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Goal Expectations as Predictors of Retirement Intentions

Ruby R. Brougham

Chapman University

David A. Walsh

University of Southern California

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Correspondence should be sent to Ruby R. Brougham, Department of Psychology, Chapman University, One University Drive, Orange, CA 92866, Telephone: 714-744-7640, Fax: 714-997-6780 and E-mail address: brougham@chapman.edu.

Abstract

The current study explored the contribution of personal goals to retirement decisions. A SMARTER methodology (used to assess multiattribute utility) and taxonomy of human goals were used to investigate the relationship between older workers' personal goals and their retirement intentions. Two hundred fifty-one employees of a large university, varying in age from 55 to 77, were asked to indicate the relative importance of 29 goals and to indicate the utility they perceived in continued work and retirement as a means to achieve these goals. The results demonstrate that goal evaluations are important predictors of retirement intentions. Furthermore, goal evaluations provide an important and unique contribution to predicting retirement intentions beyond that predicted by personal and demographic variables. These results have implications for pre-retirement education and workplace application.

Goal Expectations as Predictors of Retirement Intentions

This study examines goal expectations as predictors of older workers' retirement intentions. The main focus is on expectations measured by individualized assessments that identify valuable and desirable goals and indicate whether a relationship exists between perceived goal attainment and choosing to continue to work, or choosing to retire. A central question is whether goal expectations make an additional contribution to predicting retirement intent beyond that predicted by traditional retirement variables such as age, health, and financial status.

A common model across disciplines suggests that retirement is an individual choice: Individuals make retirement decisions based on maximizing benefits and minimizing costs. However, the theoretical framework of a particular discipline guides the study of the individual or organizational factors evaluated in a cost benefit retirement analysis. For example, economists emphasize financial incentives and concerns (e.g., increasing the age for receiving social security), sociologists focus on societal norms and institutional constraints (e.g., normative age for retirement is 62 years of age), and psychologists are interested in cognitive processes (e.g., self-efficacy) that guide the retirement decision.

Past research suggests that a wide variety of individual and organizational variables may influence the individual's retirement decision. Clearly, individual differences in financial status, age and health are important variables that influence the retirement decision (Ekerdt, 1998; Ekerdt, Vinick & Bosse, 1985; Fronstin, 1999; Hayward, Friedman & Chen, 1996; Kim & Feldman, 1998; Mutchler, Burr, Massagli &

Pienta, 1999; Palmore, Burchett, Fillenbaum, George & Wallace, 1985; Quinn & Burkhauser, 1990; Talaga & Beehr, 1989). Other variables suggested as important to the decision to retire, include gender, race, marital status, socioeconomic status, education, occupation and family status, job and retirement attitudes, job satisfaction, self-esteem, work commitment, opportunities to participate in preretirement planning workshops and opportunities to participate in pension plans (Brubaker & Brubaker, 1992; Campione, 1987; Ekerdt & DeViney, 1993; Evans, Ekerdt & Bosse, 1985; Flippen & Tienda, 2000; Gowan, 1998; Hardy & Shuey, 2000; Hatch & Thompson, 1992; Henkens, 1999; Kim & Feldman, 1998; Mutran, Reitzes, & Fernandez, 1997; Richardson, 1993; Szinovacz, 1987; Singleton & Keddy, 1991; Taylor & Shore, 1995; Vinick & Ekerdt, 1989).

However, inconsistencies in the predictive strength of these variables are reported across studies.

The present study focuses on the ability of goal assessments to predict retirement intention over and above traditional variables (e.g., health, age, finances). Although, consensus on the individual and organizational factors that are important in the retirement decision has not been attained, there is evidence for the value of maintaining a stable self-image that transitions the individual from worker to retiree (Robbins, Lee & Wan, 1994). One way individuals may preserve their sense of well-being and maintain continuity in the retirement transition is through the continued pursuit of valued goals. Past research suggest that cognitive, affective, and motivational representations of goals that are positive, concrete, and stable are related to late life satisfaction (Rapkin & Fisher, 1992a, 1992b; Robbins, Lee & Wan, 1994; Robbins, Payne & Chartrand, 1990).

We propose that expectations of goal fulfillment associated with continued employment or choosing to retire are an important cognitive process that may affect the retirement decision. A large body of research demonstrates that goals are useful in the study of human behavior. Goals play a primary role in directing and regulating human behavior through their definition of desired future states (Austin & Vancouver, 1996; Bandura; 1986; Ford & Nichols, 1987; Pervin, 1989). An individual's goals initiate action by identifying what is valuable and guide action by providing a standard for comparing the individual's present state to the desired state (Austin & Vancouver, 1996; Heckhausen & Kuhl, 1985; Scheier and Carver, 1988). Thus, goals provide motivation for action by identifying what is desirable, anticipating what is possible, and what is ultimately acceptable in a particular decision domain. Research on individual choice in retirement decisions, however, has neglected an examination of the role that goal expectation plays in the retirement decision with the exception of Adams (1999) who found that individuals who reported attainment of occupational goals were more likely to retire early.

The objective of the present study, stated most simply, is to determine if individuals' goal expectations can be used to predict their retirement intentions. We use a comprehensive taxonomy of human goals developed by Chulef, Read and Walsh (2001) to make individualized goal assessments for each participant. The effort to predict retirement intentions is done using the SMARTER technique for multiattribute utility assessment reported by Edwards and Barron (1994). In overview, our application of the SMARTER approach asks older workers to 1) rank order the importance of goals from the Chulef, Read and Walsh taxonomy, and 2) report how *useful* they believe (a)

continued employment or (b) retirement will be to achieving each of the ranked goals. The goal rankings and usefulness judgments are then combined to yield a multiattribute utility measure of older workers' goal expectations for continued employment and retirement. It is these expectations that are used to predict the retirement intentions of older workers in the present study.

The SMARTER technique is a mathematically sophisticated approach to establishing importance weights for each of the goals in the Chulef, Read and Walsh taxonomy. The benefits of using the SMARTER technique include the strength of a weighting system validated by empirical research and a procedure that is simple in its application. The subject's rankings of goal importance are converted to Rank Order Centroid weights (hereafter, ROC weights) and these weights are then used to represent the individual's evaluation of the relative importance of each goal. The reader interested in the mathematics behind establishing the ROC weights from the subjects' ranking should consult Barron and Barrett (1996) and Edwards and Barron (1994).

In summary, we propose that assessments of individuals' personal goals will provide a unique contribution to predicting retirement intentions. This is based on our belief that these goal perceptions reflect the individual's desires and whether they believe those desires can be fulfilled through continued work or retirement.

The specific hypotheses we test to support these claims address the general question of whether multiattribute utility assessments of personal goals predicts retirement intent. The decision to retire involves the evaluation of present employment, as well as the evaluation of the future state of retirement. Since employment is the status quo and is proximally closer than retirement the first hypothesis that is tested is whether

individuals who perceive a high degree of multiattribute utility goal attainment for continued employment will have a greater intent to continue working than those who perceived a low degree of multiattribute utility goal attainment for continuing to work. The second hypothesis that is tested is whether individuals who perceive a high degree of multiattribute utility for goal attainment through retirement will have a greater intent to retire than those individuals who perceive a low degree of multiattribute utility goal attainment for retirement. Finally, we test whether a multiattribute utility assessment of goal attainment adds to the total prediction of retirement intentions, over and above the prediction provided by traditional variables, such as age, finances, health, etc.

Method

Participants

The sample consisted of full-time employees, recruited from faculty and staff at a research university. Participants were recruited through campus mail, with a memo describing the study, and offering them ten dollars for participation. The criteria for participation in the study was twofold: 1) current status as a full-time employee, and 2) at least 55 years of age. A pool of 2400 employees were solicited to participate in the study. Only 253 participants responded to our request for volunteers and completed questionnaires, however only 251 provided complete data. They ranged in age from 55 to 77 ($M = 60$), 135 were male (mean age = 60) and 116 were female (mean age = 59). The majority of this sample was married ($n=172$), Caucasian ($n=191$), educated ($M= 17$ years), and employed in a professional occupation (67% of sample). The annual family income for this sample ranged from \$17,000 to \$376,000, ($M = \$103,516$, $SD = \$61,741$).

Materials

Participants completed a questionnaire that measured the following: 1) the usefulness of retiring and the usefulness of continued employment as a means to achieve goals, 2) their intent to retire in the next one-, three-, and five-year periods, 3) their health status, 4) the number and type of financial retirement resources, 5) demographic information and 6) their expected age of retirement. The participants also engaged in a card-sorting task, where they rank-ordered the importance of goal categories for the purpose of determining ROC weights.

goals. The goal categories used for measuring usefulness and rank-ordered importance were taken from the hierarchical goal taxonomy proposed by Chulef, Read and Walsh (2001). Their hierarchical goal taxonomy identifies goal clusters that are conceptually meaningful to a layperson, and were identified using cluster analysis applied to a 135 goals found in the literature. A total sample of 171 adults, varying in ages from 17 to 92, rated the importance of the goals and sorted them into groups based upon conceptual similarity.

In order to examine the psychometric properties of the goal taxonomy, Chulef, Read and Walsh divided the total sample into three age groups: A young ($M = 19$), middle-age ($M = 40.3$) and an old group ($M = 73.5$). The clustering solutions generated by these three sub-samples produced high levels of replicability demonstrating that the conceptually based organization of goals is stable across age. The average degree of agreement for the three-subgroups was .56 as measured by an adjusted Rand index. The adjusted Rand index can take on values from 0 to 1 and a .56 index can be interpreted as

showing 56 percent agreement over and beyond what would be expected by chance (Collins & Dent, 1988).

To calculate the extent to which goals that were sorted as conceptually similar also had similar importance ratings; an inter-item consistency analysis (Cronbach's alpha) was computed on the importance ratings for the goals that fell into a common cluster. The Cronbach's alpha ranged in value from .89 to .61 for all but one cluster (Dexterity cluster alpha = .15). However, twenty-four of the clusters had internal consistency ratings of .70 or better. Thus, most of the individual items that were grouped into a cluster were judged as similar in importance. See Table 1 for goal categories used in this study.

Measures

The following section provides a description of the measurement instruments used for predicting an individual's intention to retire.

usefulness of retire/work for goal achievement. This instrument first measured the usefulness of continued employment as a means to achieve a goal category. The ratings of usefulness for continued employment were based on an 11-point scale (on a scale anchored by 0 "not at all useful" and 100 "extremely useful"). Next, separate ratings for the usefulness of retirement as a means to achieve a goal category were calculated. The ratings of usefulness of retirement were based on the same 11-point scale (on a scale anchored by 0 "not at all useful" and 100 "extremely useful").

rank ordering goals. To obtain rank order assessments of goal importance, a set of 29 index cards was used. Each index card listed a goal category and the single-item goals that were included within the category. The instructions within the questionnaire

directed participants' to sort the 29 index cards into an order that represented decreasing goal importance (from most important goal category to least important goal category). The ranks were translated into Rank Order Centroid (ROC) weights based on a formula proposed by Barron and Barrett (1996).

multiattribute scores. For each of the 29 goals, the utility of a behavioral option (retire/work) for attaining a particular goal was multiplied by the corresponding ROC (Rank Order Centroid) weight. The ROC weights were based on the individuals' rank ordering of goal importance; higher rankings of goal importance received greater ROC weights.

For each individual, her/his scores were aggregated across all retirement items to create a total multiattribute score for retirement. Similarly, her/his multiattribute utility scores were summed across all work items to create a total multiattribute utility score for work. Thus, this measurement of multiattribute utility resulted in evaluations that reflected the individual's assessments of the relative importance of a particular goal and her/his expectation that pursuing a behavioral option (retire, work) would result in the attainment of the goal.

financial resources for retirement. To estimate the extent to which retirement income would replace current household income; participants were asked to provide estimates of both current household income and retirement income. To estimate annual retirement income, participants were prompted to provide income estimates of: 1) social security, 2) pensions, 3) employment, 4) assets, 5) inheritances, and 6) familial support. Annual retirement income was calculated by instructing the participants to add together their annual estimates of retirement income from all aforementioned sources. If the

subject was entitled to receive retirement income from the earnings of a spouse, then the spouse's benefits were also calculated as part of the subject's retirement income.

Current household income was computed from aggregating reported estimates of 1) annual income for self, 2) annual income for spouse and, 3) annual income from other sources. The annual family income for this sample ranged from \$17,000 to \$376,000 ($M = \$103,516$; $SD = \$61,741$). To quantify the degree to which retirement income would replace family income; retirement income was divided by current household income and multiplied by 100. The resulting percentage indicated the adequacy of the participants' retirement income to replace current income.

health. To measure general health status, the participants were asked to provide an overall rating for the following: 1) their general health, and 2) the degree to which they agreed that their health was excellent. The general health rating was based on a 5-point scale (anchored by 1 "very poor" and 5 "very good"). The degree to which participants agreed that their health was excellent was assessed on a 7-point scale (anchored by 1 "disagree strongly" and 7 "agree strongly"). The bivariate correlation for the two items that formed the health status variable was .77. Since, previous studies have shown strong support for the role of illness and disability in predicting early retirement; participants were also asked several questions to assess the degree of illness and disability that limited their ability to perform adequately in their working environment. Participants also reported the number of visits to a physician in the last year, and the number of prescription medications taken on a daily basis. Most participants reported few health limitations or illnesses and reported their current health as "good" or "very good." The median number of visits to a physician in the last year was 4, and the median

number of prescription medications taken on a daily basis was 1. Coefficient alpha for the illness/disability measure was .81.

Participants were also asked to evaluate the health of their spouse. To measure spousal health, the participants were asked to provide an overall rating for the following: 1) their spouse's general health, and 2) the degree to which they agreed that their spouse's health was excellent. General health ratings for a spouse were based on a 5-point scale (anchored by 1 "very poor" and 5 "very good"). The degree to which participants agreed that their spouse's health was excellent was assessed on a 7-point scale (anchored by 1 "disagree strongly" and 7 "agree strongly"). The bivariate correlation for the two items that formed the spousal health variable was .73

demographics. Each subject completed questions pertaining to gender, current age, ethnicity, marital status, completed years of education, occupational status and number of dependents.

The following section describes the measurement of intention to retire, the dependent variable, used in the current study.

intent to retire. Participants rated their intent to retire within the coming year, in three years and in five years. Their retirement intention were evaluated using an 11-point scale, where a rating of "1" indicated they would definitely continue to work, a rating of "6" indicated they were uncertain of whether they would retire or continue working, a rating of "11" indicated they would definitely retire. The intercorrelations among the intent variables over the three time periods ranged from .47 to .77.

The purpose of the present study was to understand the role that an individual's current cognitive perceptions of goal attainment play in determining her/his intent to retire. To

adequately measure the individual's intent to retire, we created a single composite score that is an aggregate of the individual's intent to retire over the three time periods listed, above. The intent to retire score is, thus, an index of people's future plans: Individuals who plan to retire immediately will have the greatest aggregate value for the intent to retire variable because they will likely assign values of 11 to the immediate, 3- and 5-year time periods. In contrast those who plan to continue working indefinitely will have the smallest aggregate value because they will likely have assigned values of 1 to all three time periods. Cronbach's alpha for the composite intent variable composed from the three time intervals is .84.

Individuals were also asked the age at which they expected to retire. This information was examined as a source of convergent validity for the composite intent variable, described above. A correlation was calculated between expected number of years until retirement and the intent to retire variable. The number of years until retirement was calculated by subtracting the participants' current age from their expected age of retirement. The correlation between expected number of years until retirement and the intent variable was statistically significant, $r = -.64$, $p < .01$: Participants' reports of later retirement ages were associated with lower scores on the intent to retire variable.

Procedure

Participants were administered the questionnaire individually or in small groups. Instructions and examples were provided within the questionnaire. The same female proctor was present throughout the administration sessions, to answer questions that arose. There were no imposed time constraints; participants worked at a comfortable pace. Most participants completed the questionnaire in one hour. After completing the questionnaire the participants were debriefed and paid for their participation.

Results

Multiattribute utility assessment

The first question addressed in the present study was whether a multiattribute utility evaluation of the personal goal fulfillment associated with retirement and continued employment predicts retirement intent. A multiple regression analysis was used to test this hypothesis. Since employment is proximally closer to the individual than retirement, the multiattribute utility scores for continued work were entered first into our regression equations and followed by the multiattribute utility scores for retirement.

As shown in Table 2, the multiattribute utility scores for retirement and work explained 21% of the variance in the intent to retire variable. To assess the stability of the regression equation Stein R^2 ¹ and Press R^2 ² were calculated. The Stein R^2 was equal to .20, the Press R^2 was equal to .20, demonstrating good stability for this regression equation.

Traditional variables and multiattribute utility

Multiple regression analysis was used to identify the contribution of personal and demographic variables in predicting the participants' intent to retire. As hypothesized, the multiattribute utility scores for retirement and work explained a significant amount of the variance ($R^2 = 17\%$) in the intent to retire variable over and above that explained jointly by the personal and demographic variables ($R^2 = 25\%$).

As indicated in Table 3, the first set of personal and demographic variables entered into the equation included personal assessments of disability/illness, health status, replacement income (dummy coded for missing data), and marital status³. These

variables were entered first because a great deal of empirical evidence pointed to income and health, especially illness and disability as reliable predictors of early retirement.

A dummy coding procedure was used to assess the effect of missing data on the hierarchical regression. The procedure provides an evaluation of whether individuals who are missing data on specific variables are significantly different in their reported intent to retire from individuals who provided data on these variables (Cohen & Cohen, 1983; Hardy, 1993). Since spousal health and replacement income have significant missing data, ($n = 173$) and ($n = 145$) the dummy coding procedure was used.

As shown in Table 3, a significant positive relationship was found between self-reported illness/disability and intent to retire. Therefore, higher rating of illness and disability were associated with a greater intent to retire. Self-reported health status and replacement income (dummy coded for missing data) were not significant predictors of the individuals' intent to retire. However, marital status reached marginal significance.

The next set of variables entered into the regression equation consisted of the participants' current age, completed years of education, gender, race (1 = Caucasian, 0 = NonCaucasian), replacement income, spousal health, occupational status (1 = professional, 0 = nonprofessional), and number of dependents. These variables have also been advanced as contributors to the timing of the retirement decision. Current age was found to have a significant positive relationship with the intent to retire variable, while number of dependents was found to have a significant negative relationship with the intent to retire variable. The participants' education level, race, job type and their gender were not significant predictors of the intent to retire variable. However, replacement income and health of spouse reached marginal significance.

The multiattribute utility score for continued employment and retirement were the final entries into the multiple regression equation. By entering the multiattribute utility scores last, we could assess whether they make a unique contribution beyond that of personal and demographic variables in accounting for the variance in the intent to retire variable. Again, the multiattribute utility for goal expectations related to continued employment was entered first and produced a small but significant change in R-square of 3%. The multiattribute utility for goal expectations related to retirement were entered last and produced a statistically and practically important R-square change of 14%.

As shown in Table 3, the results indicated that the multiattribute scores for goal attainment explained an additional 17% of the variance in the intent to retire variable. Jointly, the demographic variables and multiattribute utility variables accounted for 42% of the variance in the intent to retire variable. The Stein R^2 was equal to .40, the Press R^2 was equal to .36 indicating good stability for these regression equations.

Discussion

The major finding of the current study is that goal expectations provide an important source of information for predicting retirement intentions. More importantly, the results show that multiattribute assessment of goal expectations predicts large amounts of unique variance in retirement intentions not previously captured by traditional variables. Although goals have been proposed as important to the decision making process (e.g., Beach and Mitchell, 1987) no previous research has demonstrated the importance of goal expectations in predicting retirement decisions. The present results show that 17% of the variance in retirement intention can be predicted by goal expectations, over and above 25% of the variance predicted by a set of personal and

demographic variables. Thus, combining goal expectations with a wide range of personal and demographic variables allowed 42% of the variance in retirement intentions to be predicted for the current population of 251 older workers.

The present research also documents the effectiveness of the Chulef et al (2001) goal taxonomy and the SMARTER approach to multiattribute utility assessment as effective tools for measuring goal expectations. The goal taxonomy proved to be a successful means for making a comprehensive evaluation of the goals that underlie retirement decisions, and offers the promise of providing a foundation for assessing goals relevant to a wide variety of other consequential personal decisions.

Table 4 shows the percentage of subjects who perceived each of the 29 goals as attainable through retirement or continued work. (For purposes of constructing Table 4, we set the criteria of “attainable” as a participant rating a goal as having a utility value of 70 or greater on our scale that ranges from 0 to 100, previously described.) The value of individualized assessments used in the present research is evidenced by the fact that 22 goals (Achievement, Appreciation of the Arts, Contributions to Society, Creativity, Entertainment, Ethics, Family, Finances, Flexibility, Freedom, Intellect, Leadership, Managing Stress, Guilt and Failure, Marriage, Occupation, Physical Appearance, Physical Health, Self-Reliance, Social Life, Positive Social Qualities, Stability and Safety, Teaching and Helping Others) were perceived as attainable by some participants through continued work and by others through retirement. Furthermore at least 40% of the sample rated each of the 22 goals shown in Table 4 as attainable through retirement or work.

Further support for the need of individualized assessments is the finding that no single goal was perceived as attainable through retirement or continued employment by more than 84% of the participants. Only three other goals had more than 60% agreement: Freedom goals through retirement, and Occupational, Finances, Stability and Safety goals through continued work.

Also clear in Table 4 is that people perceived different goals as attainable through continued employment and retirement. The goals of Entertainment, Freedom and Appreciation of the Arts were consistently rated as attainable through retirement. While, the goals of Finances, Self-reliance, Intellect, Achievement, Occupation, Teaching and helping others, Stability and Safety, Positive Social Qualities and Leadership were consistently rated as attainable through continued employment.

Furthermore, consistent with past research the results of multiple regression analyses suggest the following relationships between personal variables, demographics and intent to retire: 1) self-reported illness/disability is associated with greater intent to retire, 2) older age is associated with greater intent to retire, 3) a greater number of dependents is associated with a greater intent to continue employment, and 4) marginal support for the relationship between poor spousal health and a greater intent to continue employment was found (Kim and Feldman, 1998; Palmore, Burchett, Fillenbaum, George & Wallace, 1985; Taylor & Shore, 1995).

A potential limitation of the current study is that actual retirement behavior was not measured. However, many researchers have argued that retirement should be thought of as a developmental process that occurs over years or decades preceding the act of retirement (Beehr, 1986; Prothero & Beach, 1984; Taylor & Shore, 1995; Ekerdt,

DeViney & Kosoloski, 1996). If retirement is conceptualized as a developmental process then intent to retire reflects a unique stage within the decision process. As such it precedes action but follows wishes, wants, and desires. Thus, retirement intent is a useful construct because it reflects peoples' current plans about a future retirement decision and marks a point in the developmental sequence where preretirement education and evaluation would be most effective.

Furthermore, past research suggests that retirement intent is a good predictor of retirement behavior (Anderson, Brukhauser & Quinn, 1986; Henkens and Tazelaar, 1997; Prothero & Beach, 1984), however there is not perfect prediction. Primarily this lack of prediction is attributed to a number of unplanned environmental factors (such as reorganization, downsizing, early retirement incentives, sudden illness) that can dramatically alter people's plans to retire.

Some comments need to be made about generalizability of this study. It is difficult to discern whether the results of this study could be generalize to other populations that are less financially prosperous and less educated. However, the participants in the current study and the baby boom generation share the common characteristics of being educated and having greater economic resources than past cohorts of retirees (AARP, 2002; Rother, 1997). The baby boom generation is quickly approaching retirement age and the parameters of their retirement decision as well as the definition of retirement for this cohort is likely to be very similar to the population included in this study.

Goal evaluations using the Chulef et al taxonomy of goals might be useful in facilitating the "baby boomers" exploration and self-definition of their retirement role.

Thus, addressing the complex problem of understanding how the individual conceptualizes the role of retiree (Szinovacz & DeViney, 1999). A SMARTER methodology applied to a goal taxonomy provides a useful means to investigate the motivational basis that underlies a specific decision. This method of assessing goals provides rich information that begins to address why individuals choose particular options.

In terms of practical application, goal assessments provide a means for employers to identify employees who may or may not be likely to retire in the future. Personalized goal assessments are similar to job satisfaction instruments (e.g., Job Diagnostic Survey) in providing an evaluation of affective, motivational and cognitive aspects of job satisfaction. However, personalized assessments also provide employees with a level of information that explores the underlying goals that promote continuity between life satisfaction and job satisfaction. Thus, providing employees with a greater comprehensive understanding of what variables are important in their retirement decision. This increased personal knowledge would enable employees to make better choices about the nature and timing of the retirement decision.

Furthermore, the methodology used in the current study could easily be applied to many critical choices such as career, marital and housing decisions. In closing, we propose that goal assessments, evaluated using SMARTER methodology provides a rich measure to explore the motivational basis for a variety of important life-course decisions.

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Footnotes

¹The Stein statistic provides an estimate of how much R^2 would be expected to shrink if the regression equation were fit to numerous samples from the same population (Stevens, 1992). Stein $R^2 = 1 - ((n - 1)/n - k - 1) ((n - 2)/n - k - 2) ((n + 1)/n) (1 - R^2)$, where n = sample size, and k = number of predictors.

²The PRESS statistic provides an estimate of how well the regression equation predicts an independent sample of the data. This procedure involves leaving out one case and calculating the regression equation based on the remaining $N-1$ cases. Thus, the PRESS statistic is an estimate of predictive accuracy for the regression equation (Cliff, 1987; Myers, 1990; Stevens, 1992). $\text{PRESS } R^2 = 1 - (\text{PRESS})/\Sigma(y_i - y)^2$, where $\text{PRESS} = \Sigma e_{(-i)}^2$.

³Marital status (1 = married) (0 = unmarried) serves as the missing data dichotomy for spousal health.

Table 1

List of 29 Goal Categories and Corresponding Exemplars

Goal Categories	Exemplars
Achievement	Being ambitious Accomplishing difficult things Fulfilling my goals
Appreciation of the Arts	Pursuing cultural development Experiencing a world of beauty Learning more about art
Contributions to Society	Making a lasting contribution to culture Being charitable Seeking equality
Creativity	Being curious, inspecting, learning Having original, novel ideas
Defense vs. Rejection	Avoiding rejection by others Defending myself against others' criticisms or attacks
Dexterity	Having mechanical ability Keeping things in order
Entertainment	Enjoying life Devoting time to amusements Having recreation, entertainment, hobbies
Ethics	Being an ethical person Standing up for my beliefs Having firm values
Family	Developing my relationship with my family Providing values for the younger members of my family
Finances	Maintaining a comfortable standard of living Having sufficient financial reserves to provide for myself and my family (e.g. money for a college education for children/grandchildren, emergencies, health insurance, etc.)
Flexibility, Openness and Excitement	Seeking new things, traveling Having flexibility of viewpoint Being broad-minded, open

(table continues)

<u>Goal Categories</u>	<u>Exemplars</u>
Freedom	Having freedom of choice Being a free person
Friendship	Having close companionship Sharing feelings with close friends Being affectionate towards others
Intellect	Participating in activities that stimulate the mind Learning new skills that relate to a different career
Leadership	Influencing, persuading others Being able to make decisions for others
Managing, Stress, Guilt and Failure	Minimize stress Handle feelings of guilt, failure
Marriage	Developing and enhancing my relationship with my spouse Enjoying life with my spouse
Occupation	Having a job that is rewarding, satisfying Having a job that provides interaction with others
Personal Development	Finding higher meaning in life Experiencing personal growth Having wisdom
Physical Appearance	Being clean, neat Carrying myself well Being good-looking
Physical Health	Maintaining physical health, physical ability Exercising regularly Eating nutritious foods
Positive Social Qualities	Being respected by others Having others' trust
Receiving from others	Having others to rely on Being taken care of Having someone to guide me
Religion	Engaging in religious traditions Maintaining religious faith Pleasing God

(table continues)

<u>Goal Categories</u>	<u>Exemplars</u>
Romantic Relations	Having emotional intimacy Enjoying sexual experiences Having a mature romantic relationship
Self-reliance	Being independent Self-sufficient Being disciplined
Social Life	Belonging to social groups Having a rich active social life Being popular
Stability and Safety	Having an easy, comfortable life Having stability in life Feeling safe and secure
Teaching and Helping	Developing others through teaching and sharing knowledge
Others	Giving support

Table 2

Multiple Regression- Multiattribute Utilities Predicting Intent to Retire (N=251)

Model- Variable Sets	B	SE B	β	t-statistic	R ² Change	Total R ²
<u>Step 1</u>						
Multiattribute Utility for Work	-.15	.03	-.35	-5.83*	.03	
<u>Step 2</u>						
Multiattribute Utility for Retirement	.17	.02	.47	7.67*	.18	
<u>Full model</u>						
Multiattribute Utility for Work and Retirement						.21

Note. Stein R² = .20, PRESS R² = .20 for multiattribute utility for retirement and work,

*p < .01.

Table 3

Summary of Hierarchical Regression Analysis for Variables Predicting Intent to Retire (N = 251)

Demographics, Personal variables and Multiattribute Utilities	B	SE B	β	t-statistic	R ² Change for each step	Total R ²
<u>Step 1</u>						
Disability/Illness	.27	.08	.24	3.23*	.06	
Health Status	.51	.33	.12	1.53		
Replacement Income ^a	-1.42	1.12	-.08	-1.27		
Marital Status ^b	2.11	1.18	.11	1.77 ^c		
<u>Step 2</u>						
Age	.75	.11	.38	6.61*	.19	
Completed Years of Education	-.28	.22	-.10	-1.28		
Gender	.17	1.16	-.01	.14		
Race	.89	1.33	.04	.67		
Replacement Income	.03	.02	.09	1.62 ^c		
Spousal Health	.36	.21	.11	-1.71 ^c		
Occupational Status	-1.78	1.36	-.09	-1.31		
Number of Dependents	-1.39	.53	-.15	-2.62*		
<u>Partial model</u>						
Demographics and Personal variables						.25
<u>Step 3</u>						
Multiattribute Utility for Work	-.16	.03	-.37	-6.60*	.03	
<u>Step 4</u>						
Multiattribute Utility for Retirement	.15	.02	.42	7.54*	.14	
<u>Partial model</u>						
Multiattribute Utility for Work and Retirement						.17
<u>Full model</u>						
Personal variables, Demographics and Multiattribute Utility for Work and Retirement						.42

^a Replacement income dummy coded for missing data (1=missing) (0 = nonmissing).

^b Marital status (1=married) (0 =unmarried)

^c Marginal significance, $p < .10$

* $p < .01$.

Table 4

Percentage of Participants Rating Each Goal Category as Attainable through Retirement or Continued Employment

Goal Category	Retiring	Continued Employment
Achievement	27%	54%
Appreciation of the Arts	47%	21%
Contributions to Society	28%	40%
Creativity	47%	21%
Entertainment	50%	28%
Ethics	54%	36%
Family	48%	33%
Finances	16%	84%
Flexibility	47%	34%
Freedom	63%	33%
Intellect	35%	58%
Leadership	18%	58%
Managing Stress, Guilt and Failure	41%	28%
Marriage	48%	34%
Occupation	8%	81%
Physical Appearance	31%	49%
Physical Health	47%	41%
Self-Reliance	38%	59%
Social Life	32%	59%
Positive Social Qualities	33%	60%
Stability and Safety	31%	68%
Teaching and Helping Others	23%	58%