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Zhiyu Yu

Labor Supply Preferences around Retirement for US Households

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Author:
Zhiyu Yu

Instructor:
Professor Dr. Arthur Van Soest

Abstract

We analyze labor supply preferences around retirement for US households coming from the Health and Retirement Study. A collective structural life cycle model of joint retirement of couples is specified and estimated. Respondents were given hypothetical retirement scenarios describing age(s) of retirement of both spouses and replacement rate(s). Preferences and the intrahousehold bargaining process are identified by using stated preference data. Parameters of the utility functions vary with observed and unobserved characteristics. Our results support the collective model rather than the unitary model.

1 Introduction

Nowadays, a lot of attention has been devoted to the economics of retirement. In the 60s and 70s, because few elderly women had careers that allowed them to be eligible for Social Security benefits, the majority of existing retirement models only studied the behavior of individuals i.e. usually single males. All these studies do not take the joint decision of multi-agent households into account (e.g. Gustman and Steinmeier (1986); Stock and Wise (1992,1994); Haan and Prowse (2010) Belloni and Alessie (2009)).

During the past two or three decades, there are two features appeared in the labor market, one is that the labor force participation of married women has increased substantially in developed countries (Groot and Pott-Butter 1992). Another crucial fact is that the majority of individuals who approach retirement are married. Based on the Health and Retirement Study(HRS)data, almost 80 percent of males aged between 55 to 64 in 1992 were married or living with a partner. As a result of the two above new features, dual-worker families are now common among near elderly households. They typically have to decide jointly on social security benefits and pension take-up. Their retirement decisions usually involve some "joint planning".

This "joint planning" feature has important social and economic effects. If we want to understand the effect of financial incentives, health, complementarity in leisure and other factors on retirement decisions of individuals who live in couples, it is important to take account of joint features of their retirement-related decision. Moreover, if we want to better understand the consequences of retirement policies, for example, the spouse benefit in social security or the tax treatment of earnings and pension income of couples, on retirement decisions, it is also necessary to understand how couples make their retirement decisions and what the joint features of these decisions are, and how these decisions affect each individual's well-being. On the other hand, ignoring the joint decision potentially leads to miss-specification of the model. Based on all the above points, the study of retirement decisions of couples has been given a lot of attention during the past few years.

In the literature, the evidence of joint retirement has also been documented among several generations and countries. It has been shown that a significant proportion of spouses retire within less than one year of each other, independently of the age difference between them. For example, the New Beneficiary

Survey (Hurd(1990)), the National Longitudinal Survey of Mature Women (Gustman and Steinmeier (2000)), the Retirement History Study (Blau (1998)), Health and Retirement Study (Michaud (2003)), the English Longitudinal Study of Ageing (Banks (2010)).

Several economic explainations have been provided to explain the observed patterns of joint retirement, ranging from the role of Social Security benefits (Gustman and Steinmeier (1986); Rust and Phelan (1997), French (2005)), Private Pensions, Health Insurance coverage (Gustman and Steinmerier(1996), Blau and Gilleskie(2006), Van der Klaauw and Wolpin(2008)) to the role of complementarity in leisure (Gustman and Steinmerier(2004); Maestas(2001)).

Researchers also have developed several economic models to analyze this fact. Both structural and reduced-form approaches have been applied. People favor the structural models because of the complex financial incentives faced by the individuals at the end of their working career. One common assumption about these structural models is that both husband and wife are separate decision-making agents within the household, that is, each spouse's preference is represented by a separate utility function(e.g. Blau and Gilleskie(2006) and Van der Klaauw and Wolpin(2008)). At the same time, a series of reduced-form studies (Coile(1999) and Banks etal.(2010)) can also be found. They showed that the joint retirement phenomenon is larger than financial incentives alone can explain, suggesting the existence of complementarity in leisure in spouses' preferences. The complementarity in leisure would give spouses incentives to coordinate their retirement decisions.

This paper is trying to explain the retirement decisions of the couples by estimating labor supply preferences around retirement by using the stated preference data. Many existing studies (e.g.Michaud and Vermeulen (2011); Casanova (2010)) used revealed preference data to explain the joint retirement phenomena. They used the data on the observed actual behaviors of the couples. This paper is the first one to use stated preferences data to do the joint retirement analysis. In our paper, we have several reasons to use the stated preference data. Firstly, in order to study the choice behavior in settings that differ a lot from the actual situation rather than a small departure, stated preference method has to be used. Secondly, as is mentioned in Van Soest, Kapteyn and Zissimopoulos (2006), structural models explaining retirement decisions of individuals or households in an inter-temporal setting are typically hard to estimate using data on actual retirement decisions because choice sets are complicated and uncertain and for a large part unobserved by the researcher. Thirdly, it has been widely used in marketing research and transport economics (Louviere et al, 2002) and the SP approach has also gained acceptance in economics in recent years (Barsky et al. (1997), Kimball and Shapiro (2010)). Louviere et al (2002) compared the preference parameters estimates based upon SP data and RP (revealed preference) data and found that the two are usually quite close. SP method has been successfully applied to estimate individual preference for labor supply around retirement using Dutch data. (see, Van Soest, Kapteyn and Zissimopoulos (2006); Vonkova and Van Soest (2009)). They demonstrate the feasibility of using stated preferences data to estimate the structural parameters of a simplified life-cycle model for single individuals. The current paper aims at extending the above analysis, using **stated preferences(SP)** data, allowing for potentially different preferences across spouses.

In our paper, we present a structural retirement model that is embedded in the collective approach to household behavior. Preferences are estimated by asking the respondents in the Health and Retirement Study to choose between a number of hypothetical retirement trajectories and also rate them. The trajectories are represented by different income-hours combinations. In the choice part, they are asked to make the binary choice between different scenarios. In the rating part, they are required to indicate how attractive each scenario is, on a scale from 1 (very unattractive) to 10 (very attractive). Couples answer the survey questions separately. In addition, they make decisions first just accounting for their own preferences, then only the preferences of the spouse and in the end both preferences. All this is enough to identify the parameters.

We find that our results strongly support the collective model rather than the unitary model. The wage difference significantly affects the bargaining weight. The majority of health, age and education dummies have a significant effect on labor supply preference parameters. For both males and females, good health implies more labor supply. We get intuitive estimates for males but some puzzling estimates for females.

The remainder of this paper is organized as follows. Section 2 describes the collective structural model and use a simple example to illustrate the identification issue. Section 3 gives an overview of our SP questions and a simple analysis of the data. The empirical results are discussed in Section 4. Section 5 concludes.

2 A Collective Structural Model

2.1 Theoretical Framework

The classical framework to study household decision-making is the unitary model. In this model, the household is considered as a single decision maker, it chooses an optimal bundle of goods $q = (c, l_m, l_f)$ (where c denotes the aggregate consumption, l_m and l_f are leisure of husband and the wife respectively) in order to maximize the household utility function $u(q)$ given the budget constraint $c + w_m l_m + w_f l_f \leq Y$. (where w_m and w_f denote wages and Y denotes the full family income, here $Y = (w_m + w_f)T + y$ where T is the time endowment and y is non-labor income and $p = (1, w_m, w_f)$). The simple constrained maximization problem can be written as follow:

$$max_q u(q) \quad st. \quad pq \leq Y \tag{1}$$

In this simple setting, all consumer demand properties satisfy, for example, homogeneity, Slutsky symmetry and so on. It also implies income pooling: whether the non-labor is received by the husband or the wife does not matter, only the total amount $y = y_m + y_f$ matters.

This simple extension from the individual to household has been criticized by lots of researchers during the past thirty years. Chiappori (1998) stated that the unitary model is in conflict with methodological individualism. If spouses disagree with each other when making the joint decision, the outcome must result from some bargaining process, such an outcome cannot be obtained from just maximizing a single household utility function. From the empirical point of view, the empirical evidence against the unitary model has accumulated in recent years (see. e.g. Fortin and Lacroix(1997); Browning and Chiappori(1998)), there are plenty of evidences, first of all, the rejection of basic properties of demand systems such as Slustsky symmetry is seen as as a shortcomings of the unitary model. Another is the rejection of the income-pooling property (the requirement that which spouse receives non-labor income does not matter for the behavior of the couple) is seen another strong evidence against the unitary model. In addition, it is shown that welfare analysis based on the unitary model rather than the collective model can lead to misleading conclusions (Bourguignon and Chiappori, 1994). Brett(1998) shows that if one moves away from the traditional unitary household analysis, it is not necessarily the case anymore that increasing household income is Pareto improving in a non-unitary model.

Although there is strong evidence that the unitary model is inadequate for studying joint labor supply decisions, there is no consensus on what should be the alternative (Lundberg and Pollak, 1996). One alternative is cooperative bargaining mechanism such as Nash bargaining or Kalai-Smorodinsky (McElroy and Horney, 1981). Under standard assumptions about utility functions and opportunity sets, any Pareto optimal allocation can be represented as the outcome of maximizing a weighted-average of individual utility functions, nesting Nash and Kalai-Smorodinsky as special cases. On the other hand, Gustman and Steinmeier (2000,2004) used a noncooperative setting. The main drawback of this method is that the equilibrium outcomes are in general not Pareto efficient. This seems implausible especially for the retirement decision since most of these couples have been living together for a long period, giving them chances to cooperate.

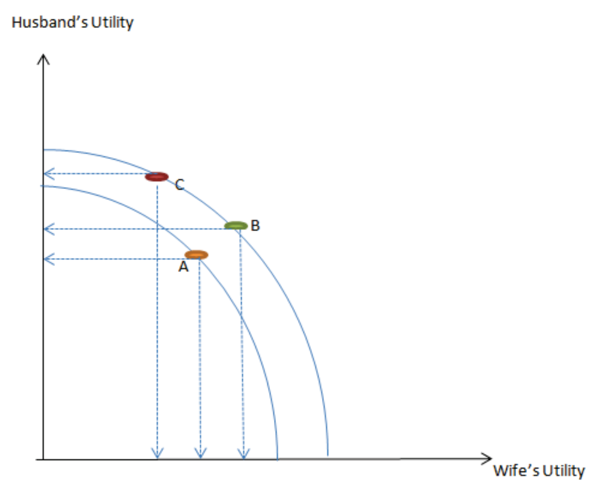
We will use the collective model in our paper. This model was first developed by Chiappori (1988) and then has been widely applied in the household decision-making literature(see. e.g. Brett(1998); Chiappori(1992); Cherchye et al.(2007)) . It assumes that two spouses have their own utility functions $u_m(q)$ and $u_f(q)$ and there is a bargaining mechanism leads to some equilibrium outcome (Apps and Rees,1988; Chiappori,1988,1992). The only assumption we make here is that the decision process, whatever its true nature, generates Pareto-efficient outcomes. Making fewer assumptions about the bargaining process leads to fewer testable restrictions that may demand more data. At one extreme, when leisure choices as well as consumption expenditures of at least three goods are observed, Browning and Chiappori (1998) show that strong testable restrictions exist on the collective model, generalizing the restrictions on the Slustsky matrix in the standard unitary framework. At the other extreme, Chiappori (1998) shows that when individual utility functions are not restricted to be egoistic but may depend on the spouse's consumption of goods but when only leisure choices are observed, then only non-parametric restrictions are available to test the collective model. Chiappori et al. (2002) show that the collective model implies other restrictions that can be tested. These restrictions only require observation of hours worked by both spouses and rely on factors that determine within household bargaining power such as divorce laws. Taking together all this literature, these testable restrictions provide strong empirical support in favor of the collective model and give confidence that the collective model is a viable alternative to the unitary model.

To make it explicit, in the collective model, the maximization problem becomes:

$$max_q W(u_m(q), u_f(q), p) \quad st. \quad pq \leq Y \tag{2}$$

The above equation is different from the unitary model since price change will also affect W. W is characterized by a "sharing rule" that measures how the bargaining strength respond to price change. It is easy to see that it will not satisfy the standard demand restrictions and the welfare implications can be different. We will use a very simple case to give an intuitive explanation about the different welfare implications about the unitary model and the collective model.

2.1.1 Figure1: Effect of an Increase in Non-labor Income on Each Spouse's Welfare



We assume that before the increase of the non-labor income, the household optimal allocation is at A, then after the change, under the assumption of the unitary model under which the income pooling property applied, it goes to B, both husband's and wife's utility increases. This transfer is Pareto improving. However, if under the case of the collective model in which the bargaining power can be changed, it can be the case that it goes to C. Suppose that the husband's weight increases in non-labor income. Then following the change, there is an additional response to this change. In this case, it is not Pareto improving since the wife's utility is reduced after the change. Here the bargaining effect is stronger than the income effect.

2.2 Identification

The common identification problem for the collective model is that if we do not have any additional information or make any further assumption, the collective model cannot be empirically distinguished from the unitary model. In general, it is not possible to identify $W(...); u_m; u_f$ only from the observations of equilibrium outcomes q and p.

In general, the identification strategy for the general model relies on some sort of separability restriction. Chiappori(1992)used the "egoistic preferences" where preferences are separable in consumption and leisure of each spouse. Michaud et al.(2004) used panel data with couples and individuals who turned into widowhood in the cover period in order to identify the collective model. Some other studies also emphasize the problems with identifying all parameters of the collective model without using additional information. In our paper, we will use additional information coming from the stated preferences questions in our data to help identifying the parameters.

Then we use a example to illustrate the idea of identification. We focus on the intra household allocation of income and leisure. In this case, we do not consider savings. Preferences of individuals $j(j = m, f)$ can thus be represented by the following direct utility functions. We consider a particular utility function form (we expect that if we change the utility function form, the results will not differ too much), the Stone-Geary utility functions with constant returns to scale but no subsistence levels are given by

$$u_m(q) = \alpha_m ln l_m + \alpha_f ln l_f + (1 - \alpha_m - \alpha_f) ln c \tag{3}$$

$$u_f(q) = \beta_m ln l_m + \beta_f ln l_f + (1 - \beta_m - \beta_f) ln c \tag{4}$$

Within the household, if the couples have to make a joint decision, we assume that this bargaining process results in Pareto efficient allocations following Chiappori(1988,1992). The household maximization problem can be formally described as:

$$max_q u(q) = \lambda u_m(q) + (1 - \lambda) u_f(q) \tag{5}$$

subject to the budget constraint. We can specify the husband's weight as

$$\lambda = \lambda_0 + \lambda_m \frac{w_m}{Y} + \lambda_f \frac{w_f}{Y} \tag{6}$$

Here we allow the bargaining weight only depends on wages. We expect λ_m is positive, then λ is increasing in w_m. If the husband's true wage increase, his bargaining weight increases as well. This implies that he will claim a higher utility than before, which is produced by an intra-household allocation that is more favorable to the husband. Here the weight function is different from what we will use later, however, the idea is similar. We use this specification to explain the identification procedure. Based on the above maximization problem, the leisure demands are given by

$$w_m l_m = (\lambda_0\alpha_m+(1-\lambda_0)\beta_m)y+((\lambda_0+\lambda_m)\alpha_m+(1-\lambda_0-\lambda_m)\beta_m)w_m+((\lambda_0+\lambda_f)\alpha_m+(1-\lambda_0-\lambda_f)\beta_m)w_f \tag{7}$$

$$w_f l_f = (\lambda_0\alpha_f+(1-\lambda_0)\beta_f)y+((\lambda_0+\lambda_m)\alpha_f+(1-\lambda_0-\lambda_m)\beta_f)w_m+((\lambda_0+\lambda_f)\alpha_f+(1-\lambda_0-\lambda_f)\beta_f)w_f \tag{8}$$

We can easily observe that the model is not identified only from the observation of q and prices (w_m and w_f). Kooreman and Kapteyn(1990) is the first paper to combine stated preferences data with revealed preference data to identify parameters in the general setting. In their survey, they asked the respondents to state how many hours they would prefer to work. Since the question did not mention the spouse, they made the assumption that respondents answered this question not considering the preferences of the spouses. In the above model, if both respondents maximized their own utility when responding to the preferred hours question, the demands are simply given by

$$w_m l_m = \alpha_m Y \tag{9}$$

$$w_f l_f = \alpha_f Y \tag{10}$$

The implied weight for the responding spouse is equal to 1. These responses identify the parameters α_m and β_f. Together with the information provided by observed hours choices this is still not enough to identify all parameters. Although there are 6 reduced form parameters (in (7) and (8)) and only 5 structural parameters (α_f, β_m, λ_m, λ_f, λ_0), we still need additional information due to the convex natrue of the reduced-form parameter. At this stage, Kooreman and Kapteyn imposed that the marginal utility of consumption is equal across spouses, therefore explicitly imposing that $\alpha_m + \alpha_f = \beta_m + \beta_f$. This additional restriction is untestable.

In our paper, we extend the stated preference analysis conducted by Kooreman and Kapteyn(1990) to fully identify the parameters of the model. Suppose we ask respondents another stated preference question that how many hours they would prefer their spouses to work. Clearly, this identifies α_f, β_m. The total information is the two types of stated preference questions together with the observed outcome (bargaining outcome). This allows us to identify all the preference parameters of the above model. In our paper, the only difference from the above analysis is that instead of using observed outcome as a bargaining result, we will also use stated preferences question to get the information. We will ask also the respondents to make decisions in a joint perspective. This helps identify the bargaining parameters.

3 Our SP Questions and Data

3.1 Background Analysis

Our SP questions were included in the 2011 Internet-based Survey of the Household and Rrtirement Study. This Internet survey is developed by the HRS, Survey Research Center (SRC) Institute for Social Research (ISR) at the University of Michigan, and the RAND Corporation together. It is also the fifth in a series of surveys conducted on the Internet. A sub-sample of respondents who participated in the Health and Retirement Study (HRS) participated in the 2011 Internet-based survey. Completed interviews were obtained from 4,590 HRS respondents, for a simple response rate of 79.9 percent.

Our SP data particularly comes from Section J of the Internet-based Survey: Joint Retirement Preferences. This section is jointly developed by the HRS and Rand American Life Panel. The SP questions are administered to panel members of ages less than 65, which is the official age of retirement in the US. Since the age of the majority respondents is above 65 and Section J is almost the last Section of the Internet-based Survey and we need both individuals from the couple to answer the questions, in the end, we got 398 observations with 199 couples. For all these couples,both of them answered the questions.

Table 1

We can observe from the background information that for the majority of respondents, their age is between 55 and 65. This is a perfect group to do stated preference analysis, since they are about to retire in less than ten years. Estimating their preferences can help policy makers to designing proper retirement policies. Table 1 shows the selected characteristics of the sample.

3.2 Stated Preferences Questions

In this analysis of retirement, it is impossible to know the actual choices of the individuals who are still working. Here, we need to use the stated preferences questions, namely, using the contrasting point of views of each spouse on what would be optimal for each other from their perspective and from their spouse's perspective.

Our SP questions consist of two parts. The first part is about ratings, the couples in the households both have to rate six hypothetical and stylized retirement trajectories. All the six trajectories designed to be similar to the choices people potentially face so that they are perceived as realistic. Couples will be explicitly asked to assume that their employers will cooperate with each scenario.

According to the respondent's age and the age difference of, we had twelve random variables (each one has 1,2,3,4,5 values). We filled different replacement rates for different people. We create enough variation to identify the model.

One example of the rating questions is as follows (all the 6 scenarios are provided in the appendix B) :

How would you and your partner rate these retirement scenarios? Please provide your rating using a number between 1 (for very unattractive) and 10 (for very attractive).

You are between 62 and 65 years old	You are between 65 and 68 years old	You are older than 68
At 62 you reduce hours worked per week by 40 percent, but you net income is unchanged	You worked 24 hours per week, but your net income is unchanged	When you are 68 you retire and get a pension corresponding to 85 percent of your last earnings
You partner is between 62 and 65 years old	Your partner is between 65 and 68 years old	Your partner is older than 68
At 62 you partner reduces hours worked per week by 40 percent, but his/her net income is unchanged	Your partner works 24 hours per week, but his/her net income is unchanged	You partner is retired and get a pension corresponding to 85 percent of his/her last earnings

I : From your point of view, please evaluate the scenario on a ten-point scale from 1(very unattractive) to 10(very attractive).

II : From you spouse's point of view, please evaluate the scenario on a ten-point scale from 1(very unattractive) to 10(very attractive).

The second part of the questions is about binary choice, the couples need to make binary choice between two hypothetical and stylized retirement trajectories.

Stated Choice Questions:

I: Considering your own preferences and not those of your partner, which would you prefer?

II: Considering your partner's preferences and not those of yourself, what do you think your partner would prefer?

III: If, as a couple, you would have to decide jointly on choosing between these scenarios, what would be the most likely outcome?

Table 2 gives us the descriptive statistics of the ratings part. It shows the mean ratings for all different scenarios that were presented. Respondents in general value Scenario5 (S5) most from both types of questions. They give lowest ratings for Scenario2 (S2).

Table 2

Table 3 compares ratings and choices of the same respondents. In Choice question 2, respondent need to make binary choice between S2 and S4. In both types of questions, respondents who choose S4 in the choice question also tend to rate S4 better than S2. Specifically, 61.19% of those who chose S4 rate S4 higher than S2, 27.61% give the same rating and 11.20% rate S4 lower than S2. The answers of the latter group were inconsistent. For respondent who chose S4, the mean rating of S4 is larger than that of S2 (5.4813 over 3.7052 and 4.4750 over 3.4243). However, of the other respondents, who chose S2 over S4. They maybe did not understand the questions well or gave very noisy answers. We expect they gave higher rating of S2 than S4 since they choose S2 in the choice question. But they rated S4 slightly higher than S2 (4.4308 over 4.4231 and 4.4762 over 4.4082). We can also observe the inconsistency from the distribution of ratings. We expect large proportion of the respondents in this group rate S2 higher than S4, however, most people rate them equally(34.62% and 39.46%). The inconsistencies who that the noise or suboptimal choice behavior need to be taken seriously in the empirical model. So in our analysis, we assume different noise levels for the choice part the ratings part.

Table 3

The standard economic framework for individual retirement decisions is the life cycle model in which an individual decides on current labor supply, claiming social security and pension benefits and consumption and saving. Individuals typically aim at maximizing the expected discounted value of current and future utilities by making these decisions.

In our paper, we assume that the husband (m) and wife(f) both have intertemporal utility functions that are additively separable over a finite horizon of life time. In each period, the utility functions are given by $u_{m,t}(q)$ and $u_{f,t}(q)$. We fix the discount rate for both to be 0.95($\rho_m = \rho_f = 0.95$). We assume that households make retirement decisions under certainty and therefore bargain over the allocation of life-time utility.

It seems intuitively clear how the SP questions can supply additional information to help identify the model. Questions of type I for the husband and Questions of type II for the wife will lead them make decisions based on maximizing only the husband's own utility function.

$$\sum_{t=0}^{T} \rho^t u_m(q_t) \tag{11}$$

Similarly, Questions of type I for the wife and Questions of type II for the husband will ask them to only maximize the wife's own utility function.

$$\sum_{t=0}^{T} \rho^t u_f(q_t) \tag{12}$$

Provided that there is enough variation in the retirement scenarios, all this information identifies u_m, u_f.

Once the utility functions of both spouses are identified, questions of type III should be sufficient enough to identify the distribution of $\lambda(p)$. We also need enough variations in the scenarios that are presented to the couples. The maximization problem can be written as maximizing the joint utility functions. Note that here $\lambda(p)$ is different from the specification that we provided in the identification part.

$$\lambda(p) \sum_{t=0}^{T} \rho^t u_m(q_t) + (1 - \lambda(p)) \sum_{t=0}^{T} \rho^t u_f(q_t) \tag{13}$$

4 Econometric Models

I first demonstrate how we can use the preferences data to get the estimates. Given the respondents index $i = 1, ..., N$ and time index $t = 1, ..., T$, within period utility for each individual in a couple is specified using Stone-Geary utility functions with constant returns to scale but no subsistence levels. Here, we have his/her own leisure, the spouse's leisure and family consumption or income c.

$$u_m(q) = \alpha_m lnl_m + \alpha_f lnl_f + (1 - \alpha_m - \alpha_f) lnc \tag{14}$$

$$u_f(q) = \beta_m lnl_m + \beta_f lnl_f + (1 - \beta_m - \beta_f) lnc \tag{15}$$

where

$$\alpha_k(x_t; \eta_k) = x_t \psi_k^{\alpha} + \eta_k \tag{16}$$

$$\beta_k(x_t;\eta_k) = x_t\psi_k^{\beta} + \nu_k \tag{17}$$

c (Here $k = m, f, c$) is calculated from the within period budget constraint, since saving is assumed to be zero in this paper. x_t are a vector of taste shifters. The taste shifters capture sources of observed heterogeneity, such as age, health, education and so on. I have lots of flexibility to add other covariates, even some variables that correlate with risks faced by households. For example, health insurance coverage is correlated with medical expenditure risk, and stock owner ship is correlated with rate of return risk. Notice also that $\eta = (\eta_m, \eta_f, \eta_c)$ and $\nu = (\nu_m, \nu_f, \nu_c)$ indicate unobserved heterogeneity terms, which vary across individuals but are fixed over time and have covariance matrix Ω. As we can see from the above equation, the $\alpha's$ and $\beta's$ are linear combinations of the taste shifters and the unobserved heterogeneity term.

I obtain the estimates of the parameters ψ_k^{α} and ψ_k^{β} by combining the choice data and the ratings data. For the choice questions, denote that J is the number of alternatives in a given question, and let S be the number of stated-preference questions that are answered by the respondent ($s = 1, 2, ..., S$). For a question, j is chosen according to the model if the individual utility plus noise term is highest among all J alternatives. If the respondent is male, he will choose j that maximizes

$$V_{js}^{m}(x,\eta;\theta_m) + \epsilon_{js}^{m} \quad (where \quad V_{js}^{m}(x,\eta;\theta_m) = \sum_{t=0}^{T} \rho_m^t u_m(q_{js};x_t,\eta)) \tag{18}$$

If the respondent is female, it will be modeled in the same way, she will choose j that maximizes

$$V_{js}^{f}(x,\eta;\theta_f) + \epsilon_{js}^{f} \quad (where \quad V_{js}^{f}(x,\eta;\theta_f) = \sum_{t=0}^{T} \rho_f^t u_f(q_{js};x_t,\eta)) \tag{19}$$

When answering questions of type III, respondents will choose j that maximizes

$$V_{js}^{h}(x,\eta,\nu;\theta_m,\theta_f,\delta)+\epsilon_{js}^{j} \quad (where \quad V_{js}^{h}(x,\eta,\nu;\theta_m,\theta_f,\delta) = \lambda(p;\delta)V_{js}^{m}(x,\eta;\theta_m)+(1-\lambda(p;\delta))V_{js}^{f}(x,\nu;\theta_f)) \tag{20}$$

Here the bargaining process by the two spouses is reflected by a weight function $\lambda(p)$. p includes the wages. Following the same specification as some previous papers, we assume that the functional form for the weight λ is given below. This functional form also guarantees that the weights are bounded between 0 and 1. Previously, equation (6) is just for explaining identification. We will use equation

(21) in the empirical part.

$$\lambda(p,\delta) = \frac{exp(p,\delta)}{1+exp(p,\delta)} \tag{21}$$

Assuming that the error terms follow a type 1 extreme value distribution, the conditional probability that scenario j is chosen in question s is given by

$$Pr(j_1 = max_{j\in J}[V_{js}^k(x,\eta,\theta_k)]) = \frac{exp(V_{js}^k(x,\eta,\theta_k))}{\sum_w exp(V_{ws}^k(x,\eta,\theta_k))} \tag{22}$$

The joint probability of the responses to questions of type I II III, conditional on observed and unobserved heterogeneity, is the simple product of probabilities,

$$P_s(x,a;\theta) = \prod_j P_{js}^m(x,\eta,\theta_m)^{d_{js}^m} P_{js}^f(x,\eta,\theta_f)^{d_{js}^f} P_{js}^h(x,\eta,\theta_h)^{d_{js}^h} \tag{23}$$

where $d_{js}^k = I$ (j is chosen at s for k), $k = m, f, h$. Therefore, the probability for respondent i of giving his(her) preferred scenarios in the S stated-preference questions, given the preferences, is given by

$$P_i(x;\theta,\Omega) = \int \prod_j P_{is}(x_i,a_i,\theta)dF(a_i;\Omega) \tag{24}$$

Here Ω represents the covariance matrix of $a = (\eta,\nu)$ and we assume that a is jointly normal. Simulated maximum likelihood should be applied since the above equation does not have a closed form solution (see Train(2003)). We apply 50 Halton draws to perform such simulations.

The rating questions can be best modeled using ordered probit models, since ratings are always noisier than choice part. We make the assumption that the error terms can have higher variances. By adding the independent normal error terms, we can get the ordered probits for the ratings capturing the utility of the spouses:

$$R_{js}^{m*} = V_{js}^m(x,\eta;\theta_m) + \epsilon_m, \quad R_{js}^m = l \quad if \quad R_{js}^{m*} \in (\pi_{l-1}^m, \pi_l^m] \tag{25}$$

$$R_{js}^{f*} = V_{js}^f(x,\eta;\theta_f) + \epsilon_f, \quad R_{js}^f = l \quad if \quad R_{js}^{f*} \in (\pi_{l-1}^f, \pi_l^f] \tag{26}$$

5 Empirical Results

5.1 Testing the assumption

We start with simple check to testing one of our key assumption. The underlying assumption for our analysis is that both spouses know each other's preferences. Here I will compare the estimated results of α_m,α_f,β_m,β_f,δ_1,δ_2. Estimates in Column 2 are based on stated preference questions of type I and Column 3 is based on stated preferences of type II. Therefore, the comparison gives a basis for testing whether husbands and wives are aware of each other's preferences.

Table 4

From the estimates of the second column and third column, we can see that the estimates do not differ too much(later, we can develop a test to test this). This proves that both spouses know each other's preferences well. This is reasonable since most of the couples have been living together for a long time.

5.2 Baseline and Final Estimates

We first start with a very simple baseline estimates without random coefficients.The results are as follows

Table 5

From the Baseline Estimates above, we can see that in the utility specification the weights on consumption is really low, which are represented by $1 - \alpha_m - \alpha_f$ and $1 - \beta_m - \beta_f$. This indicates that the financial incentives for older couples are not very effective since they pay less attention to their consumption. Another evidence we could see from the table is that they value their spouses' leisure more than their own leisure because $\alpha_f > \alpha_m$ and $\beta_m > \beta_f$. Women play a more important role in the family since $\lambda < 0.5$. The large estimates of σ indicates that in the rating part, it is really noisy in the rating part since σ represents the standard deviation of the error terms.

Table 6

Table 6 gives the estimates of the final model. For example, the coefficients below α_m) are the observed heterogeneity that determine α_m). The same goes for α_f, β_m, β_f. Many of the parameters are significant, implying substantial observed heterogeneity. Parameters σ_{11}, σ_{12}, σ_{22} capture the unobserved heterogeneity. All of them are significant at 1 percent level except one of them is at 10 percent level, which shows that unobserved heterogeneity is important. There is also substantial heterogeneity not captured by observed characteristics. The large and significant estimate of σ implies that there is much more noise in the ratings part than the choice part. Since in the choice part, we assume that it follows the simple logit form (the variance of logistic distribution is $\pi^2/3 \approx 3.2899$).

Let us then look at the preference parameters in details. Focusing on the age dummy at first, if the male respondent belongs to the age ≥ 55 group, then the age dummy has a negative effect on his own leisure (α_m) and a positive effect on his spouse's leisure (α_f). This indicates the complementarity in leisure for men. For women, the age dummy is not significant for her own leisure but negative for her spouse's leisure. This small and negative effect cannot be explained by the complementarity in leisure.

The health variables are also of our main interest. We can observe that for both males and females, if they report good health, it has a negative effect on their own leisure and positive effect on their spouse's leisure. This coincide with our expectation. If people are healthier, they will spend more time working which is of course quite intuitive. At the same time, they also enjoy the time of being together with their spouses. In another case, if they report low health, it has a positive effect on its own leisure for males. It implies bad health has a negative impact on labor supply of males. For female's estimates, it is positive for their spouses' leisure. However, our intuition would expect a negative effect. One of the explanations would be that, health is multidimensional and that different measures should be used in a labor supply model. Maybe our category is too wide and we should consider more detailed variables, as is mentioned in Michaud et al.(2004).

For the high education dummy, it is also quite intuitive for male estimates. If males have higher education, it will have a positive effect on his labor supply since we expect they earn higher wages. It also have a positive effect on their spouses' leisure since we expect the complementarity in leisure plays a role here. For females, the estimates are a little bit puzzling. If they have higher education, they will prefer less work and less time with their spouses.

Since the main feature of the model is the collective approach, as is shown in the relative bottom of the table. As we expect, the parameters for log wage difference is positive and significant. The husband's wage rate has positive and significant impart on this utility weight. Remark that this result implies a rejection of the standard unitary model.

6 Conclusion

We have analyzed labor supply preferences around retirement for US households using the stated preferences data. What is special here is that we embedded a collective approach into household behavior. By using the collective approach, we make the underlying assumption that spouses have different utility functions over consumption and leisure. When they need to make a joint decision, there is a bargaining process going on and in the end they reach a Pareto efficient result.

Our identification strategy relies on Kooreman and Kapteyn (1990), we extend that analysis by using complete stated preferences data. We ask the respondents to rate and choose the hypothetical retirement scenarios first accounting for their own preferences only, and their spouses' preferences and in then end their joint perspective. By getting all the stated preferences data, we are able to identify all the structural parameters. We use a random coefficient model with unobserved heterogeneity. Two parts of likelihood are combined together in the end.

Our estimation results strongly support the collective model rather than the unitary model, since the wage difference affect the bargaining weight. The health variables also affect the labor supply decision. If they are in good health, they prefer to supply more labor and also spend more time with their spouses.

Our study has several limitations. First of all, the estimate of the standard error of the error term in rating maybe too large. If they are too noisy, we doubt whether the ratings data are fine to do the analysis. Secondly, we got some empirical results which is a little bit puzzling. Another important point we should see is provide the simulations to see how this model fit the data.

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7 Appendix A

Table 1: Background characteristics

Background characteristics	Percent
age: >= 55	58.04
age: <55	41.96
education high (years>16)	23.87
education medium (years=16)	23.37
education low (years<16)	52.76
self reported good health (rate >3)	64.82
self reported fair health (rate=3)	28.14
self reported low health (rate <3)	7.04
Total number of observations	398

Note: the self reported good health includes people reporting **excellent** and **very good** health. And the self reported low health includes people reporting **poor** and **very poor** health.

Table 2: Mean Ratings by different Scenarios

Scenario	Mean Ratings of type I questions	Mean Ratings of type II questions
S1	5.0678	4.5553
S2	3.9397	3.7864
S3	4.4171	4.5452
S4	5.1382	4.6533
S5	5.2990	5.1482

Table 3: Choices and Ratings

proportion of making this choice		distribution of ratings by choice (%)			mean rating by choice	
Choice question 2(Type I)		S2> S4	S2=S4	S2<S4	S2	S4
S2	32.66	33.08	34.62	32.31	4.4231	4.4308
S4	67.34	11.20	27.61	61.19	3.7052	5.4813
Choice question 2(Type II)		S2> S4	S2=S4	S2<S4	S2	S4
S2	36.93	31.29	39.46	29.25	4.4082	4.4762
S4	63.07	14.34	27.49	58.17	3.4243	4.4750

Table 4: Testing the assumption

Parameters	Baseline Estimates	Estimates of men and women of type I questions	Estimates of women and men of type II questions
α_m	0.6290***(0.0881)	0.6721***(0.1063)	0.6214***(0.1567)
α_f	0.2370***(0.0899)	0.1714 (0.1086)	0.2667* (0.1605)
β_m	0.2979***(0.0808)	0.2697***(0.0946)	0.3918***(0.1363)
β_f	0.5795***(0.0792)	0.6098***(0.0917)	0.4847***(0.1316)
δ_1	-1.1490***(0.4685)	-1.2166***(0.4767)	-1.1786**(0.5312)
$\delta_2 log[w_1/w_2]$	0.7817(0.5595)	0.6100(0.6151)	1.1152(0.7087)

Notes that: *** significant at 0.01 level ** significant at 0.05 level * significant at 0.1 level

$$\lambda(w, \delta) = \frac{exp(\delta_1 + \delta_2 * log\frac{w_1}{w_2})}{1 + exp(\delta_1 + \delta_2 * log\frac{w_1}{w_2})} \tag{27}$$

Table 5: Baseline Estimates

Parameters	Estimate	Standard Error
ρ_m	0.95(fixed)	
ρ_f	0.95(fixed)	
α_m	0.3612***	0.0629
α_f	0.5771***	0.0633
β_m	0.6205***	0.0692
β_f	0.3242***	0.0686
λ	0.2492***	0.0837
μ_1	80(fixed)	
μ_2	84.3193***	0.2070
μ_3	88.4228***	0.2558
μ_4	92.1953***	0.2828
μ_5	100.8267***	0.3002
μ_6	104.5057***	0.3109
μ_7	109.2069***	0.2824
μ_8	115(fixed)	
σ	15.8738***	0.2348
Log Likelihood	: 1.105984e+04	

Notes that: *** significant at 0.01 level

Table 6: Final Estimates of the Collective Retirement Model

Parameters	Male Estimates (α)	SE	Female Estimates(β)	SE
ρ_m	fix 0.95	-	-	-
ρ_f	-	-	fix 0.95	-
σ_{11}	0.3051***	0.0200	-0.3243***	0.0177
σ_{12}	-0.2603***	0.0207	0.7198***	0.0805
σ_{22}	-0.0099***	0.0020	0.3118*	0.1746
	α_m	**Own leisure**	β_f	
constant	-0.7428***	0.0531	-9.9756***	0.1570
age $\geq$ 55	-0.6641***	0.0516	0.2779	0.2232
reported good health	-0.0547***	0.0143	-11.2167***	1.0954
reported low health	1.3690***	0.1864	-0.1221	0.5437
high education	-2.0969***	0.1067	6.4859***	0.1899
	α_f	**Spouse leisure**	β_m	
constant	0.5215***	0.0473	3.0109***	0.0060
age $\geq$ 55	0.4958***	0.0494	-0.1999***	0.0210
reported good health	0.1161***	0.0140	0.2798***	0.0623
reported low health	-1.1601***	0.1830	0.3488***	0.0703
high education	1.3214***	0.0364	-0.6322***	0.0978
		Weights jointly		
δ_1	-0.7293***	0.0459		
$\delta_2[w_{male}/w_{female}]$	0.6723***	0.1300		
σ(SE for ratings part)	15.7504***	0.0133		

Note: *** significant at 0.01 level ** significant at 0.05 level * significant at 0.1 level

Appendix B

B. Explanation of Section J Joint Retirement Preference Scenarios

....

Section J – Joint Retirement Preferences
Arthur: VanSoest

....

Fill specifications for Joint Retirement Preferences section – Scenarios 1-6

Preload/Previous Section Info needed:

R's birthdate
Spouse's birthdate
12 random variables
   a) randomyou[1] to randomyou[6] (values 1,2,3,4,5)
   b) randompartner[1] to randompartner[6] (values 1,2,3,4,5)

Assignments:
```
RH=A011_  {R's current work hours}
If A010 in (5, empty) then RH=0   {R not working or work status missing}
SH=A013_     {Sp's current work hours}
If A012 in (5, empty) then SH=0   {Sp not working or work status missing}
```

Calculations:
```
RH6 := round(RH*0.6)
SH6 := round(SH*0.6)
R's age (use R's birthdate to calculate R's age at time of survey)
Sp's age (use Sp's birthdate to calculate)
```

Fills for calculations:
```
FLRH6=RH6
FLSH6=SH6
```

Age fills for partner header:
```
DA = R's age - Sp's age
DA62 = 62 - DA
DA65 = 65 - DA
DA68 = 68 - DA
```
Percentage fills:
```
if RandomYou[1] = 1 then
  FLPercentYou_1 := '50%'
elseif RandomYou[1] = 2 then
  FLPercentYou_1 := '55%'
elseif RandomYou[1] = 3 then
  FLPercentYou_1 := '60%'
elseif RandomYou[1] = 4 then
  FLPercentYou_1 := '65%'
else
  FLPercentYou_1 := '70%'
Endif

if RandomYou[2] = 1 then
  FLPercentYou_2 := '40%'
elseif RandomYou[2] = 2 then
  FLPercentYou_2 := '45%'
elseif RandomYou[2] = 3 then
  FLPercentYou_2 := '50%'
elseif RandomYou[2] = 4 then
  FLPercentYou_2 := '55%'
else
  FLPercentYou_2 := '60%'
Endif

if RandomYou[3] = 1 then
  FLPercentYou_3 := '60%'
elseif RandomYou[3] = 2 then
  FLPercentYou_3 := '65%'
elseif RandomYou[3] = 3 then
  FLPercentYou_3 := '70%'
elseif RandomYou[3] = 4 then
  FLPercentYou_3 := '75%'
else
  FLPercentYou_3 := '80%'
Endif

if RandomYou[4] = 1 then
  FLPercentYou_4 := '50%'
elseif RandomYou[4] = 2 then
```

```
  FLPercentYou_4 := '55%'
elseif RandomYou[4] = 3 then
  FLPercentYou_4 := '60%'
elseif RandomYou[4] = 4 then
  FLPercentYou_4 := '65%'
else
  FLPercentYou_4 := '70%'
Endif

if RandomYou[5] = 1 then
  FLPercentYou_5 := '70%'
elseif RandomYou[5] = 2 then
  FLPercentYou_5 := '75%'
elseif RandomYou[5] = 3 then
  FLPercentYou_5 := '80%'
elseif RandomYou[5] = 4 then
  FLPercentYou_5 := '85%'
else
  FLPercentYou_5 := '90%'
Endif

if RandomYou[6] = 1 then
  FLPercentYou_6 := '50%'
elseif RandomYou[6] = 2 then
  FLPercentYou_6 := '55%'
elseif RandomYou[6] = 3 then
  FLPercentYou_6 := '60%'
elseif RandomYou[6] = 4 then
  FLPercentYou_6 := '65%'
else
  FLPercentYou_6 := '70%'
Endif

if RandomPartner[1] = 1 then
  FLPercent1Partner_1 := '40%'
  FLPercent2Partner_1 := '50%'
  FLPercent3Partner_1 := '60%'
elseif RandomPartner[1] = 2 then
  FLPercent1Partner_1 := '45%'
  FLPercent2Partner_1 := '55%'
  FLPercent3Partner_1 := '65%'
elseif RandomPartner[1] = 3 then
  FLPercent1Partner_1 := '50%'
  FLPercent2Partner_1 := '60%'
  FLPercent3Partner_1 := '70%'
elseif RandomPartner[1] = 4 then
  FLPercent1Partner_1 := '55%'
  FLPercent2Partner_1 := '65%'
  FLPercent3Partner_1 := '75%'
else
  FLPercent1Partner_1 := '60%'
  FLPercent2Partner_1 := '70%'
  FLPercent3Partner_1 := '80%'
Endif

if RandomPartner[2] = 1 then
  FLPercent1Partner_2 := '40%'
elseif RandomPartner[2] = 2 then
  FLPercent1Partner_2 := '45%'
elseif RandomPartner[2] = 3 then
  FLPercent1Partner_2 := '50%'
elseif RandomPartner[2] = 4 then
  FLPercent1Partner_2 := '55%'
else
  FLPercent1Partner_2 := '60%'
Endif


if RandomPartner[3] = 1 then
  FLPercent1Partner_3 := '40%'
  FLPercent2Partner_3 := '50%'
elseif RandomPartner[3] = 2 then
  FLPercent1Partner_3 := '45%'
  FLPercent2Partner_3 := '55%'
elseif RandomPartner[3] = 3 then
  FLPercent1Partner_3 := '50%'
  FLPercent2Partner_3 := '60%'
elseif RandomPartner[3] = 4 then
  FLPercent1Partner_3 := '55%'
  FLPercent2Partner_3 := '65%'
else
  FLPercent1Partner_3 := '60%'
  FLPercent2Partner_3 := '70%'
Endif

if RandomPartner[4] = 1 then
  FLPercent1Partner_4 := '40%'
elseif RandomPartner[4] = 2 then
  FLPercent1Partner_4 := '45%'
elseif RandomPartner[4] = 3 then
  FLPercent1Partner_4 := '50%'
elseif RandomPartner[4] = 4 then
  FLPercent1Partner_4 := '55%'
else
  FLPercent1Partner_4 := '60%'
Endif

if RandomPartner[5] = 1 then
  FLPercent1Partner_5 := '40%'
  FLPercent2Partner_5 := '50%'
  FLPercent3Partner_5 := '60%'
elseif RandomPartner[5] = 2 then
  FLPercent1Partner_5 := '45%'
  FLPercent2Partner_5 := '55%'
  FLPercent3Partner_5 := '65%'
elseif RandomPartner[5] = 3 then
  FLPercent1Partner_5 := '50%'
  FLPercent2Partner_5 := '60%'
  FLPercent3Partner_5 := '70%'
elseif RandomPartner[5] = 4 then
  FLPercent1Partner_5 := '55%'
  FLPercent2Partner_5 := '65%'
  FLPercent3Partner_5 := '75%'
else
  FLPercent1Partner_5 := '60%'
  FLPercent2Partner_5 := '70%'
  FLPercent3Partner_5 := '80%'
Endif

if RandomPartner[6] = 1 then
  FLPercent1Partner_6 := '40%'
  FLPercent2Partner_6 := '50%'
elseif RandomPartner[6] = 2 then
  FLPercent1Partner_6 := '45%'
  FLPercent2Partner_6 := '55%'
elseif RandomPartner[6] = 3 then
```

```
    FLPercent1Partner_6 := '50%'
    FLPercent2Partner_6 := '60%'
  elseif RandomPartner[6] = 4 then
    FLPercent1Partner_6 := '55%'
    FLPercent2Partner_6 := '65%'
  else
    FLPercent1Partner_6 := '60%'
    FLPercent2Partner_6 := '70%'
  endif
```

....

J000_surveyIntro

We are interested in how couples make their retirement decisions. In particular, we want to know if and how partners take account of each other's preferences when making retirement decisions.

IF A008=1,2 and

The next questions describe possible ways in which you and your partner can retire. We call them retirement scenarios. The retirement scenarios are indicated on a timeline, where different situations are indicated together with your age and your partner's age.

To illustrate, let's assume for the moment that your partner is two years younger than you, and you both have full-time jobs of 40 hours per week. Suppose that, when you are 62 years old (and your partner is 60 years old), you and your partner still work the same number of hours per week as now, in similar positions. Also suppose that your and your partner's employers fully cooperate with all the scenarios described.

Let us consider how this example would work. First "your own" retirement path is presented, indicated by the time line below. The pink box indicates you are still at work. The yellow box means that you have reduced your hours and work less than you currently do (*gradual retirement*). The blue box indicates that you have stopped working and are fully retired. As you see, you work your current (40) hours per week until age 65. Then you work 24 hours per week until age 68, but since you get a partial pension in addition to part-time earnings, your net income remains the same as before age 65. At age 68 you retire completely and your net pension income becomes 75% of your net income before age 65.

....

Example:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You work current hours	You work 24 hours per week; your net income is the same as before age 65	You are retired and get a pension corresponding to 75% of your last earnings

The next screen in the example reproduces your time line and adds the time line for your partner.

....

(Screen 2)

In this case, "your partner" has no gradual retirement and retires completely when you turn 65, that is, when he or she is 63. Your partner's pension income is 75% of his or her last net earnings.

....

Example:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You work current hours	You work 24 hours per week; your net income is the same as before age 65	You are retired and get a pension corresponding to 75% of your last earnings
When your partner is between 60 and 63	**When your partner is between 63 and 66**	**When your partner is 66 or older**
Your partner works current hours	Your partner retires and gets a pension corresponding to 75% of his/her last earnings	Your partner is retired and gets a pension corresponding to 75% of his/her last earnings

In the questions that follow, we will show you six different retirement scenarios. The scenarios are presented in two steps: first your own time line is given, then, on the next screen, your partner's time line is added. We take account of the actual age difference between you and your partner and of the actual hours that you and your partner are currently working.

We will ask you to judge each scenario twice -- first on the basis of your own preference and then on what you think your partner's preference would be.

....

Scenario 1

....

J001 (ALP: R001_intro1You)

We now present retirement scenario 1.

Your own retirement time line:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You_1[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_1[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 65 you retire and get a pension corresponding to 'FLPercentYou_1' of your last earnings Color=blue	**You_1[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_1' of your last earnings Color=blue
On the next screen we add your partner's time line.		
How would you and your partner rate the following retirement scenario? (Remember, this is how you think your partner would feel about the scenario, not the result of you asking for your partner's opinion.) Please provide your rating using a number between 1 (for very unattractive) and 10 (for very attractive).		
J002 (ALP: R001_Intro1Partner)		
When your partner is between 'DA62' and 'DA65'	When your partner is between 'DA65' and 'DA68'	When your partner is 'DA68' or older
Partner_1[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 68: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to 'FLPercent3partner_1' of his/her last earnings Color=blue	**Partner_1[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 68: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent3partner_1' of his/her last earnings Color=blue	**Partner_1[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_1' of his/her last earnings Color=blue Else if 65 <= DA68 <= 67: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_1' of his/her last earnings Color=blue Else: 5. Your partner is retired and gets a pension corresponding to 'FLPercent3partner_1' of his/her last earnings Color=blue

J003_Rating_You Scenario 1 Rating - R (ALP: R001_you)

(From your point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

J004_Rating_Spouse Scenario 1 Rating - Spouse (ALP: R001_partner)

(From your partner's point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Scenario 2

....

J005 (ALP: R002_intro1You)

Retirement scenario 2.

Your own retirement time line:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You_2[1] fill options: If RH=0: 1. You do not work Color=pink **ElseIf RH >0 and Rage <=62:** 2. When you are 62 you retire and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue **Else (for Rs older than 62)** **3. When you are [fill RAge]** you retire and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue	**You_2[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue	**You_2[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue

On the next screen we add your partner's time line.

J006

When your partner is between 'DA62' and 'DA65'	When your partner is between 'DA65' and 'DA68'	When your partner is 'DA68' or older
Partner_2[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_2' of his/her last earnings Color=blue	**Partner_2[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent1partner_2' of his/her last earnings Color=blue	**Partner_2[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent1partner_2' of his/her last earnings Color=blue

J007_Rating_You (SCENARIO 2 - RATING - R) ALP: R002_you

(From your point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

J008_Rating_Spouse (SCENARIO 2 - RATING – Spouse) ALP: R002_partner

(From your partner's point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Scenario 3

J009 (ALP: R003_intro1You)

Retirement scenario 3.

Your own retirement time line:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You_3[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_3[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_3[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 68 you retire and get a pension corresponding to 'FLPercentYou_3' of your last earnings Color=blue
On the next screen we add your partner's time line.		
J010		
When your partner is between 'DA62' and 'DA65'	When your partner is between 'DA65' and 'DA68'	When your partner is 'DA68' or older
Partner_3[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 65: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to 'FLPercent2partner_3' of his/her last earnings Color=blue	**Partner_3[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 65: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to 'FLPercent2partner_3' of his/her last earnings Color=blue	**Partner_3[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_3' of his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_3' of his/her last earnings Color=blue

J011_Rating_You (SCENARIO 3 - RATING - R) ALP: R003_you

(From your point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

J012_Rating_Spouse (SCENARIO 3 - RATING – Spouse) ALP: R003_partner

(From your partner's point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Scenario 4

....

J013 (ALP: R004_introYou)

Retirement scenario 4.

Your own retirement time line:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You_4[1] fill options: If RH=0: 1. You do not work Color=pink Else, if 0 < R's hours work <=35: 2. You work current hours Color=pink **ElseIf RH >0 and Rage <=62:** 3. At 62 you reduce hours worked by 40% (you work 'FLRH6' hours per week), but your total income does not change Color=yellow **Else (for Rs older than 62)** **4. At [fill RAge]** you reduce hours worked by 40% (you work 'FLRH6' hours per week), but your total income does not change Color=yellow	**You_4[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 65 you retire and get a pension corresponding to 'FLPercentYou_4' of your last earnings Color=blue	**You_4[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_4' of your last earnings Color=blue
On the next screen we add your partner's time line.		
J014		
When your partner is between 'DA62' and 'DA65'	When your partner is between 'DA65' and 'DA68'	When your partner is 'DA68' or older
Partner_4[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_4' of his/her last earnings Color=blue	**Partner_4[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent1partner_4' of his/her last earnings Color=blue	**Partner_4[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent1partner_4' of his/her last earnings Color=blue

J015_Rating_You (SCENARIO 4 - RATING - R) ALP: R004_you

(From your point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

J016_Rating_Spouse (SCENARIO 4 - RATING – Spouse) ALP: R004_partner

(From your partner's point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Scenario 5

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J017 (ALP: R005_introYou)

Retirement scenario 5.

Your own retirement time line:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You_5[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_5[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_5[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 68 you retire and get a pension corresponding to 'FLPercentYou_5' of your last earnings Color=blue
On the next screen we add your partner's time line.		
J018		
When your partner is between 'DA62' and 'DA65'	When your partner is between 'DA65' and 'DA68'	When your partner is 'DA68' or older
Partner_5[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 65: 2. Your partner works current hours Color=pink Else if 65 <= DA62 <=67 and SH >= 35: 3. Your partner reduces his/her hours worked by 40% (your partner works 'FLSH6' hours per week), but his/her total income does not change Color=yellow Else if 65 <= DA62 <=67 and SH < 35: 4. Your partner works current hours Color=pink Else: 5. Your partner retires and gets a pension corresponding to 'FLPercent3partner_5' of his/her last earnings Color=blue	**Partner_5[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 65: 2. Your partner works current hours Color=pink Else if 65 <= DA65 <=67 and SH >= 35: 3. Your partner continues to work his/her hours reduced by 40% (your partner works 'FLSH6' hours per week), but his/her total income does not change Color=yellow Else if 65 <= DA65 <=67 and SH < 35: 4. Your partner works current hours Color=pink Else: 5. Your partner is retired and gets a pension corresponding to 'FLPercent3partner_5' of his/her last earnings Color=blue	**Partner_5[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_5' of his/her last earnings Color=blue Else if 65 <= DA68 <= 67: 4. Your partner retires and gets a pension corresponding to 'FLPercent2partner_5' of his/her last earnings Color=blue Else: 5. Your partner is retired and gets a pension corresponding to 'FLPercent3partner_5' of his/her last earnings Color=blue

J019_Rating_You (SCENARIO 5 - RATING - R) ALP: R005_you3

From your point of view

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

J020_Rating_Spouse (SCENARIO 5 - RATING – Spouse) ALP: R005_partner

From your partner's point of view

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

Scenario 6

J021 (ALP: R006_introYou)

Retirement scenario 6.

Your own retirement time line:

When you are between 62 and 65	When you are between 65 and 68	When you are 68 or older
You_6[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_6[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 65 you retire and get a pension corresponding to 'FLPercentYou_6' of your last earnings Color=blue	**You_6[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_6' of your last earnings Color=blue
On the next screen we add your partner's time line.		
J022		
When your partner is between 'DA62' and 'DA65'	When your partner is between 'DA65' and 'DA68'	When your partner is 'DA68' or older
Partner_6[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 65: 2. Your partner works current hours Color=pink Else if 65 <= DA62 <= 67: 3. Your partner retires and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue	**Partner_6[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 65: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue	**Partner_6[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_6' of his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue

J023_Rating_You (SCENARIO 6 - RATING - R) ALP: R006_you

(From your point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

J024_Rating_Spouse (SCENARIO 6 - RATING – Spouse) ALP: R006_partner

(From your partner's point of view)

Very Un Attractive									Very Attractiv e
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**

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A/B Choice Scenarios 1-4

choice_intro
Scenarios that were presented in the ratings series 1-6 are paired off and Rs are asked to indicate a preference between the two in the pair. A total of four pairs are presented. The initial 6 scenarios map into the pairs as indicated in the table below.

Initial scenarios	**Paired A/B scenarios**			
	1	2	3	4
Scenario 1		B		
Scenario 2	A		B	
Scenario 3				A
Scenario 4	B			
Scenario 5			A	
Scenario 6		A		B

The next questions are about retirement scenarios, but now we ask you to choose between **two different scenarios, named A and B. For each of these scenarios we will ask you** three questions: We ask you to choose if it were up to you, what you think your partner would choose if it were up to him/her, and what would be the most likely outcome if you had to decide jointly with your partner.
....

J026_Choice 1A (Scenario 2)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_2[1] fill options: If RH=0: 1. You do not work Color=pink **ElseIf RH >0 and Rage <=62:** 2. When you are 62 you retire and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue **Else (for Rs older than 62)** **3. When you are [fill RAge]** you retire and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue	**You_2[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue	**You_2[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue
HeaderPartner[1] When your partner is between 'DA62' and 'DA65'	**HeaderPartner[2]** When your partner is between 'DA65' and 'DA68'	**HeaderPartner[3]** When your partner is 'DA68' or older
Partner_2[1] fill options: If SH=0: 1. Your partner does not work Color=pink	**Partner_2[2] fill options:** If SH=0: 1. Your partner does not work Color=pink	**Partner_2[3] fill options:** If SH=0: 1. Your partner does not work Color=pink

Else if DA62 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_2' of his/her last earnings Color=blue	Else if DA65 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent1partner_2' of his/her last earnings Color=blue	Else if DA68 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent1partner_2' of his/her last earnings Color=blue

....

J027_Choice 1B (Scenario 4)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_4[1] fill options: If RH=0: 1. You do not work Color=pink Else, if 0 < R's hours work <=35: 2. You work current hours Color=pink **ElseIf RH >0 and Rage <=62:** 3. At 62 you reduce hours worked by 40% (you work 'FLRH6' hours per week), but your total income does not change Color=yellow **Else (for Rs older than 62)** **4. At [fill RAge]** you reduce hours worked by 40% (you work 'FLRH6' hours per week), but your total income does not change Color=yellow	**You_4[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 65 you retire and get a pension corresponding to 'FLPercentYou_4' of your last earnings Color=blue	**You_4[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_4' of your last earnings Color=blue
HeaderPartner[1] When your partner is between 'DA62' and 'DA65'	**HeaderPartner[2]** When your partner is between 'DA65' and 'DA68'	**HeaderPartner[3]** When your partner is 'DA68' or older
Partner_4[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to	**Partner_4[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to	**Partner_4[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to

‘FLPercent1partner_4’ of his/her last earnings Color=blue	‘FLPercent1partner_4’ of his/her last earnings Color=blue	‘FLPercent1partner_4’ of his/her last earnings Color=blue

J028_CHOICE1_YOU
Considering your own preferences and not those of your partner, which would you prefer?
1 A
2 B

J029_CHOICE1_PARTNER
Considering your partner's preferences and not those of yourself, what do you think your partner would prefer?
1 A
2 B

J030_CHOICE1_JOINT
If, as a couple, you would have to decide jointly on choosing between these scenarios, what would be the most likely outcome?
1 A
2 B

....

J031_Choice 2A (Scenario 6)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_6[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_6[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 65 you retire and get a pension corresponding to ‘FLPercentYou_6’ of your last earnings Color=blue	**You_6[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to ‘FLPercentYou_6’ of your last earnings Color=blue
HeaderPartner[1] When your partner is between ’DA62’ and ’DA65’	**HeaderPartner[2]** When your partner is between ’DA65’ and ’DA68’	**HeaderPartner[3]** When your partner is ’DA68’ or older
Partner_6[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 65: 2. Your partner works current hours Color=pink Else if 65 <= DA62 <= 67: 3. Your partner retires and gets a pension corresponding to ‘FLPercent2partner_6’ of	**Partner_6[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 65: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to ‘FLPercent2partner_6’ of his/her	**Partner_6[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to ‘FLPercent1partner_6’ of

his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue	last earnings Color=blue	his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue

....

J032_Choice 2B (Scenario 1)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_1[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_1[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 65 you retire and get a pension corresponding to 'FLPercentYou_1' of your last earnings Color=blue	**You_1[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_1' of your last earnings Color=blue
HeaderPartner[1] When your partner is between 'DA62' and 'DA65'	**HeaderPartner[2]** When your partner is between 'DA65' and 'DA68'	**HeaderPartner[3]** When your partner is 'DA68' or older
Partner_1[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 68: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets a pension corresponding to 'FLPercent3partner_1' of his/her last earnings Color=blue	**Partner_1[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 68: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent3partner_1' of his/her last earnings Color=blue	**Partner_1[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_1' of his/her last earnings Color=blue Else if 65 <= DA68 <= 67: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_1' of his/her last earnings Color=blue Else: 5. Your partner is retired and gets a pension corresponding to

		'FLPercent3partner_1' of his/her last earnings Color=blue

J033_CHOICE2_YOU
Considering your own preferences and not those of your partner, which would you prefer?
1 A
2 B

J034_CHOICE2_PARTNER
Considering your partner's preferences and not those of yourself, what do you think your partner would prefer?
1 A
2 B

J035_CHOICE2_JOINT
If, as a couple, you would have to decide jointly on choosing between these scenarios, what would be the most likely outcome?
1 A
2 B

....

J036_Choice 3A (Scenario 5)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_5[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_5[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_5[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 68 you retire and get a pension corresponding to 'FLPercentYou_5' of your last earnings Color=blue
HeaderPartner[1] When your partner is between 'DA62' and 'DA65'	**HeaderPartner[2]** When your partner is between 'DA65' and 'DA68'	**HeaderPartner[3]** When your partner is 'DA68' or older
Partner_5[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 65: 2. Your partner works current hours Color=pink Else if 65 <= DA62 <=67 and SH >= 35: 3. Your partner reduces his/her hours worked by 40% (your partner works 'FLSH6' hours per week), but his/her total	**Partner_5[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 65: 2. Your partner works current hours Color=pink Else if 65 <= DA65 <=67 and SH >= 35: 3. Your partner continues to work his/her hours reduced by 40% (your partner works 'FLSH6' hours per week), but his/her	**Partner_5[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_5' of his/her last earnings Color=blue

income does not change Color=yellow Else if 65 <= DA62 <=67 and SH < 35: 4. Your partner works current hours Color=pink Else: 5. Your partner retires and gets a pension corresponding to 'FLPercent3partner_5' of his/her last earnings Color=blue	total income does not change Color=yellow Else if 65 <= DA65 <=67 and SH < 35: 4. Your partner works current hours Color=pink Else: 5. Your partner is retired and gets a pension corresponding to 'FLPercent3partner_5' of his/her last earnings Color=blue	Else if 65 <= DA68 <= 67: 4. Your partner retires and gets a pension corresponding to 'FLPercent2partner_5' of his/her last earnings Color=blue Else: 5. Your partner is retired and gets a pension corresponding to 'FLPercent3partner_5' of his/her last earnings Color=blue

....

J037_Choice 3B (Scenario 2)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_2[1] fill options: If RH=0: 1. You do not work Color=pink **ElseIf RH >0 and Rage <=62:** 2. When you are 62 you retire and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue **Else (for Rs older than 62)** **3. When you are [fill RAge]** you retire and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue	**You_2[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue	**You_2[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_2' of your last earnings Color=blue
HeaderPartner[1] When your partner is between 'DA62' and 'DA65'	**HeaderPartner[2]** When your partner is between 'DA65' and 'DA68'	**HeaderPartner[3]** When your partner is 'DA68' or older
Partner_2[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 62: 2. Your partner works current hours Color=pink Else:	**Partner_2[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 62: 2. Your partner works current hours Color=pink Else:	**Partner_2[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else:

3. Your partner retires and gets a pension corresponding to ‘FLPercent1partner_2’ of his/her last earnings Color=blue	3. Your partner is retired and gets a pension corresponding to ‘FLPercent1partner_2’ of his/her last earnings Color=blue	3. Your partner is retired and gets a pension corresponding to ‘FLPercent1partner_2’ of his/her last earnings Color=blue

J038_CHOICE3_YOU
Considering your own preferences and not those of your partner, which would you prefer?
1 A
2 B

J039_CHOICE3_PARTNER
Considering your partner's preferences and not those of yourself, what do you think your partner would prefer?
1 A
2 B

J040_CHOICE3_JOINT
If, as a couple, you would have to decide jointly on choosing between these scenarios, what would be the most likely outcome?
1 A
2 B

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J041_Choice 4A (Scenario 3)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_3[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_3[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_3[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 68 you retire and get a pension corresponding to ‘FLPercentYou_3’ of your last earnings Color=blue
HeaderPartner[1] When your partner is between ’DA62’ and ’DA65’	**HeaderPartner[2]** When your partner is between ’DA65’ and ’DA68’	**HeaderPartner[3]** When your partner is ’DA68’ or older
Partner_3[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 65: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and	**Partner_3[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 65: 2. Your partner works current hours Color=pink Else: 3. Your partner retires and gets	**Partner_3[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and

gets a pension corresponding to 'FLPercent2partner_3' of his/her last earnings Color=blue	a pension corresponding to 'FLPercent2partner_3' of his/her last earnings Color=blue	gets a pension corresponding to 'FLPercent1partner_3' of his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_3' of his/her last earnings Color=blue

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J042_Choice 4B (Scenario 6)

HeaderYou[1] When you are between 62 and 65	**HeaderYou[2]** When you are between 65 and 68	**HeaderYou[3]** When you are 68 or older
You_6[1] fill options: If RH=0: 1. You do not work Color=pink Else: 2. You work current hours Color=pink	**You_6[2] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. When you are 65 you retire and get a pension corresponding to 'FLPercentYou_6' of your last earnings Color=blue	**You_6[3] fill options:** If RH=0: 1. You do not work Color=pink Else: 2. You are retired and get a pension corresponding to 'FLPercentYou_6' of your last earnings Color=blue
HeaderPartner[1] When your partner is between 'DA62' and 'DA65'	**HeaderPartner[2]** When your partner is between 'DA65' and 'DA68'	**HeaderPartner[3]** When your partner is 'DA68' or older
Partner_6[1] fill options: If SH=0: 1. Your partner does not work Color=pink Else if DA62 < 65: 2. Your partner works current hours Color=pink Else if 65 <= DA62 <= 67: 3. Your partner retires and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of	**Partner_6[2] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA65 < 65: 2. Your partner works current hours Color=pink Else: 3. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of his/her last earnings Color=blue	**Partner_6[3] fill options:** If SH=0: 1. Your partner does not work Color=pink Else if DA68 < 62: 2. Your partner works current hours Color=pink Else if 62 <= DA68 <= 64: 3. Your partner retires and gets a pension corresponding to 'FLPercent1partner_6' of his/her last earnings Color=blue Else: 4. Your partner is retired and gets a pension corresponding to 'FLPercent2partner_6' of

his/her last earnings Color=blue		his/her last earnings Color=blue

J043_CHOICE4_YOU
Considering your own preferences and not those of your partner, which would you prefer?
1 A
2 B

J044_CHOICE4_PARTNER
Considering your partner's preferences and not those of yourself, what do you think your partner would prefer?
1 A
2 B

J045_CHOICE4_JOINT
If, as a couple, you would have to decide jointly on choosing between these scenarios, what would be the most likely outcome?
1 A
2 B

End of "CHOICE" Collection

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