

Understanding the Influence of Demographic and Psychological Variables on Retirement Planning

Jasmina Petkoska and Joanne K. Earl
University of New South Wales

The authors examined the degree to which workers were engaging in financial, health, interpersonal/leisure, and work planning for retirement, exploring whether demographic and psychological variables inhibited or promoted planning in each of these domains. Planning in each domain was influenced by a unique set of variables. Goals emerged as a consistent and positive predictor of planning. Gender accounted for health and interpersonal/leisure planning, while work planning behavior was negatively predicted by income. Time perspective also helped to clarify the amount of retirement planning undertaken in the financial and interpersonal/leisure domains. Practical implications for designing retirement interventions are discussed.

Keywords: retirement planning, predictors, time perspective, goals

Defined as the time when one ceases to perform his or her main job and begins to receive pension income from public or private sources (O'Rand & Henretta, 1999), retirement represents a major life transition for many workers (Atchley, 1991). The results of various studies have indicated that for about 30% of people, the transition to, or actual state of, retirement is stressful (Bossé, Spiro, & Kressin, 1996). One activity known to facilitate a more successful transition into retirement is planning. Research has consistently shown that people who plan for retirement report lower levels of preretirement anxiety, better adjustment, and greater satisfaction in retirement than people who have failed to plan (Feldman, 1994; Glamser & DeJong, 1975; Glass & Flynn, 2000; Moen, 1996; Seibert & Seibert, 1986). In the present study, we sought to investigate the extent to which workers 50 years of age and older are planning for retirement across different domains and to identify important antecedents of retirement planning behavior.

Predictors of Satisfaction in Retirement and Planning

Satisfaction in retirement is characterized by, but not limited to, financial security, good health, satisfying interpersonal relationships, participation in leisure activities, and some form of involvement in work, whether it be in a voluntary or paid capacity (Atchley, 1993; Barrow, 1996; Beck, 1982; De Vaus & Wells, 2004; Kim & Feldman, 2000; Krause, 1987; Mor-Barak, 1995; Richardson & Kilty, 1991). Of these variables, the most critical determinant of satisfaction in retirement is financial security (Barrow, 1996; Bateman, Kingston, & Piggott, 2001; Braithwaite &

Gibson, 1987; Fletcher & Hansson, 1991; Richardson & Kilty, 1991; Seccombe & Lee, 1986), and evidence suggests that those who plan accumulate more wealth (Ameriks, Caplin, & Leahy, 2002; Stawski, Hershey, & Jacobs-Lawson, 2007). Most theoretical research, as well as practical interventions, has focused on retirement planning within the financial domain, perhaps at the expense of a broader set of domains (e.g., health, leisure, interpersonal relationships, and work). We expected to find a similar preoccupation with financial planning among participants in our study. Good health, along with financial security, is also an important prerequisite for satisfaction during the retirement years, primarily as it influences an individual's ability to engage in social and leisure activities (Barrow, 1996; Beck, 1982; Kim & Feldman, 2000; Riddick, 1985; Seccombe & Lee, 1986). Given that an individual's health in retirement is typically influenced by both current and previous health practices (Breslow, Reuben, & Wallace, 2000), it is vital that individuals plan for their health in retirement by engaging in health-promoting practices well in advance of their retirement. Leisure pursuits are also important to satisfaction in retirement. They serve as a source of social contact and provide meaning and structure to time (Burrus-Bammel & Bammel, 1985; Long, 1987). Research has shown that an individual's involvement with leisure activities prior to retirement predicts his or her involvement level in retirement (Atchley, 1993; De Vaus & Wells, 2004; Iso-Ahola, Jackson, & Dunn, 1994) and that very few people actually take up totally new endeavors and activities during retirement (Vinick & Ekerdt, 1991). Offering a means of support as well as a source of identity, satisfying relationships with family and friends are also an important part of enjoyment in retirement (Dorfman, Kohout, & Heckert, 1985; Krause, 1987). For many individuals, particularly those who derive many of their meaningful social interactions from colleagues at work, retirement can feel lonely and isolating. Therefore, interpersonal planning for retirement plays a critical role in ensuring a satisfying retirement experience (Bossé, Aldwin, Levenson, Spiro, & Mroczek, 1993). Finally, although retirement represents the cessation of an individual's main form of employment, studies have shown that engaging

Jasmina Petkoska and Joanne K. Earl, School of Psychology, University of New South Wales, Sydney, Australia. Jasmina Petkoska is now at McKinsey & Company in Sydney.

We express our gratitude to Kevin Bird for his role in providing statistical advice.

Correspondence concerning this article should be addressed to Joanne K. Earl, School of Psychology, University of New South Wales, Sydney NSW 2052, Australia. E-mail: j.earl@unsw.edu.au

in some form of postretirement work is significantly correlated to satisfaction during retirement (Barrow, 1996; Feldman & Kim, 2000; Kim & Feldman, 2000; Mor-Barak, 1995). Individuals are less likely to engage in voluntary work during their retirement years if they have had no prior association with the volunteer organization, suggesting that preretirement planning for volunteer work plays a critical function (Atchley, 1993; Harlow & Cantor, 1996).

Demographic Predictors of Retirement Planning

A great deal of research has already centered on understanding the factors (e.g., age, gender, education, and income) that inhibit or promote financial planning for retirement. Results from these studies have shown that being older (Bassett, Fleming, & Rodriguez, 1998; Glass & Kilpatrick, 1998), being male (Hurd & Wise, 1989; Quick & Moen, 1998), being more educated (DeVaney & Su, 1997; Yuh & Olsen, 1997), and earning a higher income (Bassett et al., 1998; Grable & Lytton, 1997) are related to greater financial planning. Individuals with these demographic characteristics are thought to engage in greater planning due to opportunity structures (Ekerdt, DeViney, & Kosloski, 1996) afforded to this cohort. We expected that being older, male, and more educated and earning a higher income would predict retirement planning among participants in our study.

Psychological Predictors of Retirement Planning: Goals and Time Perspective

Goals

Goals have been shown to stimulate planning behaviors in a variety of domains (Lee, Locke, Latham, & Pervin, 1989). This is not surprising as most theories of planning are underpinned by the idea that goals are a necessary precursor to planning (Friedman & Scholnick, 1997; Locke, Durham, Poon, & Weldon, 1997; Locke & Latham, 1990). Hershey, Mowen, and Jacobs-Lawson (2003) reported that people who engaged in goal-setting exercises showed greater planning and saving practices after 12 months than people who did not. Furthermore, Neukam and Hershey (2003) showed that financial goal strength was positively related to retirement savings contributions. On the basis of previous research findings, we expected goals to positively predict retirement planning.

Time Perspective

Zimbardo and Boyd (1999) identify five types of time perspective (TP)—future, present hedonistic, present fatalistic, past positive, and past negative. Research has shown that individuals with a high future TP are concerned with working toward future goals and rewards, often at the expense of present enjoyment. In contrast, people with a high present hedonistic TP live in the moment, seek excitement and instant gratification, with little consideration of the future consequences of their actions. Individuals with high fatalistic TP, while also focused on the “here and now,” take a negative attitude toward the present, and believe that outside forces control one’s life. Finally, those with high past positive and past negative TPs tend to focus on the past. However, while high past positive individuals are characterized by a nostalgic, warm, and positive construction of the past, individuals high on the past

negative scale place a strong emphasis on past experiences that are aversive or unpleasant (Zimbardo & Boyd, 1999).

Individuals who are future oriented have been found to engage in other planned and purposeful activities such as energy conservation, recycling, preventative health behaviors, and career planning (Aspinwall & Taylor, 1997; Rothspan & Read, 1996; Savickas, Silling, & Schwartz, 1984; Zimbardo & Boyd, 1999). Consistent with other research findings, it is expected that individuals who score high on the future TP scale would be more likely to set goals and in turn better plan for their retirement (Hershey & Mowen, 2000; Jacobs-Lawson & Hershey, 2005). We expected that a high future TP score would positively predict retirement planning in each of the planning domains and that other TPs would inhibit planning.

To summarize, the central aim of this study was to determine the influence of demographic (age, gender, education, and income) and psychological variables (goals and time perspective) on retirement planning for older workers, within four specific domains known to promote satisfaction in retirement: finances, health, interpersonal relationships, and work.

Method

Participants

Employees 50 years of age and older working at a financial institution were invited via e-mail to participate in an anonymous, online study on retirement planning. Data were collected from 377 participants (168 men and 209 women). Participation was voluntary, and people were given the opportunity to enter a draw to win a \$150 Australian (~\$120 USD) gift voucher.

Materials

Demographic information. Participants were asked to indicate their current age, gender (male = 1; female = 2), highest level of education obtained, and income level.

Retirement goals. To assess retirement goals, we asked participants to list goals for retirement under the following headings: financial goals, health goals, leisure and travel goals, interpersonal goals, work goals, and other goals. As in previous research, participants were told that they could list up to five goals under each category heading (Hershey, Jacob-Lawson, & Neukam, 2002).

Retirement planning. As very few studies have looked at retirement planning beyond the financial domain, a comprehensive and broadly themed retirement planning questionnaire was developed for the purposes of this study. This questionnaire contained a set of 36 items designed to measure financial, health, leisure, interpersonal, work, and more general planning in preparation for retirement (Law & Lee, 2004; Stawski et al., 2007). Table 1 outlines the items used in the study.

Time perspective. Time perspective was assessed using the Zimbardo Time Perspective Inventory (ZTPI; for more details, see Zimbardo & Boyd, 1999). The ZTPI yields five subscales, each representing an orientation toward a temporal frame (past, present, future) and the attitude related to it. Higher scores on a scale reflect a greater orientation toward the time perspective being assessed by that scale.

Table 1
Rotated Factor Loadings for the Retirement Planning Questionnaire

Questionnaire item	Planning domain			
	Financial/general	Health	Interpersonal/leisure	Work
1. Watched/listened to programs on financial planning or superannuation	.61	.26	-.24	.03
2. Read books/articles/brochures on financial planning or superannuation	.61	.43	-.10	.06
3. Visited financial planning or superannuation sites on the Internet/Intranet	.48	.11	-.12	.20
4. Assessed your net worth	.61	-.17	.08	.02
5. Calculated the cost of your living during retirement	.59	-.11	.18	.12
6. Bought stocks, funds, or bonds for long-term investment	.46	.02	.01	-.11
7. Made contributions to a superannuation fund(s)	.54	.04	.15	-.41
8. Discussed financial planning or superannuation with a professional(s) in the field	.73	-.03	.03	-.11
9. Exercised regularly (at least twice a week)	.09	.16	.11	.01
10. Arranged a medical check-up periodically (at least once every 2 years)	.12	.37	.15	-.14
11. Quit/started to quit habits that are detrimental to your health	.01	.30	.12	-.09
12. Taken out a health insurance policy	.04	.39	.08	-.12
13. Watched/listened to programs on health	.01	.80	.04	.09
14. Read books/articles/brochures on health	-.13	.78	-.01	.26
15. Visited health-related sites on the Internet/Intranet	-.19	.42	.02	.42
16. Continued current leisure activity/travel or started new leisure activity/travel	.22	.07	.40	.06
17. Read books/magazines on current or future leisure activity/travel	.20	.20	.50	.08
18. Watched/listened to shows on current or future leisure activity/travel	.27	.26	.34	.13
19. Visited Web sites related to current or future leisure activity/travel	.11	.03	.43	.23
20. Joined/made inquires about joining a club, team, or class related to current or future leisure activity/travel	.01	.26	.42	.04
21. Organized outings/activities with friends and/or family	-.07	.02	.70	.03
22. Called friends and/or family regularly	.01	-.01	.90	-.19
23. E-mailed friends and/or family regularly	-.09	.06	.63	.12
24. Visited friends and/or family regularly	.09	.03	.76	-.24
25. Made new friends recently	-.17	.11	.46	.11
26. Joined/made inquires about joining a social club or group	-.02	.15	.41	.22
27. Spoken to relevant person(s) about postretirement work ^a	.09	-.22	.56	.53
28. Watched/listened to shows on postretirement work ^a	.02	.02	.13	.80
29. Read books/articles/brochures on postretirement work ^a	.08	.06	.12	.79
30. Visited Web sites on postretirement work ^a	.11	-.08	.20	.69
31. Participated in workshop, seminar, or course on retirement	.78	.09	-.03	.34
32. Read books/articles/brochures about retirement	.58	.23	-.16	.47
33. Watched/listened to programs concerning retirement	.48	.18	-.16	.41
34. Visited retirement Web sites on the Internet/Intranet	.41	.11	.20	.45
35. Discussed retirement with retired people	.47	-.07	.26	.29
36. Discussed retirement with family, friends, or colleagues	.47	-.18	.14	.41
Eigenvalue	9.86	3.67	2.75	2.29
R ²	9.40	3.19	2.28	1.82

Note. Items with loadings $\geq .30$ that were retained on a factor are shown in boldface type. Where items cross-loaded, they were retained on the factor that was most theoretically justifiable.

^a Volunteer, part-time, contract, or self-employed postretirement work.

Procedure

An online questionnaire containing all of the aforementioned measures was developed. Items were presented in the order listed above. Participants accessed the questionnaire via a link embedded in an e-mail invitation. Participants' confidentiality was preserved by having them enter the draw for the \$150 gift certificate via a separate e-mail link.

Results

Predictor Variables

Demographic characteristics. The 377 participants ranged in age from 50 to 66 years, with a mean age of 54 years ($SD = 3.5$).

Men (44.6%) and women (55.4%) were almost equally represented in the sample. The median level of education for this group was 12 years, and the median income was \$40,001–\$60,000 Australian (\$32,002–\$48,001 USD).

Goals and time perspective (TP). Please refer to Table 2 for a summary of results.

Dependent Variables

Validation of retirement planning questionnaire. We performed an exploratory factor analysis using principal-axis factoring with oblique (Kaiser with Oblim) rotation. On the basis of eigenvalues greater than 1 and inspection of the scree plot, we extracted four factors. The 36 items and their respective rotated

Table 2
Descriptive Statistics and Details of Measurement Tools Used

Factor/measurement tool	<i>M</i>	<i>SD</i>	Example
Goals/free recall under heading provided ^a			
Financial goals	1.63	1.07	To increase my superannuation balance to \$100,000
Health goals	1.26	1.03	To keep my diabetes under control
Leisure goals	1.81	1.36	To travel Australia by caravan
Interpersonal goals	1.01	1.07	To spend more quality time with my wife and family
Work goals	0.92	0.89	To be able to do some volunteer work at our parish
Other goals	0.20	0.48	To thoroughly enjoy life and have time for myself
Time perspective/ZTPI ^b			
Future ($\alpha = .68$)	3.55	0.46	I make lists of things to do.
Present hedonistic ($\alpha = .75$)	3.22	0.49	I try to live my life as fully as possible, 1 day at a time
Present fatalistic ($\alpha = .74$)	2.50	0.65	Fate determines much in my life.
Past positive ($\alpha = .60$)	3.65	0.54	Happy memories of good times spring readily to mind
Past negative ($\alpha = .83$)	2.64	0.73	Things rarely work out as I expected.
Responses/Retirement Planning Questionnaire ^c			
Financial planning ($\alpha = .80$)	8.08	3.14	Calculated the cost of living during retirement
Health planning ($\alpha = .53$)	4.28	1.41	Taken out a health insurance policy
Interpersonal/leisure ($\alpha = .72$)	7.68	2.26	Made new friends recently
Work ($\alpha = .76$)	0.66	1.13	Visited Web sites on postretirement work

Note. ZTPI = Zimbardo Time Perspective Inventory.

^a Participants could list up to five goals. ^b Zimbardo Time Perspective Inventory (Zimbardo & Boyd, 1999) was scored on a scale of 1 (*very uncharacteristic*) to 5 (*very characteristic*). ^c Participants responded "yes" or "no" to 36 items that were based on work by Law and Lee (2004) and by Stawski, Hershey, and Jacobs-Lawson (2007). New items were added for interpersonal/leisure and work domains.

factor loadings are shown in Table 1, along with eigenvalues and R^2 values for each of the factors. Items with loadings equal to or greater than .30 that were retained on a factor are shown in boldface type. Where items cross-loaded, they were retained on the factor that was most theoretically justifiable.

Do demographic and psychological variables predict retirement planning? Four multiple regression analyses were conducted with predictors including demographic variables (age, gender, education, and income) entered as Block 1 and psychological variables (goals and time perspectives) entered as Block 2 along with Block 1. Only corresponding goals were included in each analysis.

Predicting financial/general planning. The predictor variables accounted for 13% of the total variance in financial/general planning. Of the demographic predictors, age was the only variable to emerge as a significant predictor of financial/general planning ($\beta = .13, p < .05$). The older individuals were, the more likely they were to engage in financial/general planning. Contrary to expectations, none of the other demographic variables entered into the regression were predictive of financial/general planning. However, in line with expectations, the number of financial goals listed by participants emerged as a significant and positive predictor of planning within this domain ($\beta = .15, p < .01$). Also in line with expectations, present fatalistic TP emerged as a negative predictor of financial/general planning ($\beta = -.18, p < .01$). Past positive TP also emerged as a significant predictor of planning ($\beta = .16, p < .01$), though as a positive rather than as a negative predictor as was hypothesized. The other three TPs did not emerge as predictors.

Predicting health planning. The predictor variables accounted for 13% of the total variance in health planning. Gender ($\beta = .29, p < .001$), income ($\beta = .17, p < .05$), and education ($\beta = .13, p < .05$) emerged as significant predictors of health planning, such that participants who were female or more highly educated were more likely to engage in health planning. As hypothesized, health goals

also emerged as a significant predictor of health planning ($\beta = .23, p < .001$). However, contrary to expectation, none of the five TPs was predictive of health planning.

Predicting interpersonal/leisure planning. The predictor variables entered into the regression model accounted for 13% of the variance in interpersonal/leisure planning for retirement. Of the demographic variables, gender emerged as the only predictor of interpersonal/leisure planning, with women more likely to plan than men ($\beta = .22, p < .05$). As hypothesized, goals were also predictive of planning within this domain ($\beta = .16, p < .001$). Present fatalistic TP emerged a negative predictor ($\beta = -.15, p < .05$) of interpersonal/leisure planning. However, contrary to expectations, present hedonistic TP was a positive predictor ($\beta = .21, p < .001$) of planning, and none of the other three TPs was predictive of leisure planning.

Predicting work planning. The predictor variables accounted for only 8% of the observed variance in work planning. The only demographic variable to emerge as a significant predictor of work planning was income, such that lower income was associated with greater work planning ($\beta = -.14, p < .05$). As hypothesized, having a greater number of work goals for retirement also predicted the degree to which participants engaged in work planning ($\beta = .15, p < .01$). However, contrary to expectations, none of the five TPs emerged as significant predictors of planning within this domain.

Discussion

Age, Gender, Education, and Income as Predictors of Retirement Planning

Contrary to expectations, only age predicted financial planning in the present study. This finding may be explained by the fact that participants in the study were employees of a financial institution

and, as such, were likely to have had higher levels of financial planning knowledge, regardless of gender, education, and income. Being female was associated with greater retirement planning in the health and leisure/interpersonal domains. One reason that women are thought to engage in more positive health behavior is that they are more active consumers of health information and health care services (Kandrack, Grant, & Segall, 1991). Planning in the interpersonal domain may be explained by the fact that in our society, women have been differentially socialized to establish and maintain interpersonal bonds (Gilligan, 1982; Miller, 1986). Education was positively related to health planning for retirement, a finding that is consistent with general research on health behavior (Clark, 1995; Ross & Wu, 1994). In the current study, more highly educated participants may have planned for their health to a greater degree because of greater knowledge or information seeking (Ross & Wu, 1994). Income emerged as a negative predictor of work planning, such that the lower an individual's income, the more likely he or she was to engage in planning for postretirement work. In support of this idea, other research has shown that individuals are less likely to engage in work during retirement if their retirement salary is high (Kim & Feldman, 2000).

Goals as Predictors of Retirement Planning

Goals were positive predictors of retirement planning across all domains. In this way, the current study builds on previous retirement planning studies, which have shown financial goals to be an important predictor of financial planning (Hershey et al., 2003; Neukam & Hershey, 2003). It also adds support to Friedman and Scholnick's (1997) model of planning, in which goals are conceptualized to be an important part of planning.

Time Perspective as a Predictor of Retirement Planning

Contrary to expectations, future TP did not emerge as a predictor of planning across any of the planning domains. Such a result is surprising given that previous research has implicated a high future TP as important to an individual's ability to engage in planned and purposeful behavior such as financial planning for retirement (Hershey & Mowen, 2000; Jacobs-Lawson & Hershey, 2005). One possible reason for this is that the ZTPI taps a time frame that is not futuristic enough for planning that is required years or decades in advance (as opposed to weeks or months).

Contrary to expectations, present hedonistic TP emerged as a positive predictor of planning within the interpersonal/leisure domain. Upon reflection, we find this result to be not entirely surprising, given that individuals high on present hedonistic TP are naturally quite socially oriented and seek activity and excitement in their daily lives (Zimbardo & Boyd, 1999). It may be that people with this TP develop and recognize relationships as a priority for all purposes, not only retirement planning. This is particularly important since it has been found that many people do not initiate new hobbies or leisure pursuits postretirement (Vinick & Ekerdt, 1991). Past positive TP emerged as a positive, rather than as negative, predictor of planning within the financial/general domain. It could be that individuals who scored highly on the past positive scale may have planned more in this area because of their positive attitude toward retirement. Other findings suggest that

individuals with a high past positive orientation tend to score high on positivity in general (Zimbardo & Boyd, 1999) and that a positive attitude toward retirement is associated with greater levels of financial planning (Taylor, Cook, & Weinberg, 1997).

Limitations

One of the most obvious limitations of the current study is the generalizability of the findings. Although a large, national sample was secured, all participants were employees of the same organization and worked within the finance industry. As a result of their employment, employees may have been privy to greater financial knowledge, a known predictor of financial planning (Ekerdt & Hackney, 2002; Mitchell & Moore, 1998). It is possible that participants were more financially "savvy" than members of the general population. It should be noted, however, that at the time the study was conducted, no additional mechanisms were in place within the organization to deal with retirement planning for employees other than those readily available to customers. In this regard, employees were still highly reliant on their own propensity to plan and initiate goals. Replication of the study with participants from other industries responding to the retirement planning questionnaire would determine the extent of these differences.

Participation in the survey was voluntary, and it is possible that the sample may have been biased in terms of their general motivation and interest in retirement planning. It is impossible to know whether we, by asking questions relating to retirement planning behaviors, educated the sample about the possibilities, and they then volunteered goals developed independent of actual retirement planning. We attempted to minimize these effects as much as possible by requesting the participants to specify their goals prior to identifying retirement planning behaviors. Only free recall of goals and planning behaviors without any context could completely remove these effects. Currently, research is being conducted to explore the role of these questions in improving participants' knowledge about the breadth and depth of planning behaviors required for successful retirement. It is also possible that participants responded in a socially desirable way. In a study that relied on self-report data and ratings of retirement planning behavior, people may have reported what they ought to do in preparation for retirement rather than what they have done. They may well recognize the need to attend retirement seminars, read books about financial planning, or meet with a financial planner but simply have not done so.

The role of providing an incentive must also be considered, and this may have acted as a filter for temporal preference (i.e., immediate participation for potential delayed gratification). The only way to avoid this in future studies is to conduct studies with and without incentives and to compare participants' temporal preference with the ZTPI. However, we fear that such a strategy may result in significantly fewer participants in the no-incentive group, making such comparisons impossible. An additional limitation of the study relates to the moderate variance in planning accounted for by the demographic and psychological variables examined in the study (between 8% and 13%). While this variance may in part be due to the homogeneity of the sample used, it also suggests that variables outside the scope of the study could have influenced planning. Accordingly, we recommend that additional variables such as retirement worry, retirement attitudes, self-

efficacy, and motivation be assessed in future studies in order to better understand the predictors of retirement planning.

Implications and Future Directions

We discovered that planning in each of the four domains was influenced by a unique set of variables. This suggests that when attempting to create and deliver interventions designed to increase financial/general, health, interpersonal/leisure, and work planning for retirement, policy makers and counselors cannot apply a broad-brush, one-size-fits-all approach. Rather, proposed interventions should take into account and be designed around the specific variables known to influence planning within that particular domain. The exception to this was goal setting, which was the one consistent predictor of planning across all domains. Given that goals are malleable and not fixed characteristics of an individual, goal setting could represent an important ingredient in the design of interventions promoting holistic retirement planning.

References

- Ameriks, J., Caplin, A., & Leahy, J. (2002). *Wealth accumulation and the propensity to plan* (NBER Working Paper No. 8920). Cambridge, MA: National Bureau of Economic Research.
- Aspinwall, L. G., & Taylor, S. E. (1997). A stitch in time: Self-regulation and proactive coping. *Psychological Bulletin, 123*, 417–436.
- Atchley, R. C. (1991). *Social forces and aging*. Belmont, CA: Wadsworth.
- Atchley, R. C. (1993). Continuity theory and the evolution of activity in later adulthood. In J. R. Kelly (Ed.), *Activity and aging: Staying involved in later life* (pp. 5–16). Newbury Park, CA: Sage.
- Barrow, G. M. (1996). *Aging, the individual, and society*. St. Paul, MN: West.
- Bassett, W. F., Fleming, M. J., & Rodriguez, A. (1998). How workers use 401(k) plans: The participation, contribution, and withdrawal decisions. *National Tax Journal, 51*, 263–289.
- Bateman, H., Kingston, G., & Piggott, J. (2001). *Forced savings: Mandating private retirement incomes*. Oakleigh, Australia: Cambridge University Press.
- Beck, S., H. (1982). Adjustment to and satisfaction with retirement. *Journals of Gerontology, 37*, 616–624.
- Bossé, R., Aldwin, C. N., Levenson, R., Spiro, A., III, & Mroczek, D. K. (1993). Change in social support after retirement: Longitudinal findings from the Normative Aging Study. *Journals of Gerontology, Series B: Psychological Sciences and Social sciences, 48*, P210–P217.
- Bossé, R., Spiro, A., III, & Kressin, N. R. (1996). The psychology of retirement. In R. T. Woods (Ed.), *Handbook of the clinical psychology of ageing* (pp. 141–157). Chichester, UK: Wiley.
- Braithwaite, V. A., & Gibson, D. M. (1987). Adjustment to retirement: What we know and what we need to know. *Ageing and Society, 7*, 1–18.
- Breslow, L., Reuben, D., & Wallace, S. (2000). Introduction to special issue on health promotion among the elderly. *American Journal of Health Promotion, 14*, 341–342.
- Burrus-Bammel, L. L., & Bammel, G. (1985). Leisure and recreation. In J. Birren & K. W. Shaie (Eds.), *Handbook of the psychology of aging* (pp. 848–863). New York: Van Nostrand Reinhold.
- Clark, D. O. (1995). Racial and educational differences in physical activity among older adults. *Gerontologist, 36*, 472–480.
- DeVaney, S. A., & Su, Y. (1997). Factors predicting the most important source of retirement income. *Compensation and Working Conditions, 2*, 25–31.
- De Vaus, D., & Wells, Y. (2004). What should mature age workers do to promote health and wellbeing in retirement? *Health Issues, 80*, 23–26.
- Dorfman, L. T., Kohout, F. J., & Heckert, D. A. (1985). Retirement satisfaction in the rural elderly. *Research on Aging, 7*, 577–599.
- Ekerdt, D. J., & Hackney, J. K. (2002). Workers' ignorance of retirement benefits. *The Gerontologist, 42*, 543–551.
- Ekerdt, D. J., DeViney, S., & Kosloski, K. Profiling plans for retirement. *Journals of Gerontology, Series B: Psychological Sciences and Social Sciences, 51*, S140–S149.
- Feldman, D. C. (1994). The decision to retire early: A review and conceptualization. *Academy of Management Review, 19*, 285–311.
- Feldman, D. C., & Kim, S. (2000). Bridge employment during retirement: A field study of individual and organizational experiences with postretirement employment. *Human Resource Planning, 23*, 14–25.
- Fletcher, W. L., & Hansson, R. O. (1991). Assessing the social components of retirement anxiety. *Psychology and Aging, 6*, 76–85.
- Friedman, S. L., & Scholnick, E. K. (1997). *The developmental psychology of planning: Why, how, and when do we plan?* Mahwah, NJ: Erlbaum.
- Gilligan, C. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Glamsner, R., & DeJong, G. (1975). The efficacy of preretirement preparation programs for industrial workers. *Journal of Gerontology, 30*, 595–600.
- Glass, J. C., & Flynn, D. K. (2000). Retirement needs and preparation of rural middle-aged persons. *Educational Gerontology, 26*, 109–134.
- Glass, J. C., & Kilpatrick, B. (1998). Gender comparisons of baby boomers and financial preparation for retirement. *Educational Gerontology, 24*, 719–745.
- Grable, J. E., & Lytton, R. H. (1997). Determinants of retirement savings plan participation: A discriminant analysis. *Personal Finances and Worker Productivity, 1*, 184–189.
- Harlow, R. E., & Cantor, N. (1996). Still participating after all these years: A study of life task participation in later life. *Journal of Personality and Social Psychology, 71*, 1235–1249.
- Hershey, D. A., Jacobs-Lawson, J. M., & Neukam, K. N. (2002). Influences of age and gender on workers' goals for retirement. *International Journal of Aging and Human Development, 55*, 163–179.
- Hershey, D. A., & Mowen, J. C. (2000). Psychological determinants of retirement preparedness. *The Gerontologist, 40*, 687–697.
- Hershey, D. A., Mowen, J. C., & Jacobs-Lawson, J. M. (2003). An experimental comparison of retirement planning intervention seminars. *Educational Gerontology, 29*, 339–359.
- Hurd, M. D., & Wise, D. A. (1989). The wealth and poverty of widows before and after the husband's death. In D. A. Wise (Ed.), *The economics of aging* (pp. 151–175). Chicago: University of Chicago Press.
- Iso-Ahola, S. E., Jackson, E., & Dunn, E. (1994). Starting, ceasing, and replacing leisure activities over the life span. *Journal of Leisure Research, 26*, 227–249.
- Jacobs-Lawson, J. M., & Hershey, D. A. (2005). Influence of future time perspective, financial knowledge, and financial risk tolerance on retirement savings behaviors. *Financial Services Review, 14*, 331–344.
- Kandrack, M., Grant, K. R., & Segall, A. (1991). Gender differences in health-related behavior: Some unanswered questions. *Social Science Medicine, 32*, 579–590.
- Kim, S., & Feldman, D. C. (2000). Working in retirement: The antecedents of bridge employment and its consequences for quality of life in retirement. *Academy of Management Journal, 43*, 1195–1210.
- Krause, N. (1987). Chronic financial strain, social support, and depressive symptoms among older adults. *Psychology and Aging, 2*, 185–192.
- Law, K. W., & Lee, W. K. M. (2004). Retirement planning and retirement satisfaction: The need for a national retirement program and policy in Hong Kong. *Journal of Applied Gerontology, 23*, 212–233.
- Lee, T. W., Locke, E. A., Latham, G. P., & Pervin, L. A., (1989). *Goal concepts in personality and social psychology*. Hillsdale, NJ: Erlbaum.
- Locke, E. A., Durham, C. C., Poon, J. M. L., & Weldon, E. (1997). Goal setting, planning, and performance on work tasks for individuals and

- groups. In S. L. Friedman & E. K. Scholnick (Eds.), *The developmental psychology of planning: Why, how, and when do we plan?* Mahwah, NJ: Erlbaum.
- Locke, E. A., & Latham, G. P. (1990). *A theory of goal setting and task performance*. Englewood Cliffs, NJ: Prentice Hall.
- Long, J. (1987). Continuity as a basis for change: Leisure and male retirement. *Leisure Studies*, 6, 55–70.
- Miller, J. M. (1986). *Toward a new psychology of women* (2nd ed.). Boston: Beacon Press.
- Mitchell, O. S., & Moore, J. F. (1998). Can Americans afford to retire? New evidence on retirement saving adequacy. *Journal of Risk and Insurance*, 65, 371–400.
- Moen, P. (1996). A life course perspective on retirement, gender, and well-being. *Journal of Occupational Health Psychology*, 1, 131–144.
- Mor-Barak, M. E. (1995). The meaning of work for older adults seeking employment: The generativity factor. *International Journal of Aging and Human Development*, 42, 325–344.
- Neukam, K. A., & Hershey, D. A. (2003). Financial inhibition, financial activation, and saving for retirement. *Financial Services Review*, 12, 19–37.
- O’Rand, A. M., & Henretta, J. (1999). *Age and inequality: Diverse pathways though later life*. Boulder, CO: Westview.
- Quick, H. E., & Moen, P. (1998). Gender, employment, and retirement quality: A life course approach to the differential experiences of men and women. *Journal of Occupational Health Psychology*, 3, 44–64.
- Richardson, V., & Kilty, K. M. (1991). Adjustment to retirement: Continuity vs. discontinuity. *International Journal of Aging and Human Development*, 33, 151–169.
- Riddick, C. (1985). Life determinants of older males and females. *Leisure Sciences*, 7, 47–63.
- Ross, C. E., & Wu, C.-I. (1994). The links between education and health. *American Sociological Review*, 60, 719–745.
- Rothspan, S., & Read, S. J. (1996). Present versus future time perspective and HIV risk amongst heterosexual college students. *Health Psychology*, 15, 131–134.
- Savickas, M. L., Silling, S. M., & Schwartz, S. (1984). Time perspective in vocational maturity and career decision making. *Journal of Vocational Behavior*, 25, 258–269.
- Seccombe, K., & Lee, G., R. (1986). Gender differences retirement satisfaction and its antecedents. *Research on Aging*, 8, 426–440.
- Seibert, E. F., & Seibert, J. (1986). Retirement: Crisis or opportunity. *Personnel Administrator*, 32, 43–49.
- Stawski, R. S., Hershey, D. A., & Jacobs-Lawson, J. M. (2007). Goal clarity and financial planning activities as determinants of retirement savings contributions. *International Journal of Aging and Human Development*, 64, 13–32.
- Taylor, M. A., Cook, K., & Weinberg, C. (1997). Planning and expectations of the retirement experience. *Educational Gerontology*, 23, 273–288.
- Vinick, B. H., & Ekerdt, D. J. (1991). Retirement: What happens to husband–wife relationships? *Journal of Geriatric Psychiatry*, 24, 23–40.
- Yuh, Y., & Olson, P. (1997). Factors affecting the retirement fund levels of self-employed households and wage and salary households. *Family Economics and Resource Management Biennial*, 2, 25–31.
- Zimbardo, P. G., & Boyd, J. N. (1999). Putting time in perspective: A valid, reliable, individual-differences metric. *Journal of Personal and Social Psychology*, 66, 742–752.

Received February 26, 2008

Revision received September 5, 2008

Accepted September 19, 2008 ■