Journal of Occupational Health Psychology
2009, Vol. 14, No. 4, 374–389

1076-8998/09/$12.00 DOI: 10.1037/a0015285

Bridge Employment and Retirees' Health: A Longitudinal Investigation

Yujie Zhan, Mo Wang, and Songqi Liu
University of Maryland

Kenneth S. Shultz
California State University, San Bernardino

The present study examined the relationship between bridge employment and retirees' health outcomes (i.e., major diseases, functional limitations, and mental health). We used a nationally representative sample of 12,189 retirees from the first 4 waves of the Health and Retirement Study. Hierarchical regression analyses showed that compared with full retirement, engaging in bridge employment either in a career field or in a different field was associated with fewer major diseases and functional limitations, whereas engaging in career bridge employment was associated with better mental health. The findings highlight the health benefits of engaging in bridge employment for retirees. The practical implications of this study are discussed at both the individual and policy levels. Limitations of the current findings are also noted in conjunction with future research directions.

Keywords: bridge employment, retirement, health outcomes

Research related to retirees is becoming increasingly important as the vast generation of baby boomers reach retirement eligible ages. Among the various issues related to aging, health is always viewed as one of the most critical topics. On the one hand, health problems become more and more salient as people age in that they are more likely to face health concerns during their later life (Crimmins & Saito, 2000). On the other hand, economic projections show that population aging in Western countries increases pressure on government expenditure for health spending (Butterworth et al., 2006). Therefore, health-related issues among retirees attract attention from researchers in various disciplines. By studying the antecedents of retirees' health, many researchers try to explore the influential factors and provide possible recommendations for retirees to help them maintain their health status.

Many factors have been tested to predict health during retirement, such as socioeconomic status (Singh, 2006), social support (Fiori, Antonucci, & Cortina, 2006; Singh, 2006), and engagement in leisure activities (Litwin & Shiovitz-Ezra, 2006). Specifically, retirees who have high socioeconomic status, receive much social support, and/or participate in postcareer activities typically report fewer health problems. Further, retirement or employment status itself is associated with health after retirement, but their relationship is inconclusive (e.g., Butterworth et al., 2006; van Solinge, 2007). For instance, it was found in a cross-sectional study that retirement was better than working because it was associated with greater positive affect and less anxiety and distress, whereas working was better than retirement because retirement was associated with a lower sense of control (Drentea, 2007). In another study, results showed that physical functioning declined in both working and retired civil servants, and mental health functioning deteriorated among those who continued to work, but improved among the retired (Mein, Martikainen, Hemingway, Stansfeld, & Marmot, 2003). In these studies, health outcomes were examined by directly comparing retirees with older workers who had not retired. However, another employment status is increasingly observed among older workers. That is working after retirement, so-called *bridge employment* (Shultz, 2003). Research shows that although people tend to retire at earlier ages in recent years, over half of those retirees choose to engage in some form of bridge employment rather than full retirement (Cahill, Giandrea, & Quinn, 2006; Shultz, 2003). The current study aims to examine the impact of bridge employment status on retirees' health outcomes.

Bridge employment is defined as the pattern of labor force participation exhibited by older workers

Yujie Zhan, Mo Wang, and Songqi Liu, Department of Psychology, University of Maryland; Kenneth S. Shultz, Department of Psychology, California State University, San Bernardino.

Correspondence concerning this article should be addressed to Mo Wang, Department of Psychology, University of Maryland, College Park, MD 20742. E-mail: mwang@psyc.umd.edu

as they leave their career jobs and move toward complete labor force withdrawal (Shultz, 2003). It could be a part-time job, self-employment, or temporary employment after full-time employment ends and before permanent retirement begins (Feldman, 1994). Bridge employment is important as it has been shown to redefine retirement by impacting the transition process into retirement (Wang, 2007). Several studies have been conducted to explore various kinds of predictors of bridge employment participation (e.g., Wang, Zhan, Liu, & Shultz, 2008; Weckerle & Shultz, 1999). These studies generally showed that financial pressure and good health status were two important motivators for retirees to participate in bridge employment, with financial pressure making retirees feel that they should engage in bridge employment and good health status providing the capacity for them to engage in bridge employment. However, studies examining the consequences of bridge employment largely have focused on psychological outcomes, such as adjustment, retirement satisfaction, and life satisfaction, whereas mostly neglecting the health outcomes for retirees (e.g., Kim & Feldman, 2000; Shultz, Morton, & Weckerle, 1998). The current study seeks to fill this gap by testing the potential health benefits of engaging in bridge employment.

Another gap in prior research is the specification of health outcomes. According to Marks, Sykes, and McKiniley (2003), health should be studied in terms of both physical health and psychological well-being. Among older people, major diseases and decline in daily functions are two salient indicators of deteriorating physical health (Siegler, Bosworth, & Elias, 2003). First, older adults are more susceptible to heart disease and cancer, and are more likely to have multiple disorders as they age. Second, because of the general physical and cognitive decline in capabilities as we age, older people have a higher risk of experiencing functional limitations. They may sometimes find it difficult to carry on with daily life independently (e.g., having difficulty in walking across a room, dressing, bathing). Psychologically, for older adults, deteriorating mental health usually includes symptoms of depression or anxiety (Cavanaugh & Blanchard-Fields, 2002). Accordingly, the current study examined both the physical and psychological health consequences of retirees engaging in bridge employment, resulting in three kinds of health outcomes: major diseases, functional limitations, and mental health.

From a methodological perspective, many previous studies conducted on retirement and bridge employment status have relied on cross-sectional research designs (e.g., Drentea, 2007; Kim & Feldman, 2000; Weckerle & Shultz, 1999). Although cross-sectional designs may be useful in identifying group differences in preferences for retirement or bridge employment, it is difficult to make sound causal inferences based on such findings (Feldman, 1994; Shultz, 2003). To strengthen the causal relationships, a longitudinal archival data set was analyzed in the current study. The information related to participants' employment and health status was collected both before and after their retirement.

In sum, to address the above-mentioned research gaps, the current study examined the effects of engaging in bridge employment in predicting three kinds of health outcomes of retirees (i.e., major diseases, functional limitation, and mental health). Data from the longitudinal Health and Retirement Study were analyzed to answer this research question.

Theoretical Background

In the present study, we use continuity theory (Atchley, 1989) and role theory (Ashforth, 2001) as general frameworks for understanding the potential health benefits of engaging in bridge employment. Continuity theory emphasizes the adaptation to change and a consistent pattern over time (Atchley, 1989). It suggests that older adults attempt to preserve and maintain existing internal and external structures to avoid the experience of stressful disruption. Typically individuals rely on strategies learned from past experiences to preserve and maintain their situation. It predicts that there should not be a significant drop in health and well-being when people transition to retirement, as long as they achieve continuity by strategizing and maintaining social contacts and lifestyle (Wang, 2007).

According to continuity theory, retirees would be motivated to achieve continuity to maintain, and even improve, their own satisfaction and well-being. The retirement literature has indicated many ways in which individuals try to achieve this continuity. For example, retirees may view retirement as another logical career stage (Quick & Moen, 1998); keep a similar life routine or schedule as before (Kim & Feldman, 2000); participate in activities and sustain levels of social contact (Harlow & Cantor, 1996; Pushkar, Arbuckle, Conway, Chaikelson, & Maag, 1997); maintain stable self-concept (Troll & Skaff, 1997); or continue to work (Kim & Feldman, 2000). Generally, retirees try to maintain the same personal

goals and lifestyle they had before retirement (Richardson & Kilty, 1991).

Among all the potential strategies to achieve continuity, continuing to work after retirement is actually what we defined as bridge employment. Specifically, continuity theory suggests that retirees who engage in bridge employment should have better health than their fully retired counterparts during the retirement transition because they have the opportunity of maintaining their familiar life patterns and their familiar social contacts. The continuity effect would be predicted to be most salient for the retirees who take exactly the same job as their career job because bridge employment in one's career field should result in the least disruption between employment and retirement.

Role theory emphasizes the importance of the role loss and role transition processes from work to retirement. According to Ashforth (2001), once an individual is involved in a specific role (e.g., work role), role identity affects an employee's behaviors and decisions. For example, some work-role attachment variables, such as job involvement and affective organizational commitment, have been shown to be related to retirement intention (Adams, Prescher, Beehr, & Lepisto, 2002). Therefore, role theory treats retirement as an absence of work-role identity, and treats the process from employment to nonemployment as a role transition (Bush & Simmons, 1990). Such role change is suggested to lead to negative psychological outcomes such as anxiety, depression, and stress, resulting in low satisfaction in retirement (Carter & Cook, 1995), especially for those who treat their work role as the central life role. However, the negative outcomes from role loss in retirement might be eliminated by maintaining role identity, enjoying other role involvement, or creating a new identity as a central life role. For example, retirees can continue to work following retirement (maintaining a previous work role) or become more involved in other roles outside of work.

Similar to continuity theory, role theory also provides implications for the linkage between bridge employment status and health outcomes, but from a different aspect. Specifically, role theory would predict that bridge employment helps retirees to maintain their work roles and provides benefit in terms of smoothing retirees' role transition processes. By continuing to work after retirement, retirees can effectively avoid the negative experience of work role loss and role transition, which is likely to be beneficial to their physical and psychological health.

Both continuity theory and role theory provide implications for the linkage between bridge employment status and health outcomes, which indicate that engaging in bridge employment may be an effective way to adapt to retirement. However, it is not clear whether the effects would be similar for different types of bridge employment. Considering the findings that different types of bridge employment were predicted by different antecedents (Wang et al., 2008), their health outcomes may also be distinct to some extent. Therefore, we examined the effects of different types of bridge employment on both physical and psychological health outcomes in the current study.

Further, from the perspectives of continuity theory and role theory, bridge employment participation can be viewed as similar to job reemployment in that people cease their unemployment status and reenter their work role, which have positive impact on their health. A number of studies have shown that reemployment reverses the negative effects of unemployment and restores the level of mental health that existed prior to the job loss (e.g., Caplan, Vinokur, Price, & van Ryn, 1989; Vinokur, Schul, Vuori, & Price, 2000). These findings further support the potential linkage between bridge employment status and health outcomes. In addition, conceptualizing bridge employment's beneficial effects analogous to job reemployment helps to reflect the theoretical distinction between retirement and withdrawal. Specifically, retirement could be voluntary or involuntary in nature (Shultz et al., 1998), whereas withdrawal is typically viewed as influenced by voluntary intention (Adams & Beehr, 1998).

Hypotheses Development

The first category of health outcomes of interest in this study is major disease. The incidence of major disease generally rises in the older population. The largest increases have been in heart disease and cancer, two major causes of old-age mortality (Crimmins & Saito, 2000). It has been shown that job-related factors could affect the occurrence of some major diseases (Jex, Wang, & Zarubin, 2007; Siegler et al., 2003). For example, consistent with role theory's prediction, job loss represents a social risk factor for cardiovascular disease (Muir, 1998). In addition, Gordus (1986) found that employee displacement raised the risk for physical health problems, whereas reemployment was positively associated with health outcomes. The aging literature has also shown that active lifestyles decrease risks of major diseases by increasing vital activity and attenuating sympathetic hyperactivity (Keller & Lemberg, 2002). All of these

previous findings indicate that bridge employment may lead to fewer major diseases by providing active lifestyles for retirees. Accordingly, we hypothesize,

> *Hypothesis 1:* Retirees who engage in bridge employment after their career jobs will experience fewer major diseases than those who retire completely.

Another category of health outcome is functional limitation. In the current study, functional limitations focus on the capability of retirees to handle daily life by themselves. To the current authors' knowledge, few studies have examined the relationship between employment status and functional decline in the aging process. However, maintaining a working status might be beneficial in terms of slowing down the declines in daily functions. This is because working requires certain levels of cognitive and physical involvement and in turn is likely to help retirees to maintain their daily function levels. Accordingly, we hypothesize,

> *Hypothesis 2:* Retirees who engage in bridge employment after their career jobs will experience fewer functional limitations than those who retire completely.

Mental health is the third category of health outcomes related to bridge employment that were explored in the present study. Consistent with continuity theory, it has been shown that older people are likely to develop depression because of the decrease in their available social resources (Siegler et al., 2003). For example, Bosse, Aldwin, Levenson, and Ekerdt (1987) found that retirees reported more psychological symptoms than did workers, even after controlling for physical health status. Moreover, bridge employment was shown to be positively correlated with satisfaction and facilitate retirement adjustment (Kim & Feldman, 2000), which implicates the potential benefits of bridge employment on psychological health. Considering that the bridge employment decision is usually made voluntarily and usually leads to less responsibility and stress (Shultz, 2003), we hypothesize,

> *Hypothesis 3:* Retirees who engage in bridge employment after their career jobs will have better mental health than those who retire completely.

Our above hypotheses were developed to predict the differences in health outcomes between retirees who took bridge employment and retirees who took full retirement. Another interesting comparison could be made between retirees and continuing workers. However, previous findings were mixed regarding this comparison. Some researchers showed that retirement resulted in more psychological symptoms because of the discontinuity of their employment status (e.g., Bosse et al., 1987), whereas working was better than retirement because it was associated with a higher sense of control (Drentea, 2007). On the other hand, retirement has also been shown to be associated with an improvement in positive affect and mental health because of less anxiety and stress from work (e.g., Drentea, 2007; Mein et al., 2003). Accordingly, although continuing workers have the opportunity to maintain their work role identity and higher levels of social contact, they may experience higher levels of stress from work. Because of the lack of clear theoretical and empirical guidance, we did not develop formal hypotheses on the comparison between continuing workers and retirees, but we did include continuing work in the current study for an exploratory analysis.

Method

Sample

Data from Waves 1 to 4 (i.e., 1992, 1994, 1996, and 1998 waves) of the Health and Retirement Study (HRS; Juster & Suzman, 1995) were used to test the current hypotheses. The HRS is a U.S. national panel study sponsored by the National Institute on Aging. A nationally representative sample of persons aged 51 to 61 years were included in the first wave of this study in 1992. To collect the data, a 1- to 2-hr interview was conducted for each participant. They answered questions regarding their demographic information, health, wealth, employment history, and current work or retirement life. After Wave 1, the same participants were revisited and interviewed every 2 years. The HRS provides data for researchers, policy analysts, and program planners who have to inform major policy decisions affecting retirement, health insurance, savings, and economic well-being (Juster & Suzman, 1995).

Specifically, two subsamples were obtained from HRS data sets and were combined into one overall sample for the current analyses. The first subsample used in the current study was taken from Waves 1 to 3 of the HRS data sets. Specifically, this sample was selected by including individuals who were not retired in Wave 1 data collection ($N = 8{,}142$). Of that figure,

1,192 of them were removed because they did not provide valid responses concerning retirement status in Wave 2 data collection. Among the remaining 6,950 participants, 5,956 (85.7%) of the participants were not retired but continued working in Wave 2, and 994 (14.3%) of them considered themselves as retired (N = 553, 55.6%) or partly retired (N = 441, 44.4%) in Wave 2 data collection. However, among the 441 respondents who reported being partly retired, 186 did not report their occupations in either Wave 1 or Wave 2 data collection, thus their bridge employment status could not be coded for the current analyses, resulting in a final sample size of 6,764.

Similarly, the second subsample was taken from Waves 2 to 4 of the HRS data sets, including the participants who were not retired in Wave 2 data collection (N = 6,594). We removed 1,008 of them from this subsample because they did not provide valid responses concerning retirement status in Wave 2 data collection. Among the remaining 5,586 participants, 4,520 (80.9%) were not retired but continued working in Wave 3, and 1,066 (19.1%) considered themselves as retired (N = 571, 53.6%) or partly retired (N = 495, 46.4%) in Wave 3 data collection. However, among the 495 respondents who reported being partly retired in Wave 3, 161 did not report their occupations in either Wave 2 or Wave 3 data collection; thus, their bridge employment status could not be coded for the current analyses, resulting a final sample size of 5,425.

For the first subsample, the average age of the participants is 53.96 (SD = 5.12); 55.9% are women; 77.2% are married with spouse present; the mean years of education is 12.54 (SD = 2.98). For the second subsample, the average age of the participants is 55.25 (SD = 5.08); 58.1% are women; 76.4% are married with spouse present; the mean years of education is 12.71 (SD = 2.88). As these demographic features across the two subsamples were comparable, it was reasonable to combine them into one overall sample (N = 12,189) for the current analyses (we also conducted all the analyses based on two separate samples, and the results were virtually the same as reported here. Interested readers may contact the corresponding author for results from separate samples).

Measures

For the first subsample, measures of baseline health status and total wealth were obtained from Wave 1, measure of working hours per week was obtained from Wave 2, measure of bridge employment status was obtained from matching Wave 1 and Wave 2, measure of work status change was obtained from comparison of work status in Wave 2 and Wave 3, and measures of health outcomes were obtained from Wave 3 data. Therefore, for the first subsample, Wave 1 HRS data collection corresponds to Time 1, Wave 2 corresponds to Time 2, and Wave 3 corresponds to Time 3 of measurement. Similarly, for the second subsample, measures of baseline health status and total wealth were obtained from Wave 2, measure of working hours per week was obtained from Wave 3, measure of bridge employment status was obtained from matching Wave 2 and Wave 3 data, measure of work status change was obtained from comparison of work status in Wave 3 and Wave 4, and health outcomes were obtained from Wave 4 data. Therefore, for the second subsample, Wave 2 HRS data collection corresponds to Time 1, Wave 3 corresponds to Time 2, and Wave 4 corresponds to Time 3 of measurement. Selecting measures this way puts the variables of the current study into corresponding time sequences and helps to strengthen the causal inferences of the results.

Total wealth. Because one's financial status might be predictive of health (e.g., Wang, 2007), retirees' total wealth was included in the current analyses as a control variable. Following the RAND HRS data documentation (St. Clair et al., 2004), total wealth of retirees was measured by calculating the sum of all wealth components minus all debt. These wealth components include the net value of: housing, real estate, vehicles, businesses, IRA and Keogh accounts, stocks, mutual funds and investment trust, checking, savings, money market accounts, certificates of deposit, government savings bonds and T-bills, bonds and bond funds, and net value of all other savings. Three debt components are subtracted from the sum of wealth components, including mortgages, home loans, and debt, to form the total wealth measure. The use of this measure has been supported by several previous retirement studies (e.g., Juster, Smith, & Stafford, 1999; Wang, 2007).

Working hours per week. Considering that ones' working hours might be predictive of health, we included working hours per week as a control variable in predicting health outcomes. This variable measured the usual number of hours per week each respondent worked at his or her main job.

Work status change. Work status change was measured by comparing the work status of participants in Time 2 and Time 3 in each subsample. It can be categorized into three categories: no change (i.e., working in both Time 2 and Time 3 or retired in both Time 2 and Time 3), change from retired to working (i.e., not working at Time 2 but working for pay at the

Time 3), and change from working to retired (i.e., working for pay at Time 2 but stopping working at Time 3). In the combined sample, 9,443 (77.5%) of the participants did not change their work status during Time 2 and Time 3 data collections, 1,447 (11.9%) of them changed from working to retired, and 412 (3.4%) of them changed from retired to working.

Bridge employment status. Bridge employment can be categorized into two primary types: career bridge employment (i.e., individuals accept bridge employment in the same occupation as their career jobs) and bridge employment in a different field (Feldman, 1994; Shultz, 2003; Wang et al., 2008). In the present study, both types of bridge employment were measured by matching Time 1 and Time 2 data in each sample. For respondents who reported partly retired, the occupational codes (i.e., three-digit codes used in Bureau of the Census, 1990) of their career jobs (from Time 1) and bridge jobs (from Time 2) were compared to determine whether they still worked in the same field as their career job or held a bridge job in a different field. Specifically, if the career job and bridge job shared the same occupational code, one was viewed as engaging in career bridge employment; if they shared different occupational codes, one was viewed as engaging in bridge employment in a different field. In the current study, besides the two primary types of bridge employment, we also coded another two types of employment status for participants: full retirement at Time 2 and continuing working at Time 2. In the combined sample, at Time 2, 415 (3.4%) participants took career bridge employment, 174 (1.4%) took bridge employment in a different field, 10,476 (85.9%) continued working, and 1,124 (9.2%) took full retirement.

Major diseases. Major diseases were measured by doctor diagnosed health problems, including eight diseases: high blood pressure, diabetes, cancer, lung disease, heart disease, stroke, psychiatric problems, and arthritis. Each of these variables was set to *yes*/*no* answer, which was then coded as 1 or 0. The variable of major diseases is the sum of the number of conditions each respondent experienced, thus the possible score ranges from 0 to 8.

Functional limitations. Functional limitations were measured by asking the respondents to report how difficult it is when they completed five major activities of daily living functions. The activities include walking across a room, getting in and out of bed, dressing, eating, and bathing. Each of these variables was set to *yes*/*no* answer, which was then coded as 1 or 0. The variable of functional limitations is the sum of the number of conditions in which each respondent has difficulty, thus ranging from 0 to 5. The use of this measure has been supported in several previous health-related studies (e.g., Ness, Cirillo, Weir, Nisly, & Wallace, 2005; Wallace & Herzog, 1995).

Mental health. Mental health was measured by an eight-item scale. This scale was shortened from a 20-item mental health scale (Radloff, 1977). Six of the eight items indicate the presence of certain negative mental health states (e.g., depressed); two items indicate certain positive mental health status (e.g., happy). A *yes*/*no* response format where 1 (*yes*), and 0 (*no*) was used for each item. Negative items were reverse coded so that the higher values of the scale indicate better mental health. For the baseline measure of mental health, the alpha reliability was .88. For the outcome measure of mental health, the alpha reliability was .89.

Analytic Strategy

Three separate hierarchical regression analyses were used to examine the influence of bridge employment status on different health outcomes. Respondents' age, gender, education level, total wealth, and working hours per week were controlled in Step 1 of each regression model. Their work status change from Time 2 to Time 3 was also controlled in Step 1. Specifically, the categorical variable of work status change was recoded into two dummy variables with "no change" as the reference category. One dummy variable was "status change from retired to working versus other types" (i.e., status change from retired to working was coded as "1" and other change types were coded as "0"), and the other one was "status change from working to retired versus other types" (i.e., status change from working to retired was coded as "1" and other change types were coded as "0"). Furthermore, for each health outcome, its corresponding health measure obtained at Time 1 was also controlled as the baseline measure in Step 1. Controlling for work status change and corresponding baseline health provided more rigorous tests for the effect of bridge employment participation on health outcomes. In addition particularly in predicting mental health, not only the baseline mental health but also baseline physical health was included as a control variable. This is because there is often a symbiotic relationship between physical and mental health. Specifically, when one's health begins to decline physically, mental health is often affected as well (Marks et al., 2003).

Because the bridge employment status is a categorical variable, three dummy variables were created and entered in Step 2 of the hierarchical regression models. Specifically, one dummy variable was constructed with dichotomous coding of "1" referring to working in career bridge employment and "0" referring to not working in career bridge employment. The second dummy variable was constructed with dichotomous coding of "1" referring to working in a noncareer bridge employment and "0" referring to not working in a noncareer bridge employment. The third dummy variable was constructed with dichotomous coding of "1" referring to continuing working without official retirement and "0" referring to fully or partially retired. When this set of dummy variables is included in the regression model, the regression coefficient of the first dummy variable indicates the impact of career bridge employment on the health outcome comparing to full retirement. The regression coefficient of the second dummy variable indicates the impact of noncareer bridge employment on the health outcome comparing to full retirement. The regression coefficient of the third dummy variable indicates the impact of continuing working without official retirement on the health outcome comparing to full retirement.

Results

Means, standard deviations, and correlations among the current variables are presented in Table 1, whereas Table 2 presents the regression results for testing Hypothesis 1 (i.e., the predictive effects of bridge employment status on major diseases). As a set of predictors, the three dummy-coded variables explained an additional 1%, $\Delta F = 12.15$, $p < .01$; of variance in the major diseases, above and beyond the predictive effects of the control variables. Both career bridge employment ($B = -.16$, $p < .01$) and bridge employment in a different field ($B = -.26$, $p < .01$) were negatively related to major diseases compared to full retirement. This indicates that retirees continuing to work in a bridge job experienced fewer major diseases than those who fully retired. The beneficial effects are significant regardless of whether they work in their career field or not. As such, Hypothesis 1 was supported. In addition, continuing working was also negatively related to major diseases compared to full retirement ($B = -.17$, $p < .01$), such that complete retirees reported more major diseases than their counterparts who did not retire at all.

Table 3 presents the results for testing Hypothesis 2 (i.e., the predictive effects of bridge employment status on functional limitations). Specifically, as a set of predictors, the three dummy-coded variables explained an additional 1% of the variance in the functional limitations, above and beyond the predictive effects of the control variables, $\Delta F = 32.37$, $p < .01$. Compared to full retirement, career bridge employment was shown to be negatively related to functional limitations ($B = -.23$, $p < .01$), as was bridge employment in a different field ($B = -.24$, $p < .01$). These results indicate that the retirees engaging in bridge employment, either career bridge employment or bridge employment in a different field, experienced fewer functional limitations than the retirees who retired fully. Therefore, Hypothesis 2 was also supported. In addition, continuing working was also shown to be negatively related to functional limitations compared to full retirement ($B = -.22$, $p < .01$), such that complete retirees experienced more functional limitations than their counterparts who did not retire at all.

Table 4 presents the predictive effects of bridge employment status on mental health (i.e., Hypothesis 3). Specifically, as a set of predictors, the three dummy-coded variables explained an additional 1% of the variance in the retirees' mental health, above and beyond the predictive effects of the control variables, $\Delta F = 6.89$, $p < .01$. Further, the predictive effects of bridge employment dummy variables for mental health partially supported Hypothesis 3. Compared to full retirement, career bridge employment was positively related to mental health ($B = .48$, $p < .01$). However, compared to full retirement, bridge employment in a different field was not significantly related to mental health. These results indicate that the retirees engaging in bridge employment in the same career field had better mental health than retirees who fully retired, but this beneficial effect on mental health was not found for retirees who engaged in bridge employment in a different field. Regarding the category of continuing working, it was shown to be positively related to mental health compared to full retirement ($B = .31$, $p < .01$), such that retirees reported worse mental health than their counterparts who did not retire at all but still worked on their career trajectory.

Although we did not form hypotheses regarding the effect of continuing working without retirement compared to other employment statuses, we found that the beneficial effect of continuing working was very similar to engaging in bridge employment. To explore whether taking bridge employment shared the same mechanism as continuing working, we conducted post hoc regression analyses by setting

Table 1
Means, Standard Deviations, and Correlations

Variable	*M*	*SD*	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Age	54.53	5.14	—															
2. Gender[a]	1.57	0.50	−.26**	—														
3. Years of education	12.61	2.94	−.07**	−.00	—													
4. Total wealth	2.45	4.96	.08**	−.05**	.18**	—												
5. Working hours per week	36.61	16.79	−.18**	−.17**	.09**	−.09**	—											
6. Status change from retired to working	0.04	0.19	.01	.00	−.02*	.01	−.24**	—										
7. Status change from working to retired	0.13	0.33	.13**	.01	−.05**	−.02*	.03**	−.08**	—									
8. Career bridge employment versus other types	0.03	0.18	.13**	−.04**	.01	.09**	−.10**	−.04**	.06**	—								
9. Bridge employment in a different career versus other types	0.01	0.12	.08**	−.05**	.02*	.02**	−.07**	−.02*	.04**	−.02*	—							
10. Continuing working versus other types	0.86	0.35	−.30**	.07**	.04**	−.17**	.67**	−.14**	.05**	−.46**	−.30**	—						
11. Major diseases (baseline)	0.91	0.98	.16**	.04**	−.09**	−.05**	−.12**	−.01	.07**	.03**	.01	−.11**	—					
12. Major diseases (outcome)	1.24	1.14	.16**	.02	−.10**	−.06**	−.13**	−.01	.09**	.03**	.00	−.12**	.85**	—				
13. Functional limitation (baseline)	0.02	0.20	.01	.02	−.04**	−.01	−.07**	.01	.02	.01	.00	−.05**	.12**	.11**	—			
14. Functional limitation (outcome)	0.11	0.48	.02*	.02*	−.12**	−.03**	−.09**	−.02	.12**	−.01	−.01	−.07**	.20**	.24**	.18**	—		
15. Mental health (baseline)	7.22	1.45	.01	−.08**	.16**	.07**	.07**	−.02*	−.03**	−.00	.01	−.04**	−.17**	−.18**	−.13**	−.16**	—	
16. Mental health (outcome)	6.82	1.80	.02†	−.10**	.20**	.08**	.06**	.00	−.08**	.03**	.01	−.02*	−.18**	−.23**	−.08**	−.26**	.36**	—

Note. *N*s range from 11,055 to 12,189. Correlations are based on pairwise deletion. For total wealth, the unit is 100,000 dollars.
[a] Male = 1, female = 2.
† $p < .10$. * $p < .05$. ** $p < .01$.

Table 2
Multiple Regression Results for Predicting Major Diseases

Variable	Step 1			Step 2		
	B	*SE*	β	*B*	*SE*	β
Full retirement as the reference category						
Intercept	0.43**	0.08		0.54**	0.09	
Age	0.01**	0.00	0.02	0.01*	0.00	0.01
Gender	−0.05*	0.01	−0.02	−0.04*	0.01	−0.02
Education	−0.01**	0.00	−0.02	−0.01**	0.00	−0.02
Total wealth	−0.01**	0.00	−0.01	0.01**	0.00	−0.02
Working hours per week	−0.01**	0.00	−0.03	0.00	0.00	−0.01
Status change from retired to working versus other types	−0.06	0.05	−0.01	−0.14**	0.05	−0.02
Status change from working to retired versus other types	0.13**	0.02	0.04	0.14**	0.02	0.04
Baseline major diseases	0.98**	0.01	0.84	0.98**	0.01	0.83
Career bridge employment versus other types				−0.16**	0.04	−0.03
Bridge employment in a different field versus other types				−0.26**	0.05	−0.03
Continuing working versus other types				−0.17**	0.03	−0.05
R^2		0.72			0.73	
F		3,412.73**			2,493.15**	
ΔR^2		0.72			0.01	
ΔF		3,412.73**			12.15**	
Continuing working as the reference category						
Intercept	0.43**	0.08		0.37**	0.09	
Age	0.01**	0.00	0.02	0.01*	0.00	0.01
Gender	−0.05**	0.01	−0.02	−0.04**	0.01	−0.02
Education	−0.01**	0.00	−0.02	−0.01**	0.00	−0.02
Total wealth	−0.01**	0.00	−0.01	0.01**	0.00	−0.02
Working hours per week	−0.01**	0.00	−0.03	0.00	0.00	−0.01
Status change from retired to working versus other types	−0.06	0.05	−0.01	−0.14**	0.05	−0.02
Status change from working to retired versus other types	0.13**	0.02	0.04	0.14**	0.02	0.04
Baseline major diseases	0.98**	0.01	0.84	0.98**	0.01	0.84
Career bridge employment versus other types				0.01	0.03	0.00
Bridge employment in a different field versus other types				−0.09†	0.05	−0.01
Full retirement versus other types				0.17**	0.03	0.04
R^2		0.72			0.73	
F		3,412.73**			2,493.15**	
ΔR^2		0.72			0.01	
ΔF		3,412.73**			12.15**	

Note. $N = 11{,}298$. Two-tailed directional tests were used to test coefficients.
† $p < .10$. * $p < .05$. ** $p < .01$.

continuing working as the reference category when creating the dummy variables. The results of the post hoc tests were reported in the second halves of Tables 2 to 4. Specifically, when continuing working was set as the reference category, neither type of bridge employment was significant in predicting the health outcomes of major diseases and functional limitations. However, in predicting mental health outcome, bridge employment in a different field was not significant compared to continuing working, but career bridge employment was shown to be positively related to mental health compared to continuing working ($B = .17$, $p < .05$). This indicated that the retirees engaging in career bridge employment experienced better mental health than the participants who continued working without retirement.

Table 3
Multiple Regression Results for Predicting Functional Limitations

Variable	Step 1			Step 2		
	B	*SE*	β	*B*	*SE*	β
Full retirement as the reference category						
Intercept	0.46**	0.06		0.61**	0.07	
Age	−0.01†	0.00	−0.02	−0.01**	0.00	−0.03
Gender	−0.01	0.01	−0.01	0.01	0.01	0.01
Education	−0.02**	0.00	−0.10	−0.02**	0.00	−0.10
Total wealth	−0.00	0.00	−0.01	−0.01†	0.00	−0.02
Working hours per week	−0.01**	0.00	−0.08	0.00	0.00	0.01
Status change from retired to working versus other types	−0.08*	0.04	−0.02	−0.19**	0.04	−0.05
Status change from working to retired versus other types	0.17**	0.01	0.13	0.19**	0.01	0.14
Baseline functional limitations	0.35**	0.03	0.13	0.34**	0.03	0.13
Career bridge employment versus other types				−0.23**	0.03	−0.09
Bridge employment in a different field versus other types				−0.24**	0.04	−0.06
Continuing working versus other types				−0.22**	0.02	−0.17
R^2		0.05			0.06	
F		75.72**			64.39**	
ΔR^2		0.05			0.01	
ΔF		75.72**			32.37**	
Continuing working as the reference category						
Intercept	0.46**	0.06		0.39**	0.06	
Age	−0.01†	0.00	−0.02	−0.01**	0.00	−0.03
Gender	−0.01	0.01	−0.01	0.01	0.01	0.01
Education	−0.02**	0.00	−0.10	−0.02**	0.00	−0.10
Total wealth	−0.00	0.00	−0.01	−0.01†	0.00	−0.02
Working hours per week	−0.01**	0.00	−0.08	0.00	0.00	0.01
Status change from retired to working versus other types	−0.08*	0.04	−0.02	−0.19**	0.04	−0.05
Status change from working to retired versus other types	0.17**	0.01	0.13	0.19**	0.01	0.14
Baseline functional limitations	0.35**	0.03	0.13	0.34**	0.03	0.13
Career bridge employment versus other types				−0.01	0.03	−0.01
Bridge employment in a different field versus other types				−0.02	0.04	−0.01
Full retirement versus other types				0.22**	0.02	0.14
R^2		0.05			0.06	
F		75.72**			64.39**	
ΔR^2		0.05			0.01	
ΔF		75.72**			32.37**	

Note. $N = 11{,}298$. Two-tailed directional tests were used to test coefficients.
† $p < .10$. * $p < .05$. ** $p < .01$.

Discussion

The current study was conducted to explore whether engaging in bridge employment impacts people's health after retirement. Specifically, the current study specified two types of bridge employment status and compared their effects on retirees' health with full retirement. Methodologically, a longitudinal research design was adopted to test these effects. According to the current results, retirees who engaged in either form of bridge employment, compared to retirees who chose full retirement, reported fewer major diseases and fewer functional limitations, whereas only those engaging in bridge jobs in their career field reported better mental health. It should be noted that

Table 4
Multiple Regression Results for Predicting Mental Health

Variable	Step 1			Step 2		
	B	*SE*	β	*B*	*SE*	β
Full retirement as the reference category						
Intercept	2.68**	0.25		2.48**	0.25	
Age	0.01**	0.00	0.04	0.02**	0.00	0.04
Gender	−0.17**	0.04	−0.05	−0.18**	0.04	−0.05
Education	0.08**	0.01	0.13	0.08**	0.01	0.13
Total wealth	0.01*	0.00	0.02	0.01*	0.00	0.02
Working hours per week	0.01	0.00	0.01	−0.00	0.00	−0.02
Status change from retired to working versus other types	0.12	0.14	0.01	0.29*	0.15	0.02
Status change from working to retired versus other types	−0.37**	0.05	−0.07	−0.40**	0.05	−0.08
Baseline major diseases	−0.21**	0.02	−0.11	−0.21**	0.02	−0.11
Baseline functional limitations	−0.09	0.09	−0.01	−0.08	0.09	−0.01
Baseline mental health	0.39**	0.01	0.32	0.39**	0.01	0.32
Career bridge employment versus other types				0.48**	0.11	0.05
Bridge employment in a different field versus other types				0.24	0.15	0.02
Continuing working versus other types				0.31**	0.09	0.06
R^2		0.17			0.18	
F		221.65**			172.38**	
ΔR^2		0.17			0.01	
ΔF		221.65**			6.89**	
Continuing working as the reference category						
Intercept	2.68**	0.25		2.80**	0.25	
Age	0.01**	0.00	0.04	0.02**	0.00	0.04
Gender	−0.17**	0.04	−0.05	−0.18**	0.04	−0.05
Education	0.08**	0.01	0.13	0.08**	0.01	0.13
Total wealth	0.01*	0.00	0.02	0.01*	0.00	0.02
Working hours per week	0.01	0.00	0.01	−0.00	0.00	−0.02
Status change from retired to working versus other types	0.12	0.14	0.01	0.29*	0.15	0.02
Status change from working to retired versus other types	−0.37**	0.05	−0.07	−0.40**	0.05	−0.08
Baseline major diseases	−0.21**	0.02	−0.11	−0.21**	0.02	−0.11
Baseline functional limitations	−0.09	0.09	−0.01	−0.08	0.09	−0.01
Baseline mental health	0.39**	0.01	0.32	0.39**	0.01	0.32
Career bridge employment versus other types				0.17**	0.09	0.02
Bridge employment in a different field versus other types				−0.08	0.14	−0.01
Full retirement versus other types				−0.31**	0.09	−0.05
R^2		0.17			0.18	
F		221.65**			172.38**	
ΔR^2		0.17			0.01	
ΔF		221.65**			6.89**	

Note. $N = 11{,}049$. Two-tailed directional tests were used to test coefficients.
* $p < .05$. ** $p < .01$.

these significant predictive effects were achieved after controlling for individuals' baseline health status (i.e., health conditions before retirement), indicating that employment status was influential in one's health change. Also notice that these effects were achieved after controlling for individual's working hours; and the predictive effect of working hours per week disappeared after employment status variables were entered into regression models. Therefore, considering employment types

in predicting health might be more important than simply considering working hours. Measuring employment types may capture more information about the nature of the job than just measuring the number of hours people worked.

The current results supported our hypotheses that engaging in bridge employment would help to protect retirees from major diseases and the decline of daily functions. Consistent with continuity theory, this may be due to the fact that when the retirees engage in bridge employment, they are likely to keep their levels of physical activities and mental activities through daily work. In addition, working after retirement increases retirees' role embeddedness, which has been shown to benefit health maintenance (e.g., Snowden, 2004). On the other hand, if retirees fully retire after their career jobs, it may be difficult for them to achieve continuity in their lifestyles. Full retirement might lead to significantly less social contact and fewer daily activities for many retirees (Kim & Feldman, 2000). In turn, they may be less able to resist the major diseases and the decline in daily functions accompanied with aging.

Not surprisingly, most variance in the outcome measure of major diseases (68%) was accounted for by the corresponding baseline health status (i.e., major diseases before retirement). That is why the increased R^2 accounted for by the set of two bridge employment dummy variables was rather small. This is consistent with the notion that genetic and allostatic factors (i.e., the accumulated cost for our body to adapt to the changing social and physical environments in which we live) are the dominant predictors for major diseases (McEwen, 2001).

Our hypothesis regarding predicting mental health was partially supported. On the one hand, career bridge employment was found to be positively related to mental health. This is consistent with role theory in that career bridge employment provides the most similar role identity to the retiree's previous role at work. Therefore, retirees who engage in bridge employment in the same career field might be least influenced by role transition or role loss, in turn, leading to better mental health than those who directly take full retirement. This finding can also be explained by continuity theory. Engaging in career bridge employment can be viewed as a strategy to preserve and maintain existing internal and external structures to avoid the experience of stressful disruption. Via career bridge employment, retirees would maintain prior lifestyles and ease their transitions to full retirement, so as to lead to better mental health than those who directly take full retirement (Jex et al., 2007). It should be noted that the significant effect of career bridge employment was captured after controlling for both baseline mental health and baseline physical health. Prior studies have reported the covariation of physical and mental health such that occurrence of physical diseases might induce the decline of psychological health (Marks et al., 2003), which was also supported by the current finding.

On the other hand, inconsistent with our hypothesis, bridge employment in a different field did not show a beneficial effect to retirees' mental health. This may be due to the fact that retirees, who engage in bridge employment in a different field, need to face the stress coming from role change and adapting to the new work environment. Specifically, they may have to adjust to a new role identity and the continuity of their lifestyles might be disrupted. In terms of its impact on mental well-being, this may not differ that much from what retirees who choose to fully retire have to experience: work-role exit, disruption of lifestyle, and a loss of social support from their work environment. Therefore, it is conceivable that retirees who engaged in bridge employment in a different field did not differ from their fully retired counterparts in terms of mental health.

Another explanation might be that the motivations and opportunities for participating in different types of bridge employment may differ substantially. According to Wang et al. (2008), one of the antecedents that differentiate the retirees taking career bridge employment versus taking bridge employment in a different field is total wealth. Specifically, retirees with financial constrains are more likely to work in a different field after they officially retire. Their bridge employment decisions might be driven by financial reason, which makes them have to, rather than want to, change to a different working field. It is also likely that changing to a different working field is the only option for them to get a job offer. In such situations, it is difficult for retirees to enjoy the benefit of taking bridge employment (i.e., keeping their work role or maintaining continuity of life pattern). Consequently, we would not expect positive mental health outcomes to result.

Regarding the effect of continuing working, although we did not explicitly form any hypotheses, the results showed that continuing work led to better health outcomes compared to full retirement. By conducting the post hoc analyses, we compared the effects of engaging in bridge employment and continuing work to explore whether the mechanism of the beneficial effects of bridge employment were the same with continuing working without retirement at

all. According to the results, in terms of physical health and functional limitations, engaging in bridge employment did not show different effects as compared to continuing work without official retirement. This may be due to the fact that bridge employment and continuing work without retirement both involve a certain level of physical and/or cognitive activities that may help to maintain older workers' health (Jex et al., 2007). However, in terms of mental health, engaging in career bridge employment was demonstrated to have a more beneficial effect than continuing work without retirement. As such, taking a bridge job in one's career field actually led to better mental health than both full retirement and continuing working.

On the one hand, compared to full retirement, career bridge employment may help protect retirees from work-role loss and disruption of life pattern, and involve more social contact and social support, leading to higher psychological well-being. On the other hand, compared to continuing work without retirement, career bridge employment may be considered as a voluntary personal choice involving less responsibility and less work-related stress, also leading to higher psychological well-being (Shultz, 2003). In sum, the mechanisms of beneficial effects of engaging in bridge employment is similar to the effects of continuing work without retirement, but career bridge employment may lead to even better mental health because of the reduced responsibility and work stress involved in this type of bridge employment.

Theoretical and Practical Implications

The current findings have important theoretical and practical implications. Theoretically, the current study is the first one to examine different retirees' health outcomes with regard to engaging in various bridge employment statuses. The beneficial effects from engaging in bridge employment were demonstrated in terms of retirees' major diseases, daily functions, and mental health. These results are largely consistent with previous literature that full retirees reported more psychological symptoms than did older workers (e.g., Bosse et al., 1987; Bosse, Workman-Daniels, Aldwin, Levenson, & Ekerdt, 1990). Also, the current results are consistent with findings from the job loss and reemployment literature (e.g., Price, Chio, & Vinokur, 2002; Vinokur et al., 2000). From the perspectives of continuity theory and role theory, bridge employment participation can be viewed as similar to job reemployment in that people cease their unemployment status and reenter their work role in both situations, which have positive impact on their health.

The effects of bridge employment participation found in the current study do not deny the possible bidirectional nature of the causality between bridge employment status and health conditions. Specifically, it is conceivable that health conditions are not only influenced by bridge employment participation, but also affect bridge employment decision. Previous studies have indeed shown that health is a key concern when retirees make their bridge employment decision (Wang et al., 2008) and retirement decision (Shultz & Wang, 2007). As the current study only aimed at examining the health benefits of bridge employment participation, we addressed the bidirectional possibility by applying a lagged research design in which the bridge employment status was measured with information from the first and second waves' of data of each sample, whereas the health outcomes were measured in the third wave. In addition, when conducting regression analyses, we included the baseline health conditions as control variables. Therefore, bridge employment participation can be viewed as an intervention to prevent the decline of health for retirees.

From a practical perspective, the current findings showed us a way to maintain the health status of older people. For retirees and prospective retirees, the current study suggests that carefully considering whether to engage in bridge employment and if so, what types of bridge employment, is quite important. Specifically, choosing a suitable type of bridge employment as a transition strategy is likely to lead to beneficial effects on retirees' physical and mental health conditions. This may further decrease health care costs in the long run even after retirees completely transitions into full retirement.

For both governmental and corporate policymakers, the current study also suggests that one way to encourage bridge employment to address the projected growing labor shortages due to the pending retirement of the baby boomers (AARP, 2005) may be to promote the beneficial effects of bridge employment on health outcomes. By educating retirees and prospective retirees with the beneficial effects of bridge employment on maintaining daily functional levels and mental health, it may make it easier to create an encouraging and active societal atmosphere to facilitate bridge employment.

Limitations and Future Research

Although we tried to cover a broad range of health outcomes in the current study, the single measure used for each kind of health outcome might oversimplify the complexity of reality. Previous studies have found that health consequences varied according to the health measures adopted (e.g., van Solinge, 2007). Occurrence of health problems, severity of health problems, and perceived health may lead to differing results. However, given the archival nature of the HRS data, multiple measures of each health dimension were not available. As a result, the current sampling of the health variables was certainly not exhaustive.

Second, the underlying mechanism of the beneficial effects of engaging in bridge employment is not directly addressed in the current study. According to continuity theory, it might be the continuance of life patterns itself that helps to maintain retirees' health status. It is also likely that engaging in some forms of bridge employment benefits health through keeping social ties and social support of older individuals and facilitating retirement satisfaction (Fiori et al., 2006). Unfortunately, explanations involved with these mediators cannot be tested in the current study because we could not find corresponding measures in the HRS dataset. However, future research should test the mediating effect of social ties, social support, and retirement satisfaction in linking bridge employment participation to health.

Third, the influence of bridge employment on health may vary according to different motives for engaging in bridge employment. For example, some retirees may work voluntarily after retiring from their career jobs because they are interested in working with colleagues or contributing their knowledge and skills to their bridge jobs. In this situation, the health conditions of retirees are likely to be improved. However, some other retirees may take bridge employment because of financial pressures. In this situation, bridge employment participation may not necessarily facilitate retirees' health, particularly their mental health. Because an appropriate measure of voluntary/involuntary nature of bridge employment is not available in HRS, we were not able to test this boundary condition. However, future research should explore this issue by taking into account for the different reasons for retirees to participate in bridge employment.

Finally, the archival data we used were collected more than 10 years ago (the fourth wave of HRS was collected in 1998), which casts the question regarding whether the present findings may still generalize to the current population. Therefore, future research should try to replicate our findings in the current workforce. However, we believe that present findings are still generalizable to a large extent because past health-related research in older adults and retirees typically have not found any meaningful period and/or cohort effects on participants' mental and physical health (e.g., Cavanaugh & Blanchard-Fields, 2002; French, 2005). Therefore, the general level of health variables are unlikely to have changed compared to 10 years ago.

In sum, based on findings from the present longitudinal data, the current study supports the conclusion that bridge employment participation positively influences various categories of retirees' health. Future research should extend the present finding by exploring the mechanism underlying the linkage between bridge employment and health outcomes, and explore the dynamic influence of taking bridge employment on the retirement processes.

References

AARP. (2005). *The business case of workers age 50+: Planning for tomorrow's talent needs for today's competitive environment.* Washington, DC: Author.

Adams, G. A., & Beehr, T. A. (1998). Turnover and retirement: A comparison of their similarities and differences. *Personnel Psychology, 51,* 643–665.

Adams, G. A., Prescher, J., Beehr, T. A., & Lepisto, L. (2002). Applying work-role attachment theory to retirement decision-making. *International Journal of Aging and Human Development, 54,* 125–137.

Ashforth, B. (2001). *Role transitions in organizational life: An identity-based perspective.* Mahwah, NJ: Erlbaum.

Atchley, R. C. (1989). A continuity theory of normal aging. *Gerontologist, 29,* 183–190.

Bosse, R., Aldwin, C. M., Levenson, M. R., & Ekerdt, D. J. (1987). Mental health differences among retirees and workers: Findings from the normative aging study. *Psychology and Aging, 2,* 383–389.

Bosse, R., Workman-Daniels, K., Aldwin, C. M., Levenson, M. R., & Ekerdt, D. J. (1990). Differences in social support among retirees and workers: Findings from the Normative Aging Study. *Psychology and Aging, 5,* 41–47.

Bureau of the Census. (1990). *1990 census of population occupational classification system.* Washington, DC: U.S. Department of Commerce.

Bush, D. M., & Simmons, R. G. (1990). Socialization processes over the life course. In M. Rosenberg & R. H. Turner (Eds.), *Social psychology: Sociological perspectives* (pp. 133–164). New Brunswick, NJ: Transaction.

Butterworth, P., Gill, S. C., Rodgers, B., Anstey, K. J., Villamil, E., & Melzer, D. (2006). Retirement and mental health: Analysis of the Australian national survey of mental health and well-being. *Social Science and Medicine, 62,* 1179–1191.

Cahill, K. E., Giandrea, M. D., & Quinn, J. F. (2006). Retirement patterns from career employment. *The Gerontologist, 46,* 514–523.

Caplan, R. D., Vinokur, A. D., Price, R. H., & van Ryn, M. (1989). Job seeking, reemployment, and mental health: A randomized field experiment in coping with job loss. *Journal of Applied Psychology, 74,* 759–769.

Carter, M. A. T., & Cook, K. (1995). Adaptation to retirement: Role changes and psychological resources. *The Career Development Quarterly, 44,* 67–82.

Cavanaugh, J. C., & Blanchard-Fields, F. (2002). *Adult development and aging.* Belmont, CA: Wadsworth.

Crimmins, E., & Saito, Y. (2000). Change in the prevalence of diseases among older Americans: 1984–1994. *Demographic Research, 3,* 1–20.

Drentea, P. (2007). Retirement and mental health. *Journal of Aging and Health, 14,* 167–194.

Feldman, D. C. (1994). The decision to retire early: A review and conceptualization. *Academy of Management Review, 19,* 285–311.

Fiori, K. L., Antonucci, T. C., & Cortina, K. S. (2006). Social network typologies and mental health among older adults. *Journal of Gerontology: Psychological Sciences, 61*B, 25–32.

French, E. (2005). The effects of health, wealth, and wages on labour supply and retirement behaviour. *Review of Economic Studies, 72,* 395–427.

Gordus, J. P. (1986). Coping with involuntary job loss and building a new career: Workers' problems and career professionals' challenges. *Journal of Career Development, 12,* 316–326.

Harlow, R. E., & Cantor, N. (1996). Still participating after all these year: A study of life task participation in later life. *Journal of Personality and Social Psychology, 71,* 1235–1249.

Jex, S. M., Wang, M., & Zarubin, A. (2007). Aging and occupational health. In K. S. Shultz & G. A. Adams (Eds.), *Aging and work in the 21st century* (pp. 199–223). Mahwah, NJ: Erlbaum.

Juster, F. T., Smith, J. P., & Stafford, F. (1999). The measurement and structure of household wealth. *Labour Economics, 6,* 253–275.

Juster, F. T., & Suzman, R. (1995). The health and retirement study: An overview. *Journal of Human Resources, 30*(Suppl.), 7–56.

Keller, K. B., & Lemberg, L. (2002). Retirement is no excuse for physical inactivity or isolation. *American Journal of Critical Care, 11,* 270–272.

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.

Litwin, H., & Shiovitz-Ezra, S. (2006). The association between activity and well-being in later life: What really matters? *Ageing and Society, 26,* 225–242.

Marks, D. F., Sykes, C. M., & McKiniley, J. M. (2003). Health psychology: Overview and professional issues. In I. B. Weiner (Ed.), *Handbook of psychology (Vol. 9): Health psychology* (pp. 5–23). Hoboken, NJ: John Wiley & Sons.

McEwen, B. S. (2001). From molecules to mind: Stress, individual differences, and the social environment. *Annals of the New York Academy of Sciences, 935,* 42–49.

Mein, G., Martikainen, P., Hemingway, H., Stansfeld, S., & Marmot, M. (2003). Is retirement good or bad for mental and physical health functioning? Whitehall 2 longitudinal study of civil servants. *Journal of Epidemiology and Community Health, 57,* 46–49.

Muir, J. (1998). Personality and psychological environment. In M. Lawrence, A. Neil, D. Mant, & G. Fowler (Eds.), *Prevention of cardiovascular disease.* Oxford, England: Oxford University Press.

Ness, J., Cirillo, D. J., Weir, D. R., Nisly, N. L., & Wallace, R. B. (2005). Use of complementary medicine in older Americans: Results from the Health and Retirement Study. *The Gerontologist, 45,* 516–524.

Price, R. H., Chio, J. N., & Vinokur, A. D. (2002). Links in the chain of adversity following job loss: How financial strain and loss of personal control lead to depression, impaired functioning, and poor health. *Journal of Occupational Health Psychology, 7,* 302–312.

Pushkar, D., Arbuckle, T., Conway, M., Chaikelson, J., & Maag, U. (1997). Everyday activity parameters and competence in older adults. *Psychology and Aging, 12,* 600–609.

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.

Radloff, L. (1977). The CES–D scale: A self-report depression scale for research in the general population. *Applied Psychological Measurement, 1,* 385–401.

Richardson, V., & Kilty, K. (1991). Adjustment to retirement: Continuity versus discontinuity. *International Journal of Aging and Human Development, 32,* 151–169.

Shultz, K. S. (2003). Bridge employment: Work after retirement. In G. A. Adams & T. A. Beehr (Eds.), *Retirement: Reasons, processes, and results.* (pp. 215–241). New York: Springer.

Shultz, K. S., Morton, K. R., & Weckerle, J. R. (1998). The influence of push and pull factors on voluntary and involuntary early retirees' retirement decision and adjustment. *Journal of Vocational Behavior, 53,* 45–57.

Shultz, K. S., & Wang, M. (2007). The influence of specific physical health conditions on retirement decisions. *The International Journal of Aging and Human Development, 65,* 149–161.

Siegler, I. C., Bosworth, H. B., & Elias, M. F. (2003). Adult development and aging. In I. B. Weiner (Ed.), *Handbook of psychology (Vol. 9): Health psychology.* (pp. 487–512). Hoboken, NJ: John Wiley & Sons.

Singh, S. (2006). Perceived health among women retirees. *Psychological Studies, 51,* 166–170.

Snowden, L. R. (2004). Social embeddedness and psychological well-being among African Americans and Whites. *American Journal of Community Psychology, 29,* 519–536.

St. Clair, P., Bugliari, D., Chien, S., Haider, S., Hayden, O., Hurd, M., et al. (2004, April). *RAND HRS data documentation Version D.* Santa Monica, CA: RAND Center for the Study of Aging.

Troll, L. E., & Skaff, M. M. (1997). Perceived continuity of self in very old age. *Psychology and Aging, 12,* 162–169.

van Solinge, H. (2007). Health change in retirement: A longitudinal study among older workers in the Netherlands. *Research on Aging, 29,* 225–256.

Vinokur, A. D., Schul, Y., Vuori, J., & Price, R. H. (2000). Two years after a job loss: Long-term impact of the jobs program on reemployment and mental health. *Journal of Occupational Health Psychology, 5,* 32–47.

Wallace, R. B., & Herzog, A. R. (1995). Overview of the health measures in the Health and Retirement Study. *The Journal of Human Resources, 30,* 84–107.

Wang, M. (2007). Profiling retirees in the retirement transition and adjustment process: Examining the longitudinal change patterns of retirees' psychological well-being. *Journal of Applied Psychology, 92,* 455–474.

Wang, M., Zhan, Y., Liu, S., & Shultz, K. S. (2008). Antecedents of bridge employment: A longitudinal investigation. *Journal of Applied Psychology, 93,* 818–830.

Weckerle, J. R., & Shultz, K. S. (1999). Influences on the bridge employment decision among older U.S.A. workers. *Journal of Occupational and Organizational Psychology, 72,* 317–330.

Received March 26, 2008
Revision received December 29, 2008
Accepted December 30, 2008 ■