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# Career, family and work environment determinants of organizational commitment among women in the Australian construction industry

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A survey of women in the Australian construction industry was undertaken to examine the relationship between career, family and work environment variables on women's organizational commitment. Questionnaires were distributed to three hundred women in construction occupations and 109 completed and usable questionnaires were returned. Career choice commitment, satisfaction with career progression, job involvement, supervisory support and perception of the organizational diversity climate were significantly correlated with respondents' organizational commitment. No demographic or family variables were correlated with organizational commitment. Neither did organizational commitment differ significantly between women with dependent children and childless women or women with non-dependent children. It is concluded that construction firms aiming to improve organizational commitment among female employees should ensure women have access to career development opportunities and ensure just processes are used in allocating organizational rewards. Construction firms are also recommended to implement diversity initiatives and educate employees, particularly supervisors, in supportive management for a diverse workforce.

**Keywords:** Women, construction, work-family conflict, career, organizational commitment

## Introduction

The under-representation of women in construction has been well documented. For example, Court and Moralee (1995) reported that, in the mid-1990s, the UK construction industry employed approximately 1.77 million people of whom only 10% were women. Around the same time, the proportion of women in the Australian building industry was 14% (Australian Bureau of Statistics, 1995). Gale (1994) describes industry and government initiatives to encourage more women to enter the British construction industry. Since the mid-1990s structural barriers to women's entry into construction careers have broken down and more women are undertaking construction-related degree courses and joining the industry's professional bodies (Dainty *et al.*, 2000b). However, Fielden *et al.* (2000) argue that overcoming barriers to women's entry to the industry is insufficient because the construction

industry's inherently sexist culture still limits the progression of women who choose construction careers.

The relationship between the experiences of women in construction and their organizational commitment has received little research attention. Organizational commitment is a consistent predictor of employee turnover (Hackett *et al.*, 1994; Jaros, 1997) and Ensher *et al.* (2001) attribute the departure of women from large companies to low levels of organizational commitment. Dainty *et al.* (2000a) suggest that structural and cultural characteristics of the construction industry militate against the development of a committed female workforce. In the UK, a CIB Working Group has recommended that improving equal opportunities in construction is one way to promote employee commitment and reduce turnover (CIB, 1996). Understanding the determinants of women's organizational commitment could be helpful in designing strategies to better retain female employees.

This paper reports on a study investigating the determinants of organizational commitment among women

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working in the Australian construction industry. In particular, the study aimed to explore the relative importance of career and family variables in determining women's organizational commitment because work-family conflict and career frustrations are frequently mooted as reasons for the under-representation of women in construction (Fielden *et al.*, 2000; Dainty *et al.*, 2000a).

### Organizational commitment

Organizational commitment has been conceptualized as the strength of an employee's identification with and involvement in a particular organization. Mowday *et al.* (1982) suggest that organizational commitment is characterized by a strong belief in and acceptance of the organization's goals and values, a willingness to exert considerable effort on behalf of the organization and a strong desire to maintain membership in the organization (Mowday *et al.*, 1982, p. 27). Organizational commitment has been consistently linked with positive organizational outcomes, such as reduced turnover and absenteeism and higher motivation and productivity (Meyer and Allen, 1997).

Organizational commitment has also been explained in terms of an exchange whereby employees exchange their involvement with the organization for rewards and benefits that meet their needs and expectations. Hall and Mirvis (1996) suggest that individuals perform in accordance with an organization's interests in return for meaningful employment, developmental relationships, a supportive work environment and good rewards and benefits. Employees become committed to organizations to the extent that their needs and expectations are met in this exchange relationship. Research supports the importance of an exchange in development of organizational commitment. For example, perceived organizational support (Eisenberger *et al.*, 1990) and perceived fairness of human resource policies (Konovsky and Cropanzano, 1991) have been positively linked to organizational commitment.

The transient, project-based nature of the construction industry is likely to militate against the development of employees' sense of psychological involvement with their employing organizations. Rousseau (1998) suggests that in temporary work systems, such as construction projects, employees' identification is likely to focus on immediate work stimuli and erode when tasks are complete. In this difficult context, it is pertinent to investigate determinants of organizational commitment.

### Women's career experiences

Research suggests that employees' perceptions of the career opportunities open to them within organizations predict organizational commitment (Morris *et al.*, 1993; Arnold and Mackenzie Davey, 1999; Tansky and Cohen, 2001). Dainty *et al.* (1999) report that women do not

enjoy career success commensurate with their male counterparts in construction. Women's lack of career success relative to men's is often attributed to gender socialization early in life. However, Cassirer and Reskin (2000) present compelling evidence to suggest that workplace opportunity structures have a greater influence on women's career aspirations than their gender role expectations. Dainty *et al.* (2000b) report that women in construction experience structural barriers to career advancement. For example, women tend to be allocated to office-based support positions, which deny them the experience on major projects needed for promotion.

Career satisfaction has been examined as a component of job satisfaction (Gattiker and Larwood, 1988). Aryee and Debrah (1992) report that career satisfaction is related to organizational commitment, and conclude that employees 'exchange' organizational commitment for the rewards associated with the satisfaction of career aspirations. Women whose career expectations are not met may become disillusioned and lacking in commitment. Having a clear career strategy is also known to be an important factor in career advancement (Orpen, 1994). Thus, the extent to which women have a strategy for attaining their career goals may also impact upon their organizational commitment. The extent to which women become organizationally committed may also depend upon their commitment to their chosen careers. Congruence between an individual's values and their career interests has been linked to affective responses to work (Harris *et al.*, 2001). Research suggests that women's commitment to non-traditional careers is not stable over time but can decline with increased knowledge of what such careers involve (Jenkins, 1989; Madill *et al.*, 2000). Women who remain highly committed to their choice of a construction career may be more likely to 'exchange' participation in a rewarding job or career for organizational commitment, than those who question their employment or vocational choice. Thus, hypotheses relating to the women's job involvement and careers in construction were formulated as follows:

- H1: women who are involved with their jobs, are committed to their career choices, have clear career goals and are satisfied with their career progression are more likely to report higher levels of organizational commitment.

### Perceptions of the work environment

Ensher *et al.* (2001) report that perceived discrimination has a negative effect on organizational commitment. Gender dissimilarity is known to negatively bias performance judgements (Hartel *et al.*, 1999) and men also tend to be more concerned than women about investing in the development of women with family responsibilities. Lobel and St Clair (1992) report that male managers

perceive that developing women of childbearing age is a 'waste' because they believe the future performance of these employees is questionable. Dainty *et al.* (2000b) found that women's careers plateau in their early 30s and then progress in parity with men's after the age of 35, suggesting that these biases exist in construction. Perhaps unsurprisingly, women have been found to be more concerned that organizational processes are just than men, who tend to be more concerned with outcomes (Sweeney and McFarlin, 1997). Thus, working in an organization in which people are treated equally and in which there is a positive 'diversity climate' may impact upon organizational commitment among female employees.

The role of first line supervisors is of critical importance to employees' work experiences. Supervisory attitudes to women in the workforce are likely to influence women's work experiences. In construction, most female employees are supervised by male managers. Covin and Brush (1991) report that male managers are more likely to believe that parenting interferes with job performance than female managers. Support from one's immediate supervisor or manager is a strong predictor of employees' work-family experiences. Mothers who work for flexible bosses are seven times less likely to want to quit and four times more likely to say they love their jobs (Friedman and Galinsky, cited in Watkins 1995). It is possible that supervisory support has a similar impact upon organizational commitment. Thus, hypotheses relating to women's perceptions of their work environment were formulated as follows:

- H2: women who perceive their organization to be supportive of gender diversity and who perceive their immediate supervisor to be supportive of them are more likely to report higher levels of organizational commitment.

### Women's experiences at the work-family interface

Since the publication of Kanter's seminal work, *Men and Women of the Corporation*, there has been a growing understanding of the inter-connected nature of employees' work and non-work lives (Kanter, 1977). Recent research suggests that job demands borne by construction professionals are damaging to their personal relationships (Lingard and Francis, 2002; Lingard and Sublet, 2002). While men and women both need to balance the demands of work and home life, women still bear the primary responsibility for domestic duties in most households (Demo and Acock, 1993; Higgins *et al.*, 2000). For example, a recent Tasmanian study found that mothers were more likely than fathers were to take time off work to care for a sick child (Australian Bureau of Statistics, 1999). Thus, women are more likely to experience conflict between work and home life in employment

situations in which long and rigid work hours are the norm (Gutek *et al.*, 1991). Dainty *et al.* (1999) report that women's motivation in construction careers declines when family issues become significant because male-oriented work practices prevent them from achieving a satisfactory balance between work and family life.

Work-family conflict is defined as a form of inter-role conflict whereby job and family demands cannot be met simultaneously and is an on-going problem for women with career aspirations (Wentling, 1996). Role conflict in the work setting is negatively associated with organizational commitment (Mathieu and Zajac, 1990) and it is possible that inter-domain role conflict will have a similar effect. Orthner and Pittman (1986) report that the availability of family-friendly policies is positively associated with organizational commitment; however, family-friendly work practices have not been widely adopted in the construction industry. In the absence of such policies, role conflict between work and family may have a negative impact on organizational commitment, particularly among female employees.

Experiences of family life can also impact upon the experience of work (Crouter, 1984). Family provides an important resource and diminished family functioning is likely to impact on employees' ability to cope with the demands and pressures of work. The extent to which women's careers are recognized as being an important dimension of their lives by their domestic partners can impact upon women's attitudes towards work. For example, research suggests that women question their career choice when this is not supported by the expectations of significant others, including their parents and partners (Lucas *et al.*, 2000). Where domestic partners are supportive of women's investment of time and energy in their careers, organizational commitment may be higher than where these investments are resented and cause conflict. Thus, hypotheses relating to family influences on women's organizational commitment were formulated as follows:

- H3: women who perceive lower levels of work-family conflict and higher quality in their relationships with their domestic partners are more likely to report higher levels of organizational commitment.

Parenting introduces new demands and requires a great deal of time and energy. One frequently purported view is that parents have less time and energy to devote to their employing organizations in terms of commitment. However, this theory is not supported by empirical research. For example, Steffy and Jones (1988) report a non-significant relationship between number of children and organizational commitment. Similarly, Lambert (1991) found having young children did not affect women's or men's job involvement or motivation. The difference between organizational commitment among mothers and childless women in our sample was explored but no a

*priori* hypothesis was formulated relating to parenthood and organizational commitment.

## Methodology

### Data collection

A questionnaire was distributed to members of the Victorian Chapter of the National Association of Women in Construction. Completed questionnaires were returned directly to the researchers in unmarked, postage-paid envelopes provided for this purpose. Each questionnaire was distributed with a copy of a plain language statement describing the objectives of the study. The statement also explained the voluntary nature of respondents' participation and assured the anonymity and confidentiality of responses.

### Questionnaire design

Demographic information collected included respondents' age, marital or relationship status and number of dependent children. Respondents were also asked to indicate how many years they had worked in construction and to select from a list of occupations, indicating their role in the industry. Respondents were asked to indicate whether they spent most of their time at work on-site, in a site office or in another office location.

Organizational commitment was measured using a 15-item scale developed by Mowday *et al.* (1982). Items are rated from 'strongly disagree' (1) to 'strongly agree' (7). Example items are 'I really care about the fate of this organization' and 'I could just as well be working for a different organization as long as the type of work was similar' (reverse scored).

Job involvement was measured using nine items from Kanungo's original ten item scale (Kanungo, 1982). Job involvement differs from organizational commitment in that it relates to the extent to which an individual perceives their job to be an essential part of their identity. Organizational commitment, on the other hand, refers to the extent that individuals feel attached to their employing organization. The former is an internal sense of 'self', whereas the latter relates to a commitment to an external entity. Items are rated from 'strongly disagree' (1) to 'strongly agree' (5). Example items are 'The most important things that happen to me involve my job' and 'Most of my interests and friends are centred around my job.' This scale has been empirically tested and found to possess good discriminant validity and internal consistency reliably (Blau, 1989). Career strategy was measured using a six-item scale developed by Gould and Penley (1984). Items are rated from 'strongly disagree' (1) to 'strongly agree' (5). Example items are 'I have a plan for my career' and 'my career objectives are not very clear'

(reverse scored). Career satisfaction was measured using a five-item scale developed by Greenhaus *et al.* (1990). Items are rated from 'strongly disagree' (1) to 'strongly agree' (5). Example items are 'I am satisfied with the progress I have made towards meeting my goals for advancement' and 'I am satisfied with the progress I have made towards meeting my goals for the development of new skills.' Commitment to career choice was measured by the inclusion of eight items designed to determine respondents' commitment to their chosen career. These items were also rated from 'strongly disagree' (1) to 'strongly agree' (5). Example items were 'Sometimes I wish I had chosen a different career field' (reverse scored) and 'I get a sense of pride from my chosen line of work.'

Work-family conflict was measured using Small and Riley's spill-over scale (Small and Riley, 1990). This scale measures respondents' subjective sense that work interferes with family life in a negative way. Items are rated from 'strongly disagree' (1) to 'strongly agree' (5). Example items include 'My marriage/relationship suffers because of my work' and 'Because I am often irritable after work, I am not as good a parent as I would like to be.' The quality of respondents' relationship with their domestic partners was measured using Spanier's Dyadic Adjustment Scale (Spanier, 1976). The scale measures consensus and cohesion dimensions of relationship satisfaction. For example, respondents are asked to rate the frequency with which they have disagreements over matters, such as life priorities and the amount of time spent together, on a scale from 'always agree' (5) to 'always disagree' (0). Respondents are also asked how often events, such as arguments or 'getting on each other's nerves' occur. These items are rated on a frequency scale ranging from 'all of the time' (0) to 'never' (5).

Organizational diversity climate was measured using a scale developed by Mor Barak *et al.* (1998). Items are rated from 'agree' (1) to 'disagree' (5). For the purposes of our study, items were re-worded to relate specifically to perceptions of gender equity. Example items are 'managers here make layoff decisions fairly, regardless of employees' sex' and 'I feel I have been treated differently here because of my sex' (reverse scored). A seven-item measure of supervisory support was also included in the questionnaire. Respondents were asked to indicate the extent to which they agreed or disagreed with statements about the support they receive from their immediate supervisor. Items were rated from 'strongly disagree' (1) to 'strongly agree' (5). Example items are 'my supervisor is willing to listen to my job-related problems' and 'my supervisor can be relied upon when things get tough.'

Scales were used according to the recommendations of their developers. Thus, some scales had seven point response options while others had five or six. It is essential that standard protocols are used because changing response options can threaten the validity of a scale.

## Data analysis

Principal components factor analysis was used to analyse the career-related questions included in the questionnaire. Factor analysis assumes that underlying dimensions or factors can be used to explain complex phenomena. The factorial structure of the items was identified and scores for each factor were computed for each respondent in the sample. These scores were then used in further data analysis. The internal consistency reliability of our measurement of the multi-item variables was examined by calculating the Cronbach's alpha coefficients for each of the multi-item scales in our questionnaire. In order to determine the nature and strength of linkages between the variables measured, bi-variate Pearson correlation analyses were conducted. These correlations enable an assessment of the degree to which one variable is linearly related to another. Multiple regression analyses were undertaken to determine the extent to which work environment, career and family variables predicted organizational commitment. Independent samples t-tests were used to test for differences in the mean organizational commitment scores of respondents with and those without dependent children.

## Results

### The sample

A total of 109 completed and usable questionnaires were returned representing a response rate of 36%. Demographic characteristics of the sample are presented in Table 1. Most of the respondents (80%) were between the ages of 25 and 44. Architects made up 22% of the sample. The next most common occupation was project/construction manager (13% of the sample). The majority of respondents (83%) worked in an off-site office environment. Many respondents (35%) were single. A total of 30% of respondents were partnered without children and only 24% were partnered with dependent children. The number of years respondents had spent in the construction industry ranged from one to 36 and the mean was 10.5 years (SD 7.8). Respondents reported working a minimum of zero and a maximum of 80 hours a week and the mean number of hours was 43 (SD 16.4). A total of 60% of partnered respondents indicated that their partner was also in paid employment and 90% of partnered respondents reported that their partner worked more than 35 hours each week.

### Factor analysis

Confirmatory factor analysis was undertaken to determine the factorial structure of the career variables in the Australian construction industry. After the first analysis,

**Table 1** Demographic and employment information about the sample

Category	No. of respondents
Age	
24 or under	11
25–34	46
35–44	41
45–54	8
55–59	2
60 or over	1
Household	
Couple with dependent children	26
Couple with non-dependent children	5
Single parent	1
Couple without children	32
Single person	38
Other	6
Hours worked by partner	
1–14	1
15–29	2
30–34	4
35–49	38
50 or more	20
Occupation	
Site/project engineer	8
Project/construction manager	14
Contract administrator	2
Clerical/secretarial	6
Foreperson/supervisor	0
Support services (safety, etc.)	6
Engineer	3
Developer/property manager	5
Quantity surveyor	2
Architect	24
Legal consultant	7
Town planner	1
Landscape designer	2
Other	27
Work location	
On-site	7
Site office	12
Other office environment	90

which yielded seven factors, five items were removed from the dataset. Three items were removed because they double-loaded on factors. Two items were removed because they were single-item factors and could not be interpreted in a meaningful way. The remaining items were factor analysed again. No pre-determined number of factors was specified in this analysis. A four-factor model emerged as the most parsimonious, explaining 61% of the variance in the data. Factors and item loadings are shown in Table 2. Most items loaded as expected, although some of the items relating to career identity loaded on the same factor as job involvement. This factor was labelled career/job involvement. The fact that some of the items loading on this factor refer

to respondents' 'chosen line of work' rather than their present job suggests that the women in our sample do not discriminate between identification with their job and identification with their vocation. Items loaded on the three remaining factors as expected. These items were labelled 'career choice commitment,' 'career satisfaction' and 'career strategy' respectively.

### Internal consistency reliability

The Cronbach's alpha coefficients ranged from 0.69 to 0.90, indicating an acceptably high level of internal consistency reliability for the multi-item scales used in the study. The mean, standard deviation and alpha coefficients for the scales are shown in Table 3.

**Table 2** Factorial structure of the job/career variables

Item	Factors			
	1	2	3	4
I live, eat and breathe my job	0.812	-0.076	0.037	0.086
I consider my job as central to my existence	0.799	0.094	-0.110	0.097
I am very personally involved in my job	0.787	-0.044	0.167	-0.069
I have very strong ties to my job	0.768	0.365	0.055	-0.026
My job is a very small part of myself (r)	0.701	0.142	0.210	-0.043
Most of my life goals are job-centred	0.698	-0.046	0.036	0.445
Most of my interests and friends are centred around my job	0.627	0.627	-0.221	0.093
If I were to rank (in importance to me) all the things that I do, things related to my work would be at or near the top	0.603	0.253	0.039	0.215
Compared to other areas of my life, my chosen line of work is not very important to me	0.603	0.425	0.097	0.181
I identify strongly with my chosen line of work	0.592	0.277	0.186	0.050
I like to be absorbed in my job	0.585	0.273	-0.263	0.180
If I were to describe myself to someone, I would probably begin by stating my line of work	0.518	-0.085	0.049	0.091
Sometimes I wish I had chosen a different career field (r)	0.005	0.829	-0.029	0.153
I am sometimes dissatisfied with my choice of career fields (r)	-0.023	0.762	0.319	0.260
I get a sense of pride from my chosen line of work	0.206	0.681	0.220	0.089
I am satisfied with the progress I have made towards meeting my goals for advancement	0.012	0.075	0.841	0.174
I have satisfied with the progress I have made towards achieving my overall career goals	0.106	0.167	0.835	0.134
I am satisfied with the progress I have made towards meeting my goals for the development of new skills	0.017	0.120	0.745	0.050
I have a plan for my career	0.057	0.198	0.022	0.840
I have a strategy for achieving my career goals	0.081	0.090	0.157	0.769
I have not really decided what my career objectives should be	0.257	0.232	0.226	0.641

Notes: extraction method: Principal Component Analysis; rotation method: Varimax; factor 1 = job involvement; factor 2 = career choice commitment; factor 3 = career satisfaction; factor 4 = career strategy.

**Table 3** Scale reliability information

Scale	Number of items	Mean	Standard deviation	Cronbach's alpha
Job/career involvement	12	38.39	8.34	0.90
Career choice commitment	3	10.40	2.66	0.74
Career satisfaction	3	10.49	2.25	0.80
Career strategy	3	10.82	2.26	0.75
Work-family conflict (spouse/partner)	5	14.85	3.42	0.75
Relationship quality (spouse/partner)	21	75.70	6.99	0.69
Work-family conflict (children)	5	13.38	3.98	0.83
Diversity climate	11	35.96	10.22	0.90
Organizational commitment	18	90.92	19.54	0.90
Job satisfaction	6	31.15	5.87	0.77
Supervisory support	7	25.86	6.46	0.89

### Bi-variate correlations

Table 4 shows the Pearson correlations between the variables measured in the study. None of the demographic or family variables were significantly correlated with organizational commitment. In contrast, all of the organizational and career variables, with the exception of career strategy, were significantly related to organizational commitment. Thus, women's perception of the diversity climate existing in their organization ( $r = 0.498$ ,  $p = 0.000$ ), perception of supervisor supportiveness ( $r = 0.538$ ,  $p = 0.000$ ), job involvement ( $r = 0.286$ ,  $p = 0.004$ ), commitment to career choice ( $r = 0.368$ ,  $p = 0.000$ ) and satisfaction with career progression ( $r = 0.362$ ,  $p = 0.000$ ) were all significantly and positively associated with organizational commitment.

### Predictors of organizational commitment

Owing to the large number of independent variables in the study, only those found to be significantly correlated with organizational commitment were entered into the regression model. The stepwise regression procedure yielded a model in which supervisory support ( $\beta = 0.254$ ,  $p = 0.007$ ), career choice commitment ( $\beta = 0.319$ ,  $p = 0.000$ ), satisfaction with career progression ( $\beta = 0.308$ ,  $p = 0.000$ ), career/job involvement ( $\beta = 0.210$ ,  $p = 0.006$ ) and perceived diversity climate ( $\beta = 0.230$ ,  $p = 0.016$ ) were all significant predictors of organizational commitment. This model explained 53% of variance in organizational commitment (adjusted  $R^2 = 0.529$ ) indicating that these variables are important determinants of organizational commitment among women in construction and have powerful predictive ability. The results of the regression analysis are presented in Table 5.

### Comparison of organizational commitment by parental status

Mean organizational commitment scores were 76.66, among childless respondents and 78.12 among respondents with dependent children, indicating that mothers in the sample are more organizationally committed. However, this difference was not significant ( $t = -0.409$ ,  $p = 0.684$ ).

### Discussion

The results indicate that career and work environment play an important part in determining organizational commitment among women in construction, but that family and demographic variables are unrelated to organizational commitment. This suggests construction companies seeking to encourage commitment from female employees should implement career management

**Table 4** Bi-variate correlations

Variable	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Age	1.000													
2. Tenure	0.724***	1.000												
3. Parental status	0.172	0.150	1.000											
4. Hours worked	-0.021	0.134	-0.245*	1.000										
5. Work-family conflict (partner)	0.076	0.038	-0.227	0.151	1.000									
6. Relationship quality (partner)	-0.336**	-0.346**	0.124	-0.044	-0.157	1.000								
7. Work/family conflict (children)	-0.108	0.074	-0.032	-0.291	0.763***	-0.379	1.000							
8. Diversity climate	0.031	-0.056	0.065	-0.022	-0.235	0.045	-0.067	1.000						
9. Supervisory support	-0.024	-0.039	-0.022	-0.022	-0.200	0.099	-0.461*	0.570***	1.000					
10. Job involvement	0.250*	0.487***	0.061	0.121	0.088	-0.052	0.093	0.028	0.076	1.000				
11. Career choice commitment	0.073	0.147	0.030	-0.062	-0.245*	0.055	0.015	0.108	0.224*	0.000	1.000			
12. Career progression satisfaction	0.130	0.111	0.097	-0.011	0.012	0.098	-0.180	0.177	0.180	0.000	0.000	1.000		
13. Career strategy	0.083	0.117	-0.020	0.127	0.028	-0.164	0.136	-0.048	-0.119	0.000	0.000	0.000	1.000	
14. Organizational commitment	0.179	0.179	0.041	0.097	-0.117	0.087	-0.341	0.498***	0.538***	0.286**	0.368***	0.362***	-0.028	1.000



**Table 5** Regression analysis results

	B	Standard error	Standardized $\beta$	t	p
Constant	48.848	5.097		9.583	0.000
Supervisory support	0.573	0.208	0.254	2.757	0.007
Career choice commitment	5.099	1.194	0.319	4.270	0.000
Career progression satisfaction	4.490	1.109	0.308	4.048	0.000
Career/job involvement	3.341	1.172	0.210	2.850	0.006
Organizational diversity climate	0.357	0.145	0.230	2.470	0.016

programmes for women and create a work environment that is perceived to be supportive of female employees.

### Fairness of exchange

Exchange theories of organizational commitment would explain the relationship between women's career experiences and organizational commitment in terms of a lack of reciprocity in the employment relationship. The construction industry is demanding of its employees' time and energy. If employees perceive this involvement is not reciprocated, in the form of career advancement opportunities, organizational commitment may be diminished. Several respondents alluded to a sense of lack of reciprocity in the exchange between themselves and their organizations in the comments they provided at the end of the questionnaire. For example, one respondent wrote:

I feel committed to what I do, I think I am doing something good, I would like to contribute to my employer's business and be loyal – but I am not getting any of this reciprocated. They provided the opportunity for me to develop this far but I do not think it will be allowed to go much further, and certainly not [allow me] to make the most of it.

Another respondent expressed dissatisfaction with the opportunities she enjoys to develop her skills given the time demands of her work, writing:

I feel that I need to put myself through training to keep my skills up to date [because] retraining is not offered in the workplace ... Currently the work environment is very unstimulating given the amount of hours that has to be spent there.

The results are also consistent with the view that organizational commitment is linked to perceptions of fairness in the provision of career development opportunities (Wooten and Cobb, 1999). The organizational diversity climate, reflects the extent to which opportunities are available to all employees, including women and minorities. Our results indicate that, where equality of opportunity is perceived not to exist, female employees will be less organizationally committed. Again, qualitative comments made by several respondents indicated that, for some women in our sample, perceptions of the

organizational diversity climate are a source of dissatisfaction with their work. One respondent wrote: 'I certainly have at times felt that the 'old boys club' was insidious and impenetrable with agendas that I was not privy to (or could understand).'

The results suggest that construction organizations must change women's perceptions about unfair exchanges and discriminatory practices if they are to enhance the organizational commitment of their female employees. The formalization of evaluation and promotion processes is likely to improve women's perception that opportunities are handled fairly. Formalized career development processes are particularly important to women who are likely to be disadvantaged by promotion criteria, such as possessing 'leadership potential' or 'being a team player,' because employers generally view women as lacking these traits (Cassirer and Reskin, 2000). Organizational career management activities that complement employees' career self-management strategies are known to enhance organizational commitment as well as assisting employees to meet their personal career goals (Orpen, 1994; Sturges *et al.*, 2002).

### Affirmative action

Affirmative action policies aimed at increasing the representation of women in construction, especially in managerial roles, could also increase women's organizational commitment. Affirmative action policies consist of setting organizational goals for increasing the representation of historically excluded groups, establishing timetables for achieving these goals and implementing organizational practices to achieve these goals within established time frames (Konrad and Linnehan, 1999, p. 429). However, such policies are controversial and must be implemented carefully because the interaction between affirmative action and anti-discrimination provisions in legislation is complex (Hodges-Aeberhard, 1999).

The impact of affirmative action policies on their intended beneficiaries may also be negative in some circumstances (Heilman *et al.*, 1990; Nacoste, 1990). In fact, women's organizational commitment is reported to decrease as the belief that their sex was an important factor in the decision to hire them increases (Chako, 1982). Thus, if affirmative action policies are to have a

positive impact on women's organizational commitment, it is important that these policies be framed carefully. It should be made clear that such policies are designed to address the past effects of discrimination and increase minority representation and not to encourage an under-qualified workforce (Taylor-Carter *et al.*, 1996).

Our results also suggest that construction companies need to better promote a positive diversity culture. Diversity initiatives could include the provision of diversity training to all employees and the inclusion of equal opportunities performance measures in managers' performance appraisals (Wentling and Palma-Rivas, 1998). Given the significant correlation between perceived supervisor supportiveness and organizational commitment in our data, particular attention should be paid to educating supervisors in how to manage employees who differ from the majority, not just by sex, but also by age, race or social background.

### **Mentoring**

Mentoring may provide women in construction with support in attaining their career and personal goals (Noe, 1988). Mentoring is recommended as a tool to help women to break the so-called 'glass curtain' (Burke and McKeen, 1990) and has been used to help women progress their careers in organizations in which they were under-represented, for example the Tasmanian Department of Justice (MacGregor, 2000). Traditional mentoring involves the establishment of a relationship between a more experienced person who acts as a guide, role model and adviser and assists the less experienced person to achieve their life, work and career goals (MacGregor, 2000). Mentoring is linked to positive organizational consequences, such as reduced turnover and elevated career satisfaction (Blake-Beard, 2001), and may foster organizational commitment.

Gutek (2001) observes that suitable female role models or mentors within organizations are often difficult to find. This is likely to be particularly true for women in predominantly male industries. Therefore, until women are more equally represented in the construction industry, a formal mentoring scheme may be most effectively implemented on an industry-wide basis to support women in construction careers. National organizations like NAWIC are well positioned to facilitate such a mentoring scheme. Tertiary or technical institutions could also establish mentoring schemes for women completing construction-related degree courses or trade qualifications.

### **Work-family issues**

Our finding that family variables are not related to women's organizational commitment was unexpected.

One possible explanation is suggested in the qualitative comments made by some respondents at the end of the questionnaire. These comments suggest that women in construction adopt an 'either or' approach to career and family. For example, one respondent commented: 'I do expect to have a family one day, potentially in the next five years and thus don't find career advancement that big a priority in my life'. Another wrote: 'After my first child, I very quickly returned to full-time employment but it took a toll on my family life. I now accept that you can't have it all and that work must take second priority to family'. It is possible that women's perception of the need to make a choice between work and family means that women who choose to have a family, develop lower expectations of the work experience and, consequently, work-family conflict does not negatively impact upon their organizational commitment. However, women who expect to balance both family and career success in the construction industry may experience significant difficulties. One respondent foreshadowed such difficulties in the following comment: 'I am extremely worried that should I choose to have a child that my job will be in severe jeopardy'.

From a social policy perspective, the existence of a disincentive for career women to have children is of concern because Australia's population is aging and the birth rate is declining. Furthermore, in 1990, Australia ratified ILO Convention 156, which obliges Australia to aim to enable people engaged in work with family responsibilities to work without being subject to discrimination and without conflict between work and family. Even though women are making these choices 'freely,' it is possible that subtle forms of discrimination are still at work (Gutek, 2001). Women's life planning and career choices warrant further investigation in the construction context.

### **Limitations**

One limitation inherent in our study was that questions assumed respondents were organizationally employed. Ten respondents indicated that they were self-employed and therefore many of the questions were not applicable to them. Owing to the fact that these respondents were not able to respond to items in the organizational commitment scale (the dependent variable), these cases were treated as missing data and removed from the data analysis. Qualitative comments made by these respondents suggested that self-employment was a coping mechanism for them. These respondents had made a conscious decision to start their own businesses when organizational careers were frustrated or when they required greater flexibility to fulfil family responsibilities. For example, one respondent wrote:

I have worked for 12 years in large architectural/design practices. Each time I resigned because it was

the only way I felt I could achieve an increase in salary and responsibility – this happened three times and the fourth time the only way I felt I could still do what I love and am good at, was to work for myself. There was nowhere else to go.

Another respondent commented:

I have worked for other companies and set up my own practice after having children mainly because there was very little part-time work available. I found employers (generally male) inflexible with hours.

Ensher *et al.* (2001) suggest that women leave large organizations and establish their own businesses as a result of low levels of organizational commitment. The comments made by women in our study suggest that a similar pattern may occur in construction. Future research should investigate the extent of this trend.

Other limitations include the fact that respondents were all members of the Victorian Chapter of NAWIC. There is a possibility that these respondents might hold extreme views regarding gender equity in construction and this possibility must be acknowledged. In addition, the use of NAWIC members as a sample frame means that no comparable data are available for men working in construction. These limitations raise opportunities for future research that should be undertaken to examine whether the same factors predict organizational commitment among women who are not members of NAWIC and among men who work in construction.

## Conclusions

In the main, hypotheses relating to women's job involvement and career experiences (H1) were supported. Career choice commitment, career progression satisfaction and career/job involvement were all significant predictors of women's organizational commitment. Hypotheses (H2) relating to women's perception of their work environment were also supported. The organizational diversity climate and perceived supervisory support were significant predictors of women's organizational commitment. Hypotheses relating to women's experiences at the work-family interface (H3) were not supported. No family variables were found to be significant predictors of organizational commitment in this study. Reasons for this are not clear, but it is possible that they are related to women's perceptions that construction careers are not compatible with family life and therefore they are forced to choose between pursuing such careers and having a family. More research into the timing and nature of the career decision-making of women in construction is recommended.

Organizational commitment is a consistent determinant of employee turnover, motivation and productivity.

We recommend that construction organizations interested in improving the retention rate of female employees and enhancing women's motivation and productivity focus on addressing these determinants of women's organizational commitment. In particular, our results suggest that construction organizations should implement formalized career management processes, which are applied consistently to all employees. In the short term, affirmative action policies could be considered as a means of redressing the gender imbalance in construction organizations as a whole and at senior management levels in particular. However, such policies should only be implemented alongside a serious attempt to educate all employees in the requirements for and advantages of developing a diverse workforce. The relationship between female employees and their immediate supervisors is also an important determinant of their organizational commitment. Perceptions that supervisors are supportive are positively associated with organizational commitment. Training supervisors in how to better manage a diverse workforce is therefore particularly important.

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