

Predicting Employees' Retirement Intentions in New Zealand: The Contribution of Personal, Job-Related and Non-Work Factors

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Given the trend of global aging, understanding why people decide to retire is a key issue in the 21st century for organizations, individual well-being and New Zealand society. This study examined a theoretical model of the retirement process that included personal, work, non-work and retirement context factors as predictors of anticipated retirement age. The research on which this model was based is chiefly North American; the present study provided an opportunity to test the generalizability of this research to the New Zealand context. A sample of 230 New Zealand workers aged 50 years old or over was surveyed. Results supported the major propositions of the study, suggesting that work, non-work and retirement context factors explained retirement intentions above and beyond personal factors. Some differences between the present New Zealand findings and those from previous North American research are discussed, along with practical implications of our findings.

Recent global projections indicate that the proportion of people in the 65 plus age bracket will grow rapidly in the future due to demographic trends such as the aging of "baby boomer generation" and "global aging" (OECD, 1988; Watson-Wyatt/CSIS, 2001). The 1996 dependency ratio of elderly people (aged 65 and above) to working age population was 18 to 100; this is projected to reach 43 to 100 in the year 2051 (Statistics New Zealand, 1996). Without policy change, expenditure on New Zealand Superannuation (NZS) alone is expected to increase from the current 4.8% of the Gross Domestic Product (GDP) to 11% in 2051 (Treasury, 2001). This not only places a great burden on the New Zealand Government and thus society but also puts a strain on organisations, which will develop a skill and experience deficit (Beehr, Glazer, Nielson, & Farmer, 2000; Dorfman, 2000). That is, if large groups of workers retire, there may not be enough of the younger generation, skilled and experienced

enough to replace them – effectively creating a void in the workplace (Beehr et al., 2000). Additionally older workers can provide unique contributions to an organisation such as supporting younger workers, transmitting culture and values, providing institutional memory, and acting as mentors and socialisers (Dorfman, 2000). Knowledge on what guides the decision to retire can also be of benefit to the individual. Aspects of the work environment and pre-retirement programs can be moulded to match the important factors in individuals' decision to retire. Overall, if we can predict the factors that influence people in their decision to retire then individuals, organisations or society can make changes to encourage or enable older workers to stay working longer, benefiting organisations, society and the individual themselves. In the present study, we adopted Feldman's (1994) definition of retirement as "... the exit from an organizational position or career path of considerable duration,

taken by individuals after middle age, and taken with the intention of reduced psychological commitment to work thereafter" (p. 287).

In the mid 1980's organisational psychologists moved into the retirement research sphere, which previously had been dominated by sociologists. Sociological research had focused primarily on the personal factors relating to retirement. Beehr (1986), an organizational psychologist, developed a comprehensive model of the retirement decision-making process. Within Beehr's model there are two elements that drive the decision to retire, personal factors and environmental forces. Personal factors include factors such as financial status and health. Environmental forces are split into two categories, work factors (e.g. attainment of occupational goals) and non-work factors (e.g. leisure pursuits). Beehr (1986) proposed that each of these factors acted as either a push on the worker to leave the workforce or a pull to keep the worker in the workforce. For example, a worker having poor health could act as a push function (to leave the workforce) and having not yet achieved their occupational goals could act as a pull function (to keep the worker in the workforce). These factors guide an individual's thinking about retirement, which leads to the anticipation or intention to retire at a certain age. This intention in due course results to the act of retirement (discussed above). Hence ultimately the act of retirement is based upon different pull and push factors within an individual's life.

A more recent line of theorizing has approached retirement from a somewhat broader perspective. For example, Robertson (2000) argued for the need to place the individual retirement decision within the social, economic and political context to gain a more comprehensive understanding of the retirement process will be gained. Previous research had tended to examine factors in isolation, looking only at a couple of aspects of retirement intent at a time (Feldman, 1994; Henkens & Tazelaar, 1997). Thus knowledge of how the antecedents of retirement intent relate to each other was limited and the research findings did not reflect the complex nature of the retirement decision.

The present study adopted the model proposed by Beehr et al. (2000), which incorporates personal, work and non-work factors. This study also included retirement context factors, which have not been tested previously. Finally, a major aim of our research was to test the generalizability of a theoretical model derived primarily from overseas research to a New Zealand sample. The model developed for this research (refer Figure 1) contains four sets of factors that are theorized to predict anticipated retirement age. Figure 1 depicts anticipated retirement

age, the ultimate criterion in the present study, as being influenced by four sets of factors which were drawn from previous research; these include personal, work, non-work and contextual factors. We will discuss each set of factors in turn

Personal Factors

Early research into retirement intentions was highly focused on personal factors. The present study included four personal factors that have been found to be consistent predictors of anticipated retirement age (e.g. Adams, 1999; Beehr, 1986; Taylor & Shore, 1995; Taylor, Goldberg, Shore & Lipka, 2008). Personal finances are the most logical and consistent predictors of anticipated retirement age (e.g. Beehr, Glazer, Nielson & Framer, 2000; Schultz, Morton & Weckerle, 1998; Werkerle & Shultz, 1999). Those who have greater satisfaction with their future financial security generally retire at earlier ages. Health is another logical and highly consistent predictor of anticipated retirement age. Generally, it appears that if a health problem is an impediment to performing one's job, the individual will intend to retire earlier than if it is not (Taylor & Shore, 1995). Gender has shown a relatively consistent

relationship with retirement decisions (Beehr, 1986; Feldman, 1994; George, Fillenbaum & Palmore, 1984; Talaga & Beehr, 1995). Generally males tend to retire earlier than females (Talaga & Beehr, 1995), probably because women often have discontinuous work histories. Age is a personal characteristic that has been found to have a strong relationship with anticipated retirement age (Adams, 1999; Reitzes, Mutran & Fernandez., 1998; Talaga & Beehr, 1995; Taylor & Shore, 1995). As people get older their anticipated retirement age increases as they become more conscious of the realities of retirement such as decreased income or giving up their career (Goudy, Powers, Keith & Reeger, 1980).

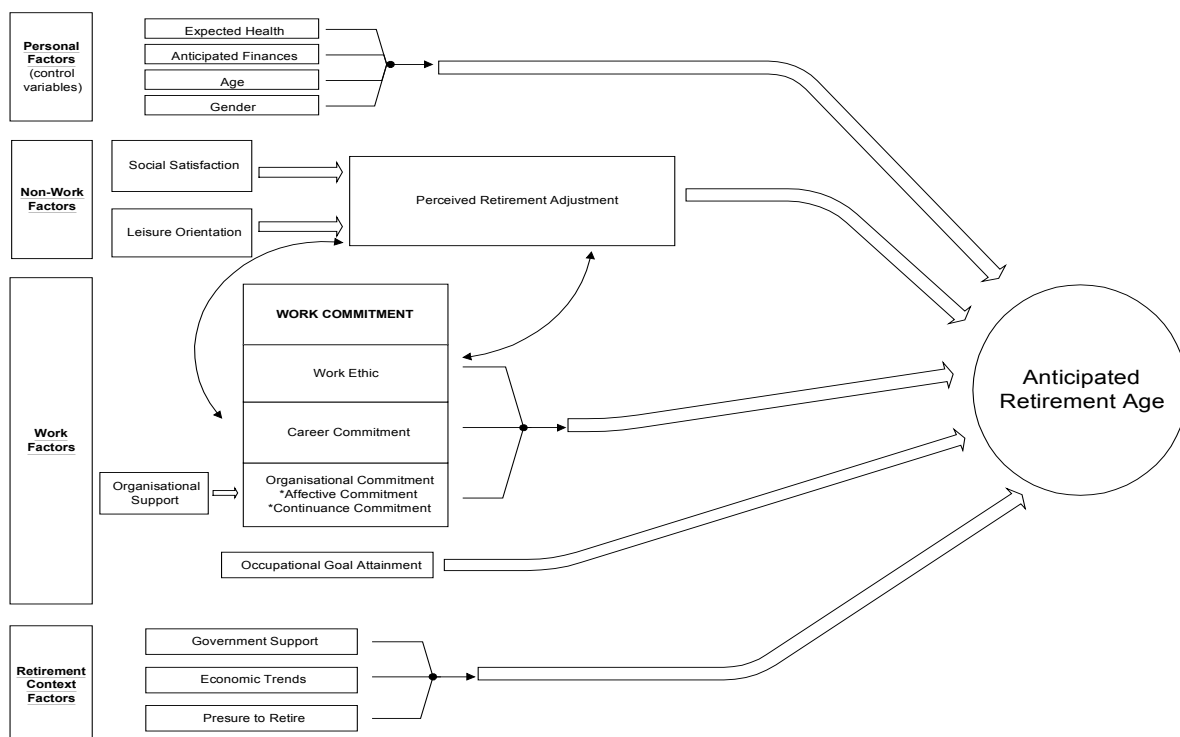
H1: Anticipated financial satisfaction will be negatively correlated with anticipated retirement age.

H2: Health expectations will be positively correlated with anticipated retirement age.

H3: Females are expected to have a later anticipated retirement age than males.

H4: Chronological age will be positively correlated with anticipated retirement age.

Figure 1. Retirement Intentions Model



Non-Work Factors

Role theory has been used to explain the influence of non-work factors on retirement intentions (Reitzes et al, 1998). As retirement commonly entails increased involvement in non-work roles, it can be surmised that the more central non-work related roles are to one's self-identity the more confident a person will be in his or her ability to adjust to retirement. Furthermore, if an individual feels that he or she will adjust to retirement easily, he or she is likely to set an earlier anticipated retirement age. Taylor and Shore (1995) found that low perceived retirement adjustment led to an avoidance of retirement. In addition, those workers who can realistically expect a positive retirement experience (i.e. fulfilled non-work life) are likely to have a positive attitude toward retirement or expect to adjust easily into retirement (Glamser, 1976). Taylor and Shore (1995) proposed that perceived ability to adjust to retirement was a global factor that was influenced by more specific variables related to a positive non-work life, such as leisure orientation. Firstly, a specific non-work variable that may influence perceived ability to adjust to retirement is leisure orientation (Beehr, 1986; Glamser, 1981; McPherson and Guppy, 1979). That is, a positive attitude toward leisure activities may be related to higher self-efficacy in their ability to adjust successfully to retirement (refer to Figure 1). Even though leisure orientation could be seen as the counterpart to work ethic, a high work ethic does not explicitly reject leisure as leisure may fulfil some worthy cause such as fitness training or "do-it-yourself" projects (Furham, 1990; Morrow, 1993).

Secondly, as with leisure orientation, social satisfaction may influence perceptions about retirement adjustment, which in turn influence anticipated retirement age (refer to Figure 1) (Beehr, 1986; Glamser, 1981). It is assumed that individuals who are greatly satisfied with their social network will feel more confident in their own ability to adjust to retirement, as they will have companionship and support (Henkens & Tazelaar, 1997).

H5: Perceived retirement adjustment will be negatively correlated with

anticipated retirement age.

H6: Perceived retirement adjustment will mediate the relationship between leisure orientation and anticipated retirement age.

H7: Perceived retirement adjustment will mediate the relationship between social satisfaction and anticipated retirement age.

Work Factors

This study included six work factors: work ethic, career commitment, affective commitment, continuance commitment, occupational goal attainment and organizational support (Figure 1). Job satisfaction was not included in this study as it has been consistently found to be of little predictive value in regard to anticipated retirement age (e.g. Adams, 1999; Beehr et al, 2000; Taylor & Shore, 1995).

Work ethic, or the role of work as a central life value, may influence anticipated retirement age. If work is an extremely salient aspect of personal identity, individuals are less likely to withdraw from it (Feldman, 1994; Furnham, 1990; George et al, 1984; Reitzes et al., 1998; Sonnenfeld, 1988; Walker & Price, 1976). A link is also predicted between work ethic and perceived retirement adjustment. Compared with individuals with a low work ethic, those possessing high level of work ethic may believe themselves as being less to adjust to retirement (Hooker & Ventis, 1984; Streib & Schneider, 1971; Taylor & Shore, 1995).

Blau (1985) described career commitment as "one's attitude toward one's vocation, including profession" (p. 259) and it includes elements of career identity (Blau, 1989). Since retirement involves a withdrawal from one's career, the more commitment the person has to their career or the more central it is to their self-identity, the less likely they will be to withdraw from it by retiring (Aryee, Chay and Chew, 1994; Blau, 1989; Erdner and Guy, 1990). Adams (1999) found career commitment to be a significant predictor of anticipated retirement age. Beehr (1986) proposed that attainment of occupational goals or failure to attain them may remove

the achievement-related reason for continuing to work. Adams (1999) found that those individuals who felt they had obtained their occupational goals had earlier anticipated retirement ages than those who felt they had not reached their goals. .

People form a bond with an employing organization based on their feelings toward it - affective commitment - and/or a perception that costs associated with leaving would be high - continuance commitment (Allen & Meyer, 1996). The stronger an individual's emotional bond to his or her organization, the more emotionally difficult it is for him or her to break that bond by leaving (Taylor and Shore, 1995). The greater the financial incentive to stay with the organization, the more likely it is that employees will put off retirement and reap the benefits of their "side bets" (Allen & Meyer, 1990). As yet, this prediction has not been tested. Research has provided evidence that perceived organizational support can result in both affective and continuance commitment to the organization (Eisenberger, Fasolo & Davis-LaMastro, 1990; Eisenberger, Huntington, Hutchinson & Sowa, 1986; Jones, Flynn & Kelloway, 1995; Settoon, Bennett & Liden, 1996). The relationship of organizational support to both kinds of organizational commitment can be explained through the social-exchange approach. In basic terms, support from the organization generates an implied obligation in the worker to recompense the supporter (the organization) and one of the ways to do this is to have a high level of organizational commitment (Eisenberger, Cotterell & Marvel, 1987; Wayne, Shore & Liden, 1997). Organizational support can affirm to the employee that they are valued and cared for by the organization, promoting the inclusion of organizational membership and role status into the employee's self-identity, and thus playing an important role in affective commitment (Eisenberger et al., 1990) (refer to Figure 1). The employee's perception of organizational support can also create a trust that the organization will fulfil its exchange obligations by noticing and rewarding employee efforts, and thus play an important role in continuance commitment (Eisenberger et al., 1990)

(refer to Figure 1).

H8: Work ethic, career commitment, continuance commitment and affective commitment will be positively correlated with anticipated retirement age.

H9: Achievement of occupational goals will be negatively associated with anticipated retirement age.

H10: Work ethic and career commitment will be negatively correlated with perceived retirement adjustment.

H11a: Affective commitment will mediate the relationship between organizational support and anticipated retirement age.

H11b: Continuance commitment will mediate the relationship between organizational support and anticipated retirement age.

Retirement Context Factors

The present study included three retirement context factors (economic trends, government support and pressure to retire), all of which were hypothesised to have direct associations with anticipated retirement age (refer to Figure 1). Financial status is heavily affected by external economic conditions over which individuals lack control (Shultz et al., 1998). Present worldwide economic trends are uncertain, which may lead to a perception of unpredictability (Stetz & Beehr, 2000), thus workers may well choose a later retirement age to gain more financial security. One recent study (Stetz & Beehr, 2000) found that high industry growth was associated with lower anticipated retirement ages. The current government support or retirement structure in New Zealand is a tax-funded universal pension (Bayliss, 1996). Even though the government provides some financial support for retirees, the popular media and the Office of the Retirement Commissioner have widely discussed the need for self-reliance in the future because of the significant cost of the retirement income to the state (Retirement Commission, 2001). Researchers state that pension wealth encourages earlier retirement (Burtless, 1986). Reitzes et al. (1998) explained this phenomenon by proposing that if a

worker is eligible for a pension, they will feel less uncertain about the financial risks of retirement and so plan to retire earlier. Beehr (1986) stated that informal pressure to retire might influence the age at which individuals intend to retire. The idea was introduced that the "meaning of age" may in fact be as useful in understanding retirement decisions as chronological age. Pressure to retire may be generated if an individual feels that others perceive them as old and ready for retirement. Today, retirement policy in New Zealand no longer pressures workers into retirement at age 65, however social expectations may still do so. A study of academics found that those individuals still working into their seventies felt no pressure to retire (Dorfman, 2000). This was the first evidence that pressure to retire may indeed impact upon the retirement decision.

H12: Uncertainty about economic trends and insecurity about government financial provisions for pensioners will be associated with a later anticipated retirement age.

H13: Perception of pressure to retire will be associated with an earlier anticipated retirement age.

METHOD

Sample

A questionnaire was distributed in five selected New Zealand organizations. A range of organisational sectors was selected for sampling to improve the external validity of the research. Organisation A was a public utility organisation; Organisation B was a mechanical service and repair organisation; Organisation C was a health insurance organisation; Organisation D was a government service organisation; and Organisation E was a manufacturing department of an organisation. Questionnaires were distributed Auckland-wide in organisations A, C, D and E, and nationwide in organisation B.

Only individuals over the age of 50 were asked to complete the survey, as Henkens and Tazelaar (1997) suggested that the validity of the anticipated retirement age predictor is improved if individuals are nearing retirement age.

Organisations A and E kept employees' age in their Human Resources databases, so the exact number of people 50 years old and over was known. The other three organisations did not hold this information. Thus in organisations B and C questionnaires were distributed to all employees whom their managers or administration staff thought could be over 30 years old. The guide age of 30 was given to distributors as they could not be expected to know employees ages and if they were to give it to those people who they thought were 50 year old or above they could cause offence to some people who were not yet 50. Because organisation D was relatively small, all employees were given a questionnaire. An estimate of how many employees were actually over 50 years old was then gathered from managers by the Human Resources Department at the various organisations. The final response rate was based on this estimation. Overall, 792 questionnaire were distributed, 422 questionnaires are estimated to have been received by employees who were 50 years old and over, 230 questionnaire were completed and returned, representing a response rate of 55%.

Forty five respondents (20% of the total sample) were administrators/managers; 43 (19%) were scientists/professionals; 44 (20%) were associate professionals (e.g., education support workers, teacher aids); 43 (19%) were office/customer clerks; 35 (16%) were trade workers; and 14 (6%) were machine operators and elementary service workers. Females comprised 50% of the sample. Respondents' ages ranged from 50 years old to 69 years old, with an average age of 56.

On average respondents worked 40 hours per week ($SD = 9.67$). The ethnic makeup of the sample included 200 (90%) New Zealand European respondents; 9 (4%) Maori respondents; 9 (4%) other European respondents; 3 (1%) Asian respondents; and 2 (1%) Polynesian respondents.

Procedure

Human resource departments were approached by telephone and asked to consider participating in the research. If the organisation showed

interest in participating, a detailed letter explaining the research was sent to the human resources manager. The human resources manager was telephoned one week after the letter was posted. If the human resources manager agreed to participate then procedural details were discussed.

In all cases employees received a questionnaire with a covering page detailing what the study was about, who is doing the study, the rationale for the research, confidentiality and anonymity, what is required of them and when, and a offer to supply a summary of results from the study. The participants were informed on the cover sheet that their participation was voluntary. Two prepaid envelopes addressed to the researcher at the University of Waikato were attached to each questionnaire, one was for the questionnaire and one was for the summary of results request form. Separate envelopes were used to ensure confidentiality. Distribution of the questionnaires differed slightly between organisations. In the case of organisation A, the human resources department held the age of workers on record. In this case it was agreed that the questionnaire would be sent via internal mail to those who were 50 years old and over. The human resources staff at organisation A identified these people and mailed the questionnaires. One week prior to mailing out the questionnaires an email was sent from the human resources manager to all staff detailing the fact that any staff 50 years old and over would be soon receiving a questionnaire, what it was about and the organisation's support for the research. Organisations B, C, and D did not hold any records of age. Hence in organisations B and C the human resources departments were sent questionnaires for approximately 40% of their entire workforce. The human resource departments sent out the questionnaires to various departments and asked the managers to hand them out to any employees who may be 30 years old or over (as noted earlier this age was set to prevent offence and difficulties identifying peoples ages). In organisation D the questionnaires were delivered to five offices throughout Auckland and the administration staff were asked to put one in every pigeonhole. Organisation E was a small

department of an organisation where the manager had knowledge of employee ages. In this case the department manager discussed the study at a staff meeting and then left the questionnaires in the lunchroom for staff to pick up if they wished to. Even though a variety of distribution methods were utilized, it did not appear to make any substantial impact on response rate.

Measures

Personal factors.

Anticipated retirement age was measured by one item that asked "at what age do you expect to retire?" Respondents were then required to identify the specific age that they intend to retire. This retirement intent item is similar to measures used by other researchers (Adams, 1999; Beehr et al, 2000; Taylor and Shore, 1995).

Expected health was measured via a single item developed by Baily (1987) and later used by Taylor and Shore (1995). This item asked the respondent to rate the statement "I believe my overall level of health will allow me to continue working as long as I want", on a Likert type anchored scale with 1 = strongly disagree to 7 = strongly agree. *Anticipated finances* were determined through the use of Adams (1999) 5-item measure, that asks the respondent to rate statements such as "I worry about the standard of living I will have when I retire", on a Likert type anchored scale with 1 = strongly disagree to 7 = strongly agree. Cronbach's alpha for this measure in the present sample was 0.83.

Non-work factors.

Social satisfaction was measured using a revised version of Taylor and Shore's (1995) 5-item measure. Respondents were asked rate (on a 1-7 response scale) their level of satisfaction with social relationships with friends, family and work colleagues. Cronbach's alpha for social satisfaction in this sample was 0.82.

Leisure orientation was operationalised using Taylor and Shore's (1995) 4-item measure. Respondents were asked to rate statements such as "I look forward to having more leisure time after retirement" on a Likert type anchored scale from 1 = strongly disagree to 7 = strongly agree.

Cronbach's alpha for leisure orientation was 0.85.

Perceived retirement adjustment was gauged with Taylor and Shore's (1995) 4-item measure, which asks respondents to rate items such as "I am confident that I will easily adjust to retirement", on a Likert type anchored scale from 1 = strongly disagree to 7 = strongly agree. The Cronbach's alpha for perceived retirement adjustment in this sample was 0.92.

Work factors.

Organizational commitment was operationalised using Allen and Meyer's (1990) organizational commitment instrument. Two of Allen and Meyer's (1990) sub-scales were included - affective commitment and continuance commitment. The affective commitment scale contains eight items (e.g. "I would be very happy to spend the rest of my career with this organization"). The continuance commitment scale also contains eight items (e.g. "It would be hard for me to leave my organization right now, even if I wanted to"). Items are rated on a 7-point Likert (agree-disagree) response scale. Cronbach's alphas in the present study were .84 (affective commitment) and .85 (continuance commitment).

Perceived organizational support was operationalised using Eisenberger et al's (1986) 16-item instrument, which includes items such as "The organization values my contribution to its well-being". The 16 items were rated on a 7-point Likert scale from 1 = strongly disagree to 7 = strongly agree. Cronbach's alpha for perceived organizational support in this sample was 0.94.

Work ethic was measured via Ho and Lloyd's (1984) Australian Work Ethic Scale. Seven items (e.g. "People who work deserve success") were rated from 1 (strongly disagree) to 7 (strongly agree). Support for using this instrument in the present context was obtained by Paterson and O'Driscoll's (1989) study that attested to the measure's high reliability and validity in a New Zealand sample. Cronbach's alpha for work ethic in the present study was 0.80.

Career commitment was assessed via five items from Blau's (1985) career commitment instrument. Respondents

Table 1. Descriptive Statistics

Variable	M	SD	Skew	Cronbach's Alpha
ARA	64.7	4.04	0.13	NA
Age	56.2	4.32	0.63	NA
Health	5.8	1.57	-1.41	NA
Finances	3.0	1.44	0.59	0.83
Leisure	5.8	1.24	-1.08	0.85
Adjust	5.7	1.48	-1.21	0.92
Social	6.2	0.88	-2.36	0.82
Cont	4.6	1.38	-0.43	0.85
Aff	4.3	1.27	-0.32	0.84
Orgsup	4.5	1.27	-0.36	0.94
Ethic	5.3	1.07	-0.53	0.80
Career	4.7	1.51	-0.48	0.83
Goalatt	4.2	1.93	1.71	0.62
Govsup	5.2	1.82	-0.72	NA
Trend	5.0	1.79	-0.93	NA

Note: The first two variables listed in the table (anticipated retirement age and age) required a chronological age to be given. The rest of the variables listed above involved ratings made on a 7-point scale (1=strongly disagree, 7=strongly agree).

ARA = anticipated retirement age; Age = chronological age; Health = expected health; Finances = anticipated finances; Leisure = leisure orientation; Adjust = perceived retirement adjustment; Social = social satisfaction; Cont = continuance commitment; Aff = affective commitment; Orgsup = organizational support; Ethic = work ethic; Career = career commitment; Goalatt = occupational goal attainment; Govsup = government support; Trend = economic trends

were asked to indicate their extent of agreement (on a 1-7 continuum) with statements such as "I would go into a different career field if it paid the same as this one". Before responding to these statements they were asked whether they considered themselves to have a career; only those who responded in the positive were asked to complete the career commitment items. The majority of respondents (171 people or 74% of the sample) stated that they considered themselves to have a career. Cronbach's alpha for career commitment in this sample was 0.83. Finally,

Occupational goal attainment was measured via three items developed by Talaga and Beehr (1995), and used subsequently by Adams (1999). Respondents were asked to indicate their level of agreement (1-7 continuum) with statements such as "I have reached the career goals I set for myself". As with career commitment, respondents only completed the occupational goal attainment items if they stated that they considered themselves to have a career. The Cronbach's alpha for goal attainment in this sample was 0.62.

Context factors. *Economic trend uncertainty* was measured via a single item that was developed for this study. It asked the respondent to rate their level

of agreement (1-7) with the statement "I feel uncertain about how economic trends will affect my life in retirement". *Government support* was also assessed via agreement with a single item ("I feel secure that the government will financially support me in retirement") that was created for this study. *Pressure to retire* was measured by asking respondents whether they thought there is pressure on them to retire. This item was developed for the study and required a yes/no response.

Analytical Procedure

Several procedures were utilized to analyse the data. Firstly, bivariate correlations were computed to examine associations between the key variables. Secondly, hierarchical regression was employed to investigate the relative importance of hypothesized predictors to anticipated retirement age, and in particular to examine the contributions of work, non-work and context variables once personal factors had been controlled for (Adams; 1999; Feldman, 1994; Robinson, Coberly & Paul, 1985; Talaga & Beehr, 1989). Thirdly, Baron and Kenny's (1986) mediated regression approach was used to test the hypothesized mediated relationships.

RESULTS

Descriptive statistics for all variables, with the exception of the dummy variable (pressure to retire), are presented in Table 1. In regard to pressure to retire, 40% of the sample stated that there was pressure and 60% stated that there was no pressure to retire. Five variables had statistically significant levels of skew, an indication of asymmetry of distribution (expected health skew = -1.41, leisure orientation skew = -1.08, perceived retirement adjustment skew = -1.21, social satisfaction skew = -2.36, goal attainment skew = 1.71).

Correlations

Correlations between variables are presented in Table 2. Anticipated retirement age had a significant association with the following variables: expected health ($r = .19, p < .01$), age ($r = .23, p < .01$), perceived retirement adjustment ($r = -.45, p < .01$), work ethic ($r = .26, p < .01$), career commitment ($r = .41, p < .01$), affective commitment ($r = .19, p < .01$), occupational goal attainment ($r = -.27, p < .01$), and economic trends ($r = .20, p < .05$).

However, the association between anticipated retirement age and the following variables was not significant: anticipated finances ($r = -.05$), gender ($r = .07$), continuance commitment ($r = .09$), government support ($r = -.06$), and pressure to retire ($r = -.05$). Work ethic was predicted to be negatively associated with perceived retirement adjustment. The relationship ($r = -.09$) was not significant. As predicted, career commitment was negatively associated ($r = -.40$) with perceived retirement adjustment.

Work and Non-work Factors

Anticipated retirement age was the criterion variable in two hierarchical regression equations (see Tables 3 and 4). In both regressions, personal factors were entered as control variables at the first step. Given the lack of previous research on retirement context factors, these were entered last (step 4). In the first regression, work factors were entered at step 2 and non-work at step 3. The converse order of entry was

Table 2. Correlations between major variables

	ARA	Health	Finance	Age	Gender	Adjust	Leisure	Social	Cont	Aff	Orgsup	Ethic	Career	Goalatt	Govsup	Trend	Pressure
ARA	1.00																
Health	.19*	1.00															
Finance	-.05	-.02	1.00														
Age	.23*	.04	.03	1.00													
Gender	.07	-.12	.10	-.03	1.00												
Adjust	-.45	-.09	.14*	-.05	.00	1.00											
Leisure	-.50*	-.22*	-.08	-.11	-.04	.70*	1.00										
Social	-.09	-.07	-.03	.14*	.02	.22*	.19*	1.00									
Cont	.09	-.08	-.45*	-.07	-.01	-.17*	-.03	-.03	1.00								
Aff	.19*	.17*	.09	.18*	.08	-.03	-.20*	.23*	-.03	1.00							
Orgsup	.17*	.23*	.06	.18*	-.03	-.05	-.23*	.15*	-.11	.63*	1.00						
Ethic	.26*	.24*	-.02	.12	.04	-.09	-.11	-.06	.01	.16*	.16*	1.00					
Career	.41*	.39*	-.07	.12	-.09	-.40*	-.33*	-.15*	.01	.24*	.18*	.21*	1.00				
Goalatt	-.27*	-.14	.10	.11	-.08	.25*	.32*	.18*	.01	-.04	-.05	-.14	-.04	1.00			
Govsup	-.06	.21*	-.24*	-.05	-.16*	-.04	.10	-.04	.04	-.10	-.01	.13*	.17*	-.11	1.00		
Trend	.15*	.11	-.46*	-.09	-.16*	-.18*	-.04	.04	.28*	-.12	-.16*	.04	.19*	-.19*	.26*	1.00	
Pressure	-.05	-.12	-.11	-.05	.07	.13	.13*	.14*	.15*	-.05	-.17*	-.04	-.20*	.07	-.01	.06	1.00

Table 3. First hierarchical regression of anticipated retirement age on personal, work, non-work and contextual variables

Step	Variable	β	t	P	Adjusted R Square	R Square	R Square Change	F	P
One	Health	.24	3.13	.00	.06	.08	.08	3.47	.01
	Finance	.02	.30	.76					
	Gender	.08	1.10	.27					
	Age	.14	1.86	.06					
Two	Health	.02	.30	.76	.23	.27	.19	6.12	.00
	Finance	.05	.69	.49					
	Gender	.06	.85	.40					
	Age	.11	1.56	.12					
	Career	.33	4.18	.00					
	Goalatt	-.25	-3.42	.00					
	Aff	.06	.80	.42					
	Cont	.00	.08	.94					
Ethic	.11	1.44	.15						
Three	Health	.06	.73	.46	.31	.35	.08	8.15	.00
	Finance	.07	.91	.36					
	Gender	.06	.83	.41					
	Age	.11	1.60	.11					
	Career	.17	2.09	.04					
	Goalatt	-.16	-2.27	.02					
	Aff	.12	1.70	.09					
	Cont	-.03	-.41	.68					
	Ethic	.11	1.52	.13					
	Adjust	-.34	-4.43	.00					
Four	Health	.06	.83	.41	.33	.38	.03	6.94	.00
	Finance	.08	.99	.32					
	Gender	.05	.75	.46					
	Age	.11	1.59	.11					
	Career	.17	2.04	.04					
	Goalatt	-.15	-2.11	.04					
	Aff	.12	1.70	.09					
	Cont	-.07	-.91	.36					
	Ethic	.13	1.80	.07					
	Adjust	-.33	-4.27	.00					
	Govsup	-.14	-1.89	.06					
	Trend	.15	1.86	.06					
	Pressure	.03	.39	.69					

Note: N for analyses in Table 3 and 4 was 171.

applied in the second regression; that is, non-work factors were entered at step 2 and work factors at step3. Contrasting the R2 changes at the second and third steps of these two regressions enabled comparison of the importance of work and non-work variables.

From Table 3 it can be noted that the control variables (personal factors) explained 8.3% of the variance in anticipated retirement age, while work factors (step 2) explained a further 18.7%, and non-work factors (step 3) an additional 8.5%. Finally, retirement context factors contributed just 2.8% of unique variance in anticipated retirement age. A total of 38.4% of the variance in anticipated retirement age was accounted for in this regression, with work, non-work and retirement context predictors contributing 30.1% of variance in anticipated retirement age after personal factors were controlled for.

In the second hierarchical regression analysis (Table 4), personal factors (step 1) explained 8.3% of the variance in anticipated retirement age. The entry of non-work factors at the second step accounted for 18.8%, while work factors (step 3) contributed a further 8.5% of unique variance in anticipated retirement age. As in the first regression, retirement context factors explained just 2.8% of the variance in anticipated retirement age.

These results indicate that the

Table 4. Second hierarchical regression of anticipated retirement age on personal, work, non-work and contextual variables

Step	Variable	β	<i>t</i>	<i>P</i>	Adjusted R^2	R^2	R^2 Change	<i>F</i>	<i>P</i>
One	Health	.24	3.13	.00	.06	.08	.08	3.47	.00
	Finance	.02	.30	.76					
	Gender	.08	1.10	.27					
	Age	.14	1.86	.06					
Two	Health	.20	2.88	.00	.25	.27	.19	11.33	.00
	Finance	.08	1.21	.23					
	Gender	.08	1.15	.25					
	Age	.14	2.06	.04					
	Adjust	-.44	6.27	.00					
Three	Health	.06	.73	.46	.31	.35	.08	8.15	.00
	Finance	.07	.91	.36					
	Gender	.06	.83	.41					
	Age	.11	1.60	.11					
	Adjust	-.34	-4.43	.00					
	Career	.17	2.09	.04					
	Goalatt	-.16	-2.27	.02					
	Aff	.12	1.70	.09					
	Cont	-.03	-.41	.68					
	Ethic	.11	1.52	.13					
	Pressure	.03	.39	.69					
Four	Health	.06	.83	.41	.33	.38	.03	6.94	.00
	Finance	.08	.99	.32					
	Gender	.05	.75	.46					
	Age	.11	1.59	.11					
	Adjust	-.33	-4.27	.00					
	Career	.17	2.04	.04					
	Goalatt	-.15	-2.11	.04					
	Aff	.12	1.70	.09					
	Cont	-.07	-.91	.36					
	Ethic	.13	1.80	.07					
	Govsup	-.14	-1.89	.06					
	Trend	.15	1.86	.06					
	Pressure	.03	.39	.69					

proportions of variance accounted for were essentially the same, irrespective of whether work factors were entered prior to or following non-work factors. From these analyses, it may be concluded that work and non-work factors were contributing almost equally to the prediction of anticipated retirement age. It should be noted, however, that while the combination of predictors at each step of the two regression analyses was significant, some individual variables

did not significantly predict anticipated retirement age (see Tables 3 and 4).

Mediated Relationships

Perceived retirement adjustment was predicted to mediate the relationship of leisure orientation (H6) and social satisfaction (H7) with anticipated retirement age, while H11 hypothesized mediating effects of (a) affective commitment and (b) continuance

commitment on the relationship between perceived organizational support and anticipated retirement age. Preconditions for conducting mediated regression analysis were fulfilled only for H6 and H11a. As illustrated in Table 2, neither social satisfaction nor continuance commitment to the organization were significantly correlated with anticipated retirement age, hence mediated regressions were not performed to test H7 and H11b.

In respect of H6, as leisure orientation was significantly related to perceived retirement adjustment ($r = .70$), perceived retirement adjustment was significantly related to anticipated retirement age ($r = -.45$) and leisure orientation was significantly related to anticipated retirement age ($r = -.50$), a mediated regression was conducted. Table 5 presents the findings from the three regression equations testing H6. The beta coefficient between leisure orientation and anticipated retirement age was lower at step 3 (-.36) than at step 2 (-.50), but remained statistically significant, indicating a partial mediation effect for perceived retirement adjustment on the relationship between leisure orientation and anticipated retirement age.

H11a posited affective organizational commitment as a mediator of the perceived organizational support – anticipated retirement age relationship. Table 2 illustrates that organizational support was significantly correlated with affective commitment ($r = .63$), affective commitment with anticipated retirement age ($r = .19$) and organizational support with anticipated retirement age ($r = .17$), hence a mediated regression analysis was conducted. Table 6 presents the results of the three regression equations

Table 5. Regressions testing mediation effects proposed in H6

Equation	Criterion	Predictors	β	<i>t</i>	Adjusted R^2	<i>F</i>
1	PRA	Leisure orientation	.70	14.93*	.49	223.1*
2	ARA	Leisure orientation	-.50	-8.42*	.25	70.9*
3	ARA	Leisure orientation	-.36	-4.37*	.26	38.9*
		PRA	-.20	-2.02*		

Note: The Adjusted R^2 and *F* values are for each equation separately.

PRA = Perceived retirement adjustment
ARA = Anticipated retirement age

* $p < .01$

Table 6. Regressions testing mediation effects proposed in H11a

Equation	Criterion	Predictors	β	t	Adjusted R^2	F
1	AC	POS	.63	12.29*	.39	151.1*
2	ARA	POS	.17	2.55*	.03	6.45*
3	ARA	POS	.09	1.03		
		AC	.13	1.43	.03	4.31*

Note: The Adjusted R^2 and F values are for each equation separately.

AC = Affective commitment

POS = Perceived organisational support

ARA = Anticipated retirement age

* $p < .01$

testing H11a. In this case, however, one of Baron and Kenny's conditions was not fulfilled, as the contribution of affective commitment to anticipated retirement age ($\beta = .13$) in equation 3 was not significant, indicating lack of support for the mediation hypothesis.

DISCUSSION

Overall, the results show that some aspects of the model are valid, whereas others did not seem to apply to this New Zealand sample. Our findings support the general notion, drawn from international research findings, that work, non-work and retirement context factors make a unique contribution to explaining anticipated retirement age after personal factors are controlled for. Additionally, in line with Beehr et al (2000), work and non-work factors were found to be of equal importance in explaining anticipated retirement age. Thus these two life domains each contributed to anticipated retirement age.

Personal Factors

In contrast to overseas research this New Zealand study found that personal factors were not a strong predictor of anticipated retirement age. Only expected health was a significant predictor. The non-significance of the anticipated finances variable was particularly unexpected as this has been the strongest and most consistent predictor of anticipated retirement age in international research (e.g. Hanisch & Hulin, 1990; Henkens & Tazelaar, 1997). A possible explanation for this finding will be discussed later, along with findings from the other financial predictors - government support and

economic trends.

This study obtained no support for a hypothesised relationship between gender and anticipated retirement age. A possible explanation is that male and female work histories are becoming more similar and that gender differences may be disappearing (Hayward, Hardy & Grady, 1989). Respondents in the present study were somewhat older than those sampled in many other studies (e.g. Adams, 1999; Beehr et al, 2000), so most of the present respondents may have been quite realistic about retirement and not underestimated their anticipated retirement age, which has been observed in 'younger' respondents in other studies.

Non-Work Factors

This study replicated Taylor and Shore's (1995) and Taylor et al.'s (2008) finding that psychological preparedness for retirement influenced actual retirement intentions. It also supported their proposal that retirement adjustment is a global construct which is influenced by the more specific variable, leisure orientation.

Contrary to expectations, perceived retirement adjustment did not mediate the relationship between social satisfaction and anticipated retirement age. One potential reason for this finding is that the social satisfaction measure comprised a variety of social spheres, including family, friends and co-workers. Thus if people were satisfied with these spheres - work and non-work - they may not feel they would adjust well to retirement because they would miss interactions with their work mates. In support of this proposition, Henkens and Tazelaar (1997) found that the more an individual expects to miss work-related

social contacts, the less likely he or she will be to retire. Future research could differentiate between work related (co-worker) social satisfaction and from non-work social satisfaction (family and friends). In addition, a more valid measure may be a combination of social satisfaction and the importance of social relationships. For instance, people may feel highly satisfied with their co-workers but this relationship may not be highly important to them and so not influence their perceptions of their ability to adjust to retirement. As several researchers have commented (Marsden, 1987; Henkens & Tazelaar, 1997), people in an individual's social network with whom he or she has strong and close ties will have most influence on that person's desires and opinions.

Work Factors

Contrary to previous research, this study found that a strong work ethic was not significantly associated with later retirement intentions (Erdner & Guy, 1990; Feldman, 1994; George et al, 1984; Sonnenfeld, 1988). One possible reason for this finding is that transitional employment and community work actually allows the work ethic to be fulfilled when moving into and during retirement (Atchley, 1993; Moen, Fields, Quick & Hofmeister, 2000). Furthermore, many previous studies that tested work ethic as a predictor date from the 1980's, when transitional or part-time employment and retirement after the age of 65 years old was less common (Palmore, George & Fillenbaum, 1982). Additionally, the finding that work ethic was not substantially linked with perceived retirement adjustment is not surprising, given that work ethic was not significantly related to anticipated retirement age.

Career commitment was found to be a significant predictor of anticipated retirement age, confirming Adams' (1999) finding that the more an individual's identity is linked to his or her career, the harder it will be to withdraw from it by retiring. Additionally, individuals who were strongly committed to their career were more likely to feel they would adjust poorly to retirement.

Affective commitment was not a significant predictor in this study. A potential reason for affective commitment's non-significance in many studies may be due to the tapping of samples with very positive work attitudes (Taylor & Shore, 1995). Thus the range of responses is restricted, which makes it difficult to find an association between affective commitment and anticipated retirement age. However, in the present study affective commitment scores were not skewed, so range restriction is not a valid explanation for our findings. Continuance commitment's relationship with anticipated retirement age has not been previously tested, so there is no research to relate this non-significant finding to. However, in our study continuance commitment scores were not skewed, thus range restriction can be ruled out as an explanation of the non-significant finding. Nevertheless, organizational support did influence both kinds of organizational commitment, confirming Eisenberger et al's (1987) premise that organizational support influences both affective and continuance organizational commitment.

The hypothesis that occupational goal attainment would be associated with anticipated retirement age was supported. This supported Adams' (1999) proposition that those people who believe that they have attained their occupational goals "will be more likely to say they will retire early because they have accomplished all that they set out to accomplish" (pp. 230).

The overall pattern of work findings is that the career related variables were significant whereas the organizational commitment variables were not. One possible conclusion is that in today's working world organizational commitment is becoming less important than it was in the past (Baruch, 1998;

Chang, 1999; DeMuse & Tornow, 1990; Haapaniemi, 1996) and so is not playing an important role in New Zealanders' retirement intentions. In the past individuals could move through their whole career in one organization. The psychological contract that rewarded organization-focused loyalty or commitment by a steady and stable career path through the organization is not so viable in an environment characterised by job insecurity. Instead individuals must seek occupational meaning in a different way, thus commitment to one's own career rather than to a single organization can become highly important (Chang, 1999).

Context Factors

The retirement context factors, which included pressure to retire, economic trends and government support, obtained statistical significance, supporting the placement of retirement decisions in the broader social, economic and political context. However, this area requires further investigation as these variables explained only a small proportion of the variance in anticipated retirement age, and none of the specific retirement context factors emerged as significant predictors after work and non-work variables had been controlled for. Lack of control over or uncertainty regarding external economic conditions did not appear to influence projected retirement age. Government support was also not associated with anticipated retirement age. The financial-economic context of New Zealand could be one explanation for these findings.

When all the financial-economic findings from this study are accumulated, an interesting picture of New Zealand's financial-economic context appears. The three financial-economic predictors (anticipated finances, economic trends and government support) in this study were found to not significantly predict anticipated retirement age. It is possible that many individuals in this country believe that, as New Zealand government policy has a social welfare orientation, the government will support them in retirement (McClure, 1998). At the time this study was conducted, the New Zealand government consisted of an alliance between Labour and the Alliance, both of whom had a pro-

welfare state and aimed to provide comprehensive financial support to pensioners, having raised the level of New Zealand Superannuation (NZS). In some sense the government may be encouraging retirement as several researchers found that an increase in pension encourages retirement (Burkhauser & Quinn, 1985; Burtless, 1986).

Additionally, the Office of the Retirement Commissioner's education campaign - aimed at sending out the message to New Zealanders that they will need to be financially self-reliant in retirement - does not appear to be getting the self-reliance message through and having an effect on people. If it were successful, the financial-economic variables would appear as significant influences on when individuals decide to retire and personal savings in New Zealand would be going up. However, personal savings in New Zealand are declining and personal debt is increasing (Statistics NZ, 2001), and this study found financial-economic variables to have little impact on when individuals decide to retire. The financial-economic findings of this study are remarkably similar to a Dutch study (Henkens & Tazelaar, 1997) that found the financial-economic context to be only very weakly related to anticipated retirement age. Henkens and Tazelaar's (1997) conclusion was similar to the one made here, that the Netherlands currently has (like New Zealand) relatively favourable retirement benefits compared to those offered in countries such as the USA. Conversely, Feldman (1994) asserted that the retirement decision in the United States is fraught with uncertainty surrounding finances. Thus the pattern appears to be that, in countries which have a strong social welfare orientation, finances are not substantially important to individuals' retirement decisions, as they may feel relatively secure financially, whereas in countries that are not so orientated toward social welfare (such as the United States), finances are a key concern for individuals considering retirement.

Pressure to retire was not a significant predictor of anticipated retirement age. Qualitative questions revealed that many people actually felt the pressure to retire but this did not

influence their anticipated retirement age. One possible explanation is that even though a portion of New Zealand employers and society may still expect and thus pressure older workers to retire, as was the case many years ago when both retirement policies and expectations pressured workers to retire at 65 (Palmore et al, 1982), New Zealand workers today may be ignoring the expectations of some employers and society and enacting their rights within the new retirement legislation.

Limitations

This study had a number of limitations, especially the potential for common method bias due to reliance solely on self-reports. The majority of retirement intent studies take a similar methodological approach, leaving them vulnerable to common or mono-method bias. Further, five measures within the questionnaire had high levels of skew, indicating a possibility of elevated responses on these variables. However, there is evidence within the data that the findings were not severely affected by common method variance. That is, differential relationships in predicted directions cannot be due entirely to common method variance.

Another concern involved the criterion measure, anticipated retirement age. No distinction was made between moving into part-time work and retiring fully. As mentioned above, there is a trend towards part-time work or transitional employment among older workers (e.g. Feldman, 1994; Werkerle & Shultz, 1999). Thus there may be different antecedents for the choice to move into part-time work rather than retiring fully. Weckerle & Shultz (1999) found that full retirement and partial retirement had different antecedents and proposed that they should be treated as separate states.

Another important issue is whether anticipated retirement age translates into the act of retirement. Several longitudinal studies have investigated the linkage between anticipated retirement age and the act of retiring (e.g. Ekerdt, Vinick & Bosse, 1989; Henkens & Tazelaar, 1997; Prothero & Beach, 1984). Henkens and Tazelaar (1997) propose that intentions are good indicators of action if there is a restricted time span between the statement of anticipated retirement age

and the retirement date and, furthermore, that the individual has a high degree of freedom in their retirement decision. When these two conditions were met, Henkens and Tazelaar found 83% of respondents retired at the age they anticipated. Hence there can be many different intervening factors that can alter intentions and thus actions (Burkhauser & Quinn, 1985; Ekerdt, Vinick & Bosse, 1989). However anticipated retirement age is still a valid predictor in that intent leads to action in the majority of cases. Additionally, the validity of the predictor should be further improved in this study as all individuals in the sample are nearing retirement (50 years old and over) and the freedom of choice should be relatively high in New Zealand due to the changes in the Human Rights Act (1999).

Finally, the use of several single item measures for the retirement context factors limited the depth of data that was gathered on the retirement context and meant that no reliability estimate could be obtained for these measures. However, these factors were exploratory in nature and it is expected that future studies will expand on these areas.

Practical Implications

The results of this study have numerous practical implications. First, New Zealand organizations wishing to retain older workers may consider strengthening career commitment and helping employees to set new goals. Second, individuals' well-being up to retirement and beyond may be improved by helping them to build up their leisure orientation and increase their range of interests/skills in addition to their job, as well as reducing their career commitment or extent of participation in their career.

Future Research

A deeper investigation of some aspects of the retirement intentions model would make worthwhile future research. The criterion could be further expanded to investigate retirement on a continuum, not just investigating full retirement but also transitional employment. Conducting longitudinal research and method triangulation could also strengthen future investigations. Among the personal factors, anticipated finances could be investigated further

to uncover why this variable, so important in United States research, was inconsequential in the present study. As for the non-work aspect of the model, additional investigation of the importance of leisure orientation would be pertinent. Furthermore, a deeper investigation of social satisfaction, including exploration of the relative importance of different social spheres, would make a worthwhile research contribution. In regard to work factors, examination of the relationship of career related variables to organizational related variables could prove valuable in uncovering how work variables operate in today's environment. Finally, more investigative work is required to enhance our understanding of the effects of the social, political and economic context on retirement intentions.

References

- Adams, G. A. (1999). Career-related variables and planned retirement age: An extension of Beehr's model. *Journal of Vocational Behavior*, 55, 221-235.
- Allen, N. J., & Meyer, J. P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organization. *Journal of Occupational Psychology*, 63, 1-18.
- Allen, N. J., & Meyer, J. P. (1996). Affective, continuance, and normative commitment to the organization: An examination of construct validity. *Journal of Vocational Behavior*, 49, 252-276.
- Aryee, S., Chay, Y. W., & Chew, J. (1994). An investigation of the predictors and outcomes of career commitment in three career stages. *Journal of Vocational Behavior*, 44, 1-6.
- Atchley, R. C. (1993). Continuity theory and the evolution of activity in later life. In J. R. Kelly (Ed.), *Activity and aging: Staying involved in later life*. California: Sage.
- Baily, M. N. (1987). Aging and the ability to work: Policy issues and recent trends. In G. Burtless (Ed.), *Work, health, and income among the elderly* (pp. 59-102). Washington, DC: Brookings Institution.
- Baron, R. M., & Kenny, D. A. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and social psychology*, 51, 1173-1182.
- Baruch, Y. (1998). The rise and fall of

- organizational commitment. *Human Systems Management*, 17, 135-143.
- Bayliss, L. (1996). *Saving and superannuation: A New Zealand view*. Wellington: Te Horo.
- Beehr, T.A. (1986). The process of retirement: A review and recommendations for future investigation. *Personnel Psychology*, 39, 31-55.
- Beehr, T. A., Glazer, S., Nielson, N. L., & Farmer, S. J. (2000). Work and nonwork predictors of employees' retirement ages. *Journal of Vocational Behavior*, 57, 206-225.
- Blau, G. J. (1985). The measurement and prediction of career commitment. *Journal of Occupational Psychology*, 58, 277-288.
- Blau, G.J. (1989). Testing the generalizability of a career commitment measure and its impact on employee turnover. *Journal of Vocational Behavior*, 35, 88-103.
- Burtless, G. (1986). Social security, unanticipated benefit increases, and the timing of retirement. *Review of Economic Studies*, 781-805.
- Chang, E. (1999). Career commitment as a complex moderator of organizational commitment and turnover intention. *Human Relations*, 52, 1257-1278.
- DeMuse, K., & Tornow, W. (1990). The tie that binds - has become very, very frayed. *Human Resource Planning*, 13, 203-213.
- Dorfman, L. T. (2000). Still working after age 70: Older professors in academe. *Educational Gerontology*, 26, 695-713.
- Eisenberger, R., Cotterell, N., & Marvel, J. (1987). Reciprocation ideology. *Journal of Personality and Social Psychology*, 53, 743-750.
- Eisenberger, R., Fasalo, P., & Davis-LaMastro, V. (1990). Perceived organizational support and employee diligence, commitment, and innovation. *Journal of Applied Psychology*, 75, 51-59.
- Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, 71, 500-507.
- Ekerdt, D. J., Vinick, B. H., & Bosse, R. (1989). Orderly endings: Do men know when they will retire? *Journal of Gerontology: Social Sciences*, 44, s28-s35.
- Erdner, R. A., & Guy, R. F. (1990). Career identification and women's attitudes toward retirement. *International Journal of Aging and Human Development*, 30, 129-139.
- Feldman, D. C. (1994). The decision to retire early: A review and conceptualization. *Academy of Management Review*, 19, 285-311.
- Furnham, A. (1990). *The protestant work ethic: The psychology of work-related beliefs and behaviours*. London: Routledge.
- George, L. K., Fillenbaum, G. G., & Palmore, E. (1984). Sex differences in the antecedents and consequences of retirement. *Journal of Gerontology*, 39, 364-371.
- Glamser, F. D. (1976). Determinants of a positive attitude toward retirement. *Journal of Gerontology*, 31, 104-107.
- Glamser, F. D. (1981). *Predictors of retirement attitudes*. *Aging and work*, Winter, 23-29.
- Goudy, W. J., Powers, E. A., Keith, P. M., & Reeger, R. A. (1980). Changes in attitudes toward retirement: Evidence from a panel study of older males. *Journal of Gerontology*, 35, 942-948.
- Haapaniemi, P. (1996). Survivor syndrome. *Chief Executive, Supp*, 13-14.
- Hanisch, K. A., & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. *Journal of Vocational Behavior*, 37, 60-78.
- Hayward, M. D., Hardy, M. A., & Grady, W. R. (1989). Labor force with withdrawal patterns among older men in the United States. *Social Science Quarterly*, 70, 425-448.
- Henkens, K., & Tazelaar, F. (1997). Explaining retirement decisions of civil servants in the Netherlands: Intentions, behavior, and the discrepancy between the two. *Research on Aging*, 19, 139-173.
- Ho, R., & Lyoyd, B. (1984). Development of an Australian work ethic scale. *Australian Psychologist*, 19, 321-332.
- Hooker, K., & Ventis, D. G. (1984). Work ethic, daily activities, and retirement satisfaction. *Journal of Gerontology*, 39, 478-484.
- Human Rights Commission. (December, 2001). *Age of retirement* [On-line]. Available: <http://www.hrc.co.nz/act/factsheet8.htm>
- Keith, V. M. (1993). Gender, financial strain, and psychological distress among older adults. *Research on aging*, 15, 123-147.
- Marsden, P. V. (1987). Core discussion networks of Americans. *American Sociological Review*, 52, 122-131.
- McClure, M. (1998). A civilised community: *A history of social security in New Zealand*. Auckland: Auckland University Press.
- McPherson, B. D., & Guppy, N. (1979). Pre-retirement life-style and the degree of planning for retirement. *Journal of Gerontology*, 34, 254-263.
- Moen, P., Fields, V., Quick, H., & Hofmeister, H. (2000). A life-course approach to retirement and social integration. In K. Pillemer & P. Moen (Ed.), *Social integration in the second half of life* (pp. 75-107). Baltimore, MD: John Hopkins University Press.
- Morrow, P. (1993). *The theory and measurement of work commitment*. Greenwich: Jay Press.
- OECD (1988). *Aging populations: The social implications*. Paris: OECD.
- Office of the Retirement Commissioner (May, 2001). *The New Zealand economy: Ten years at a glance* [On-line]. Available: <http://www.retirement.org.nz/current/summary.html>
- Palmore, E. B., George, L. K., & Fillenbaum, G. G. (1982). Predictors of retirement. *Journal of Gerontology*, 37, 733-742.
- Paterson, J. M., & O'Driscoll, M. P. (1989). Utility of the Australian work ethic scale: Reliability and validity comparisons. *Australian Journal of Psychology*, 41, 285-290.
- Reitzes, D. C., Mutran, E. J., & Fernandez, M. E. (1998). The decision to retire: A career perspective. *Social Science Quarterly*, 79, 607-619.
- Robertson, A. (2000). "I saw the handwriting on the wall": Shades of meaning in reasons for early retirement. *Journal of Aging Studies*, 14, 63-79.
- Robinson, P. K., Coberly, S., & Paul, C. E. (1985). Work and retirement. In R. H. Shanas (Ed.), *Handbook of aging and the social sciences*. New York: Van Nostrand Reinhold co.
- Settoon, R. P., Bennett, N., & Liden, R. C. (1996). Social exchange in organizations: Perceived organizational support, leader-member exchange, and employee reciprocity. *Journal of Applied Psychology*, 81, 219-227.
- 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.
- Sonnenfeld, J. (1988). *The hero's farewell*. New York: Oxford University Press.
- Stetz, T. A., & Beehr, T. A. (2000). Organizations' environment and retirement: The relationship between women's retirement, environmental munificence, dynamism, and local unemployment rate. *Journal of Gerontology: Social Sciences*, 55B,

s213-s221.

- Streib, G. R., & Schneider, C. J. (1971). *Retirement in American society: Impact and processes*. New York: Cornell University Press.
- Talaga, J., & Beehr, T. A. (1989). Retirement: A psychological perspective. In C. L. C. & I. Robertson (Ed.), *International Review of Industrial and Organizational Psychology* (pp. 185-211). New York: John Wiley & Sons.
- Talaga, J. A., & Beehr, T. A. (1995). Are there gender differences in predicting retirement decisions? *Journal of Applied Psychology, 80*, 16-28.
- Taylor, M.A., Goldberg, C., Shore, L.M. & Lipka, P. (2008). The effects of retirement expectations and social support on post-retirement adjustment. *Journal of Managerial Psychology, 24*, 458-470.
- Taylor, M. A., & Shore, L. M. (1995). Predictors of planned retirement age: An application of Beehr's model. *Psychology and Aging, 10*, 76-83.
- Walker, J. W., & Price, K. F. (1976). Retirement policy formulation: A systems perspective. *Personnel Review, 5*, 39-43.
- Watson Wyatt/CSIS (May, 2001). *Global aging - The challenge of the new millennium* [On-line]. Available: <http://www.watsonwyatt.com/homepage/gl/printable.asp?id=W-315>
- Wayne, S. J., Shore, L. M., & Liden, R. C. (1997). Perceived organizational support and leader-member exchange: A social exchange perspective. *Journal of Management, 40*, 82-111.
- Weckerle, J. R., & Shultz, K. S. (1999). Influences of the bridge employment decision among older USA workers. *Journal of Occupational and Organizational Psychology, 72*, 317-329.

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