment through Airbnb in the past but had stopped due to Airbnb regulations restricting renting out an apartment to a maximum of 60 days a year. Based on this information, we are confident that we covered the key activities that elderly people participate in<sup>9</sup>.

These activities can moreover be divided broadly into paid and unpaid activities. Paid activities refer to salaried work (on a payroll), either part-time or full-time, and salaried work as a self-employed person. The activities referring to informal care of a family member, volunteer work for an organization, babysitting for grandchildren, and help provided in the community or to friends are classified as non-paid activities. Sharing economy activities are not clearly classified in the literature. We believe that they might be part of both categories.

#### *Measurement motives*

To explore respondents' motives we relied on the existing scales designed by Mor-Barak (1995) and Bucher, Fieseler & Lutz (2016) and the in-depth interviews. More precisely, in the survey participants were asked to rate 24 motives on a five-point Likert-type scale, ranging from totally disagree to totally agree. Table 2 provides an overview of the motives and sources of their scales. Since we distributed the online survey in Dutch, all questions were also translated back to the original scales in English to ensure accurate meaning. In order to validate the measures, we first conducted a principal component analysis (varimax rotation). The mean scores of all items for each factor were computed as input for further binary logistic regression analysis.

We then validated the scales based on the in-depth interviews. The results assured us that we covered the key motives. Respondents mentioned the following motives for participating in the activities: to be of help to others, to do something generous, to be meaningful, to share knowledge (by providing training), strong conviction and wanting to pass that knowledge on to others, enjoyment, interaction with others, financial (to earn money), not to let others down, just a nice thing to do, experiencing a feeling from 'inside' to help, to feel gratification.

9 We do not focus on activities that individuals participate in strictly for their personal enjoyment, but that first and foremost provide value to others.

*Table 2. Overview of motive measures*

Motives – What do you find important in your life?
<b>Financial</b> (Bucher, Fieseler & Lutz, 2016) To earn money To do something that helps me pay my bills To do something to supplement my income To do something to make additional money
<b>Social</b> (Mor-Barak, 1995) To receive status and prestige To be respected by other people To please relatives and friends
<b>Generativity</b> (Mor-Barak, 1995) To get the opportunity to share my skills with others To get the chance to teach and train others To get the chance to use and demonstrate my skills and abilities To pass my knowledge on to the next generation
<b>Personal</b> (Mor-Barak, 1995) Personal satisfaction To feel worthwhile To feel proud about what I do and about myself
<b>Social-hedonic</b> (Bucher, Fieseler & Lutz, 2016) To meet new people To meet like-minded people To feel part of a community To find company To have fun To be adventurous
<b>Moral</b> (Bucher, Fieseler & Lutz, 2016) I want to help others I want to do generous things I want to do something meaningful I want to do something decent

Note: Measured on a 5-point Likert-type scale ranging from 1=completely disagree to 5=completely agree

#### *Additional benefit measures*

Besides inquiring about the underlying motives of respondents and their participation in various activities, we also explored their perceived benefits related to each activity. Here, we expect that participation in an activity offers a variety of benefits to individuals. This provides us with additional insights regarding the relationship between motives and activities. We built on the theoretically grounded means-end chain approach (e.g., Gutman, 1982), which addresses how people select products in order to reach a specific end state. 'Means' refer to the perceived attributes of a product (e.g., teeth-whitening toothpaste), whereas 'ends' refer to the values desired by individuals (e.g., self-esteem). Ultimately, the desired end state plays a key role in the motivation of a consumer when deciding what product to buy. This rationale can also be applied in our study by exploring whether respondents perceive different

activities to possess different attributes (i.e., benefits that activities provide). We do not test this relationship empirically, but rather rely on it as an additional clarification why motives might impact a person's decision to participate in a specific activity. Based on the literature we identified nine benefits. For example, we asked respondents to indicate on a five-point Likert-type scale, ranging from totally disagree to totally agree, whether: 'Through paid work one can help others,' 'Through paid work I stay involved in society,' 'Through paid work one is in charge of his / her own agenda' (see Appendix 1 for an overview of all benefit measures). We asked the same nine questions regarding benefits for each of the seven activities. Moreover, we included two more questions assessing respondents' views of whether the activity is perceived as a commercial or a social activity.

#### 4. Results

##### *Participation in activity*

Table 3 provides an overview of the overall number of respondents that participate in each activity, as well as a split by gender and retirement. The results show that respondents participate most often in babysitting for their grandchildren (33%) and volunteer work in an organization (32%). They least often participate in paid work as a freelancer (7%) and sharing economic activities (2%). Tables 4 and 5 moreover show a split between gender and retirement status, respectively. Regarding the gender distribution, the results show that men and women take equal part in babysitting for their grandchildren (50%). Also, there is an almost even distribution for helping in the community and friends (48%). More men than women participate in paid labor activities (57% and 58% for paid work as an employee and as a freelancer, respectively) and in volunteering activities (58%). Lastly and related to Table 5, especially retired older adults take care of family member (60%), volunteer in organizations (75%), babysit for their grandchildren (70%), and provide help in the community or for friends (70%).

*Table 3: Activity participation of all respondents (N=970, 50.3% male, 67.6% retired)*

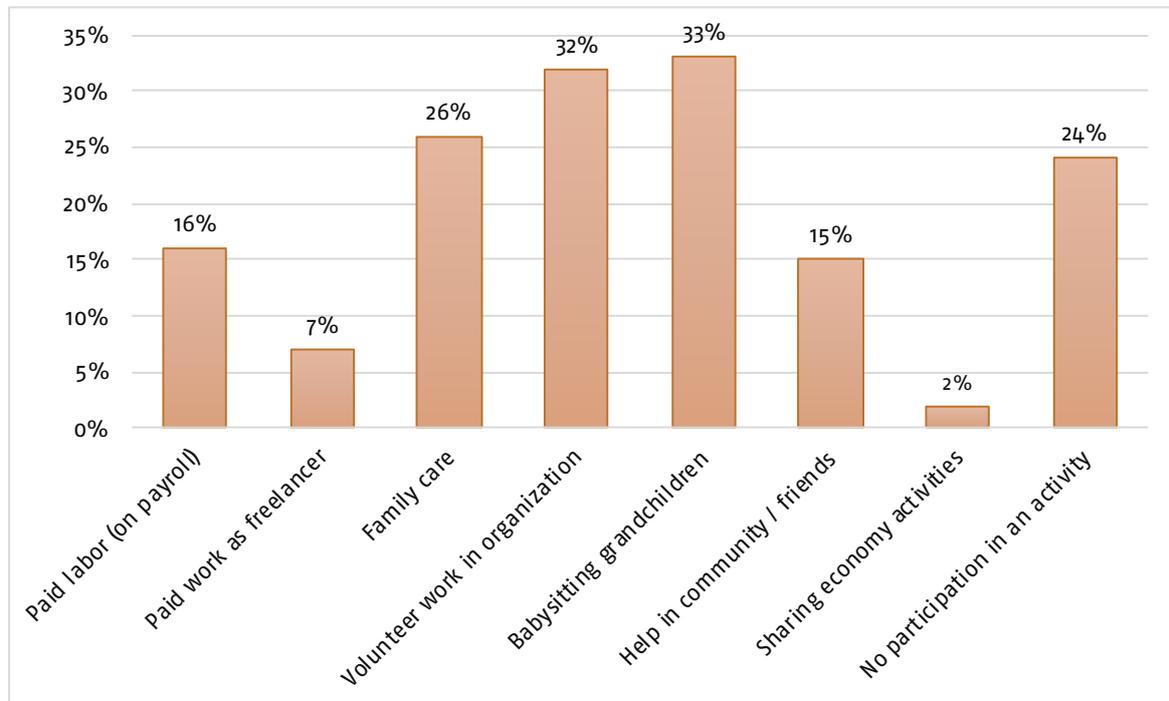


Table 4. Percentage of males per activity (N=488, 50.3% of total is male)

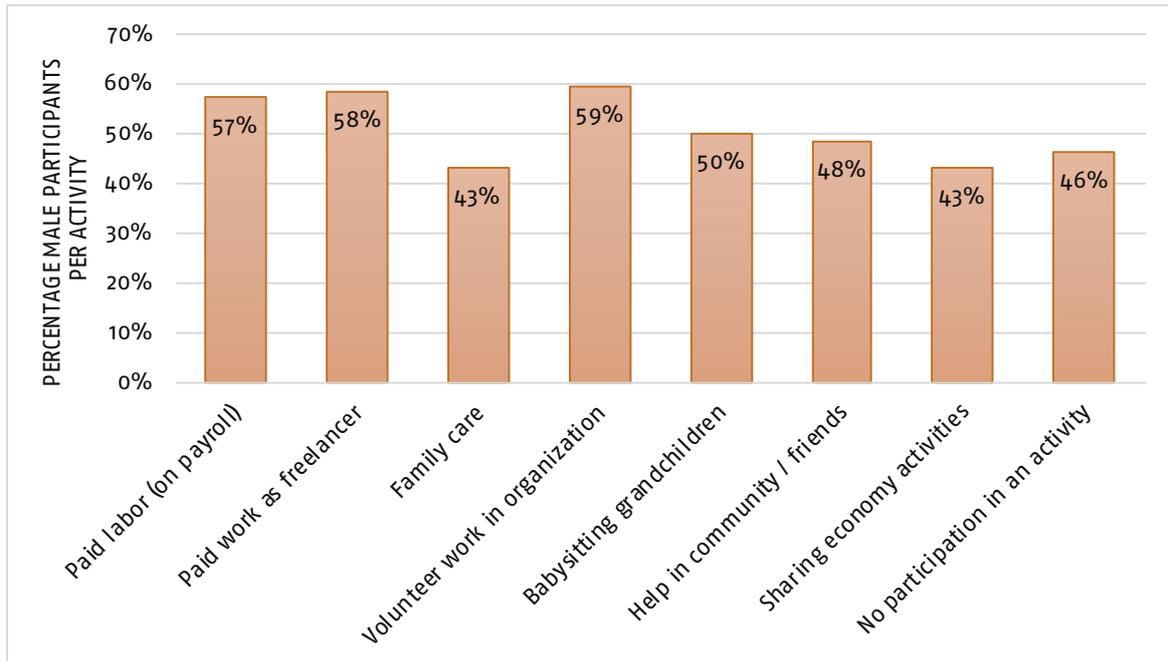
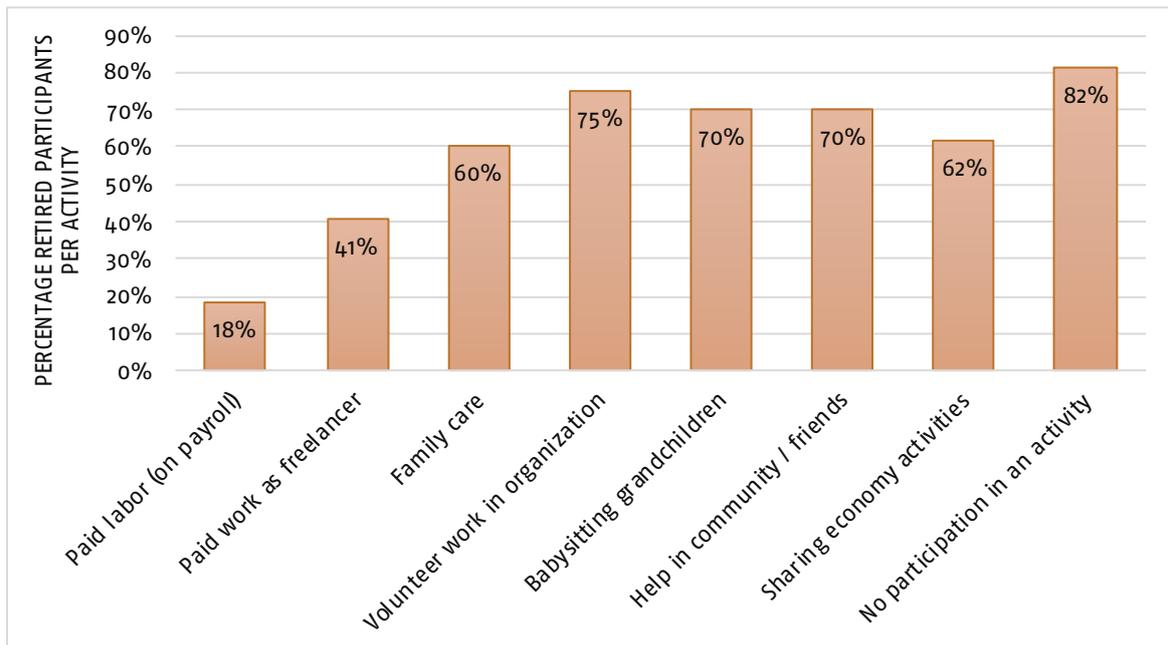


Table 5. Percentage of retirees per activity (N=656, 67.6% of total is retired)



### Principal component analysis

The results of the principal component analysis are shown in Table 6. We applied three rigorous rules in selecting the final factors and their items. First, in line with Field (2005) and Guadagnoli & Velicer (1988), factor loadings should exceed the cut-off value of 0.6 to be considered reliable. Second, we only considered items that

*Table 6. Final measurement scales based on principal component analysis (N=970)*

Motives	Mean	Factor loadings	Cronbach's $\alpha$
<b>Financial</b> (Bucher, Fieseler & Lutz, 2016)	<b>3.24*</b>		.904
To earn money	3.21	.848	
To do something that helps me pay my bills	3.37	.841	
To do something to supplement my income	3.24	.892	
To do something to make additional money	3.15	.904	
<b>Social</b> (Bucher, Fieseler & Lutz, 2016)	<b>3.75</b>		.781
To meet new people	3.71	.769	
To meet like-minded people	3.71	.710	
To feel part of a community	3.74	.680	
To find company	3.86	.752	
<b>Generativity</b> (Mor-Barak, 1995)	<b>3.73</b>		.848
To get the opportunity to share my skills with others	3.74	.764	
To get the chance to teach and train others	3.71	.771	
To get the chance to use and demonstrate my skills and abilities	3.66	.744	
To pass my knowledge on to the next generation	3.80	.779	
<b>Personal</b> (adapted)	<b>3.78</b>		.788
Personal satisfaction	3.92	.586	
To feel worthwhile	3.74	.823	
To feel proud about what I do and about myself	3.76	.630	
To be respected by other people	3.72	.789	

Note: Measured on 5-point Likert-type scale ranging from 1=completely disagree to 5=completely agree

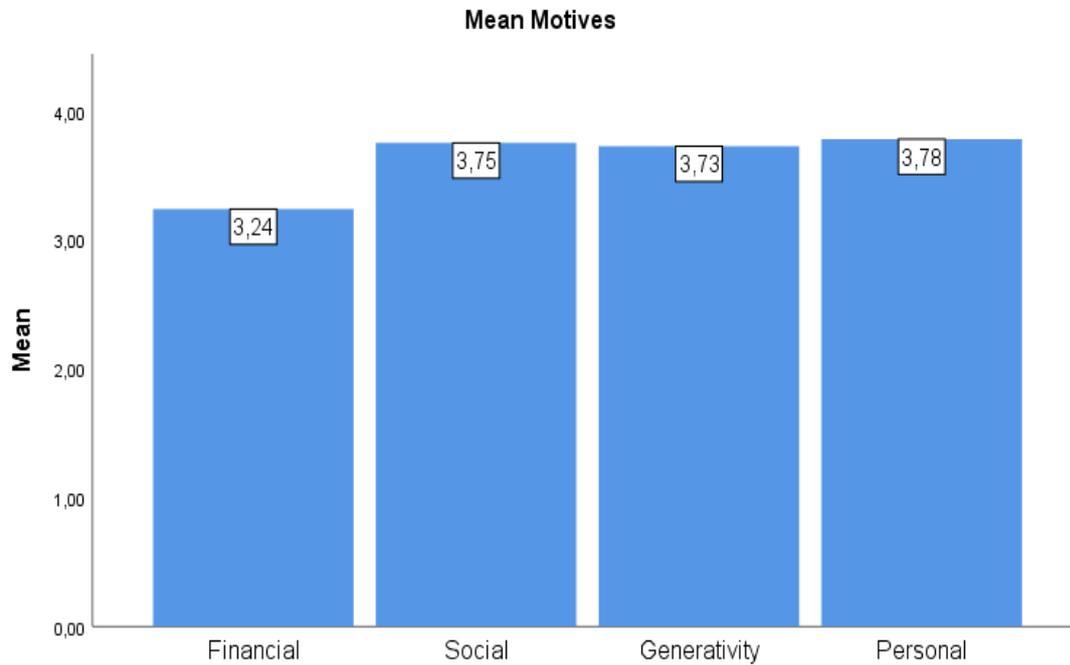
\*Overall mean per factor

clearly loaded on one factor. Ultimately, the results should be theoretically sound. This resulted in the deletion of the following eight items: status and prestige, to please relatives and friends (both part of the social scale of Mor-Barak), to be adventurous, to have fun (both part of the hedonic scale), to do something meaningful, to do generous things, to do something decent, and to help others (all four part of the moral scale). Surprisingly, the two items related to the hedonic aspect as well as the four items related to the moral construct did not clearly load one factor; these were therefore the items that we did not include for further analysis. The resulting final factor structure is suitable, as indicated by the Kaiser-Meyer-Olkin Measure of Sampling Adequacy (.895) and Bartlett's Test of Sphericity ( $p = .000$ ). The total variance explained by these factors is 68% and resulted in four factors: financial, social, generativity, and personal.

### *Motives*

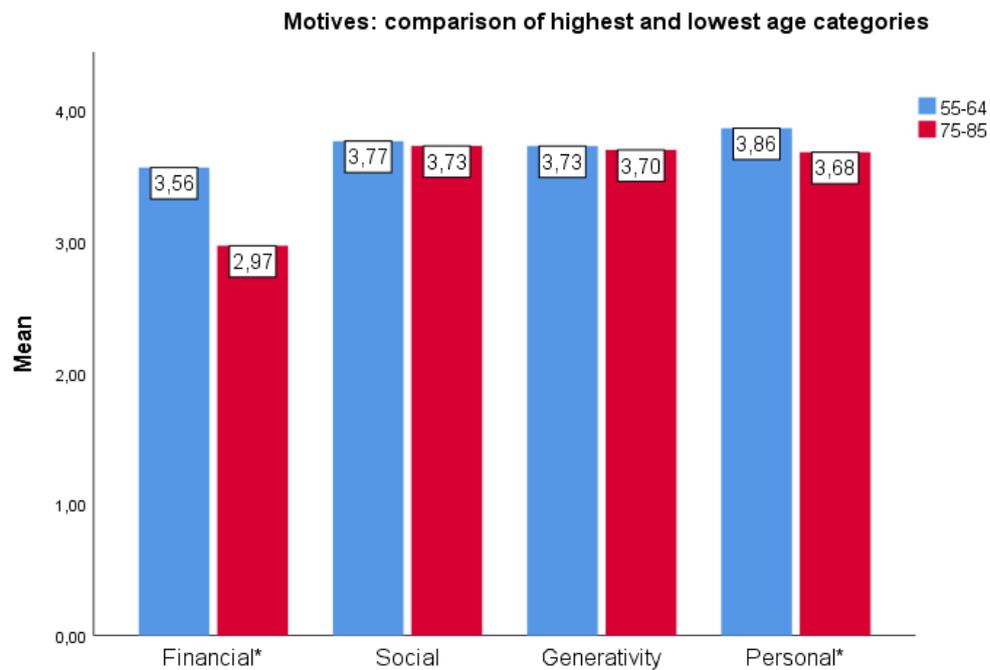
We furthermore explored descriptive statistics related to respondents' motives that impact the activities they participate in. Figure 2 displays the averages for the four motives. "Personal" is the motive with the highest mean, followed by "social",

Figure 2. Overview of mean motives (N=970)



Note: Measured on 5-point Likert-type scale ranging from 1=completely disagree to 5=completely agree

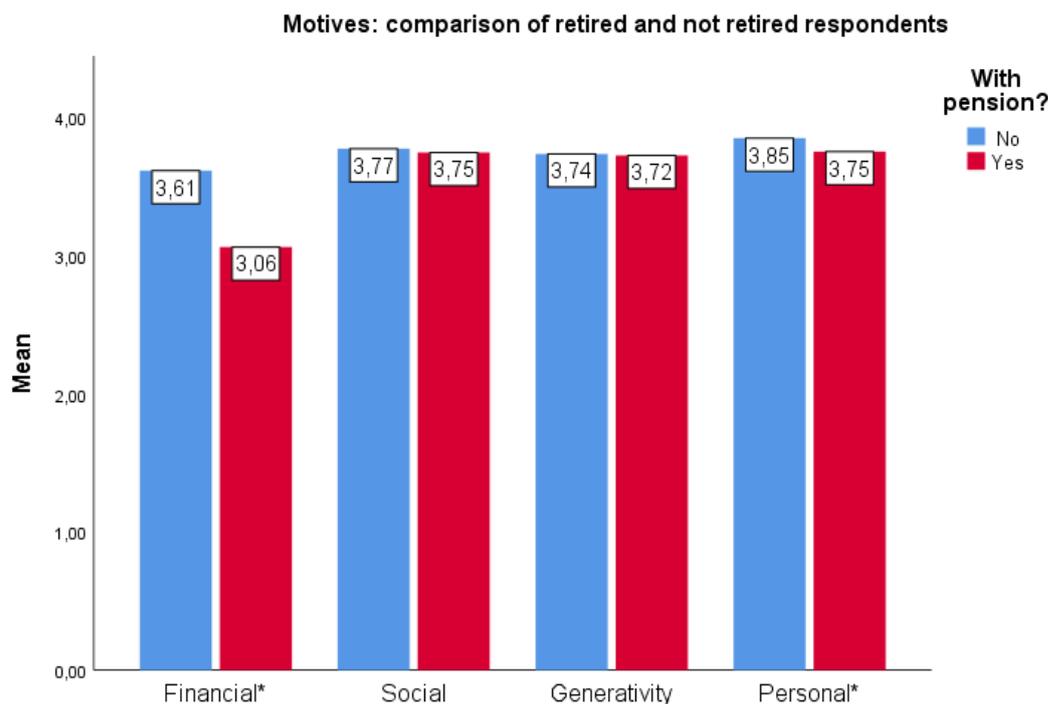
Figure 3. Overview of motives based on lowest and highest age category



\*Significant difference at  $p \leq .001$ .

Note: Measured on 5-point Likert-type scale ranging from 1=completely disagree to 5=completely agree

Figure 4. Overview of motives based on retirement status



\*Significant difference at  $p \leq .001$ .

Note: Measured on 5-point Likert-type scale ranging from 1=completely disagree to 5=completely agree

"generativity", and "financial". Moreover, we observe significant differences at  $p \leq .001$  for the motives "financial" and "personal" when we compare the motives across the highest and lowest age categories, as well as when we explore the mean differences in motive scores based on respondents' retirement status. Particularly, adults in the oldest age category value "financial" and "personal" less than adults in the youngest age category (see Figure 3). Similarly, retired individuals value financial and personal motives less than individuals who are not retired. No differences were found in the social and generativity motives.

### *Benefit perceptions*

We were also interested in the descriptive statistics related to respondents' benefit perceptions of the various activities. In Appendix 2 we provide an overview matrix that links all benefits and activities. In interpreting the results we focus on the perceived benefits of the activities participated in most often. Specifically, we focus on the commercial activity participated in most often (paid labor as employee) and the two non-commercial activities participated in most often (volunteer work in an organization and babysitting for grandchildren). First, for paid labor it is interesting to

note that all benefits have mean scores higher than 3. The highest perceived benefit refers to '(extra) income' that paid labor provides ( $M = 4.11$ ) and the lowest perceived benefit is being in charge of one's own agenda ( $M = 3.09$ ). For volunteer work in an organization the highest perceived benefit is 'being in contact with others' ( $M = 3.95$ ), closely followed by the benefits 'helping others' ( $M = 3.93$ ), 'being involved in society' ( $M = 3.88$ ) and 'keeps one busy' ( $M = 3.88$ ). The lowest perceived benefit is '(extra) income provided' ( $M = 2.21$ ). Lastly, regarding the activity of babysitting for grandchildren, the highest perceived benefit is 'keeps one busy' ( $M = 3.99$ ), closely followed by 'just nice to do' ( $M = 3.91$ ), and the lowest perceived benefit is related to '(extra) income' ( $M = 2.04$ ). It is not our intention to explore the relationship between perceived benefits and activities in further detail, as these outcomes offer satisfactory insights into the fact that respondents perceive different activities to possess different benefits. These insights serve as a possible explanation why respondents' motives might differ in terms of impact on the various activities. We discuss this in the following section.

### Binary logistic regression

In this paper we apply a binary logistic regression to analyze the impact of motives on the participation by respondents in various activities (Wendel and Dellaert, 2005). Participation in each activity is coded as a binary variable. This implies that we indicate for every respondent by means of a 0 or a 1 whether such person took part in the activity during the past two years.<sup>10</sup> This resulted in a slightly re-arranged data set, which allowed us to include dummy coding for each of the activities as independent variables. Activity participation is the dependent variable in our model. The mean-centered scores for each of the four motives serve as independent variables in the binary logistic regression, as well as the dummy coding for each activity. Lastly, we included an interaction effect between the dummy variables and the motives to investigate whether the motives have a differential impact on the specific type of activity that a person participates in. The output is provided in Table 7. The omnibus test of model coefficients is significant (.000) with a chi-square value of 888.

The first part of the output explains the likelihood of participation in one of the activities as opposed to not participating in any activity at all (reference category). All results are significant, except for informal care giving. Respondents participated most in babysitting for their grandchildren ( $\beta = .495$ ,  $p \leq .001$ ) and least in the sharing economy ( $\beta = -2.726$ ,  $p \leq .001$ ).

<sup>10</sup> This results in repeated measures for each respondent.

Table 7. Binary logistic regression results

<i>Variables<sup>a</sup></i>	<i>B<sup>b</sup></i>	<i>Significance<sup>c</sup></i>
<b>Dummy variable for activities</b>		
Paid work_dummy	-.703***	.000
Freelance work_dummy	-1.489***	.000
Informal care_dummy	.150	.171
Volunteer_dummy	.405***	.000
Babysitting_dummy	.495***	.000
Helping community_dummy	-.611***	.000
Sharing economy_dummy	-2.726***	.000
<b>Motives</b>		
Social	-.382*	.043
Generativity	-.331	.068
Financial	.027	.794
Personal	-.239	.191
<b>Interaction effects of activities and motives</b>		
<b>Financial</b>		
Paid work_financial	1.179***	.000
Freelance_financial	.425*	.035
Informal care_financial	-.232	.093
Volunteer_financial	-.477***	.000
Babysitting_financial	-.234	.082
Helping community_financial	-.372*	.015
Sharing economy_financial	.034	.915
<b>Social</b>		
Paid work_social	.181	.536
Freelance_social	.013	.970
Informal care_social	.661*	.013
Volunteer_social	1.385***	.000
Babysitting_social	.555*	.030
Helping community_social	1.005***	.001
Sharing economy_social	.191	.747
<b>Generativity</b>		
Paid work_generativity	.281	.335
Freelance_generativity	.908*	.014
Informal care_generativity	.423	.095
Volunteer_generativity	.769**	.002
Babysitting_generativity	.407	.097
Helping community_generativity	.700*	.015
Sharing economy_generativity	.478	.421
<b>Personal</b>		
Paid work_personal	-.113	.695
Freelance_personal	.653	.081
Informal personal	.302	.242
Volunteer_personal	-.155	.542
Babysitting_personal	.420	.093
Helping community_personal	.063	.829
Sharing economy_personal	.729	.240
<b>Covariates</b>		
Gender (1=male, 2 female)	-.010	.881
Age	-.018***	.000
Education level	.086***	.001
<b>Constant</b>	<b>-.267</b>	<b>.468</b>

Note: -2 Log likelihood = 6508.626. Chi-square = 888.115, significance = .000

a 'Not participating in any activity' serves as the reference category

b Binary logistic regression coefficient

c Significance level for each coefficient, \*p ≤ .05, \*\*p ≤ .01, \*\*\* p ≤ .001

We are particularly interested, however, in the results of the interaction effect as these reveal whether motives differ in terms of impact on the various activities. First, the results of the interaction between activities and the financial motive clearly show that respondents who are driven most by financial motives (financially oriented) are more likely to participate in paid work as employee ( $\beta=1.179, p \leq .001$ ) and freelance work ( $\beta=.425, p \leq .05$ ) and less likely to participate in volunteer work ( $\beta=-.477, p \leq .001$ ) and helping neighbors and friends ( $\beta=-.372, p \leq .05$ ). All other interactions between financial motives and activities are non-significant. Moreover, respondents who are driven most by social motives (more socially oriented) are more likely to partake in informal caring for a family member ( $\beta=.661, p \leq .05$ ), volunteer work ( $\beta=1.385, p \leq .001$ ), babysitting their grandchildren ( $\beta=.555, p \leq .05$ ), and helping neighbors or friends ( $\beta=1.005, p \leq .001$ ). We also found significant interaction effects between activities and the generativity motives. Specifically, respondents who are driven to pass on their knowledge to others are more likely to participate in freelance work ( $\beta=.908, p \leq .05$ ), in volunteer work ( $\beta=.769, p \leq .01$ ), and in helping neighbors and friends ( $\beta=.700, p \leq .05$ ). Finally, we found two significant interactions related to the motive personal, but at a significance level of .10, namely first between freelance work and personal ( $\beta=.653, p \leq .1$ ) and second between babysitting and personal ( $\beta=.420, p \leq .1$ ). We also included the three covariates gender, age, and education in the binary logistic regression. The results show that there is no significant difference between males and females in their likelihood to participate in an activity. Also, the older people get, the less likely they are to participate in an activity ( $\beta=-.018, p \leq .001$ ), and the higher educated older adults are, the more likely they are to participate in an activity ( $\beta=.086, p \leq .001$ ).

## 5. Discussion and conclusion

This picture that this study of ageing in the Netherlands presents is that of older adults who participate in diverse activities that produce value to others. This highlights the importance of embracing a broader definition of productive ageing, one that also includes activities that do not fall under labor market participation. Applying this broader definition of productive ageing, we explored what motivates older adults to participate in different activities and, in particular, what motives influence these activities.

To address this research question, we collected data by means of in-depth interviews and an online survey. The online survey provided us with a large number of responses that enabled us to analyze the data in quantitative terms and to draw reliable conclusions.

Moreover, building on the means-end approach (e.g., Gutman, 1982), we investigated whether participants perceive their activities to yield different benefits (attributes of the activities). We explored the activities performed most often and their perceived benefits and found evidence that these activities yield different benefits. Building on these insights, we investigated the impact of motives on the participation in activities.

Overall, the outcomes of the binary logistic regression illustrate that the motives of older adults differ based on the activities they participate in. Specifically, we find that older adults with financial motives are more likely to participate in paid activities (i.e., paid work as employee and freelance work) and less likely to participate in the two more socially oriented activities of volunteer work and helping neighbors and friends. Despite the fact that almost all other combinations between financial motive and more socially oriented activities are non-significant, the negative coefficients provide an indication that older adults with financial motives are less likely to participate in more socially oriented activities.

On the contrary, illustrating just about the opposite effects, we find that the social motive drives older adults to participate in all socially oriented activities (i.e., informal family care, volunteer work, babysitting for grandchildren, and helping neighbors and friends). This may not come as a surprise, but is a first attempt to quantitatively capture this relationship in our context. Moreover, it provides additional evidence that people in general seem to think in terms of financial (or monetary) versus social markets and consequently classify activities as markets. This is in line with research conducted by Heyman and Ariely (2004) and Mann (2013), who build on the idea that the market can be divided into a monetary market (involvement payment) and a

social market (not involving payment). Specifically, Heyman and Ariely (2004) wonder if this type of market classification can be mentally shifted from one type to the other. Based on our results, this leads to the question what effect a compensation for social activities might have on the likelihood of participating in that activity and, in turn, what this implies for the impact of motives. For example, would introduction of paid informal care giving increase the likelihood of participation in this activity, and would such introduction be more strongly driven by financially-oriented individuals?

The results of generative motives are not as straightforward since these motives drive both paid work (participating in freelance activities) and unpaid activities (volunteer work and helping neighbors and friends). This might be explained by the fact that freelancers are particularly driven by their passion for a specific issue or topic and consequently wish to pass this information on to others. Similarly, through volunteer work and helping neighbors and friends, people might feel being valuable by relying on their experience and skills to deal with and to help other adults. The result of the qualitative interviews further support this. We gathered additional insights about peoples' motives by asking respondents to choose eight out of 24 statements that most closely reflect what is important to them in life (see Appendix 3). Among the 24 statements the following five were selected most often (by at least four respondents):

- respect and appreciation: respondents mentioned primarily that they would want to feel respected and appreciated for what they do for others (whether paid or unpaid),
- to be warm and caring: respondents mostly mentioned that they find themselves caring for others,
- idealism and a better world: respondents stated that they want a better world for others, but also to pass on something to future generations,
- play and enjoyment: refers to enjoying what one does in life but also the joy of others, and
- connected and togetherness: refers to be connected with friends and family or other people, and to be there for them.

Lastly, we do not find any significant interaction effect (at least not at a .05 significance) between personal motives and the activities. This indicates that this motive does not differentiate participating in the types of activities discussed.

### *Managerial implications*

Above all, having a more holistic understanding of the motives of older adults for participating in productive activities is crucial for organizations that wish to engage older employees. From a policy perspective, labor market participation among the

elderly is crucial, considering the demographic shift that is taking place. Currently, policymakers often focus on financial measures and regulations (i.e., raising the first pillar retirement age) to increase labor market participation, but our results suggest that financial and self-oriented (personal) motives become less important as people get older. For elderly persons, giving to others can be more valuable than personal satisfaction or additional income. Our research demonstrates that this shift in motives corresponds to a shift in activity participation choices.

These findings also have implications for HR managers, such as job design and job communication. HR management practices can benefit from a better understanding of the motives that drive elderly employees to continue work. For instance, understanding that the elderly place less value on self-oriented (personal) motives compared to altruistic motives offers a possible way to re-emphasize job tasks to retain and recruit older workers (e.g., introducing coaching tasks that place more value on others). This way a better fit can be achieved between the needs of the elderly and the organization (Zacher et al., 2018). Also, emphasis on organizational goals that reflect the motives of older adults to participate in an activity (paid or unpaid) can strengthen a company's recruitment activities if it wishes to target older adults. An understanding of what older adults value in their work also enables better management of their careers and focus on their specific role and on how it might be changed or adapted. This supports workers, and firms need to enter into a dialogue that allows them to find a productive future path together. This is particularly important considering the shortage of workers in some industries, such as the healthcare field.

Finally, with the growing emphasis on customer service at pension funds and insurers, it is important to develop better insight into the motives of older persons to work (or not). Pension funds and insurers have traditionally focused on the financial aspects of their capital management task. However, as they face lower returns and pressure on pension payments, it may increasingly be in their customers' interest to also explore other options such as continuing to work as a way to generate future income. A better understanding of the motives of older adults to participate in productive activities can lead to better and service to these older adults, and it can facilitate the transition for older adults from a more financial motivation to a more altruistic drive to participate in society.

#### *Limitations and further research*

Individuals can engage in more than one activity, but in this research we do not focus on a combination of activities. It would be particularly interesting to investigate how older adults combine participation in both paid and unpaid activities, and

additionally how this might differ before and after retirement. The number of elderly people in need of care will increase in the future, and the shift towards self-management and self-responsibility that is taking place will put more pressure on participation in social activities (informal family care, volunteer work, helping neighbors and friends). This development raises questions about how individuals will deal with the pressure of performing paid work plus taking care of a family member for instance. Also, should individuals who cut their working hours in order to take care of a family member be compensated for their caregiving time? And what is the effect on retirement-related decisions? A related limitation in our research is that age and retirement are inherently strongly correlated. So while we observe that older adults participate in productive activities after retirement, we cannot clearly separate the effect of age and retirement status on their motives. We merely observe a shift in motives based on the combined effect of age and retirement.

In this paper we refer to sharing economy activities in its broadest sense and do not provide a clear definition of the term in the survey. This may have caused confusion among respondents about what is meant exactly by the sharing economy. Future research (qualitative and quantitative) could consider focusing solely on sharing economy activities to get a better understanding of the motives of older adults for participating and the purpose that this participation fulfills. Moreover, it would be beneficial to also focus on the barriers of not participating in the sharing economy, which could also be extended to the other activities. Furthermore, additional motives might be worth investigating, for instance whether and how security might play a role for participating in an activity, or specific compensation benefits (Kooij et al., 2010). Also, by taking a life course perspective, a longitudinal study might offer additional insights into how motives might change with age and into an individual person's role fulfillment. Lastly, an extension of this study could be to focus on outcome measures of activity participation, such as happiness, well-being, and satisfaction with life. This could nicely be extended into a role fulfillment approach.

## Appendices

### Appendix 1. Overview of benefit measures: Example for paid work

Benefits – Please indicate for each statement how much you agree or disagree
Paid work provides (extra) income to live
Paid work provides career and development opportunities
Through paid work I get in contact with others
Through paid work I can help others
Through paid work I stay involved in society
Through paid work I am in charge of my own agenda
Paid work is stimulating as it offers me variation in life
Paid work is just nice to do
Paid work keeps me busy
Paid work is mainly a commercial activity
Paid work is mainly a social activity

Note: The identical questions were asked for all seven activities, all measured on 5-point Likert-type scale ranging from 1=completely disagree to 5=completely agree

### Appendix 2. Overview of benefit measures across activities

Activity / Benefit	Paid labor (on payroll)	Paid work as freelancer	Family care	Volunteer work in organization	Babysitting grandchildren	Helping in community or friends' circle	Sharing economy activities
(Extra) income	4.11	3.85	2.18	2.21	2.04	2.09	2.74
Career and development possibilities	3.81	3.58	2.30	2.69	2.18	2.35	2.40
Contact with others	4.06	3.91	3.17	3.95	3.32	3.84	3.36
Helping others	3.81	3.79	3.76	3.93	3.85	3.93	3.35
Involvement in society	3.96	3.84	3.15	3.88	3.42	3.78	3.14
In charge of own agenda	3.09	3.68	2.63	2.99	2.72	3.03	2.74
Variation in life	3.81	3.74	3.12	3.74	3.70	3.69	3.08
Just nice to do	3.73	3.65	3.30	3.64	3.91	3.69	2.90
Keeps you busy	3.94	3.85	3.88	3.88	3.99	3.82	3.22

### **Appendix 3. Validated statements on visually shown cards that present drivers of behavior**

The following 24 validated statements about drivers of human behavior were shown to respondents: respect and appreciation, loyal and moral, play and enjoyment, warm and caring, challenging and winning, exploring and curious, safe and protected, skillful and talented, belonging and collecting, connected and together, creative and phantasy, influence and leadership, sexy and turning on, good-looking and beauty, fit and athletic, health and nutrition, idealism and better world, unrestrained and independent, relaxed and without worries, pride and self-assured, individual and unique, order and structure, performance and progress, and status and prestige (see the website for more information and sample cards: [www.23plusone.org](http://www.23plusone.org)).

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