Gradual Retirement, Sense of Control, and Retirees' Happiness
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The aim of this study was to explore the factors that affect an individual’s happiness while transitioning into retirement. Recent studies have found that workers often view the idea of gradual retirement as a more attractive alternative than a “cold turkey” or abrupt retirement. However, there is very little evidence as to whether phasing or cold turkey makes for a happier retirement. Using longitudinal data from the Health and Retirement Study, the authors explored what shapes the change in happiness between the last wave of full employment and the first wave of full retirement. The results suggest that what matters is not the type of transition (gradual retirement or cold turkey) but whether people perceive the transition as chosen or forced.

**Keywords:** happiness; retirement; gradual; phased; control

Workers approaching retirement often say that they want to retire gradually, rather than going straight from full-time employment to complete retirement. Some surveys report that more than half of all older workers prefer to exit the labor force this way (Hutchens and Papps 2005). Most policy
makers also view gradual retirement favorably, as a way workers can extend their careers and thereby improve retirement income security (Gustman and Steinmeier 2007, however, questioned whether gradual retirement would increase average working lives). To accommodate workers’ preferences and improve retirement income security, expanding opportunities for gradual retirement has gained a prominent place on the policy agenda.

It is not clear, however, that retirees are indeed better off if they retire gradually as opposed to “cold turkey” (De Vaus et al. 2007). Workers who want to retire gradually are not basing their preference on their own personal experiences. They have not retired both ways, cold turkey and in stages, and concluded that they are happier in retirement after a gradual transition. Moreover, individuals typically misestimate their future happiness (Gilbert 2007).

In this study, we sought to learn whether individuals are indeed happier if their transitions out of the labor force are gradual as opposed to abrupt. Because a large share of workers say that they want to retire gradually, a second research goal was to learn whether retirees who say that they had control over their transitions to retirement are happier than those who felt forced to retire. We used happiness as the yardstick for evaluating work-to-retirement transitions. Happiness has an important advantage over other yardsticks, in that it measures realized quality of life. Other criteria, such as income, wealth, social status, and health, measure potential quality of life (Veenhoven 2006). We thus asked whether retirees who exited the labor force gradually are “happier” than those who left cold turkey. By “happiness,” we mean an individual’s general experience of different kind of feelings. Some feelings we experience are pleasurable, such as enjoyment of life. Others, such as sadness, are unpleasant. We thus asked whether the type of transition from work to retirement affects the degree to which the feelings a person experiences are generally pleasant or enjoyable.

**Literature Review**

**A Gradual Versus an Abrupt Transition**

One of three workers aged 55 years and older say they that would stay in the labor force longer if they could cut back their hours (Watson Wyatt Worldwide 2004). And two of three workers aged 50 to 70 years say that they plan to work in “retirement” (Brown 2003). This preference for a gradual exit is understandable. These workers have spent 30 or more years in
the labor force, and retirement represents a sharp social, psychological, and economic break with life as they know it. Thus, it is not surprising that workers prefer to negotiate the transition in stages. A smooth transition allows older workers to continue daily activities similar to those performed in middle age. This should be helpful in maintaining meaning and a sense of purpose in life, as well as adapting to aging (Atchley 1999; Rowe and Kahn 1998). Gradual retirement could also enhance opportunities to remain active and socially engaged. Evidence suggests that remaining active and socially engaged has a strong positive impact on health and well-being in retirement (Brummett et al. 2001; Erikson, Erikson, and Kivnick 1986; Everard et al. 2000; Siegrist, Von dem Knesebeck, and Pollack 2004).

On the other hand, previous research has also found that people are quite resilient. Happiness is very stable across the life span, with large shocks often having but a short-term effect on our affects and senses of well-being. Thus, researchers argue that individuals have a normal baseline level of psychological well-being that varies only moderately in response to current events (Appley 1971; Costa, McCrae, and Norris 1981; Lykken and Tellegen 1996). This perspective suggests that the type of transition might not have a meaningful effect on happiness in retirement.

Factors That Influence Happiness

Researchers have found that most retirees are happy in retirement. But they have also found that the degree of satisfaction fluctuates substantially and is associated with various factors. To identify the independent effect of gradual versus abrupt transitions to retirement, it is necessary to control for factors identified in the literature as affecting happiness in retirement.

One factor that has a significant effect on happiness is individuals’ sense of control over their lives (Kunzmann, Little, and Smith 2002; Rodin 1986; Sweeney, Anderson, and Bailey 1986). In terms of the work-retirement transition, individuals who retired voluntarily are happier than those who were forced out of their jobs (Calvo 2006; De Vaus et al. 2007; Gall, Evans, and Howard 1997; Gallo et al. 2006).

Social relationships are another factor found to have an impact on happiness (Chan and Lee 2006; Glass et al. 2006; Vanderhorst and McLaren 2005). For example, retirees who are married tend to be happier than those who are single (Bierman, Fazio, and Milkie 2006; Demo and Acock 1996). The death of a spouse, relative, or close friend and divorce or separation all diminish happiness (Cheng and Chan 2006; Lucas et al. 2003; Pinquart 2003). Because of the ages of individuals in this study, the death of a spouse
is a relevant factor that may affect individuals’ happiness when transitioning into retirement.

Good health is positively associated with happiness, and health tends to decline as individuals age (Cohen 2004; Hilleras, Aguero-Torres, and Winblad 2001; Rohwedder 2006; Rowe and Kahn 1998). Using a longitudinal design, Kosloski et al. (2005) found that self-reported health has a consistent effect on depressive symptoms, while the level of depressive symptoms has no significant effects on self-reported health.

Aging alone does not seem to have much of an effect on happiness. After controlling for the decline in health and the loss of social roles and loved ones that come with aging, neither longitudinal nor cross-sectional studies have found a substantial relationship between age and happiness in retirement (Cheng 2004; Jorm 2000; Kunzmann, Little, and Smith 2000; Pinquart 2001).

Researchers have found the effects of income and wealth on happiness to be somewhat mixed. Cross-sectional studies provide evidence of a positive relationship between wealth and happiness. But researchers analyzing longitudinal data have found the effects of income and wealth on happiness to be generally small, except around the poverty threshold (Arendt 2005; Arthaud-Day and Near 2005; Diener and Biswas-Diener 2002; Easterlin 1974/2002; Inglehart and Klingemann 2000; Michalos 1985; Saris 2001). However, the wealth of an individual approaching and entering retirement may have more of an impact on the individual’s happiness. One economic factor found to affect happiness in retirement is pension type. Some recent research found that retirees are happier with defined-benefit pensions as opposed to having a comparable amount of wealth in retirement accounts (Bender 2004; Panis 2003).

Data and Methodology

Data

We used data from the Health and Retirement Study (HRS), a nationally representative, biennial panel survey of older Americans and their spouses (University of Michigan 2007). Many variables used in this project are from the RAND Center for the Study of Aging (2007) cleaned version of the HRS. The HRS began in 1992, and data are available through 2004.

For the sample selection, we began with the age-eligible individuals from the initial HRS cohort. These were 9,760 individuals born between 1931 and 1941 who responded to the HRS in 1992. The next task was to
identify those individuals who could be observed making the transition from work to retirement.

Researchers use a variety of measures to characterize individuals as fully employed, fully retired, or something in between. Among the most common are self-reported status, hours worked (per week or per year), change in earnings, and whether individuals have claimed Social Security benefits (Chen and Scott 2006; Gustman and Steinmeier 2000, 1984; Haider and Loughran 2001; Honig and Hanoch 1985; Ruhm 1990). To identify individuals in the HRS whom we could observe making the transition from work to retirement, we used two criteria: their usual hours of work per week and their self-reported retirement status. The variable of usual hours worked per week was the sum of the usual hours worked per week at an individual’s main job and the usual hours worked per week at a second job. We classified individuals as “fully employed” in the first wave of the HRS if they then worked at least 30 hours per week and reported themselves “not retired” (as opposed to “completely retired” or “partly retired”). As illustrated in Figure 1, 5,744 of the 9,760 individuals in the HRS cohort were fully employed in 1992. The final column of Figure 1 gives the total number fully retired by 2004, the last available wave. We classified individuals as “fully retired” if they had 0 hours of work and reported themselves as completely retired. Of the 5,744 individuals who were fully employed in the initial wave, 3,022 were fully retired in at least one subsequent wave. Once an individual was fully retired, we ignored all further labor-market activity. In other words, we did not look at unretirement dynamics.

Our final usable number of observations was 2,389. Of the 3,022 individuals who made full transitions from work to retirement, 219 did not fit our definitions of gradual and cold-turkey retirement (the process of classifying gradual and cold-turkey retirees is described below), and 414 had missing happiness values and were dropped after imputing values for the other variables. For each wave of the HRS, Figure 1 indicates the number of individuals fully employed in 1992 who were (1) fully retired, (2) not fully retired, or (3) out of the HRS because of attrition. Because we selected only individuals we observed transitioning from full-time employment to full retirement, the sample used for this study may not be representative of the general population.

We handled missing values in the variables used for the selection of the sample by deriving the information from other variables whenever possible. In addition, we performed a single imputation on these variables and, after selecting the sample, a multiple imputation by chained equations on the variables used for the analysis. Imputing data allowed us to include an
### Figure 1
Sample Selection Flow Chart


Note: Fully employed = at least 30 hours usually worked per week and self-reported as not retired; fully retired = 0 hours usually worked per week and self-reported as completely retired.
additional 307 individuals, and using multiple imputation by chained equations prevented us from underestimating the standard errors, because each model was estimated over five imputed data sets including a random component (Allison 2001; Royston 2004).

**Dependent Variables**

Happiness, the focus of our study, is a slippery concept that researchers define in many different ways. We defined happiness as the degree to which a variety of feelings that a person experiences are pleasant or enjoyable. Our definition of happiness focused on (1) more or less stable feelings as opposed to temporary feelings, such as the sensory delight of a chocolate; (2) an evaluation of one’s feelings in general as opposed to the evaluation of a specific domain of life, such as satisfaction with a job; and (3) an affective as opposed to a cognitive notion of happiness, such as the degree to which we think we have achieved our goals.

To measure happiness, we used five yes-or-no questions about pleasant and unpleasant feelings that the HRS asks of both working and retired respondents: “Now think about the past week and the feelings you have experienced. Please tell me if each of the following was true for you much of the time this past week. . . . Much of the time . . . you were happy; you enjoyed life; you felt lonely; you felt depressed; you felt sad.” The first two questions are measures of positive feelings, and the last three measure negative feelings. Previous research has established the validity and reliability of such self-report measures (see, e.g., Diener et al. 1999; Frey and Stutzer 2002; Layard 2005; Perreira et al. 2005; Steffick 2000; Veenhoven 1991).

For each individual in the HRS who made the transition from work to retirement, we measured the change in each of the five happiness indicators (feelings of happiness, enjoyment of life, loneliness, depression, and sadness). To do that, we took the baseline measure of each indicator in the last wave in which the individual was fully employed and recorded the change in the first wave in which the individual was fully retired. Because the indicator variables were dichotomous, the value either remained the same or changed to the opposite value. We recorded no change as 0, a yes-to-no change as –1, and a no-to-yes change as 1. For example, the change in enjoyment of life would be –1 if the individual answered “yes” in the last wave of full employment and “no” in the first wave of full retirement, 0 if there was no change, and 1 if the individual said that he or she did not enjoy life while working but did in retirement.
Independent Variables

Measurement of gradual versus abrupt retirement. Our primary concern was whether happiness in retirement is affected by a gradual as opposed to a cold-turkey transition. To do this, the first task was to identify those individuals in the HRS population who made the transition from work to retirement. We then classified these individuals into those who retired gradually and those who retired abruptly.

As illustrated in Figure 2, we distinguished between the two types of transitions on the basis of a respondent’s self-reported status between being classified as fully employed in the initial wave of the HRS (working 30 or more hours a week and self-reporting as not retired) and fully retired (working 0 hours a week and self-reporting as completely retired) in a subsequent wave. For an individual to be classified as a cold-turkey retiree, he or she must have self-reported as not retired in each wave prior to being classified as fully retired. For an individual to be classified as a gradual retiree, he or she must have self-reported as partially retired in all intervening waves between self-reporting as not retired and being classified as completely retired. We thus omitted from the sample individuals who reported themselves in intervening waves as completely retired but worked more than 0 hours, because their employment status in those waves and the natures of their transitions were both ambiguous. We also omitted from the sample individuals who reversed direction and reported themselves as not retired after reporting themselves as partly retired, because the natures of their transitions were ambiguous.

The two gray rows in Figure 2 give the number of individuals in our 2,389-person sample who had transitioned to full retirement at each wave. The gray row at the top gives the number of workers who had retired cold turkey, and the bottom row gives the number who had retired gradually. By 2004, 1,733 individuals (73%) had retired cold turkey, and 656 (27%) had retired gradually. Figure 2 also reports for each wave the number of respondents still not retired (self-reported as not retired) and the number partially retired (self-report as partly retired).

We did not consider hours of work in distinguishing between gradual and abrupt retirement for several reasons. Because we were primarily interested in individual perceptions of the retirement process, self-reported status was the more relevant single criterion. Moreover, the HRS only asked respondents if they were forced or wanted to retire if they reported themselves as completely retired or partly retired. So we would not get this information from individuals who worked between 0 and 30 hours per

Note: Fully employed = at least 30 hours usually worked per week and self-reported as not retired; fully retired = 0 hours usually worked per week and self-reported as completely retired; cold turkey = fully retired cold turkey; not retired = self-reported as not retired; partially retired = self-reported as partly retired prior to self-reported as completely retired; retired gradually = fully retired after gradual retirement.
week but considered themselves not retired. Because the voluntary or involuntary nature of a worker’s separation from employment has been identified as an important factor contributing to happiness in retirement, we would not have been able to include this variable in our analysis had we classified transitions as “gradual” based only on hours of work.

Measurement of sense of control. Additional independent variables were included in the regressions. We created a set of three dummy variables measuring respondents’ perceptions of whether retirement was something they “wanted to do,” was “part wanted, part forced,” or was something they were “forced into.” Included in the regressions were “chose retirement” and “part wanted retirement,” so the estimated effects were relative to “forced retirement.” Feeling forced into retirement is expected to decrease happiness and enjoyment of life and increase loneliness, depression, and sadness. The wave from which this variable was taken depended on the type of transition. For those coded as cold-turkey retirees, this variable was coded on the basis of the individuals’ responses in the first wave of full retirement. For those coded as gradual retirees, this variable was coded using, in this order, (1) if not missing, the value of the “wanted to/forced into” variable in the wave immediately following the last wave of full employment or (2) the first non-missing response to the “wanted to/forced into” variable after the last wave of full employment and before the first wave of full retirement.

Controls

Our analysis also controlled for other factors identified in the literature as affecting happiness at old age.

Death of spouse during the transition. If a respondent had a marital status of “married” or “married, spouse absent” in his or her last wave of full employment and a marital status of “widowed” in the first wave of full retirement, he or she was coded as having a spouse who died.

Change in health. Change in health status was measured as a change in self-reported health status. Self-reported health status was given on a scale ranging from one to five, with one corresponding to “poor” health and five to “excellent” health. This variable measured the change in self-reported health status from the last wave of full employment to the wave of full retirement. A positive value for this variable indicated an improvement in health, according to the respondent.
Defined-benefit pension coverage. This variable reported whether a respondent was covered by a defined-benefit pension plan at his or her job at the last wave of full employment.

Other control variables included were the number of years between full employment and full retirement, “unemployment” reported in the first wave of “complete retirement,” and various socioeconomic and demographic variables, such as gender, race or ethnicity, age, education, wealth, and type of occupation. Although some of these variables may not have a substantial impact on happiness, the type of work-to-retirement transition, the sense of control workers have over their transitions, and health levels are known to vary by these characteristics (Burr et al. 1996; Flippen and Tienda 2000; Link and Phelan 1995; Mirowsky and Ross 2007). Unemployment controlled for a possible misclassification of individuals as retired when they were actually unemployed. If the labor-force status was unemployed in the wave in which an individual was coded as fully retired, this variable took a value of one. For race or ethnicity, respondents were classified as (1) White and non-Hispanic or (2) non-White and/or Hispanic. The difference in the age of an individual in the last wave of full employment and at the first wave of full retirement was included to control for the number of years between full employment and full retirement. The educational attainment of respondents was categorized as high school or less or more than high school. The measure of wealth was the natural logarithm of mean wealth (excluding the value of a house) from the first wave to the wave in which an individual was coded as fully retired. The variable was recoded to zero if mean wealth was negative, and values in each wave were adjusted by Consumer Price Index to 2003 real dollars. Occupation was a dummy variable for which white-collar worker was the omitted category, and blue-collar workers were respondents who classified themselves in any of the following occupational categories: (1) farming, forestry, or fishing; (2) mechanics or repair; (3) precision production; (4) operators (machine, transportation, or handlers); and (5) the armed forces.

Analytic Strategy

The panel nature of the HRS is extremely valuable for a study of the effects of the work-to-retirement transition on happiness. Most of the research on happiness in old age cited above used cross-sectional designs, which can raise serious concerns about the direction of causation (for a methodological discussion, see Charles 2004). In this study, we took advantage of the longitudinal nature of the HRS to test whether the type of
transition out of employment affected an individual’s happiness in retirement. We did this by establishing a baseline level of happiness for all individuals when they were employed. We then compared that baseline to their happiness when retired. By focusing on the change in happiness, we expected to minimize the effect of genetic or personality-based interindividual differences that may have caused individuals to self-select into one specific type of retirement transition. By contrast, cross-sectional studies using the level of happiness could merely identify differences between “happy” and “unhappy” individuals, not what changed the happiness of individuals.

To explain changes in happiness, we used two regression specifications. The first set of regressions used as the dependent variable the change in each of the five HRS variables from the last wave when an individual was fully employed to the first wave when the individual was fully retired. Because these changes could take on three possible values (–1, 0, or 1), we used ordered logistic regressions.

The second specification divided our sample, for each of the five HRS variables, into those individuals who are initially happy and those who are initially unhappy and used the change when retired as the dependent variable in a logistic regression. The positive (initially happy) sample gave a clearer view of factors that tend to diminish happiness, and the negative (initially unhappy) sample gave a clearer view of factors that tend to increase happiness. The logistic regression coefficients provided a better view of the magnitude of the effects of the explanatory factors on the happiness indicators. However, caution should be taken when comparing the magnitude of the effect of an explanatory variable between the two samples. Because these subsamples allowed for a different distribution for happiness for each of the two groups, the magnitudes of the coefficients are not directly comparable.

## Results

### Descriptive Results

Table 1 reports descriptive statistics for the five happiness measures for the overall sample and for the gradual retirement and cold-turkey groups, as well as significance tests for differences between these two groups. It shows that there was little change in the positive affect variables. Both happiness and enjoyment of life were high when individuals were working and
Table 1
Descriptive Statistics for Five Happiness Indicators and Latent Affect by Type of Retirement Transition

<table>
<thead>
<tr>
<th>Variable</th>
<th>Metric</th>
<th>All (n = 2,389)</th>
<th>Phased (n = 656)</th>
<th>Cold Turkey (n = 1,733)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Happiness, time 1</td>
<td>0 = no, 1 = yes</td>
<td>0.874</td>
<td>0.331</td>
<td>0.861</td>
</tr>
<tr>
<td>Happiness, time 2</td>
<td>0 = no, 1 = yes</td>
<td>0.883</td>
<td>0.321</td>
<td>0.875</td>
</tr>
<tr>
<td>Change in happiness</td>
<td>−1 = less, 0 = equal, 1 = more</td>
<td>0.009</td>
<td>0.404</td>
<td>0.014</td>
</tr>
<tr>
<td>Enjoyment of life, time 1</td>
<td>0 = no, 1 = yes</td>
<td>0.930</td>
<td>0.256</td>
<td>0.916</td>
</tr>
<tr>
<td>Enjoyment of life, time 2</td>
<td>0 = no, 1 = yes</td>
<td>0.933</td>
<td>0.251</td>
<td>0.918</td>
</tr>
<tr>
<td>Change in enjoyment of life</td>
<td>−1 = less, 0 = equal, 1 = more</td>
<td>0.003</td>
<td>0.312</td>
<td>0.002</td>
</tr>
<tr>
<td>Loneliness, time 1</td>
<td>0 = no, 1 = yes</td>
<td>0.107</td>
<td>0.309</td>
<td>0.107</td>
</tr>
<tr>
<td>Loneliness, time 2</td>
<td>0 = no, 1 = yes</td>
<td>0.151</td>
<td>0.358</td>
<td>0.152</td>
</tr>
<tr>
<td>Change in loneliness</td>
<td>−1 = less, 0 = equal, 1 = more</td>
<td>0.044</td>
<td>0.394</td>
<td>0.046</td>
</tr>
<tr>
<td>Depression, time 1</td>
<td>0 = no, 1 = yes</td>
<td>0.118</td>
<td>0.323</td>
<td>0.120</td>
</tr>
<tr>
<td>Depression, time 2</td>
<td>0 = no, 1 = yes</td>
<td>0.154</td>
<td>0.361</td>
<td>0.165</td>
</tr>
<tr>
<td>Change in depression</td>
<td>−1 = less, 0 = equal, 1 = more</td>
<td>0.035</td>
<td>0.413</td>
<td>0.044</td>
</tr>
<tr>
<td>Sadness, time 1</td>
<td>0 = no, 1 = yes</td>
<td>0.121</td>
<td>0.327</td>
<td>0.093**</td>
</tr>
<tr>
<td>Sadness, time 2</td>
<td>0 = no, 1 = yes</td>
<td>0.172</td>
<td>0.378</td>
<td>0.184</td>
</tr>
<tr>
<td>Change in sadness</td>
<td>−1 = less, 0 = equal, 1 = more</td>
<td>0.051</td>
<td>0.436</td>
<td>0.091**</td>
</tr>
</tbody>
</table>

Note: Time 1 = last wave of full employment; time 2 = first wave of full retirement.

*p < .01 (two-tailed t tests and χ² tests reported, denoting statistically significant differences between the two types of transition groups).
showed slight increases in retirement. The negative affect variables were generally low but also increased in retirement. The increases in the negative affect variables, in feelings of loneliness, depression, and sadness, were also generally larger than the increases in the positive affect variables.

The descriptive statistics, however, generally showed no significant difference between the group that retired gradually and the group that retired cold turkey. The one indicator that did register a significant difference was sadness. Workers who retired gradually registered much larger increases in feelings of sadness.

As shown in Table 2, there were various differences between individuals who retired gradually and those who retired cold turkey. More cold-turkey individuals reported high degrees of control over their retirement transitions and said that they wanted to retire. They were younger, healthier, wealthier, more educated, more likely to be white collar, more likely to have defined-benefit pensions, and less likely to report unemployment at the same time that they reported being fully retired. All of these differences should make the cold-turkey individuals happier than gradual retirees, independent of the way they retired.

**Regression Results**

The results of the ordered logistic regressions for the change in our five happiness measures are reported in Table 3 (coefficient estimates for all independent variables are available on request). The results indicate that cold-turkey retirement (as opposed to the default, gradual retirement) had no significant effect on happiness, enjoyment of life, loneliness, depression, or sadness in retirement. The results also confirmed earlier findings on the effects of other factors reported in the literature, including the death of a spouse, voluntary as opposed to forced retirement, and health status. Because of the difficulty in interpreting ordered logit coefficients, we focus on the direction and statistical significance of the effects, not on the sizes of the coefficients.

The death of a spouse had a significant impact on all indicators of happiness except depression. Those who lost their spouses were more likely to have decreases in happiness and enjoyment of life and were more likely to have decreases in feelings of loneliness and sadness.

Having control over the retirement decision (reporting that retirement was chosen rather than forced) had a significant effect on all happiness indicators except enjoyment of life, and the direction of the coefficient on enjoyment of life was consistent with the other four measures. Respondents...
<table>
<thead>
<tr>
<th>Variable</th>
<th>Metric</th>
<th>All (n = 2,389)</th>
<th>Phased (n = 656)</th>
<th>Cold Turkey (n = 1,733)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>M</td>
<td>SD</td>
<td>M</td>
</tr>
<tr>
<td>Retirement wanted</td>
<td>0 = no, 1 = yes</td>
<td>0.643***</td>
<td>0.479</td>
<td>0.581</td>
</tr>
<tr>
<td>Retirement partly</td>
<td>0 = no, 1 = yes</td>
<td>0.089</td>
<td>0.284</td>
<td>0.079</td>
</tr>
<tr>
<td>wanted/forced</td>
<td>0 = no, 1 = yes</td>
<td>0.268***</td>
<td>0.443</td>
<td>0.340</td>
</tr>
<tr>
<td>Spouse death</td>
<td>0 = no, 1 = yes</td>
<td>0.023*</td>
<td>0.151</td>
<td>0.034</td>
</tr>
<tr>
<td>Improved health</td>
<td>-4 (deteriorated) to 4 (improved)</td>
<td>-0.222**</td>
<td>1.003</td>
<td>-0.320</td>
</tr>
<tr>
<td>Any defined benefit</td>
<td>0 = no, 1 = yes</td>
<td>0.517***</td>
<td>0.500</td>
<td>0.375</td>
</tr>
<tr>
<td>Age, time 1</td>
<td>50 to 71 years</td>
<td>59.56***</td>
<td>3.338</td>
<td>58.73</td>
</tr>
<tr>
<td>Age, time 2</td>
<td>52 to 73 years</td>
<td>62.58***</td>
<td>3.417</td>
<td>64.02</td>
</tr>
<tr>
<td>Years employment-retirement</td>
<td>1 to 12</td>
<td>3.019***</td>
<td>1.849</td>
<td>5.284</td>
</tr>
<tr>
<td>Male</td>
<td>0 = no, 1 = yes</td>
<td>0.494</td>
<td>0.500</td>
<td>0.492</td>
</tr>
<tr>
<td>White non-Hispanic</td>
<td>0 = no, 1 = yes</td>
<td>0.316</td>
<td>0.465</td>
<td>0.294</td>
</tr>
<tr>
<td>More than high school education</td>
<td>0 = no, 1 = yes</td>
<td>0.390*</td>
<td>0.488</td>
<td>0.378</td>
</tr>
<tr>
<td>Blue collar</td>
<td>0 = no, 1 = yes</td>
<td>0.299</td>
<td>0.458</td>
<td>0.305</td>
</tr>
<tr>
<td>Unemployed</td>
<td>0 = no, 1 = yes</td>
<td>0.005</td>
<td>0.068</td>
<td>0.003</td>
</tr>
</tbody>
</table>

Note: Time 1 = last wave of full employment; time 2 = first wave of full retirement. These summary statistics include both recorded and imputed values. *p < .05, **p < .01, ***p < .001 (two-tailed t tests and χ² tests reported, denoting statistically significant differences between the two types of transition groups).
who said that retirement was chosen were more likely to have increases in happiness and enjoyment of life and less likely to have increases in loneliness, depression, and sadness than respondents who said their retirement was forced. Even individuals who only felt partly forced into retirement were less likely to have increases in loneliness.

A change in self-reported health status had a significant effect on the change in each of the five happiness indicators. An improvement in health was associated with increased happiness and enjoyment of life and decreased loneliness, depression, and sadness. All of the coefficients for the change in health status were significant at the 1% level.3

In contrast to previous studies, we found that wealth and having a defined-benefit pension plan had no significant effect on happiness. We attribute this difference to the fact that we used a longitudinal design and focused on the change in happiness, whereas earlier studies used cross-sectional designs to predict the level of retirement satisfaction. Earlier studies also differ in that they used “satisfaction with retirement” as the dependent variable (Bender 2004; Panis 2003; Rohwedder 2006). This measure was not available at our baseline, because all individuals were then fully employed.

The results of the logistic regressions on the divided sample are shown in Tables 4 and 5 (coefficient estimates for all independent variables are...
<table>
<thead>
<tr>
<th>Variable</th>
<th>Happy to Not Happy</th>
<th>Enjoy Life to Not Happy</th>
<th>Not Lonely to Lonely</th>
<th>Not Depressed to Depressed</th>
<th>Not Sad to Sad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold-turkey retirement</td>
<td>0.010 (0.02)</td>
<td>-0.013 (0.01)</td>
<td>0.010 (0.02)</td>
<td>0.027 (0.02)</td>
<td>0.01 (0.02)</td>
</tr>
<tr>
<td>Retirement wanted</td>
<td>-0.087*** (0.02)</td>
<td>-0.047*** (0.01)</td>
<td>-0.084*** (0.02)</td>
<td>-0.087*** (0.02)</td>
<td>-0.086*** (0.02)</td>
</tr>
<tr>
<td>Retirement partly wanted</td>
<td>-0.020 (0.01)</td>
<td>-0.024** (0.01)</td>
<td>-0.046** (0.02)</td>
<td>-0.022 (0.02)</td>
<td>-0.030 (0.02)</td>
</tr>
<tr>
<td>Spouse death</td>
<td>0.135* (0.06)</td>
<td>0.125* (0.05)</td>
<td>0.478*** (0.08)</td>
<td>0.046 (0.04)</td>
<td>0.117* (0.06)</td>
</tr>
<tr>
<td>Improved health</td>
<td>-0.017*** (0.00)</td>
<td>-0.014*** (0.00)</td>
<td>-0.010 (0.01)</td>
<td>-0.024*** (0.01)</td>
<td>-0.025*** (0.01)</td>
</tr>
<tr>
<td>Any defined-benefit pension</td>
<td>0.028* (0.01)</td>
<td>0.012 (0.01)</td>
<td>0.004 (0.01)</td>
<td>0.013 (0.01)</td>
<td>0.019 (0.01)</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>-665.1 (2,089)</td>
<td>-678.6 (2,221)</td>
<td>-774.6 (2,134)</td>
<td>-678.6 (2,106)</td>
<td>-774.6 (2,099)</td>
</tr>
</tbody>
</table>

Note: The “positive sample” included only individuals starting with positive affects at the last wave of full employment. The coefficients reflect the difference in the probability of a negative change in each indicator variable (as opposed to no change) from the last wave of full employment to the first wave of full retirement, with a one-unit increase in the independent variable and holding all variables at their means. Standard errors are in parentheses. All models controlled for demographic and socioeconomic variables.

*p < .05, **p < .01, ***p < .001 (two-tailed tests for all variables).
Table 5
Logit Marginal Effects on Five Indicator Variables for Negative Sample

<table>
<thead>
<tr>
<th>Variable</th>
<th>Not Happy to Happy</th>
<th>Not Enjoy Life to Not Enjoy Life</th>
<th>Lonely to Not Lonely</th>
<th>Depressed to Not Depressed</th>
<th>Sad to Not Sad</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cold-turkey retirement</td>
<td>0.009</td>
<td>0.090</td>
<td>0.191</td>
<td>−0.034</td>
<td>0.098</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.11)</td>
<td>(0.12)</td>
<td>(0.11)</td>
<td>(0.13)</td>
</tr>
<tr>
<td>Retirement wanted</td>
<td>0.227***</td>
<td>0.258***</td>
<td>0.160</td>
<td>0.262***</td>
<td>0.240***</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.08)</td>
<td>(0.08)</td>
<td>(0.07)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Retirement partly wanted</td>
<td>0.115</td>
<td>0.047</td>
<td>0.284*</td>
<td>0.201*</td>
<td>0.225*</td>
</tr>
<tr>
<td></td>
<td>(0.09)</td>
<td>(0.12)</td>
<td>(0.11)</td>
<td>(0.10)</td>
<td>(0.09)</td>
</tr>
<tr>
<td>Spouse death</td>
<td>−0.242</td>
<td>−0.350</td>
<td>0.055</td>
<td>0.109</td>
<td>−0.286</td>
</tr>
<tr>
<td></td>
<td>(0.19)</td>
<td>(0.23)</td>
<td>(0.24)</td>
<td>(0.17)</td>
<td>(0.17)</td>
</tr>
<tr>
<td>Improved health</td>
<td>0.041</td>
<td>0.032</td>
<td>0.086*</td>
<td>0.049</td>
<td>0.028</td>
</tr>
<tr>
<td></td>
<td>(0.03)</td>
<td>(0.03)</td>
<td>(0.04)</td>
<td>(0.03)</td>
<td>(0.03)</td>
</tr>
<tr>
<td>Any defined-benefit pension</td>
<td>−0.044</td>
<td>0.118</td>
<td>0.039</td>
<td>0.059</td>
<td>0.092</td>
</tr>
<tr>
<td></td>
<td>(0.06)</td>
<td>(0.08)</td>
<td>(0.07)</td>
<td>(0.07)</td>
<td>(0.07)</td>
</tr>
<tr>
<td>Log likelihood</td>
<td>−170.6</td>
<td>−84.4</td>
<td>−158.9</td>
<td>−160.9</td>
<td>−174.9</td>
</tr>
<tr>
<td>n</td>
<td>300</td>
<td>168</td>
<td>255</td>
<td>283</td>
<td>290</td>
</tr>
</tbody>
</table>

Note: The “negative sample” included only individuals starting with negative affects at the last wave of full employment. The coefficients reflect the difference in the probability of a negative change in each indicator variable (as opposed to no change) from the last wave of full employment to the first wave of full retirement, with a one-unit increase in the independent variable and holding all variables at their means. Standard errors are in parentheses. All models controlled for demographic and socioeconomic variables.

*p < .05, ***p < .001 (two-tailed tests for all variables).
available on request.) Table 4 shows the results from the “positive sample” (in which the value of the variable when the individual was fully employed was “happy”), and Table 5 shows the results of the “negative sample” (in which the value of the variable when the individual was fully employed was “unhappy”). In both samples, the type of transition to retirement had no significant effect. The small size of the negative sample limited the power of analysis for that sample. Nevertheless, the factors identified as significant in the other models were generally significant in the positive sample models.

These logistic regression models provide a much clearer indication of the magnitude of the effects of the various factors. The coefficients reflect the difference in the probability that the value of an indicator variable will change (as opposed to remaining the same) with a one-unit increase in the independent variable, holding all other variables at their means. In the positive sample, in which more of the results were statistically significant, the coefficient for the loss of a spouse generally had the largest effect on the happiness indicators. These results also show control over one’s retirement to have a large impact on happiness; in the case of the depression indicator, the effect was even larger (in absolute value) than the loss of a spouse. Control over one’s retirement was also the only independent variable to have a statistically significant effect on all five indicator variables in the positive sample.

**Discussion and Conclusion**

Retirement is a transition between two significantly different stages in an individual’s life. A gradual transition gives workers time to shift their daily activities, social relationships, and identities in a more deliberate manner than a cold-turkey transition. Previous theory and research suggests that this may help workers make better transitions to retirement.

However, we found no evidence of a difference in happiness that could be traced to the type of transition to retirement. Although many workers see gradual retirement as an attractive idea for the future, in practice, this alternative seems to be less stimulating than anticipated. Once we are ready to make the transition to retirement, we do not seem to need much time to adjust to our new status.

Although the nature of the transition, gradual or abrupt, has no effect on happiness in retirement, the sense of control workers have over the transition does have a significant effect. Although our measure of sense of control involved the choice of retiring or not retiring, not the choice of the mode of the transition, it is possible to speculate about what would happen...
if workers had more choice about whether to retire gradually or abruptly. Among the current barriers to retire gradually, we find laws about pension entitlement, expectations about the “normal” retirement age, and age discrimination (Hutchens and Papps 2005). If the option to retire gradually were readily available, people who choose this path should experience greater emotional rewards, because they would be exercising greater control over the retirement process. But it would be the ability to retire gradually if they want to, not the effect of the gradual transition per se, that would make people happier in old age.

Because we observed individuals every two years and focused our attention on happiness in full retirement, future research will explore change in happiness within shorter periods of time and explore happiness during the transition to retirement, especially during the period of partial retirement. Future research will also attempt to identify a latent variable driving all five happiness indicators, which would allow changes in happiness to be measured on a continuous scale. This should introduce significantly more variation into our measure of happiness and reduce the censoring problem created by the dichotomous nature of the HRS happiness variables.

The current findings, however, can be used to inform both workers preparing for retirement and policy makers interested in retirement issues. We provide evidence suggesting that giving workers a sense of control over their retirement, not necessarily creating gradual retirement paths, should have a more important place on the policy agenda. We provide evidence that gradual retirement has no effect on happiness once retired. But we also provide evidence that giving workers more control over the retirement process, perhaps by creating gradual retirement pathways, should have a more important place on the policy agenda.

Notes

1. Because we wanted to measure the change in happiness between the times when individuals were employed and when they first retired, there were differences in the amount of time passing between the measurements across individuals. We included a variable controlling for the number of years from full employment to full retirement, which did not have a significant effect on the dependent variable. Tables including these variables are available on request.

2. Although there may be concern that the two sets of retirement-related variables measuring the sense of control and the type of retirement were collinear, this did not appear to be the case in this sample. The correlations between each of the “perceived control over retirement” variables—chose to retire, partly forced to retire, and forced to retire—and abrupt retirement were .05, .01, and −.06 in the raw data.

3. The coefficients on the health variable were generally smaller than the coefficients on control over the retirement decision or the loss of a spouse. To gauge the indicated effect of
health on happiness, however, one needs to multiply this coefficient by the change in self-reported health status, measured on a scale ranging from –4 to 4. Because the mean change in health was –2, with a standard deviation of 1, the indicated effect of a change in health status was relatively small, relative to the effect of the loss of a spouse or even control over the retirement decision.

References


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Steven A. Sass is associate director of the Center for Retirement Research at Boston College. He is the author of *The Promise of Private Pensions: The First Hundred Years* (Harvard University Press, 1997) and a coauthor (with Alicia Munnell) of *Social Security and the Stock Market* (Upjohn, 2006) and *Working Longer* (Brookings Institution, 2008) and (with Wei Sun and Anthony Webb) of “Why Do Married Men Claim Social Security Benefits So Early: Ignorance, Caddishness, or Something Else?” (Center for Retirement Research at Boston College Working Paper 2007-17). He earned his BA from the University of Delaware and his PhD from The Johns Hopkins University.