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# The work-life experiences of office and site-based employees in the Australian construction industry

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A survey was conducted among employees of a large Australian construction firm. Comparisons were made between employees who differed by gender and work location. Male employees in site-based roles reported significantly higher levels of work to family conflict and emotional exhaustion than male employees who worked in the regional or head office. Site-based male employees were also less satisfied with their pay than male respondents who worked in the regional or head office. Few significant differences were found between women who worked in different locations. Neither were significant differences between men and women who worked in the same location reported. The results are explained in terms of women's tendency to work in administrative, secretarial or support services roles, which typically demand fewer hours. The paper concludes that the experiences of site-based construction employees, particularly men, warrant further attention to explore the sources of work-life imbalance and burnout.

**Keywords:** Construction, work-family conflict, burnout, job satisfaction, social exchange

## Introduction

### The construction industry

Construction is a demanding work environment with considerable potential to interfere with employees' non-work lives in a negative way. The project-based nature of work and the uncertainty associated with competitive tendering means that many construction employees suffer a lack of job security or face frequent relocation to ensure continuity of employment. Previous research has found job insecurity to be negatively related to marital and family functioning (Larson *et al.*, 1994) and a positive predictor of burnout (Westman *et al.*, 2001). Furthermore, as a result of women's increasing participation in the workforce, dual career couples are now commonplace, making frequent relocation difficult. Research suggests that accompanying spouses, who move for their partners' careers, transition into jobs offering lower pay, fewer benefits and less opportunity for promotion (Eby *et al.*, 2002), which no

doubt places strain on the marital relationship and affects both the employees' and spouses' adjustment to the relocation.

Construction industry employees are also expected to work long, and often irregular, hours and research suggests that long work hours are negatively related to family participation and positively related to divorce rate (Aldous *et al.*, 1979). Irregularity of work hours has been identified as the most important variable affecting low marital quality among shift workers (White and Keith, 1990) and non-standard work schedules have been found to affect separation or divorce rate among married people with children (Presser, 2000).

Work pressures are also reported to be an important determinant of professionals' subjective beliefs that work interferes with non-work life in a negative way (Wallace, 1997). Construction is a high-risk industry characterized by organizational and physical uncertainty. Profit margins are narrow and construction schedules are tight, with project delays and time overruns resulting in serious financial penalties. These work pressures may also have an impact upon construction employees' non-work lives.

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### **Changing workforce demographics and work patterns**

Dramatic increases in women's participation in the paid workforce have forced employers in many industries to consider the familial responsibilities of their employees (Hegtvedt *et al.*, 2002). Jacobs and Gerson (2001) suggest that the unprecedented number of dual earner households has led to increased time pressure on families because no longer can it be assumed that children can be cared for by a stay-at-home mother. In Australia, in 59% of two-parent families, both parents are in paid employment (ABS, 1998). However, Becker and Moen (1999) report that participants in dual earner couples often prefer to work part time in order to balance work and family responsibilities. Despite this preference, part time options are often not available to construction employees.

Parenting introduces new demands and requires a great deal of time and energy. Roxburgh (2002) reports that, for both men and women, having children living at home increases subjective time pressures. Tausig and Fenwick (2001) assert that married working couples without children report greater work-life balance than those with children. A report prepared by the Australian Bureau of Statistics states that in dual income couples, 70% of all mothers and 56% of all fathers reported that they always/often felt rushed or pressed for time. Only 25.2% of couples without children reportedly experienced this feeling with the same frequency (ABS, 1999). This suggests that many Australian workers experience what Hochschild (1997) termed the 'time-bind', in which workers experience a subjective feeling that the time and energy demands of work and family cannot be met simultaneously.

### **Changing expectations regarding work and family**

The roles and expectations of women and men have also changed significantly over the past 60 years. There has also been a substantial shift in the expectation of fathers' involvement in parenting. In an Australian study by Russell, Barclay, Edgecombe, Donovan, Habib, Callaghan and Pawson (as cited in Russell and Bowman, 2000), 68% of fathers reported they did not spend as much time with their children as they would like, with 57% acknowledging that work-related factors were the major contributors to this problem.

There is evidence to suggest that the new generation of workers has different expectations of work and family life. Loughlin and Barling (2001) assert that young children's understanding of the world of work is influenced by their parents' experiences of work and that, due to corporate 'downsizing' and other economic

pressures in the 1980s and 1990s, the new generation of workers are sceptical about over committing themselves to work. Instead, they expect their work to deliver immediate pay offs, such as independence, flexibility, and an enjoyable work environment. Young workers also report to have greater expectations of achieving a balance between their work and non-work lives (Family and Work Institute, 2000). Loughlin and Barling (2001) suggest that, in order to attract, retain and motivate the future workforce, organizations will have to accommodate the preferences of younger workers for 'non-standard' work arrangements that permit a work-life balance.

### **Work-family issues in the construction industry**

The work-family experiences of construction industry employees have largely been ignored by construction researchers. However, there is a growing body of evidence to suggest that work-family experiences play an important role in shaping employees' work-related attitudes and behaviours as well as determining individual and organizational well being. It is reported that, by 2020, Australia will face a labour shortage of 500 000 (*The Age*, 2003). The hardest hit industries are likely to be those that cannot attract high calibre, younger employees and employees from groups whose participation in the workforce is growing, for example women (Francis and Lingard, 2002). Closer attention to work-family experiences of construction industry employees is therefore timely.

### **Work-interference with non-work life**

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). It is now widely accepted that traditional management theories and practices, which presuppose a lifestyle that segregates work and non-work spheres, are no longer relevant.

The extent to which work interferes with family life has been the focus of many studies of the work-life interface (see, for example, Frone *et al.*, 1992 and Wallace, 1999). Kahn *et al.* (1964) defined work-family conflict as a type of inter-role conflict in which the demands of the work role conflict with demands in the family role. Greenhaus and Beutell (1985) identified three dimensions of work-family conflict as follows:

- time-based conflict, which occurs when time spent on activities in one role prohibits the fulfilment of responsibilities in another role;
- behaviour-based conflict, which occurs when behaviour in one role cannot be adjusted to be

compatible with behaviour patterns in another role; and

- strain-based conflict, which occurs when pressures from one role interfere with fulfilling the requirements of another role.

Research suggests that a subjective sense that work interferes with family life in a negative way is linked to negative mental health outcomes (Grzywacz and Bass, 2003) and behavioural problems, such as problem drinking (Grzywacz and Marks, 2000). Work to family conflict has also been linked to diminished family functioning and reduced job and life satisfaction (Bedeian *et al.*, 1988; Adams *et al.*, 1996; Kossek and Ozeki, 1998; Boles *et al.*, 2001). Recent research in the Australian construction industry revealed that hours worked each week and role conflict predicted marital satisfaction and conflict among construction professionals (Lingard and Sublet, 2002). For these reasons, marital quality and various aspects of job satisfaction were included as variables in our study.

Work stress and long hours can also cause fatigue and burnout, a phenomenon of emotional exhaustion, cynicism and a diminished sense of personal efficacy (Maslach *et al.*, 1996). Previous research in the Australian construction industry reports that role conflict and a subjective sense of having too much to do in the time available predicted burnout among civil engineers (Lingard, 2003). Burnout is of interest to researchers exploring work and family issues because research suggests that, although burnout predicts a distancing from work, it is associated with a complex interaction between experiences in work and other life domains, including family (Aryee, 1994; Dolan, 1995; Lingard, 2003). Furthermore, family issues are stronger predictors of burnout among parents and employees in dual earner couples, suggesting that certain family variables can shape employees' susceptibility to burnout (Lingard, 2004). There is also evidence to suggest that burnout, once experienced, can spread to affect other family members (Westman *et al.*, 2001). For these reasons burnout was included as a variable in our study.

## Objectives

This paper reports the results of a preliminary investigation of work-life experiences of employees in one large Australian construction organization. A survey was undertaken to investigate employees' experiences in several key work-life areas, including work-family conflict, job burnout and job satisfaction. The aim of the study was to identify whether work-family issues are perceived to be a problem by employees and to what extent employees' experiences differ between project and office-based employees within the company. In

particular, the perceptions of employees who work on site, in project-based roles, and those who work in a regional or company office were compared to determine whether work-life experiences differed by the work location and nature of work undertaken by employees. The study also compared employees' experiences by gender to determine whether any significant gender differences existed.

## Methods

### Data collection

The data were collected from within a single organization. The organization is one of Australia's leading construction contracting organizations, comprising two core groups, building and civil engineering. Although the organization's head office is in Sydney, the organization undertakes large scale building and engineering projects throughout Australia, and has regional offices in each Australian state.

The questionnaire was distributed to a total of 600 employees including senior managers, middle managers, secretarial and administrative employees, employees in technical support roles, foremen and site supervisors. The survey was distributed with a letter from the human resource director explaining the purpose of the survey and assuring confidentiality and anonymity of responses. Each employee also received a postage-paid addressed envelope in which they could return their completed questionnaire directly to the research team. Three weeks after questionnaires were distributed, the company's human resource director sent a follow-up e-mail reminder to all employees.

### Questionnaire design

Demographic information collected from respondents included their age, gender, the number of years they have worked in the construction industry and their job classification. Respondents were also asked to indicate the average number of hours they work each week and where they spent most of their time at work. For this purpose, respondents were asked to choose between following three work location categories:

- on site (in direct construction activity);
- on-site (but mostly in a site office); and
- in the head or a regional office.

Work-life conflict was measured using Small and Riley's (1990) spillover scale. 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). The scale measures work spillover into four aspects of respondents' non work-life:

- relationship with spouse/partner (my marriage/relationship suffers because of my work);
- relationship with children (because I am often irritable after work, I am not as good a parent as I would like to be);
- home management (my job makes it difficult to get household chores done); and
- leisure activities (the amount of time I spend working interferes with how much free time I have).

The quality of respondents' relationship with their spouses/partners was measured using Spanier's Dyadic Adjustment Scale (DAS) (Spanier 1976). The DAS measures relationship quality on four interrelated dimensions: dyadic consensus, dyadic cohesion, dyadic satisfaction and affectational expression. Only the dyadic consensus, cohesion and satisfaction scales were used in our study because the affectational expression items were deemed to be too personal. Consensus items measure the level of agreement on matters including family finances and amount of time spent together. Items are rated from always agree (5) to always disagree (0). Cohesion items tap into the extent to which couples engage in joint activities, including having a stimulating exchange of ideas or working collaboratively on a project. Items are rated according to frequency on a scale ranging from never (0) to more than once a day (5). Satisfaction items assess respondents' overall satisfaction in their relationship. Satisfaction items include an overall indicator of happiness in the relationship, ranging from extremely unhappy (0) to perfect (6).

Burnout was measured using the Maslach Burnout Inventory – General Survey (Maslach *et al.*, 1996). This 16-item inventory comprises three sub-scales assessing emotional exhaustion (I feel emotionally drained from my work), cynicism (I have become less interested in my work since I started this job) and personal efficacy (At work, I feel confident that I am effective at getting things done). The items for the third dimension of burnout are framed in positive terms and thus a low score reflects a low sense of personal efficacy. Items are rated on a seven point Likert scale ranging from never (0) to everyday (6).

Job satisfaction was measured using a general satisfaction scale incorporated into the Survey of Organizations developed at the University of Michigan and widely used in organizational research (Taylor and Bowers, 1972). This scale asks respondents to rate their satisfaction with various aspects of their job, including people in their work group, supervisor, job security, the organization as a whole, pay in relation to skill and

effort, progress to date and chances for career progression in the future. Satisfaction is rated on a five-point scale ranging from very dissatisfied (1) to very satisfied (5). An additional item was added asking respondents to rate their overall satisfaction in their current job. Overall satisfaction is rated on a scale ranging from completely dissatisfied (1) to completely satisfied (5).

### Data analysis

In order to compare the work-life experiences of different groups of employees, statistical tests were conducted to compare the mean scores for important variables between groups of employees. One-way analyses of variance (ANOVAs) were used to test for significant differences between respondents working in the three different work location categories. Pairwise t-tests were then used to identify significant differences among two sample means, for example between male and female respondents working in the same location.

## Results

### The sample

Before presenting the results of the data analysis, the characteristics of the sample will be described. 281 completed questionnaires were received representing a response rate of 47%. Table 1 shows the demographic characteristics of the sample. It is worth noting that, of all employee groups who received the questionnaire, the largest number of completed and returned questionnaires was from foreman/supervisors (19%). This was unexpected and suggests that this group of employees may be particularly concerned with work-life issues.

Respondents indicated their age within one of the nine categories given. The modal age of the sample was 40–44 years. The number of hours respondents spent at work ranged from nine hours through to 80 hours per week. The modal average number of hours worked by respondents was 55.2 hrs with a standard deviation of 9.46 hrs. The number of years respondents had worked in the construction industry ranged between 0.33 and 50 years with a modal value of 18.1 years and a standard deviation 11.05 years.

To facilitate the comparisons by gender and work location, three groups were separately created for women and men. Table 2 shows the distribution of male and female respondents in each group. A greater proportion of women (59.1%) worked in a regional or the head office than men (26.4%). Women were under-represented in site-based roles. Fifty-eight men (25.1% of all male respondents) reported working on-site in direct construction activity. Only one woman

**Table 1** Demographic characteristics of sample

	<i>n</i>	%		<i>n</i>	%
<i>Age</i>			<i>Description of household</i>		
Under 24	8	2.9	Couple with dependant children	149	53.0
25–29	31	11.0	Couple with non-dependant children	30	10.7
30–34	31	11.0	Single parent	3	1.1
35–39	47	16.7	Couple without children	61	21.7
40–44	61	21.7	Single person	29	10.3
45–49	43	15.3	Other or not specified	9	3.2
50–54	29	10.3			
55–59	20	7.1	<i>Job description</i>		
60 or over	8	2.8	Site/project engineer	32	11.4
Not specified	3	1.1	Project/construction manager	50	17.8
			Contract administration	43	15.3
			Corporate management	22	7.8
<i>Gender</i>			Clerical/secretarial	21	7.5
Male	232	82.6	Foreman/supervisor	54	19.2
Female	44	15.7	Support services	35	12.5
Not specified	5	1.8	Engineering services	16	5.7
				5	1.8
<i>Dependant children</i>	Estimating/tendering		Not specified	3	1.1
Yes	154	54.8			
No	125	44.5			
Not specified	2	0.7	<i>Work location</i>		
			On site	60	21.4
<i>No. of dependant children</i>	Site office			129	45.9
0	129	45.9	Head/regional office	88	31.3
1	34	12.1	Not specified	4	1.4
2	78	27.8			
3	34	12.1	<i>Years worked in construction</i>		
4	4	1.4	5 or fewer	42	14.9
5	2	0.7	6–10	40	14.2
			11 or more	196	69.8
			Not specified	3	1.1

**Table 2** Respondents by gender and work location

Work location	Women		Men	
	<i>n</i>	%	<i>n</i>	%
1. On-site (in direct construction activity)	1	2.3	58	25.1
2. On-site (in site office)	17	38.6	112	48.5
3. Regional of head office	26	59.1	61	26.4
Total	44	100	231	100

(2.3% of all female respondents) indicated that she worked on-site in direct construction activity. Among site office-based respondents, the sample included 112 men (48.5% of all male respondents) and only 17 women (38.6% of all female respondents).

### Work hours

Exploratory analysis of the conditions of work required of site and office-based employees revealed that

site-based employees work longer, more irregular hours than office-based employees. The average number of hours worked each week was 62.5 among site-based respondents in direct construction activity, 56.1 among respondents who work mostly in a site office and 49.0 among respondents in the head or regional office.

### Work to family conflict

One-way ANOVAs were conducted to determine whether site-based employees reported greater work to family conflict than office-based employees. The results are shown in Table 3. In all categories of work to family conflict, employees engaged in direct construction activity reported greater conflict than those based in a site office, and employees based in a site office reported greater conflict than employees in a head or regional office. The differences in work interference with the parent-child relationship ( $F = 9.725$ ,  $p = 0.000$ ), the pursuit of leisure activities ( $F = 21.369$ ,  $p = 0.000$ ), meeting home management requirements ( $F = 20.485$ ,

**Table 3** ANOVA results showing work-life conflict by life domain, work location and gender

	Group mean of summed conflict scores			<i>p</i>
	On site	Site office	Regional/head office	
1. Parent-child relationship				
Men	18.8 <sup>a</sup>	17.5 <sup>b</sup>	14.8 <sup>a,b</sup>	0.000
Women	N/A	15.3	16.2	NS
2. Leisure activities				
Men	18.4 <sup>c</sup>	17.0 <sup>d</sup>	14.1 <sup>c,d</sup>	0.000
Women	25.0 <sup>c</sup>	15.2	13.5 <sup>c</sup>	0.026
3. Home management				
Men	16.8 <sup>f</sup>	16.8 <sup>g</sup>	13.9 <sup>f,g</sup>	0.000
Women	21.0	17.3 <sup>h</sup>	14.2 <sup>h</sup>	0.032
4. Spouse/partner relationship				
Men	18.4 <sup>i,j</sup>	17.9 <sup>i,k</sup>	14.4 <sup>i,k</sup>	0.000
Women	25.0 <sup>lm</sup>	14.6 <sup>l</sup>	13.0 <sup>m</sup>	0.036

Notes: significant differences are denoted by the same superscript; *p* = significance; NS = not significant.

$p = 0.000$ ) and employees' relationship with their spouse or partner ( $F = 22.528$ ,  $p = 0.000$ ) were all statistically significant. Pairwise t-tests were conducted to test for pairwise differences between men and women working in the same location. No significant differences were found.

#### Relationship quality by gender and work location

One-way ANOVAs were also conducted to test for significant differences between relationship cohesion, consensus or satisfaction between employees working in different locations. The results are shown in Table 4. No significant differences were found within gender categories.

Next, pairwise t-tests were conducted to determine whether relationship quality differed significantly between male and female respondents working in the same location. In the regional or head office,

female respondents reported significantly higher relationship cohesion ( $t = -2.359$ ,  $p = 0.026$ ) and consensus ( $t = -2.236$ ,  $p = 0.035$ ) than male respondents.

#### Burnout by work location and gender

Next, female and male respondents' burnout scores were examined separately for employees working different locations. The results are presented in Table 5. The one-way ANOVAs revealed no significant differences in levels of burnout among women working in different locations. However, among male employees, significant differences between employees working in different locations were found for all three dimensions of the burnout phenomenon. Thus, male respondents who worked on-site in direct construction activity reported significantly higher levels of emotional exhaustion ( $t = 2.691$ ,  $p = 0.008$ ) and cynicism ( $t = 2.389$ ,  $p = 0.019$ ) than employees in the head or regional office.

**Table 4** ANOVA results showing relationship quality by work location and gender

	Group mean of summed relationship quality scores			<i>p</i>
	On site	Site office	Regional/head office	
Relationship cohesion				
Men	24.8	24.8	25.8 <sup>f</sup>	NS
Women	20.0	26.6	28.7 <sup>f</sup>	NS
Relationship consensus				
Men	27.1	28.7	29.5 <sup>a</sup>	NS
Women	15.0	29.7	32.7 <sup>a</sup>	NS
Relationship satisfaction				
Men	24.2	24.6	24.3	NS
Women	13.0	25.3	26.2	NS

Notes: significant differences are denoted by the same superscript; *p* = significance; NS = not significant.

**Table 5** ANOVA results showing burnout by work location and gender

	Group mean of burnout factor scores			<i>p</i>
	On site	Site office	Regional/head office	
Emotional exhaustion				
Men	0.154 <sup>b</sup>	0.270 <sup>c</sup>	-0.327 <sup>b,c</sup>	0.001
Women	1.644	-0.350	-0.455	NS
Personal efficacy				
Men	0.397 <sup>a,c</sup>	-0.099 <sup>a</sup>	-0.182 <sup>c</sup>	0.003
Women	-1.864	0.313	0.015	NS
Cynicism				
Men	0.249 <sup>d</sup>	-0.067	-0.194 <sup>d</sup>	0.041
Women	1.717	-0.028	0.079	NS

Notes: significant differences are denoted by the same superscript; *p* = significance; NS = not significant.

However, male respondents who worked on-site in direct construction activity enjoyed a significantly higher sense of personal efficacy than male respondents who worked predominantly in the site office ( $t = 3.310$ ,  $p = 0.001$ ) and those who worked in the head or regional office ( $t = 3.659$ ,  $p = 0.000$ ). Finally, male respondents who worked predominantly in a site office reported higher levels of emotional exhaustion than male

respondents who worked in the head or regional office ( $t = 4.007$ ,  $p = 0.000$ ).

### Job satisfaction by work location and gender

Table 6 shows the mean scores for job satisfaction by employees' gender and work location. When the facets of job satisfaction were examined by gender and work

**Table 6** ANOVA results showing job satisfaction by work location and gender

	Group mean satisfaction scores			<i>p</i>
	On site	Site office	Regional/head office	
Satisfaction with work group				
Men	4.05	4.11	4.28	NS
Women	4.00	4.24	4.46	NS
Satisfaction with supervisor				
Men	3.93	3.85	3.93	NS
Women	3.00	3.82	4.42	NS
Satisfaction with job security				
Men	3.61	3.50	3.60	NS
Women	2.00	3.53	3.76	NS
Satisfaction with organization				
Men	4.05	4.15	4.15	NS
Women	4.00	4.00	4.15	NS
Satisfaction with pay				
Men	3.26 <sup>c</sup>	3.25 <sup>b</sup>	3.68 <sup>b,c</sup>	0.020
Women	1.00	3.35	3.35	NS
Satisfaction with personal progress				
Men	3.65	3.56 <sup>a</sup>	3.74	NS
Women	2.00	4.12 <sup>a</sup>	4.08	017
Satisfaction with chance to advance in the future				
Men	3.42	3.29	3.42	NS
Women	2.00	3.12	3.23	NS
Overall job satisfaction				
Men	3.86	3.75	3.89	NS
Women	2.00	4.06	4.12	NS

Notes: significant differences are denoted by the same superscript; *p* = significance; NS = not significant; 1 = very dissatisfied, 2 = fairly dissatisfied, 3 = neither satisfied nor dissatisfied, 4 = fairly satisfied, 5 = very satisfied.



location, some significant differences were found. A one way ANOVA revealed significant differences in satisfaction with pay, between male respondents working in different locations ( $F = 4.003$ ,  $p = 0.020$ ). Pairwise t-tests revealed that male respondents who worked on site in direct construction activity were significantly less satisfied with their pay than male respondents who worked in the head or regional office ( $t = -2.161$ ,  $p = 0.033$ ). Male respondents who worked mostly in a site office were also less satisfied with their pay than those based in the head or regional office ( $t = -2.810$ ,  $p = 0.006$ ).

A pairwise t-test also revealed a significant difference between male and female respondents' satisfaction with their personal progress in the organization among those respondents who worked predominantly in the site office ( $t = -2.820$ ,  $p = 0.008$ ). Unexpectedly, men reported lower satisfaction with their progress than did women.

## Discussion

The results of this study reveal that site-based male employees suffer higher levels of work interference with family life than male employees based in a head or regional office. Men who work in site-based roles also suffer significantly higher job-related emotional exhaustion and are less satisfied with their pay than men who work in the regional or head office.

Our results confirmed that site-based employees work longer hours than employees in the head or regional office. It is typical for site-based employees to work six days each week and the expectation of weekend work was an important theme emerging in the analysis of qualitative comments provided by site-based employees at the end of the questionnaire. A total of 23% of employees who work on site in direct construction activity, 52% of employees who work in a site office and only 9% of employees based in the head or a regional office expressed a desire to work fewer hours and have more time off. The frustration of one employee who had recently moved from a site-based role to work in the head office reflects this difference. They wrote:

I spent four years as a site engineer prior to joining the team in the head office. If this survey was sent out 18 months ago I would have certainly answered it differently. My quality of life has vastly improved now that I don't have to work weekends. My hours have dropped from over 60 hours per week to 50 hours. Twelve months ago I was burnt out, ready to resign and exhausted and angry. Now I get enough sleep, I'm not stressed out all the time. Although I terribly miss all the action, chaos, teamwork and instant gratification achieved on site, I feel my stress levels and resting periods are where they should be.

Interestingly, the differences between site and head office-based employees were stronger for men than they were among women. Few significant differences were found between women who worked in different locations, though women who worked in the regional or head office reported lower work interference with home management activities. It is not clear why the female respondents in our sample did not report the same differences as the men, although a closer examination of the nature of work undertaken by women in the sample might offer a partial explanation of this.

In terms of role, most women in our sample performed a role with a lower average number of hours worked each week. A total of 46% of female respondents worked in a clerical secretarial role and a further 25% were in a support role, such as environmental management or quality. The average hours worked each week for these groups was 43 and 49 respectively. This is substantially lower than in positions dominated by men, such as site/project engineer (60 hours a week) and foreman/supervisor (62 hours a week). Thus, it seems that the fact that site-based women do not experience greater difficulty at the work-family interface than women in the regional or head office may reflect the fact that female employees perform less demanding roles and are underrepresented in mainstream construction and engineering roles associated with greater time-based demands. It may be the case that were women better represented in site-based technical roles differences by work location, similar to those reported by men, would be evident.

It may also be the case that the demands of site-based work actually discourage women from pursuing careers in these roles. One female engineer suggested this as she wrote:

Being a young female engineer in this industry, I find it hard to see myself staying in this field if I intend to start a family. Not only do I feel drained each day, it affects my relationships dramatically. It seems if you don't have the view that you 'live to work' you are not committed to your job. Today's generation are looking for self-fulfilment in a job rather than loyalty to a company and security. A balance needs to be kept and at present I don't think that view is very easily accepted.

This comment is also consistent with Loughlin and Barling's (2001) argument that younger workers have greater expectations of achieving a balance between work and family.

Our results also indicate that, although male employees' subjective sense that work interferes with the marital relationship and parenting role differed significantly by work location, the quality of male respondents' relationships with their spouses/partners did not. Thus, the subjective sense of work interference with family may be more problematic than actual family

relationship outcomes. However, it should be pointed out that no data were collected from employees' spouses/partners in this phase of the study and consequently, the quality of the dyadic relationship may not have been accurately assessed (see future research section at the end of this paper). Women in the regional and head offices reported greater relationship cohesion and consensus than men who worked in the regional or head office. Reasons for this are unclear.

### Social exchange theory

Social exchange theory (Blau, 1964) may offer some explanation as to why site-based employees experience higher levels of emotional exhaustion and cynicism and are less satisfied with their pay than employees who work in the regional or head office. The construction industry is demanding of its employees' time and energy. If employees perceive this involvement is not reciprocated it is likely to create a sense of discontentment. Social exchange theory suggests that people consider the fairness in the exchange relationship between themselves and an organization. This theory has been used to explain why perceptions of unfair treatment result in low levels of work satisfaction and organizational commitment (McFarlin and Sweeney, 1992). Equity in the exchange relationship is also reported to be an important determinant of employees' work attitudes and behaviours (De Boer *et al.*, 2002; Lam *et al.*, 2002). Equity theory holds that the amount that people invest in and gain from the employment relationship should be proportional to what others invest and gain. Thus, outcomes or rewards will be judged to be unfair if they are perceived to be lower than they should be according to some referent. Furthermore, research indicates that perceptions of fair treatment are shared by social groups within organizations and that organizational norms can create a work environment in which whole groups of employees feel unfairly treated, perhaps as a result of the treatment of one member (Lamertz, 2002).

Some of the comments made by site-based employees suggest that there is a sense that all site-based employees are unfairly treated and that their contribution is not recognized by managers in the head or regional office. Given the long hours and personal sacrifice made by many project staff, comments made by site-based employees suggest that they feel alienated and removed from the power or decision-making centre of the company and are resentful of this. For example, one site-based employee wrote:

In three years with the company (on one large project), I have visited the head office (for a company induction) and have attended three 'company' functions (Christmas parties) in three years. The company can only foster loyalty if it can build bonds with its employees and

between its employees. Company mail-outs do not build bonds. Site-based staff with little/no contact with 'permanent' company office may have loyalty to the project but feel expendable as far as the company is concerned.

Furthermore, site-based employees also appear to perceive that their investments are not fairly rewarded, hence they are less satisfied with their pay. In the additional comments made by many site-based employees, the fact that 'blue collar' site-based workers enjoy rostered days off and are paid higher rates for overtime was a source of complaint. Supervisors, professional and managerial employees do not enjoy these benefits and many respondents appeared to compare their own job demands and remuneration arrangements less favourably than blue-collar workers. For example, one respondent wrote:

I feel that the hours/days worked by those on site is excessive. It causes division between staff and day labour, as staff do not get paid for all hours worked and day labour work too long to get more money, which in many cases is not well managed.

Perceived unfairness and inequity have been linked to diminished job satisfaction, burnout and absenteeism (Schaufeli *et al.*, 1996; van Horn *et al.*, 1999; Lam *et al.*, 2002). De Boer *et al.* (2002) report that when salary and recognition are perceived to not match investments in a job role, exhaustion and impaired health can occur.

Our results suggest that there may be a need to consider site-based employees' evaluation of their relationship with the company. In exchange for their input of long hours and weekend work, they will have certain expectations of the company, which may not be being met at present. The notion of a 'psychological contract' is relevant to this suggestion as it may be that this contract is being breached, with negative consequences.

Strategies for trying to redress this imbalance may need to be developed. Management may try to change perceptions of the fairness of the exchange relationship by discussing with site-based employees, how they perceive the investments they make. For example, it might be useful to ask whether these employees perceive working every weekend to be a part of the normal working week, which can be expected of them, or as an additional, unrecognized investment. If the latter is the case, then management may need to explore what employees expect to receive in return for this investment.

### Gender issues

The lack of significant difference between men and women on most of our indicators suggests that, once work location is taken into account, gender differences in the work-family experiences of respondents are not

significant. Thus, work-family experiences appear to be more closely related to the nature of employees' work conditions, as indicated by where they work and for how long. This finding is consistent with those of other researchers, such as Perry-Smith and Blum (2000), who suggest that gender should receive less attention in work-family research than other variables. However, our findings also highlight the industry's poor performance in gender diversity. The results suggest that gender segregation exists within the industry and that women are seriously under-represented in mainstream, technical site-based roles. It is highly recommended that reasons for this be explored in future studies, which may include some examination of work-family issues.

Our results also suggest that work location is a significant determinant of burnout among male employees but not among female employees. Male employees in the three locations reported significantly different levels of all three dimensions of burnout. However, no significant differences were found in burnout experienced by women who worked in the three work locations.

## Conclusions

The study was limited in that data were collected from within a single organization. As such, the results cannot be generalized to the construction industry as a whole. However, the company involved in the study is one of Australia's largest construction organizations and data were collected from both the building and civil engineering groups within the organization. The organization also works in all Australian states and territories. Thus, although the company may possess a unique culture and organizational characteristics preventing the results from being generalizable, respondents were drawn from two of the major sectors of the construction industry and from all Australian states/territories.

The collection of data from employees of a single organization is a common feature of almost all studies of work-life issues, with very few studies involving data collection within multiple organizations. However, a follow-up study is nearing completion. In this study, data were collected from a second large private sector construction organization as well as a large public sector construction client organization. This follow-up study will reveal whether employees in other organizations have similar work-life experiences to those reported in this paper.

The results of this preliminary study suggest that site-based male employees experience significantly higher work interference with all aspects of their non work lives than male employees who work in the head or regional office. They are also more likely to experience emotional exhaustion and, men who work in site offices,

are more likely to experience cynicism than their counterparts in the head or regional office. All site-based men are less satisfied with their pay than male employees based in the head or regional office. Future research may usefully explore the notions of fairness and organizational justice in ascertaining why these differences exist. In comparison, female employees working in different locations did not differ significantly in their experiences at the work-family interface. This may be because women were underrepresented in roles in which time demands and work pressures are highest.

## Future research

This research is ongoing. The follow-up study, involving a government department and a second large construction firm is collecting data from both employees and their partners/spouses. This will provide a more complete understanding of the impact of work on the family life of employees. In addition, the second phase of the study adopts a longitudinal design. Data will be collected over a three-year period. This design will enable researchers to determine causal relationships between variables and explore how phenomena, such as burnout, develop over time.

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