

Social Venture Investments and Retirement Preferences: Evidence from the Healthcare Sector in The Netherlands

George Apostolakis^{a,*}, Frido Kraanen^b, Gert van Dijk^c

Abstract: *This paper investigates people's preferences for an ideal postretirement situation and their relationship to psychological factors of worry, like their financial situation, living situation, health, care provision and independency. In addition, we examine people's willingness to act toward the realization of this ideal retirement situation. Our sample consisted of employees related to care and welfare sector in The Netherlands. We argue that the disclosure of people's preferences and how these choices are influenced by sociodemographic and psychological factors is important for policymakers, pension fund managers and social entrepreneurs who seek solutions for a better wellbeing after retirement beyond income considerations and strive to implement long term investments with impact in society. Our findings show that the majority of the respondents prefer the same financial and living situation after retirement indicating a reluctance to change in regards to present conditions. Furthermore, our results show that respondents are more willing to relocate and engage in volunteer work in order to realize their ideal retirement situation.*

Keywords: retirement preferences, retirement worries, social venture capital, relocation, volunteer work, working after retirement

JEL classification: D12; D60; G11

^{a,*} George Apostolakis: Nyenrode Business University, Center for Entrepreneurship, G.apostolakis@Nyenrode.nl

^b Frido Kraanen: Cooperation and Sustainability PGGM, Universiteit van Tilburg, Frido.kraanen@pggm.nl

^c Gert van Dijk: Wageningen University, Marketing and Consumer Behaviour Group, Coop99@xs4all.nl

Introduction

The purpose of this study is to examine people's preferences in regard to the ideal post retirement situation concerning their prospect of an ideal financial and living situation. Furthermore, this study explores their willingness to act toward the realization of this ideal retirement situation by selecting among a set of alternatives. Knowing people's preferences is important issue not only for those who are responsible for the design of the pension fund policy but also for the social venture entrepreneurs who strive for positive long term investments. These entrepreneurs have social orientation, invest in new asset classes and employ social venture capital for achieving social goals which in our case are related to impact on health, improving working conditions in healthcare and a better wellbeing after retirement.

The outcome of the survey indicates a high concern on retirement issues by the respondents. Financial worries are placed high followed by worries in health, in care, and living situation. Furthermore, the results indicate that the same financial and living situation is the most preferable choice to alternative conditions indicating a strong status quo bias and inertia. Respondents are more willing to relocate to another house and do voluntary work with extra payments and continue working to follow in their intentions.

We further present the results of more in depth analysis employing binomial and multinomial logistic regressions. The results indicate that a higher level worry about retirement issues increases the probability to worry about retirement and it further affect respondents' choices over the ideal financial and living retirement situation. The probability of choosing a better financial situation and relocating to another house increases as the level of general worry increases too. Respondents, who desire to have financially less after retirement than before have higher probability to participate in volunteer work or make extra payments over those who choose the same financial situation. Respondents who prefer to live to another house or live abroad have higher probability to choose to relocate to another house than those who prefer the same living situation. Respondents who worry about retirement have less chance to pay money for extra facilities. A one unit increase of general worries decrease the probability to continue working and increases the probability to move to another house. Finally, worry act as a mediating factor between general worry and willingness to act with the effect to be more pronounced for the intention to for pay for extra facilities and services.

The implication of this paper is twofold: first policy makers should consider increasing the pension participants' involvement to the design of pension policy. Secondly, by investigating retirement preferences related not only to financial issues but also to a broader area of aspects, we reveal important considerations about people's wellbeing for retirement. These considerations can formulate a basis for new initiatives and investment opportunities in healthy aging and wellbeing undertaken by governments and social venture entrepreneurs.

This paper is structured as follows. The next session gives a brief description of the notion of social venture entrepreneurship which is encompassed by the concept of social entrepreneurship. Next, we present the data and the methodology followed throughout this paper. The following sections are comprised by the regression results and the analysis. Finally, we summarize and conclude.

Social venture entrepreneurship

The last decade the concept of the social entrepreneurship has gained momentum. We find an extensive literature which tries to confine the concept and to set the boundaries of what is social entrepreneurship (Huybrechts and Nicholls, 2012; Mair and Martí, 2006; Peredo and McLean, 2006) and what is priority or necessity for implementing social investments. In the literature we find that the concept of social entrepreneurship is broad with almost two separate school of thoughts (Bacq and Janssen, 2011; Bull, 2008; Certo and Miller, 2008; Defourny and Nyssens, 2010; Hill et al., 2010; Peattie and Morley, 2008; Short et al., 2009; Trivedi and Stokols, 2011). However, in recent years we observe an effort toward the convergence among the different notions and views of the concept.

From the prevailing standpoint in the literature social entrepreneurs take the face of multiple entrepreneurs (Zahra et al., 2009) who strive to implement long term investments and endeavor toward solutions to dire social problems that the markets and the governments ignore or cannot solve alone. They combine innovational tools and strategies in order to achieve social goals (Ziegler, 2010). This process involves the generation of novel alternative business models and innovational strategies (Defourny and Nyssens, 2010; Florin and Schmidt, 2011; Shepherd and Patzelt, 2011). They utilize different business models (Müller, 2012; Seelos and Mair, 2005; Spear, 2006) while they try to discover investment opportunities with impact to society (Corner and Ho, 2010; Lehner and Kansikas, 2012). However, financial returns are only the necessary mean for the sustainability of the investment and not the primary goal. Most of the times social entrepreneurs are willing to accept lower returns in order fulfill their social mission (Florin and Schmidt, 2011). Hybrids business models with a tradeoff between market orientation and social goals balance between the market orientation and the impact to society (Florin and Schmidt, 2011; Wang et al., 2008; Wilson and Post, 2013).

Social capital, social networks and trust are important inputs for social entrepreneurs (Meyskens et al., 2010; Miller and Wesley II, 2010; Pepin, 2005). Social innovation is a necessary input for the creation of social enterprise ventures (Haugh, 2007; Millar et al., 2013; Rubin, 2010). Social entrepreneurs utilize social innovation which stems from people knowledge and willingness to find solutions to own problems in relation to working environment (Goldstein et al., 2010; Moulart et al., 2005; Oliveira and von Hippel, 2011, 2011; Svensson and Bengtsson, 2010; Ziegler, 2010). Social capital together with social innovation, people's participation and involvement are necessary elements for improving social services and dealing with intractable social problems (Leadbeater, 2009). Identifying the retirement preferences of those people who are working in the healthcare sector gives us a clearer view of the

concerns about retirement issues and motivates us to seek for solutions. What are the preferences of those people who are now in the supply side and will be at the demand side after retirement?

In addition, the involvement of the participants is a necessary process for dealing with social problem on the basis of the civil society (Evers, 2006; Ostrom, 1996; Parks et al., 1981; Pestoff, 2009). Evers, (2006) supports an active participation by users of welfare services based on the belief that citizens should engage personally in shaping the welfare services they demand. Pestoff, (2009) relates the involvement of the participants with strengthening the democratic governance of institutions.

Up to now, the influence of people in the design of the pension policy is historically absent. The criteria for formulating the pension policy are more or less on the basis of guarantying a sufficient level of income for retirement ignoring other important issues of wellbeing. In this paper we argue that increasing participants' involvement in the design of the pension policy will result in a better wellbeing after retirement. Involvement of all the stakeholders is a significant requirement for cooperative organizations.

Data

Our data come from a 2010 survey on postretirement life preferences conducted by PGGM. PGGM administer the asset of pension funds and it as cooperative structure meaning that is member owed, member benefit and member controlled. The sample is constituted by members and by employees of this financial organization. The majority of the members of PGGM work or have worked in the Dutch healthcare and welfare sector in the division of nursing, care and in hospitals. The employees of the cooperative are the second distinguished group which represents people's preferences at this financial organization. The discrete role of members and employees serves in controlling the heterogeneity in the preferences. Stakeholder theory supports the view that the organization should take into consideration stakeholders, like employees and members, in order to increase the total value added. The exploration of these two different population segments give as an insight on the diversity on retirement preferences.

An invitation to the members was sent via the PGGM's newsletter on October 2010 and the survey was conducted electronically through the internet. Also, employees of PGGM were invited to take part. In total 13,926 persons answered the questionnaire of which 214 were employees of the cooperative.

As it is depicted in Table 1, men and the ages 45-65 are overrepresented at the sample with the rest of the categories to be underrepresented¹. Therefore throughout the analysis we use weights for gender and age. The weights are product of a raked procedure in order to obtain unbiased estimates of the PGGM population. We first searched for patterns and associations in the responses with cross tabs and afterwards

¹ An χ^2 goodness of fit test indicates that the sample differs significantly from the population.

we run multivariate regressions (binary and multinomial logistic models) to verify the strength of the associations and search for stronger relationships among the variables.

Worrying about retirement and general worries for retirement

There is a vast literature investigating the relationship between worry and financial concerns (Diefenbach et al., 2001; Grulke et al., 2006; Hershey et al., 2010; Lindesay et al., 2006; Neukam and Hershey, 2003; Robichaud et al., 2003; Skarborn and Nicki, 2000; Watari and Brodbeck, 2000). Other studies examine the level of worry and its relation to health, working conditions, social interactions and life satisfaction (Gonçalves and Byrne, 2013; Gould and Edelstein, 2010; Grulke et al., 2006; Paolini et al., 2006; Wisocki, 1988). Worrying about retirement is often related to financial considerations with an unstable financial environment to increase the level of worry about retirement (Owen and Wu, 2007). Neikrug, (2003) examines worry about the old age in four sub categories concerning financial, health, social and abuse. Leadbeater, (2009) underlines the importance of the loneliness in wellbeing for older people.

Hershey et al., (2010) find one the lowest levels of worry about their financial situation after retirement for the Dutch population among 19 EU countries. This outcome comes as a result of the low degree of income inequality and the low age dependency ratio in the country. Also, the lack of knowledge about retirement may result in increased anxiety for the young (Hayslip et al., 1997). Some scholars find a difference in the level of worry between genders. Women tend to worry more than men (Diefenbach et al., 2001; Grulke et al., 2006; Hunt et al., 2003; Neikrug, 2003; Skarborn and Nicki, 2000). Also, women worry more about their finances and their health compared to men (Neikrug, 2003). Other scholars find a relation between worry and age, education and working situation. Older people worry more for health issues than the younger (Grulke et al., 2006; Hunt et al., 2003; Wisocki, 1988) where young worry more about social interactions (Gonçalves and Byrne, 2013; Gould and Edelstein, 2010; Lindesay et al., 2006; Powers et al., 1992). A higher education level and increased knowledge for aging issues decreases the level of worries (Neikrug, 2003). Skarborn and Nicki, (2000) argue that retirees worry less than their working colleagues.

In this session we examine the relationship of worry, general worries about retirement and a number of sociodemographic factors. First, we search the contingency between different categories drawing some cross tabulations. In the question “do you ever worry about the retirement” almost half of the respondents worry sometimes and almost one quarter never worry’s. Half of the women and 40% of men worry sometimes about retirement. The respondents with university education and working less than 8 hours per week worry regular about their retirement less than the other groups. Also, worrying regularly about retirement tends to incline as the working experience increases. Respondents with 30 years experience worry in regular frequency more often than the other categories. Likewise, members choose more often answers like, “I worry regularly” and “I worry a lot” than the employees of the financial organization. In general, women, ages 46-65, respondents with primary education, respondents with

rental house, members, respondents working more than 30 years, and those who haven't retired yet worry more than the other categories.

[Figure 1 here]

In addition, a question regarding the subjective level of worry for retirement about five important aspects was included in the survey². Figure 2 shows that respondents worry more in average about the provision of care, the financial situation and their health. We note differences among groups: young worry more for their financial situation than the rest. Respondents with no own house or rental worry more about their financial and living situation. Females seem to concern about all these aspects more than males. Respondents with primary education worry about the financial and living situation in greater degree over the other groups.

[Figure 2 here]

An exploratory factor analysis was employed resulting in a more abstract construct, the general worries about retirement. The five different aspects of worry were centered and combined into a single factor in order to measure the level of subjective general worries about retirement³. We argue that these five indicators constitute the construal of retirement general worries and have basis in the literature⁴. The correlation between worry and the new variable is positive i.e. higher level of worries leads to higher level of worry about the retirement⁵. Lower level of general worries is present for males and respondents with university education. In contrast, the results reveal that general worries are higher for members and respondents living in rental house. From the one hand worrying about an issue works preventive to negative outcomes from happening and on the other hand enhances personal ability to solve problems.

In a deeper analysis, we employ a multivariate regression analysis in order to determine the level of association between worry and general worries about retirement. Table 2 reports the regressions results of worrying about retirement and level of general worries on a set of socio demographic factors. We control for gender, age, education, living situation (dummies for no-own house, rental and other versus living in own house), members versus employees of the cooperative, working hours (dummy=1 for working above than 32 hours and 0 for the others), working experience

² The exact wording of the question is: To what extent do you worry about the following aspects for the life after retirement: my financial situation, the care I will receive, my own health, loneliness and my living situation: no worries at all, no worries, a little worried, worried, worried a lot, no opinion. The last level was excluded from regression analysis.

³ These five questions are consistent according to Cronbach's alpha (0.75) and to polychoric factor analysis.

⁴ The factor variable is an abstract measure of worry about retirement. We named the new variable general worries in order to distinguish it from the worry variable

⁵ For the purpose of the analysis we have collapsed the categories of worried about retirement to 2: worrying a lot, regularly and sometimes is coded to 1 and 0 otherwise. No opinion responds are small in number and have been excluded from the analysis.

(dummy= 1 for working more than 30 years and 0 for the others) and working region (dummies for north, east and south regions).

In line with the descriptive statistics, we find that females worry more and have higher level of general worries than men (Columns 1 & 2). Column 3 presents the effect of general worries in worrying about retirement. A one point increase in general worries increase 28% the probability on worrying about retirement. More specific, worrying about the financial situation has a positive impact in the level of worrying about retirement (column 4). This result may also have been intensified by the general economic situation that affects the financial planning of the households. Worrying about the provided care and the living situation has a positive influence in worrying about pension but in a lesser degree than financial the financial situation. The results support the view that respondents between the age 46-65, non retirees and respondents working less than 32 hours worry more that the other categories. The regression analysis results indicate that a positive relationship between worrying and concern exists and it is significant. Our results are in line with Hershey et al., (2010) who predict that income worries about retirement have more chances to be older, women, low educated, and we contrast to respondents who work full time.

| Table 2 here |

The most important consideration after retirement

Blakeley and Ribeiro, (2008) find that factors related to health have been ranked higher than financial ones as the most important considerations for retirement. In the question what is more or less important after retirement respondents had to rank 9 different categories. In the highest ranked position are placed the good health, financial able to save and independency as the most important considerations (Figure 3). Cross tabulations indicate different rankings preferences according to age. Financial able to save has been placed high by young and lower by older respondents before the retirement age. Additionally, young respondents give higher priority to loneliness twice much than other age groups. The reverse outcome stands for living independent and for total independency which the importance increases together with age. In a different set up question for what is important after retirement, respondents were asked to choose between privacy, independency, active in society and freedom of choice. Independency comes first with 43%, over freedom of choice (28%) and active in society (21%).

| Figure 3 here |

Envision the ideal financial and living situation after retirement

In this section we try to fill the gap in the literature between psychological factors and retirement preferences investigating the level of worry and its effect on the latter. The stated preference models are based on the premise that observed choice will always reflect the joint influence of preferences, market conditions, and availability (Timmermans et al., 1994). We examine the preferable post retirement situation within two different aspects: financial and living.

It has been observed in the literature respondents' reluctance to change as they have established an ideal retirement situation which is guided by social norms and status quo bias (Kahneman et al., 1991; Samuelson and Zeckhauser, 1988).

The standard approach in the literature on household life-cycle behavior is the assumption that people arrange their consumption and saving preferences along their lifetime span in order to keep the same level of consumption after retirement. The expected replacement ratio is that pension will reach 70% of the final gross wage.

This means that the net wages after retirement will be about the same. The majority of people consider relocating as a stressful event (Raviv et al., 1990) and therefore may hesitate to relocate and keep a defending stance to alternative unless an opportunity rises or the life conditions change or a life change event occurs and then relocation becomes more appealing and a necessity (Timmermann, 2006).

Women are generally considered more risk averse than men and are more conservative in their investment strategies (Watson and McNaughton, 2007). The same status quo was the preferable choice between the defined benefit and defined contribution for the Dutch people (van Rooij et al., 2007). The find that out of the 718 proponents of the DB system, 49% (22.0+27.0) wants a guaranteed pension income of over 70% of wage income. Only 14% in this group settles for 50% or less. On the other hand, only about 13% of those who prefer a DC system require a certain retirement income in excess of 70%, while over 45% in this group is satisfied with an income guarantee of 50% or less. The preferred guaranteed retirement income increases with age. Men require on average a 4 percentage points lower guaranteed pension income than women.

We frequently notice in the literature the reluctance to relocate after retirement and the preference to stay at the same house (Carpenter et al., 2007; Haas and Serow, 2002; Jong et al., 2012). The decision to relocate is mainly due to health or financial concern (Carpenter et al., 2007). Background characteristics like tenure, income and age may affect the decision to relocate (Lu, 1998). The preference for the current dwelling becomes stronger by age (Jong et al., 2012).

Descriptive statistics show that the same financial situation is preferred by four out of ten of the respondents (42%) with 38% of them choosing that they don't care as long as they have the necessary means for living. In a follow up question for the ideal living condition about ½ (45%) of the respondents prefer to continue living at the same house over 23% who are willing to relocate and 17% who don't care as long they have all the necessary means. Respondents may have a sense of intergenerational duty together with the feeling of justice and responsibility. They may think that increased endowments will burden more the future generations. Further, the belief that the pension system adequately will cover future financial needs make individuals reluctant to any changes and induces them to choose the same financial situation. Regarding the living situation, continue living at the same house over a more suitable one may be the

result of emotional causes as they estimate their residence in high value due to loss aversion effect. In relation to what is most important after retirement and the ideal situation we observe that respondents make general consistent choices.

We highlight some differences among groups. Men prefer the same financial and living situation after retirement more often than women. The preference to the same living situation increases with age. Additionally, respondents who have their own residence are more resilient to changes as they choose the same financial and living situation more often than respondents with no own house or living in rent. Respondents with a university degree have less chance to select to choose the better financial situation after retirement. Almost half of the respondents working more than 30 years choose the same financial and living situation. Employees choose more often than members of PGGM the response “I don’t care”.

| Figure 4 here |

In table 3 we provide a more in depth analysis of the individual determinants of the ideal financial situation after retirement⁶. We expect that a higher level of general worries will increase the probability of choosing the same retirement situation basically due status quo bias. We report the marginal effects of individual characteristics on the probability of choosing among five categories employing a multinomial logistic model. The rows present the effect of a unit change in these characteristics on the probability choosing one of the answer categories. The model is comprised by the explanatory variable of the level of concern. The results of the multinomial logistic regression shows that the respondents who worry about their retirement have higher probability to choose the same financial situation over the other categories (less money, don’t care as I have a pleasant life or be indifferent/ I don’t know).

| Table 3 here |

Higher level of general worries raises the probability of a better financial situation choice by the respondents. A one unit increase in general worries increases about 3% the probability of choosing the better financial situation. Females are more inclined to choose the “I don’t care” response than males. Respondents with rental house choose significant more often the better financial situation than the house owners. The ages 46 to 65 are more likely to choose the answer “I need financially less” over the other age groups.

Next and in relation the ideal financial situation, table 4 presents the margin probabilities of the ideal living situation. In this case, respondents who don’t worry about retirement choose more often to live in another house and less often the same

⁶ The categories in the questionnaire collapsed to 5 for both questions: Better than before, The same, I need less, I don't care as long, I Don't know/no preference for the ideal financial situation, the same, I don't care as long, another house, Live abroad and I don't know/no preference for the ideal living situation. Tables show the marginal effect i.e. the predicted probability on the dependent variable.

living situation than those who worry. In contrast, a higher level of general worries decreases the probability living at the same house (-6%) and increases the probability of choosing living to another more suitable house (8%).

Males have higher probability to choose living at the same house or to live abroad than females. The ages above 46 choose more often to live in the same house than the other ages. The possibility of choosing the same living situation is smaller for respondents in rent than house owners. Respondents with working experience more than 30 years have increased probability of choosing the same living conditions and it is less likely to choose to live abroad over groups with less experience.

[Table 4 here]

A few important issues stand out from the analysis of the ideal financial and living situation. Firstly, we notice that respondents who worry about the retirement have higher probability to choose the same financial over respondents who don't worry. Secondly, the probability to choose a better financial situation or moving to a more suitable house increases as the general worries increases whilst the probability to choose "I need less" and the "same living situation" decreases as general worries increases.

Examining the relation between retirement preferences and willingness to act in order to realize the ideal retirement situation

In this section we examine the relationship between psychological factors, retirement preferences and willingness to act toward the realization to these preferences. In order to elicit respondents' intentions toward their ideal retirement the following question was included in the questionnaire: What are you willing to do to realize your ideal situation? The respondents had to choose among seven different categories⁷.

The literature is excessive for the peoples' intentions to continue work and do volunteer work after retirement. Einolf, (2009) argues that the baby boomer generation tends to volunteer more and therefore people who are close to retirement will involved in volunteered work after their retirement and contradict to Putnam's, (1995) perception of less volunteerism due to lack of social capital. Some scholars find that women are more likely to plan voluntary or charitable activities than men (Davis, 2003; Griffin and Hesketh, 2008; Onyx and Baker, 2006). In contrast, men have more chances to continue to work as self employees (Griffin and Hesketh, 2008; Onyx and Baker, 2006). Older workers are more inclined to full retire than their younger colleagues (Zaniboni et al., 2010). Financial considerations are closely related to the decision for someone to continue working after retirement (Ogums, 2012). Continue working and volunteer work has an opposite relationship with income. People with lower income

⁷ Respondents could choose one or more answer: continue working, volunteer work, move to another house, pay for the extra facilities, other, do anything, do nothing and no opinion.

tend to continue to work (Kim and Feldman, 2000) and have less chance to engage in volunteer work (Griffin and Hesketh, 2008)⁸. Higher level of education is related to continue working (Griffin and Hesketh, 2008; Shultz, 2003) and volunteer work (Choi, 2003).

Less excessive is the literature in intentions to relocate and make payments for extra services. Relocation is related to increased worry for health issues, independency and financial issues (Carpenter et al., 2007). Also relocation after retirement is related to migration for the better climate or for financial reasons (Ackers and Dwyer, 2004). The alternative choice to relocation is the more preferred choice of staying at the same house (Brown and Moore, 1970), often combined with additional adjustments to the home in order to meet the necessary requirements (Deane, 1990). Lu, (1998) argues that 44 per cent of those who desire to relocate have realized their desire within two years. Financial, educational and demographic factors influence the decision to relocate. Homeowners relocate less often than those who rent (de Groot et al., 2011; Kearns and Parkes, 2003; Lu, 1998). Examining intentions to relocate, de Groot et al., (2011) find that highly educated people express an intention to relocate more frequently than the less educated people. However, they argue that homeowners who want to move to a rental home have a higher probability of moving than renters who want to move to another rental home. Also, older adults with certain characteristics were likely to expect to age in place with regular help and move out because of health problems (Tang and Pickard, 2008).

We contribute to the literature by exploring people's intention to relocate, continue working, do volunteer work and make payments for extra services for a better life after retirement. Respondents are willing to move at a better and more suitable house (41%), to do volunteer work (27%), pay for the extra services (18%), and continue working (13%) in order to realize the ideal pension. Almost 1/5th of the respondents have no opinion or don't know yet and 6% chose to do something else. Males are more willing to continue work and pay for the extra facilities and are less willing to move to another house than females. Employees are more willing to continue work and pay more than the members. Women are more willing to relocate, while men and older people (65+) are more willing to pay for extra facilities. A high percent of male young respondents (18%) don't want to do anything. Clark et al., (2012) find that 38% of the respondents indicated that they wanted to work full or part-time after retiring.

[Figure 6, 7 here]

Respondents with high level of worries are more likely to opt for extremes choices like 'I'd do anything' and 'I wouldn't do a thing'. It seems therefore whether one goes for it, or not and losing all the confidence and alacrity. This may have to do with character or other variables, like despondency. It also shows that the degree to which people are worried is somewhat negatively related to the willingness to do volunteer

⁸ For a more detailed reviews on retirement intentions see Wang and Shultz, (2010)

work, keep working after pension age and pay for the extra facilities. Especially the ones who worry just now and then are willing to relocate.

Furthermore, prompted by Ajzen's theory of planned behavior (TPB) which explains the relation between peoples' intentions to realize their ideal retirement and their desires, we examine the relationship between the retirement preferences and intentions. According to the theory, attitudes, subjective norms and the perceived behavior reflect the actual behaviors through personal intentions (Ajzen, 1991). In general, Ajzen argues that the more favorable the attitude and the subjective norm and greater the perceived control and the desire, the stronger should be the person's intention to perform the behavior. An extended model of the TPB includes desires as a mediating factor between attitudes and intentions (Newman et al., 2013; Perugini and Bagozzi, 2001). Greater level of desire toward behavior leverage ups intention. However, the intention to engage in a behavior can be affected by the risk of this action. The prototype willingness model (PWM) employs behavioral willingness in order to explain why people engage in risky behaviors. According to PWM, willingness to engage in a risky behavior is taken as an independent variable to planning of the behavior (Gibbons et al., 1998) and has a direct effect to the intention and to the performance of the behavior. Warburton and Terry, (2000) find that the behavior of older people to volunteer is fostered by the intention to volunteer which is in line with the TPB.

Table 5 shows the predicted probability of preferences on willingness to continue working, do volunteer work, move to another house and pay for extra facilities. Rows indicate how a unit increase affects the intentions to realize the ideal retirement. The respondents who worry have 4% less chance to pay for extra than those who don't worry. Higher level of general worries is related with higher probability to move to another house and lower probability to continue working.

Respondents, who desire to have financially less after retirement, have higher probability to participate in volunteer work or make extra payments over those who choose the same financial situation. Respondents who prefer to live to another house or live abroad have higher probability to choose to relocate to another house than those who prefer the same living situation. We test for the joint significance for the categories of the attitude and desire dummies. The ideal living and the ideal financial situation is significance for doing volunteer work, move to a different place and make extra payments.

People with rental house are more willing to continue working and do volunteer work than home owners but are less willing to pay for extra facilities. Respondents with university degree have increased probability to continue working and pay for extra against all the other categories of education. Employees have an increased probability to pay for extra versus members. Respondents with more than 30 working years are less willing to continue working than the other group. Respondents who have retired and working more than 32 hours the week are less willing to move to another house. To

summarize, the results point out that a number of attitudes and preferences affect intentions toward the realization of an ideal retirement.

| Table 5 here |

In regard to our two groups of respondents, members worry more and have a greater level of general worries for retirement issues than employees of the cooperative. Employees have less chance to choose the same financial and living situation than members. Also it is most possible to choose a smaller pension and relocate to a more suitable house after retirement than members. Also, they keep a more favorable stance in making payments for extra facilities. The higher level of education for the employees may be an explanation for this outcome.

Finally, we examine the mediating effect of worry on the willingness to act. Specifically, an indirect effect tests the mediating effect of one or more variables on the relationship between two variables (Baron and Kenny, 1986; Hayes, 2009; Imai et al., 2010; Preacher et al., 2007). Table 6 shows that the proportion of the effect mediated between general worries and the willingness with worry to significant mediate this relationship. Due to the existence in our models of dichotomous outcome variables we compute indirect effects using the product of coefficients approach. A high proportion (56%) of general worries on intention to pay for extra is mediated by worry about retirement.

| Table 6 here |

| Figure 7 here |

We have estimated several additional specifications as robustness checks on our main results. The results are available under demand. First, we restrict the sample to those who are between 46 to 65 year old. This does not significantly change any of the estimated coefficients. The coefficients present minor changes in magnitude but not in the sign. This time the worry and the general worries variable significant affect the willingness to volunteer work. However, the gender effect becomes not significant for continue working. Second, we split the sample and we run separate regressions for the members and for employees of the cooperative. Comparing the results with our benchmark model we observe that male employees of the cooperative have higher probability to continue working than male members. Interestingly, male employees of the cooperative have 20% more chances to make extra payments than their female colleagues. Finally we include in the benchmark model the interaction term between worry and age. Jacobs-Lawson et al., (2004) found that the interaction effect of worry and age has a significant effect on thinking about retirement. However, in our case the interaction effect is not significant.

Summary and conclusions

Traditionally, people's influence on formulating pension investment strategy in a collective pension system is limited or absent. Our sample consisted by people with a relation to care and welfare sector in The Netherlands. In this study we examine how psychological determinants, like worry and general worries about retirement, and sociodemographic factors affect retirement preferences and intentions to act toward the realization of this ideal situation.

Descriptive statistics indicate that almost half of the respondents regularly worry about their postretirement situation. Disaggregating the preferences of members and employees we observe that the former worry more about their retirement than the latter. A high proportion of respondents prefer the same ideal financial and living situation against any alternative. This may have been the cause of status quo bias and the effect of loss aversion. The intention to realize the ideal financial or living retirement situation is a proxy for increasing participation. Respondents are more willing to relocate and do volunteer work than continue working and make extra payments.

In a more in depth analysis, we search the interrelations between retirement preferences and intentions for the ideal retirement employing binomial and multinomial logistic regression methods. Firstly, we investigate the relation between worry for the retirement and the level of general worries. We measure general worries about retirement with a single factor which is comprised by five indicators of worrying: financial situation, care provision, health situation, living situation and loneliness. Respondents who have a higher level of general worries about retirement have higher probability to worry about retirement. Secondly, we examine the effect of worry and general worries on individual preferences for the ideal retirement. Respondents who worry about their retirement have increased chances to choose the same financial and living situation than those who don't worry. The probability of choosing a better financial situation and relocating to another house rises as concern increases.

Furthermore, we investigate how the preferences for the post retirement life affect the intentions to realize the ideal retirement. Respondents who worry about retirement have less chance to pay money for extra facilities. A one unit increase of the general worries decreases the probability to continue working and increases the probability to move to another house. Finally, worry acts as a mediating factor between general worries and intentions to act with the effect to be more pronounced for the intention to pay for extra services and facilities.

Our results provide useful policy implications for the design of the pension policy by revealing the retirement preferences and how these are affected by psychological and demographical factors. We argue that people are able to make choices about significant issues about their retirement regarding different issues. We identify retirement preferences that can be used as an indication for investments with social impact. We contend that financial consideration is an important issue for retirement but should not be considered independently. Social entrepreneurs should consider implementing

investments in health, disease prevention, care provision, living conditions, and social interaction for elderly people after retirement.

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TABLES and FIGURES

Table 1: Frequencies and proportions without weights

Variables	Freq.	Percent %
Retired		
No	12,062	86.61
Yes	1,864	13.39
Gender		
Male	4,785	34.36
Female	9,14	65.64
Age		
25 year or younger	122	0.88
26 -35	547	3.93
36-45	1,231	8.84
46-65	11,349	81.50
66 year or older	677	4.86
Living situation		
Own house	10,92	78.41
Rental house	2,724	19.56
No own house	103	0.74
Other	179	1.29
Education		
Primary school	110	0.79
VMBO/ MAVO/ LBO	1,566	11.25
MBO	4,373	31.40
HAVO/ VWO	1,21	8.69
HBO	5,274	37.87
University (WO)	1,393	10.00
Working experience		
Less than 5 years	1,052	7.55
5-10 years	1,371	9.84
11-20 years	3,001	21.55
21-30 years	3,49	25.06
More than 30 years	5,012	35.99
Working hours		
Less than 8 hours	170	1.22
8-15 hours	910	6.53
16-32 hours	6,893	49.50
More than 32 hours	5,953	42.75
Region		
North	1,606	11.53
East	3,104	22.29
West	5,767	41.41
South	4,35	31.24

Group		
Employee PGGM	214	1.54
Member PGGM	13,712	98.46
Total	13,926	100.00

Table 2: Worry and level of general worries

VARIABLES	(1) Worry	(2) General worries	(3) Worry	(4) Worry
General worries			0.284*** (39.10)	
My financial situation				0.206*** (35.94)
The care I will receive				0.0381*** (8.407)
My own health				0.00537 (1.083)
Loneliness				-0.000102 (-0.0199)
My living situation				0.0217*** (3.835)
Male	-0.0453*** (-3.901)	-0.149*** (-8.269)	-0.00217 (-0.212)	-0.00486 (-0.555)
Age dummy (age<25)	-0.0877* (-1.881)	-0.0484 (-0.695)	-0.0770 (-1.587)	-0.147*** (-2.601)
Age dummy (26<age<35)	-0.0685*** (-3.189)	0.0383 (1.167)	-0.0751*** (-3.407)	-0.0997*** (-4.259)
Age dummy (36<age<45)	-0.0452*** (-3.125)	0.0640*** (2.877)	-0.0584*** (-4.247)	-0.0517*** (-4.138)
Age dummy (age>65)	-0.0782*** (-3.357)	0.0104 (0.284)	-0.0879*** (-3.703)	-0.0512** (-2.457)
House rental	0.0507*** (4.403)	0.168*** (8.544)	0.0125 (1.110)	-0.0181* (-1.676)
House no-own	0.0539 (1.100)	0.158* (1.790)	0.0393 (0.735)	0.0176 (0.299)
House other	0.0235 (0.537)	0.100 (1.209)	0.00519 (0.110)	-0.0106 (-0.247)
Primary	0.139*** (4.650)	0.190** (2.342)	0.112*** (5.053)	0.0747*** (3.705)
VMBO/MAVO/LBO	0.0300** (2.092)	0.133*** (5.237)	0.00709 (0.507)	0.0121 (1.032)
MBO	0.0380*** (3.374)	0.0967*** (5.277)	0.0155 (1.529)	0.0162* (1.910)

HAVO/VWO	-0.00225 (-0.132)	0.0109 (0.392)	0.000390 (0.0260)	0.00996 (0.853)
University	-0.0781*** (-4.398)	-0.118*** (-4.532)	-0.0368** (-2.332)	-0.0339** (-2.368)
Employee	-0.200*** (-4.928)	-0.295*** (-5.282)	-0.121*** (-3.013)	-0.0582* (-1.679)
Working experience	0.00878 (1.033)	-0.0497*** (-3.657)	0.0213*** (2.963)	0.0251*** (4.212)
Working hours	0.0278** (2.533)	0.0187 (1.053)	0.0255** (2.525)	0.0123 (1.443)
Retired	-0.0416*** (-2.799)	-0.00373 (-0.153)	-0.0383*** (-2.703)	-0.00768 (-0.671)
North	0.00576 (0.392)	-0.00805 (-0.335)	0.00844 (0.636)	-0.00718 (-0.587)
East	-0.0172 (-1.457)	-0.000596 (-0.0308)	-0.0149 (-1.367)	-0.00867 (-0.951)
South	0.00946 (0.878)	0.103*** (5.886)	-0.0161 (-1.571)	-0.00910 (-1.033)
Observations	13,853	13,535	13,481	13,481
R-squared		0.052		
Pseudo R-squared	0.0254		0.203	0.352
x ²	268.6		1114	1442

z-statistics in parentheses *** p<0.01, ** p<0.05, * p<0.1

Note: The outcome of the logistic regressions 1 and 3, is marginal effect at means (dy/dx) is for discrete change of dummy variable from 0 to 1 i.e. all dummy variables except the general worries. Model 2 is estimated by OLS. Robust standard errors are in parentheses.

Table 3: the ideal financial situation

VARIABLES	(1) Better than before	(2) The same	(3) I need less	(4) I don't care as long	(5) Don't know/ preference
Worry	-0.00449 (-0.568)	0.131*** (9.599)	-0.0104* (-1.725)	-0.102*** (-7.094)	-0.0143** (-2.183)
General worries	0.0315*** (7.262)	-0.00262 (-0.300)	-0.0216*** (-5.700)	-0.00971 (-1.110)	0.00248 (0.693)
Male	0.0209*** (2.754)	0.00467 (0.354)	0.0365*** (5.158)	-0.0608*** (-4.678)	-0.00131 (-0.230)
Age dummy (age<25)	0.0385 (1.271)	0.0185 (0.379)	-0.0350** (-1.980)	-0.0506 (-1.125)	0.0287 (1.199)
Age dummy (26<age<35)	0.0140 (1.036)	0.000780 (0.0325)	-0.0427*** (-5.954)	0.0156 (0.670)	0.0123 (1.205)
Age dummy	0.0131	-0.0183	-0.0151**	0.0379**	-0.0177***

(36<age<45)	(1.388)	(-1.112)	(-2.293)	(2.342)	(-3.302)
Age dummy (age>65)	-0.0174 (-1.568)	-0.0913*** (-3.659)	0.00840 (0.673)	0.0694** (2.560)	0.0308* (1.872)
House rental	0.0439*** (5.244)	-0.0468*** (-3.312)	-0.0265*** (-4.543)	0.0330** (2.310)	-0.00356 (-0.723)
House no-own	0.0732 (1.392)	-0.0692 (-1.064)	-0.0373* (-1.873)	0.0398 (0.557)	-0.00657 (-0.296)
House other	0.0252 (0.696)	-0.135*** (-2.619)	-0.0451*** (-4.502)	0.171*** (2.959)	-0.0155 (-1.469)
Primary	0.0253 (0.652)	-0.120** (-1.990)	-0.0506*** (-4.082)	0.0576 (1.060)	0.0876** (2.117)
VMBO/MAVO/LBO	0.0120 (1.188)	-0.126*** (-7.567)	-0.0255*** (-3.906)	0.0643*** (3.472)	0.0754*** (5.212)
MBO	-0.00251 (-0.353)	-0.0488*** (-3.620)	-0.0188*** (-3.352)	0.0312** (2.279)	0.0390*** (5.660)
HAVO/VWO	0.0232** (1.976)	-0.0334* (-1.716)	-0.00893 (-1.151)	0.0280 (1.372)	-0.00882 (-1.192)
University	-0.0141 (-1.436)	-0.00189 (-0.0945)	0.0140* (1.733)	0.00448 (0.219)	-0.00250 (-0.272)
Employee	0.0236 (0.859)	-0.0718* (-1.746)	0.0649** (2.543)	-0.0104 (-0.248)	-0.00632 (-0.373)
Working experience	0.0155*** (2.673)	0.0707*** (6.821)	-0.00814* (-1.942)	-0.0705*** (-7.208)	-0.00754** (-2.038)
Working hours	7.04e-05 (0.0103)	0.0531*** (3.998)	0.00118 (0.196)	-0.0517*** (-3.932)	-0.00266 (-0.493)
Retired	0.00943 (0.971)	0.0109 (0.641)	-0.0128** (-1.971)	0.00596 (0.355)	-0.0134** (-2.452)
North	0.0134 (1.335)	-0.0302* (-1.752)	0.000296 (0.0380)	0.0126 (0.728)	0.00392 (0.537)
East	-0.0100 (-1.459)	0.0116 (0.825)	-0.00103 (-0.175)	-0.00703 (-0.507)	0.00650 (1.097)
South	-0.0142** (-2.280)	-0.00370 (-0.287)	0.00592 (1.008)	0.0106 (0.823)	0.00139 (0.271)
Observations	13,099	13,099	13,099	13,099	13,099
Pseudo R-squared	0.0373	0.0373	0.0373	0.0373	0.0373
χ^2	883.3	883.3	883.3	883.3	883.3

z-statistics in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table 4: the ideal living situation

	(1)	(2)	(3)	(4)	(5)
VARIABLES	The same	I don't care as long	Relocate	Live abroad	I don't know/r preference

Worry	0.0827*** (5.945)	0.00236 (0.215)	-0.0549*** (-4.042)	0.00214 (0.480)	-0.0323*** (-3.264)
General worries	-0.0600*** (-6.708)	-0.0172** (-2.424)	0.0789*** (10.85)	0.00281 (0.875)	-0.00446 (-0.791)
Male	0.0646*** (4.845)	-0.00582 (-0.568)	-0.0299*** (-2.705)	0.0172*** (3.259)	-0.0460*** (-5.903)
Age dummy (age<25)	-0.127*** (-2.769)	0.0606 (1.433)	-0.0363 (-0.941)	-0.00611 (-0.464)	0.109** (2.553)
Age dummy (26<age<35)	-0.103*** (-4.391)	0.00939 (0.504)	-0.0144 (-0.732)	-0.00538 (-0.803)	0.114*** (5.553)
Age dummy (36<age<45)	-0.119*** (-7.421)	0.0387*** (2.853)	-0.0233* (-1.768)	0.0189*** (3.106)	0.0852*** (6.592)
Age dummy (age>65)	0.0453* (1.664)	-0.0273 (-1.368)	0.0549** (2.043)	-0.0213*** (-4.210)	-0.0515*** (-3.567)
House rental	-0.0836*** (-6.023)	0.0512*** (4.185)	0.00392 (0.325)	0.00933* (1.849)	0.0191** (1.962)
House no-own	0.0205 (0.284)	-0.0282 (-0.552)	0.0106 (0.180)	-0.00276 (-0.150)	-0.000114 (-0.00307)
House other	-0.0728 (-1.336)	0.0540 (1.085)	0.0252 (0.473)	0.0264 (0.943)	-0.0328 (-1.335)
Primary	-4.22e-05 (-0.000661)	-0.0189 (-0.322)	-0.0290 (-0.660)	-0.0225*** (-3.299)	0.0704 (1.050)
VMBO/MAVO/LBO	0.0411** (2.258)	-0.0438*** (-3.556)	0.0310* (1.910)	-0.0171*** (-4.113)	-0.0113 (-1.029)
MBO	0.0119 (0.873)	-0.0122 (-1.147)	0.0341*** (2.850)	-0.0120*** (-2.990)	-0.0219*** (-2.749)
HAVO/VWO	0.000903 (0.0460)	-0.00170 (-0.106)	0.0128 (0.716)	-0.00269 (-0.475)	-0.00935 (-0.801)
University	0.000615 (0.0305)	-0.0101 (-0.685)	0.00298 (0.163)	-0.00411 (-0.809)	0.0107 (0.831)
Employee	-0.166*** (-4.162)	0.0512 (1.464)	0.101** (2.328)	0.0252 (1.549)	-0.0114 (-0.561)
Working experience	0.0249** (2.409)	-0.00215 (-0.258)	-0.00847 (-0.986)	-0.00800*** (-2.607)	-0.00633 (-0.905)
Working hours	0.0167 (1.261)	0.00291 (0.275)	-0.0269** (-2.362)	0.00820* (1.857)	-0.000910 (-0.109)
Retired	0.124*** (7.328)	-0.0235* (-1.884)	-0.0551*** (-4.080)	-0.0112*** (-2.602)	-0.0341*** (-3.087)
North	0.0212 (1.202)	0.00890 (0.627)	-0.0261* (-1.810)	-0.00225 (-0.405)	-0.00171 (-0.155)

East	0.0266*	-0.00147	-0.00968	-0.00964**	-0.00581
	(1.902)	(-0.135)	(-0.806)	(-2.446)	(-0.678)
South	0.0435***	-0.00995	-0.0137	-0.00936**	-0.0105
	(3.371)	(-0.983)	(-1.234)	(-2.493)	(-1.307)
Observations	13,152	13,152	13,152	13,152	13,152
Pseudo R-squared	0.0389	0.0389	0.0389	0.0389	0.0389
χ^2	890.3	890.3	890.3	890.3	890.3

z-statistics in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Table 5: Intentions toward the realization of the ideal retirement

VARIABLES	(1) Continue working	(2) Volunteer work	(3) Relocate	(4) Pay for extra
Worry	-0.0157* (-1.661)	-0.0145 (-1.172)	0.0213 -1.436	-0.0420*** (-3.903)
General worries	-0.0162*** (-2.700)	-0.00811 (-1.050)	0.0392*** -4.256	-0.00831 (-1.302)
Financial better than before	0.0247 -1.567	-0.00731 (-0.371)	-0.0302 (-1.308)	0.0167 (0.955)
Financial need less	-0.0156 (-1.321)	0.0612*** -3.320	0.0223 -1.095	0.0418*** -2.629
Financial I don't care as...	0.0130 -1.572	0.0459*** -4.124	0.0166 -1.287	-0.00174 (-0.195)
Financial Don't know/no preference	0.0124 (0.642)	-0.00467 (-0.196)	-0.0754*** (-2.724)	-0.0514*** (-3.024)
Living I don't care as long as...	0.00494 (0.490)	-0.0306** (-2.316)	0.228*** (14.78)	-0.0331*** (-3.248)
Living Another house	-0.00880 (-0.960)	0.00606 (0.503)	0.394*** (31.73)	-0.0237** (-2.480)
Living Abroad	-0.0142 (-0.798)	-0.126*** (-5.357)	0.127*** -3.848	-0.0239 (-1.114)
Living Don't know/no preference	-0.0146 (-1.155)	-0.0227 (-1.266)	0.0947*** -4.277	-0.0684*** (-5.544)
Male	0.0304*** -3.303	-0.00345 (-0.297)	-0.0128 (-0.913)	0.0154 -1.560
Age dummy (age<25)	0.0357 -1.016	0.0144 (0.331)	0.0187 (0.371)	-0.0103 (-0.280)
Age dummy (26<age<35)	0.00159 (0.107)	0.0134 (0.642)	-0.00996 (-0.398)	-0.0459*** (-2.983)
Age dummy (36<age<45)	0.00111 (0.105)	-0.0296** (-2.080)	0.0252 -1.496	0.00612 (0.495)
Age dummy (age>65)	-0.00283 (-0.185)	-0.00576 (-0.263)	-0.00459 (-0.166)	0.0204 -1.117
House rental	0.0415***	0.0308**	-0.0194	-0.0414***

	-3.937	-2.370	(-1.316)	(-4.025)
House no-own	0.0305	0.0550	-0.0898	-0.0215
	(0.602)	(0.849)	(-1.145)	(-0.435)
House other	0.116**	0.0812	-0.107**	-0.0449
	-2.380	-1.485	(-2.136)	(-1.330)
Primary	-0.00956	-0.139***	-0.0413	-0.128***
	(-0.193)	(-3.001)	(-0.645)	(-6.438)
VMBO/MAVO/LBO	-0.0536***	-0.0644***	-0.0571***	-0.0715***
	(-5.597)	(-4.590)	(-3.165)	(-6.803)
MBO	-0.0422***	-0.0545***	-0.0321**	-0.0657***
	(-4.996)	(-4.757)	(-2.297)	(-7.272)
HAVO/VWO	-0.00644	-0.0552***	-0.0202	-0.0423***
	(-0.518)	(-3.528)	(-0.992)	(-3.404)
University	0.116***	0.0113	0.0283	0.0885***
	-7.424	(0.656)	-1.360	-5.762
Employee	0.0140	-0.0308	-0.00604	0.0885**
	(0.565)	(-0.859)	(-0.139)	-2.511
Working experience	-0.0264***	0.00278	-0.00548	0.00332
	(-4.121)	(0.310)	(-0.523)	(0.455)
Working hours	0.00913	-0.0147	-0.0495***	0.00622
	-1.064	(-1.269)	(-3.624)	(0.658)
Retired	0.00633	0.0170	-0.0709***	0.0184
	(0.576)	-1.107	(-4.315)	-1.530
North	-0.00677	-0.00646	-0.0197	-0.0159
	(-0.620)	(-0.433)	(-1.083)	(-1.369)
East	-0.00587	0.0101	-0.0113	-0.0181*
	(-0.684)	(0.824)	(-0.777)	(-1.914)
South	-0.0332***	-0.00792	-0.0251*	0.00183
	(-4.224)	(-0.708)	(-1.914)	(0.198)
Observations	13,481	13,481	13,481	13,481
Pseudo R-squared	0.0509	0.0124	0.0904	0.0487
χ^2	341.7	117.7	1022	445.1

z-statistics in parentheses: *** p<0.01, ** p<0.05, * p<0.1

Table 6: Mediation analysis, the effect of worrying to intentions

VARIABLES	(1) Continue working	(2) Volunteer work	(3) Relocate	(4) Pay for extra
Indirect Effect	-0.0275*** (-3.014)	-0.0135* (-1.895)	0.0131* -1.662	-0.0415*** (-4.775)
Direct Effect	-0.0511*** (-3.031)	-0.0237** (-2.083)	0.0741*** -5.920	-0.0316** (-2.117)
Total Effect	-0.0786*** (-4.676)	-0.0372*** (-3.697)	0.0872*** -7.875	-0.0731*** (-5.390)
Proportion of total effect mediated	0.3496	0.3627	0.1498	0.5678
Ratio of indirect to direct effect	0.5376	0.5690	0.1762	1.3137

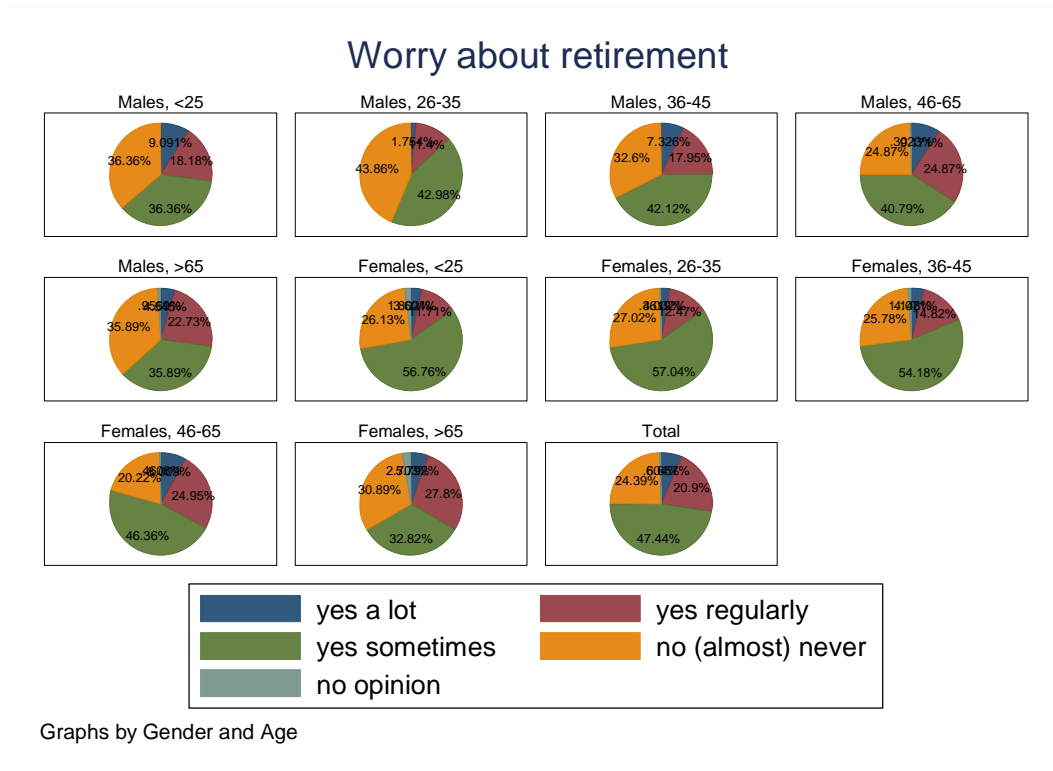


Figure 1

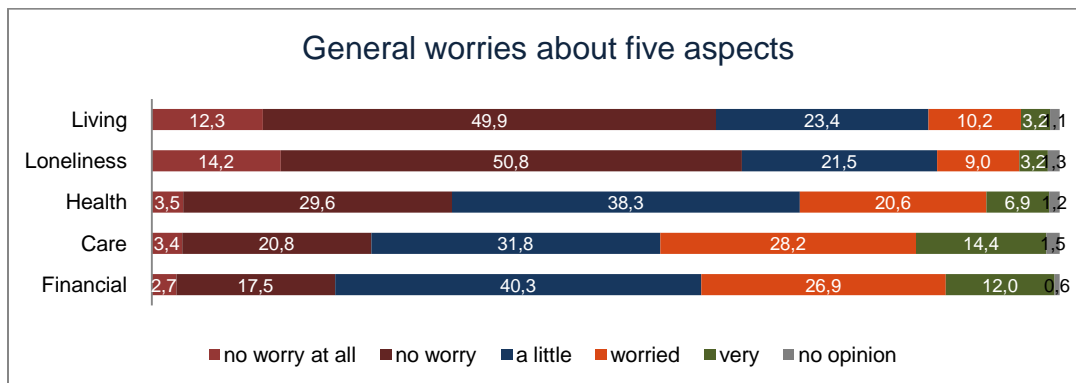


Figure 2

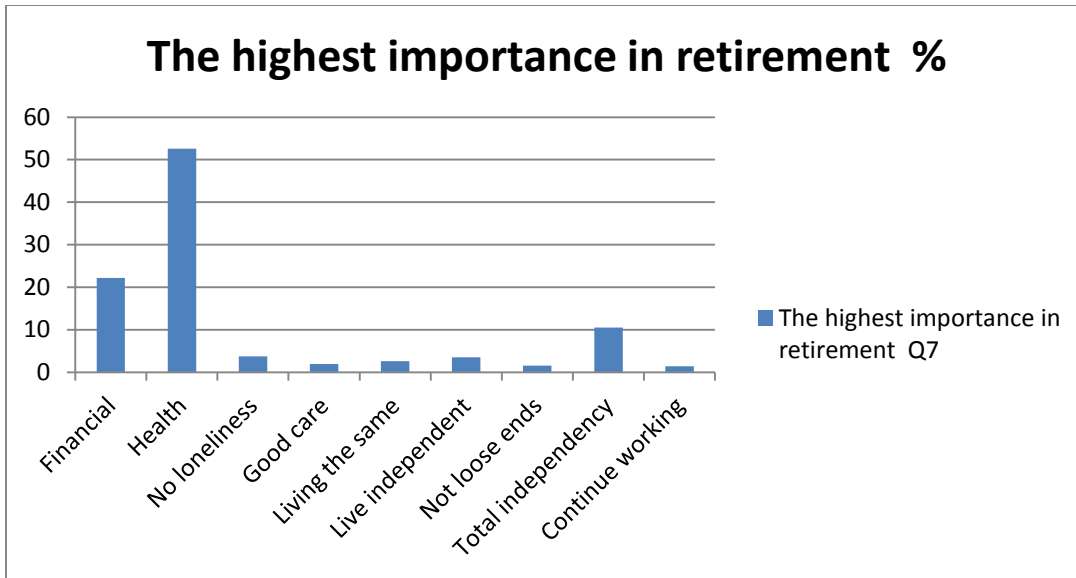


Figure 3

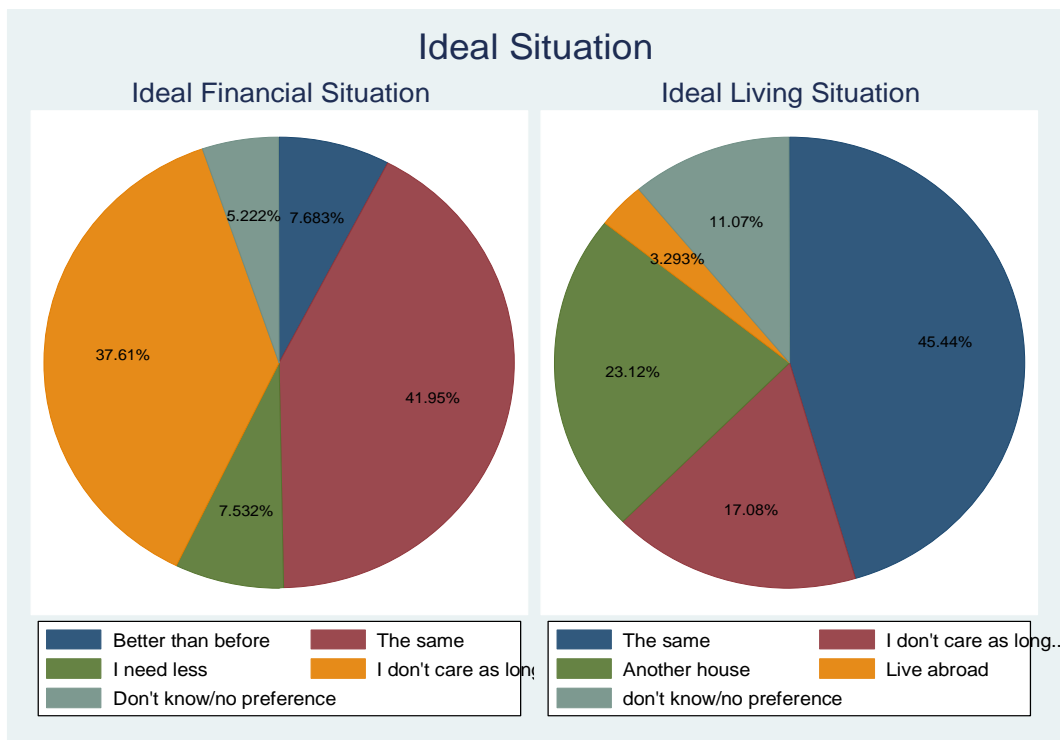


Figure 4

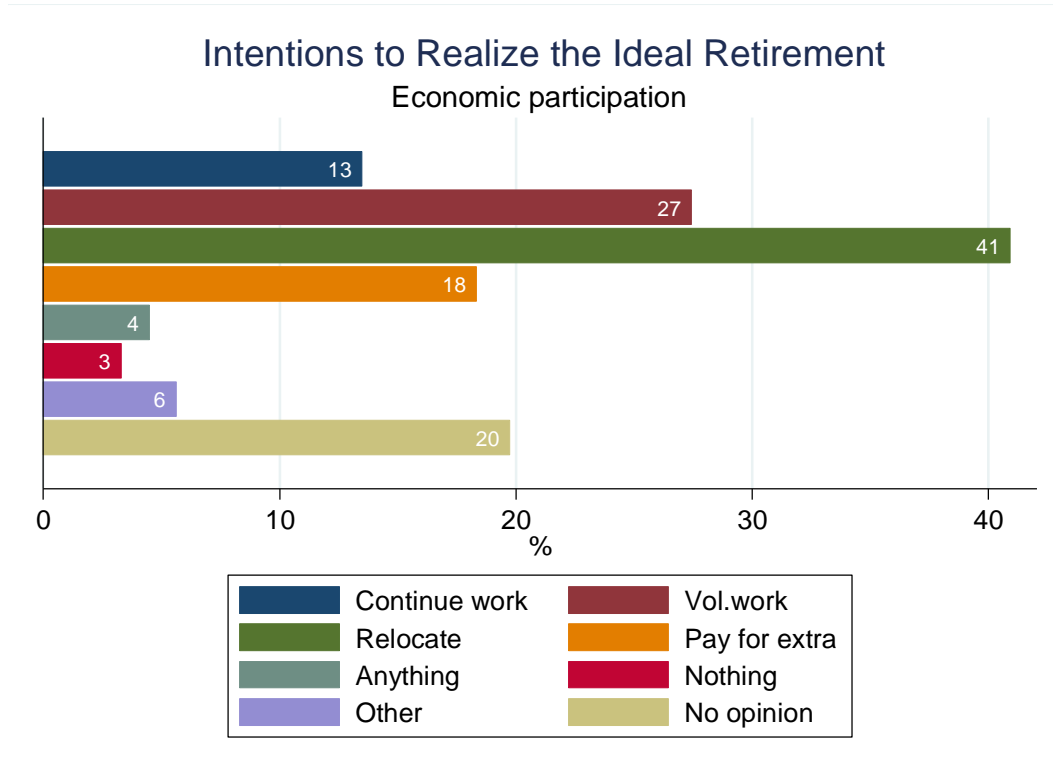


Figure 5

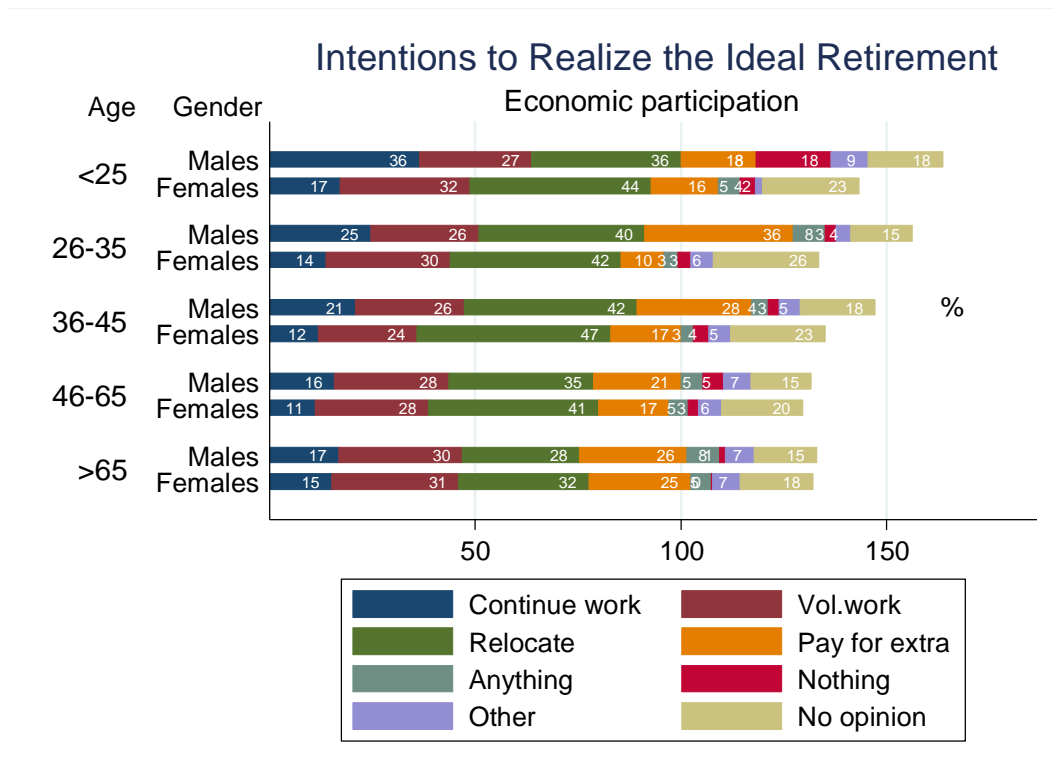


Figure 6

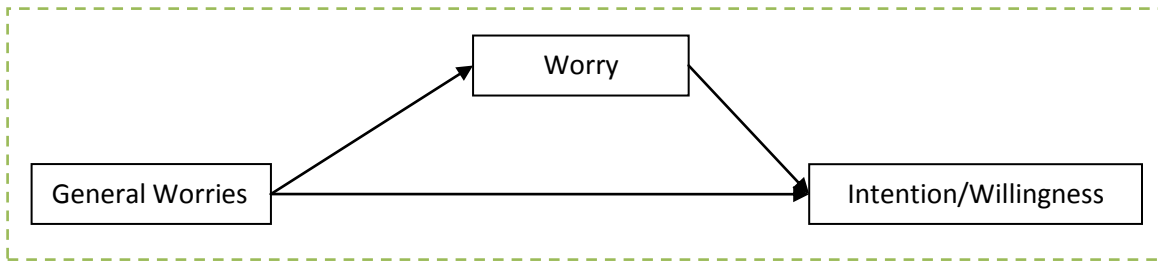


Figure 7: Direct and indirect effects of general worries to intention/willingness to act