Maintaining Family Life Under Shiftwork Schedules: A Case Study of a New Zealand Petrochemical Plant

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This article discusses the impact of long-term shiftwork on the families of male shiftworkers at a New Zealand petrochemical company. The findings are based primarily on interviews with twenty-seven shiftworkers and seventeen female partners, supplemented by informal observations of the organisation. All respondents described shiftwork as having a profound influence on the economic, temporal, social and emotional patterns of family life. Men and women gave divergent accounts, reflecting their differing roles within the family. Whilst the company compensated workers well financially for the inconveniences of shiftwork, the rigidity of the shiftwork system meant that families shouldered the primary responsibility for resolving the tensions between work and family life. In consequence, women paid a high price for their partner's employment, often sacrificing their own careers in order to take primary responsibility for organising family life.

Two recent reviews of the shiftwork literature (Gadbois, 2004; Perrucci et al., 2007) each concluded that the impact of shiftwork on family life has been neglected within both the mainstream shiftwork literature and research on work and the family. Perrucci et al. (2007) criticised previous research for an over reliance on generalised, quantitative, self-report measures of shiftworkers' perceptions. They suggested that future research should pay greater attention to the complex inter-relationships between individual and family choices and the structural constraints within specific workplaces and social contexts. Gadbois (2004) also noted that most research has utilised quantitative, self-report measures to identify relationships between different shift systems and the reported impairment of various components of shiftworkers' home life. He suggested that this work needs to be complemented by detailed, qualitative studies of family life in shiftwork families and identified three main issues requiring

further research. Firstly, the ways in which different shift systems affect the patterning of domestic tasks, family interactions and social activities within the family; secondly, the psychological effects of long term shiftwork on all family members; thirdly, detailed descriptions of the different coping strategies used by families. This study seeks to address the issues raised by Gadbois and Perrucci et al. The research used a qualitative, case-study approach to delineate the ways in which families at one New Zealand petrochemical company tried to accommodate the competing demands of shiftwork and family life.

The research explored three main themes. Firstly, it located the lifestyle choices and coping strategies used by families within the wider social and economic context of the petrochemical industry. Previous studies of the petrochemical industry show that the production side of the industry remains heavily male-dominated, with few

women working in this area (Collinson, 1998; Parkes, Carnell and Farmer, 2005). Recent reviews of work/life balance initiatives within organisations show that organisational changes aimed at improving work/life balance are unevenly spread throughout different industries and seldom occur in organisations with a primarily male, blue collar, workforce (Healy, 2004). Such organisations tend to maintain traditional work patterns involving long hours and rigid attendance at the workplace (Hyman and Summers, 2004). Shiftworkers who work in male dominated sectors of the petro-chemical industry are therefore particularly unlikely to have effective work/life balance programmes within their organisations.

Whilst there is evidence that some companies within the petrochemical industry are keen to portray themselves as family-friendly employers with innovative work/life balance policies, there is often a considerable gap between the rhetoric and the reality of work/life balance policies within these companies (Parkes, Carnell and Farmer, 2005). Many initiatives are limited to easily implemented benefits packages which apply primarily to female staff working standard hours within office environments (McKee, Mauthner and Maclean, 2000). More complex structural reorganisations of working practises which might detrimentally affect production systems tend not to be implemented by petrochemical companies. As a result, production workers and their families

often experience few benefits from family-friendly initiatives and are still expected to shape family life around organisational requirements (Miller, 2004).

The petrochemical industry is also characterised by rapidly changing global market conditions, diminishing raw materials, frequent restructuring and diminishing job security (Collinson, 1998; Miller, 2004). Under these circumstances, line managers tend to focus primarily on meeting organisational requirements for increasing economic efficiency and may be reluctant to support work/life balance policies which conflict with this goal (Dick and Hyde, 2006; Reiter, 2007). In addition, workers themselves may be reluctant to access work/life balance entitlements if they believe that such actions could jeopardise their job security or promotion prospects (Bloom and Van Reenen, 2006; Poelmans and Beham, 2008). As Perrucci et al. (2007) observed, the lifestyle choices and trade-offs which shiftwork families engage in therefore need to be interpreted within the context of both the local organisational environment and wider industry level and societal conditions.

The second aim of this research was to compare the experiences of shiftworkers and their partners. A large body of research has examined shiftworkers' perceptions concerning the effects of shiftwork on family life. This research consistently finds that both male and female shiftworkers report more difficulties than other workers in balancing the demands of work and family life (Jansen et al., 2004; van Hoof et al., 2005; Shen and Dicker, 2008). Although the views of shiftworkers themselves have been the subject of considerable research, relatively few studies have investigated the perspectives and experiences of shiftworkers' families. Smith and Folkard (1993) surveyed the partners of male shiftworkers at a British nuclear power plant and found that wives disliked their husbands' shiftwork and believed it had a negative effect on family life. Two more recent, qualitative, studies of employment within the British petrochemical industry showed that

shiftwork causes considerable disruption to family life, with the main burden of accommodation falling upon women and children (Mauthner, Maclean and McKee, 2000; Parkes, Carnell and Farmer, 2005). These studies suggest that the relative neglect of shiftworkers' families may have obscured both the effects of shiftwork on partners and children and the ways in which family support enables shiftworkers to fulfil their work and family commitments.

The final aim of this research was to examine the strategies which shiftwork families use to organise and maintain family life. Both the actual number of hours worked and the location, pattern, timing and flexibility of work have been identified as key factors influencing people's ability to balance work and family life (Baker, Ferguson, and Dawson, 2003; Gray, 2004; Albertsen et al., 2008). Rigid shiftwork patterns which also involve long hours at work may doubly disadvantage workers, as working hours are both inflexible and incompatible with the normal rhythms of family and social life. As Demourti et al. (2004) noted, whilst the actual number of hours worked by many shiftworkers is similar to those worked by other employees, shiftworkers' ability to utilise non-work time for shared family activities is often compromised by the anti-social positioning of their non-work time. Free time during evenings and weekends generally has greater utility and value in terms of allowing shared family and social activities but may be severely curtailed by shift schedules involving regular night or weekend work. In consequence, families who adapt successfully to a shiftwork lifestyle may need to plan and schedule family life more carefully than families where parents work more conventional hours. As Gadbois (2004) points out, detailed descriptions of the ways in which shiftwork families actually organise their lives remain sparse but are crucial to psychologists' understanding of family coping mechanisms. This article seeks to increase our understanding of family life in shiftwork families by describing the economic choices and coping strategies which families at one New Zealand petrochemical company used to manage the tensions between

shiftwork and family life.

Method

Organisational Context

The research took place at the New Zealand plant of a multinational petrochemical company, which had an industry reputation as an ethical employer with a commitment to 'family-friendly' policies. The research was instigated by local management in response to a Head Office directive to improve the work/life balance of shiftworkers in New Zealand. The research remit was to interview shiftworkers and their partners and produce a report for the company.

The New Zealand branch of the company employed approximately 200 people in total. The shift system was operated by 74 male shiftworkers. The majority of these workers were long-term employees in their mid-forties who were married and had school age or adult offspring. Many workers had been employed at the plant since it first opened around twenty years earlier and saw their employment as continuous service, despite the fact that the installation had changed ownership several times and had only been owned by the current company for approximately ten years. All shiftworkers were computer-literate and highly trained. However, their skills were highly specialised and their ability to obtain equally well-paid employment outside the petrochemical industry was limited.

The plant operated a continuous production system involving a number of highly volatile chemical reactions which were computer controlled. The main task of shiftworkers was to monitor these processes by both computer and physical checks. For many employees, work revolved around highly sedentary vigilance tasks which have been shown to be particularly problematic for nightshift workers (Bendak, 2003; Fischer et al., 2000; Rouche, et al., 2005).

The company operated two separate production sites situated approximately five minutes drive apart. The basic

Table 1.   Respondent Characteristics

	Ages	Marital status	Children	Employment
Shiftworkers N = 27	Range 26-59 years	23 partnered 4 separated	All respondents had children	1-18 years shiftwork at plant
	Modal age 42 - 49 (N = 17 respondents)	Duration current relations 3 - 30 years. Mode 18 - 25 years. (N = 14)	Range 1-29 years 16 respondents with children still at home	Modal shiftwork employment at plant 13 - 18 years (N = 15 respondents)
Partners N = 17	Range 25 - 58 years	14 partners of shiftworkers 3 ex-partners of shiftworkers	All respondents had children	7 not in paid work
	Modal age 40 - 46 years (N = 9 respondents)		Range 1 - 29 years.	6 under 20hrs week in paid work
		Duration current relationships 5 - 30 years. (N = 9)	12 respondents with children still at home	4 full-time paid work (all adult children)

design of the shiftwork system was identical across sites. Shiftworkers on each site were divided into four teams, responsible for continuous manning of the site on a rotating basis. Each team consisted of eight to eleven men with five to eight people working each shift. Teams were responsible for covering their own sick leave and holidays and workers were contractually obliged to work overtime if necessary. Interview data, observation of workplace practises and informal discussions with workers and management revealed that team membership was stable and workers identified strongly with their own teams. In consequence, social cohesion within teams was high and workgroup norms ensured high safety standards and a strong attendance motivation.

Teams worked four shifts of twelve hours each on an eight day fixed rotation. On the first two days of the shift cycle staff worked from six am to six pm. On the third day workers had a free day prior to working two nightshifts from six pm to six am. Day five of the shift cycle was spent recovering from the nightshifts, leaving three clear days and nights before the cycle repeated. The eight day shift cycle meant that workers had around one full weekend in eight free and were often working or recovering during at least part of the weekend.

Data Collection

The study used a variety of data collection methods. The information presented here is based primarily on in-depth individual interviews with twenty seven shiftworkers and seventeen partners. The interview data are supplemented by data from informal discussions with management and shiftworkers and informal observations of both the work environment and workers' home lives. Statistical data from company records were used to access accurate information on issues such as the number of overtime shifts worked.

Respondents and Procedure

All shiftworkers were sent letters inviting them to take part in the research. Shiftworkers were also given letters to hand to their partners or ex-partners inviting them to take part in the study. Twenty seven shiftworkers and seventeen partners or ex-partners agreed to be interviewed. Respondents included twelve couples where both partners were interviewed. Characteristics of the sample are shown in Table 1.

All respondents were interviewed individually. Shiftworkers were interviewed onsite during shifts. Women were interviewed in their own homes. The two groups were asked complementary

sets of questions concerning shiftwork and family life. Questions focussed on six key areas:- basic job conditions, shiftwork organisation and job content, the physical effects of shiftwork, the effects of shiftwork on family and social life, coping strategies used by individuals and families and lastly, ways in which the company could improve work/life balance for workers and their families.

Interviews lasted between fifty minutes and 2.5 hours, with an average duration of around seventy-five minutes. All interviews were taped and transcribed.

Data Analysis

Qualitative data analysis is an iterative process through which initial analyses are progressively refined and integrated with theoretical concepts. The interview analysis for this research followed three main stages. All transcripts were initially examined individually to categorise respondents' answers to specific interview questions. The transcripts were then re-examined to see whether there were any clear group differences between the patterns of responses given by shiftworkers or partners. Where couples or ex-couples had been interviewed the two transcripts were compared for commonalities or discrepancies between their responses.

Finally, the data were re-interpreted in relation to the three key themes identified in the introduction, namely, the relationship between structural constraints and family choices, the differing roles of men and women within this particular context and the maintenance and patterning of domestic life.

As part of the validation process the consultancy report summarising respondents' views and making recommendations for organisational change was sent to respondents for comment before being seen by local management. No respondents requested changes and seven commented, either verbally or in writing, that the report portrayed their experiences accurately.

Findings

Most respondents saw themselves as being in reasonably successful long-term relationships. However, all respondents highlighted the additional efforts necessary to maintain family life under shiftwork conditions and emphasised the adaptations the entire family unit needed to make. Men and women gave quite different accounts of family life, which reflected their differing roles within the family and illustrated the disparate adjustments which shiftworkers and their partners made in order to accommodate shiftwork regimes within the family environment. The findings are organised around three key themes emerging from the interview data: firstly, economic trade offs; secondly, maintaining family routines and thirdly, maintaining emotional relationships.

Economic trade-offs

During the 1980's and 1990's several major studies highlighted the unacknowledged benefits to employers of unpaid female labour within the family (e.g. Finch, 1983; Hertz and Charlton, 1989; Wajcman, 1996). These studies showed that traditional work patterns relied heavily on women's willingness to undertake the majority of domestic and emotional labour within the family, thereby freeing the male partner to focus on paid employment.

The shiftwork schedule operated by the company studied here was tightly structured and inflexible. In consequence, families made decisions concerning the balance between work and family life within a highly traditional context where shiftworkers were well compensated financially for working rigid and anti-social hours. This enabled families to ameliorate the stresses of shiftwork by adopting coping strategies involving a fairly traditional division of labour in which the male had primary responsibility for supporting the family financially whilst his partner dealt with domestic and childcare issues. Although all respondents stated that the decision to adopt this division of labour was made jointly, men and women often had differing views regarding this solution, with many shiftworkers taking pride in their earning ability whilst women voiced concern about the subordination of their careers to their husband's work. The differing views of husbands and wives are clearly illustrated by the quotations below. The husband explained that:

> We made a conscious decision that it was better if she was at home with the kids. The way we look at it – it's not just my job, it's her job as well. If I go home and I'm not getting enough sleep and I'm not doing my job properly here – I could get the sack or get laid off. That automatically affects my wife. So it's her job as well.

(husband aged early forties, three school aged children)

In contrast his wife responded to an interview question asking if his career had affected hers by saying:

> It's smashed that to pieces really. Teaching is such an intense job and it was too difficult to organise everybody. You just have to live with it I suppose. But it does make you feel disadvantaged. I've said to him quite frequently 'I really need to do something. If you dropped dead tomorrow I'd be in the poo. What would I do for an income?' That's what really worries me….

(wife also early forties)

For some older couples the decision to give preference to the male shiftworker's career could be explained in terms of their commitment to traditional gender roles within the family. However, all younger couples interviewed had reached similar decisions, based primarily on the financial advantages of prioritising the shiftworker's career. Although pay rates within the company were high enough to ensure that most families were financially better off adopting this strategy, the lack of a second full-time income meant that total family income was often only slightly above local averages for skilled blue-collar workers.

Interview responses from shiftworkers who had been at the plant since it started suggested that the original psychological contract between workers and the company was underpinned by the concept of long-term job security. This system created a relatively stable financial context for family life. In recent years, employment security within the petrochemical industry has been eroded and companies are increasingly making staffing decisions based on maximising their global economic interests. Within this study, both workers and management were aware that key decisions would be made by international managers for whom the New Zealand installation was a relatively small part of a global business enterprise. Under these circumstances, attempts to create a more viable work/life balance by opting for single earner economic arrangements created considerable anxiety for many respondents. During their interviews twenty shiftworkers observed that the future of the New Zealand installation looked increasingly uncertain, with thirteen also commenting that they worried about their ability to secure alternative employment.

Family Routines

Family routines fulfil various practical, social and emotional functions for family members. At a practical level, routines enable maintenance tasks such as cleaning, shopping and meal preparation to be carried out in

an efficient and predictable manner. Socially and emotionally, participation in family rituals such as mealtimes, leisure activities, birthdays and statutory festivities helps to bond family members together and to define the family as a primary social group (Collins, 2007; Jacobs and Gerson, 2004).

Family routines are strongly influenced by external institutions. Work, school and other external schedules structure both the timing of family life and the types of interaction which can take place between family members. For shiftwork families, the effects of work on family routines are intensified by the poor synchronisation between the workplace and other social institutions. The maintenance of family life therefore necessitates the continual juggling of competing temporal patterns. For respondents in this study, family routines were clearly dominated by the eight day shiftwork cycle and altered considerably at different points in the cycle. The division of labour implied by most couples' decision to give primacy to the male wage was clearly apparent in the different ways men and women described the demands of the shiftwork cycle.

Shiftworkers' dominant concerns were coping with their own tiredness and ensuring that they were physically able to work. Male interview responses to questions concerning family routines concentrated primarily on their own schedules and on the difficulties of adapting to family life after nightshifts. In contrast, all female respondents described strategies for co-ordinating family routines and ensuring that they harmonised with the shiftworkers' schedules. The response which a part-time secretary with two teenage daughters gave to a question concerning meal-time routines typifies the ways in which women adapted family routines to shiftwork schedules. She explained:-

When the kids were little we worked our day around his shifts – we had dinner whenever he got home. But as the kids got older they needed regular routines, mealtimes that suited them not the shifts. But then he'd snack and graze and it affected his health.

So now we all eat together when he's on day shift at about seven o'clock. If he's on nights I'll make something light for five o'clock and sit down and eat with him. Then I get something for the girls later.

Women also tried to adjust their children's routines to harmonise with their partner's work schedule. This involved the two antithetical tasks of separating children from their father when he needed to sleep and facilitating joint activities during more appropriate parts of the shift cycle. The effort women expended maintaining family harmony could be underestimated by their husbands as the following quotations from the parents of four teenage boys illustrates. Responding to a question about daytime sleeping during the school holidays the father explained:

The boys aren't a huge problem. Most of the time they seem to be out. If they get too loud I get up and shout and everybody goes quiet.

In contrast his wife commented:-

I try so hard not to say to them 'be quiet'. It's their home as well. (sigh) But we're ruled by the diary. First thing you do is write in his shifts then we write in everything else. I'm always thinking 'what's (husband) doing?' I try to plan activities that are outside the house for those mornings. You make it easier on everybody by having those sort of adaptations.

All families need to develop routines which balance the constraints of external institutions with the needs of different family members. This inevitably involves compromises. In some senses, the task facing shiftwork families is no different from the task facing any family. However, the demands of a rigid shiftwork system involving long work hours and continually disturbed circadian rhythms intensified the problems respondents faced. Within this study, women played a crucial role as intermediaries, smoothing the temporal

boundaries between the shiftwork system and the rhythms of everyday life. This task created a greater workload than managing family routines in a non-shift environment and underpinned many women's decisions to curtail their careers after having children.

Emotional adjustments

A large body of evidence documents the negative physiological consequences of shiftwork (e.g. Bendak, 2003; Fischer et al., 2000; Rouch et al., 2005). Fewer studies have analysed the emotional consequences of shiftwork for workers and their families. Within this research, both workers and their partners highlighted the links between the physiological and cognitive effects of shiftwork and the emotional aftermath. Many respondents gave graphic descriptions of the effects of shiftwork on mood and cognitive functioning, with both shiftworkers and their partners describing a range of strategies they used to minimise the emotional consequences of shiftwork induced mood swings. A shiftworker in his early forties with two preschool children from a second marriage explained:

I think that what happens is that as you're in the job longer your body gets more and more out of whack. It's worse than it was. After night shifts (wife) knows not to annoy me – I had her in tears yesterday and I hate myself for that. I try and minimise the damage- go fishing, get some exercise, stay in bed with a book out of the way.(pause) You have to work really hard to make sure it doesn't destroy your relationships.

Women needed to accept and accommodate their partner's mood swings and protect their children from the effects of their partner's ill-humour in order to maintain family cohesion.All respondents achieved this by interpreting ill-humour after nightshift work as a shiftwork induced aberration rather than a genuine character trait. The wife of the shiftworker quoted above explained:

There's a real pattern to it. When he's doing nights any little thing will set him off. If I'm going to get into trouble about something

that will be when it happens. He's not quite so tolerant with the children then either. But after he's recovered from his nights he's quite relaxed and a bit like a kid himself really. Then he's back to being a normal adult for a few days. (sigh) I try to ignore most of it. I tell the kids to remember its just dad's grumpy days or silly days and he'll be different soon.

Shiftwork schedules also created problems for families' social lives. Many studies have shown that shiftwork schedules have a detrimental impact on the leisure activities and friendship networks of shiftworkers (e.g. Baker, Ferguson and Dawson, 2003; Bourdouxhe et al., 1999; van Hoof et al., 2005). The effects on partners have received less attention, although shiftwork created social isolation may well be a worse problem for the wives of shiftworkers than for shiftworkers themselves. A study of firefighters' wives (Regehr et al., 2005) found that the organisational context enabled firefighters to develop a strong sense of comraderie through work whilst women were socially isolated because of their husbands' work schedules. Similar findings have been reported within Australian mining communities (Collis, 1999; Sharma and Rees, 2007), suggesting that whilst male shiftworkers may meet their social needs through work their wives often lead a more solitary existence within the home environment. In consequence, the emotional adjustments which women need to make may be greater than adjustments made by shiftworkers themselves.

Although the job content and work environment at the petrochemical plant studied here was not conducive to the intense social bonding described in some studies of all male occupations, the organisational context did facilitate the development of cohesive support networks between workers. The social contact they experienced through work helped compensate workers for the constraints which shiftwork placed on their social lives. Generally speaking, workers felt that shiftwork had constrained their circle of friends but saw their relationships with family, colleagues and a small group of friends as providing adequate social support. In contrast, nearly all women commented that they had sacrificed some aspect of their social life for their partner's job.

The absence of their partner on social occasions was a theme raised by twelve women. Family oriented occasions such as parent-teacher evenings, school plays and sports events were complicated by women's concerns about being stigmatised as single parents. Adult social events such as parties or restaurant meals could also be an uncomfortable experience, with six women noting that they avoided mixed sex social occasions unless their partner was also present. Other women were determined to create their own social lives. Women whose children were teenage or adult often resumed their careers and an independent social life at around the same time. A fifty-four year old woman with two adult children explained:

> *For years I'd turn down invitations if (husband) was working. Then I started working again and decided I wasn't spending the rest of my life hanging around waiting for him. I still feel uncomfortable sometimes – but most of the time I'm okay about it now.*

Although husbands were supportive of their wives independence, it could create new adjustment problems within families, with several older shiftworkers commenting that, after years of longing for the peace of an empty house whilst their children were small, they now felt socially isolated themselves during much of their leisure time.

In summary, the empirical data presented here have illustrated the effects of long-term shiftwork on the lives of shiftworkers and their families. Within the families studied here, the primary burden of organising family routines and adjusting emotional life fell to women, many of whom relinquished their own careers in order to maintain family cohesion. Whilst there was an element of personal choice in family decisions to prioritise the male shiftworker's career the structural constraints of a rigid shiftwork system meant that many families saw traditional gender roles as their only realistic option for maintaining a reasonable work/life balance within the family system.

Discussion

This research investigated the strategies which families working within one specific company within the New Zealand petrochemical industry used to accommodate the effects of shiftwork on family life. The precise findings of the study would undoubtedly have varied if the organisational context and respondent population had been different. This raises questions concerning the generalisability and value of qualitative research based on small population samples and specific organisational contexts. Fine (2003) suggests that the main value of case-study research such as this lies in its ability to supply the reader with detailed descriptions of specific settings from which more general conceptual insights can be developed. Whilst this research describes the effects of long-term shiftwork on the families of one specific group of workers, the findings of the study have more general relevance for research on both shiftwork and work/life balance.

Psychological research in the areas of shiftwork and work/life balance has tended to focus on the perspective of the individual worker rather than the family unit. In consequence, the problems which families face and the coping strategies which they use have been under-researched in both literatures. Within the present research the decision to study both shiftworkers and their partners quickly revealed that the issues created by shiftwork were very different for workers and their spouses and that accommodation was achieved at the level of the family unit rather than at the individual level.

The importance of investigating different family members' needs can be illustrated by examining the diverse suggestions which workers and their

partners generated for tackling shiftwork related problems. Shiftworkers' suggestions were primarily concerned with their own physical needs and included recommendations such as making canteen facilities available outside standard working hours, supplying complimentary fruit and filled rolls for nightshift workers, providing exercise machines for use during shift breaks, financial support for home improvements such as sound-proofed rooms and minimising employment practises such as compulsory overtime, standby and call-out arrangements and cross-team working.

Partners also emphasised the additional problems created by the employment practises outlined above, highlighting both the physical toll of additional shifts on their partners and the social and emotional disruption to family life. In contrast to the shiftworkers, women's other proposals focussed more on their social role within the family with several women suggesting items such as customised shiftwork calendars highlighting shift rosters, information booklets describing the physical, psychological and social effects of shiftwork and seminars providing up to date information on ways of combating the deleterious effects of shiftwork on health and family life. Women were also keen to improve their social contacts with other women, with several older women recalling their own past experiences of social isolation and volunteering to help other families about to embark on a shiftwork lifestyle.

Whilst the organisation studied here utilised various production-driven flexible working practises which created additional stress for shiftworkers and their families, it also had an extensive range of employee-friendly flexible employment policies which were specifically designed to improve the work/life balance of the workforce. All employees were entitled to apply for part-time, job-share or extended leave working arrangements. These options were commonly utilised by female administrative staff but had not been accessed by any shiftworkers, despite several older workers indicating in their

interviews that they would prefer to work part-time for health reasons and some younger workers wanting access to parental leave. Respondents cited worries over job security as their primary reason for maintaining the standard shiftwork contract, arguing that shiftworkers who utilised these provisions were more likely to face redundancy in any company restructuring.

Discussions with local management suggested that workers fears were valid, with management arguing that these provisions could cause considerable, and unwelcome, disruptions to production schedules. The accuracy of these assertions is contestable, however any shiftworker who accessed these entitlements would clearly be violating implicit organisational norms concerning the ideal production worker. Given that job security within the company was tenuous, it is scarcely surprising that workers were reluctant to access work/life balance policies which were ostensibly intended to create a more family-friendly workplace for all employees.

Workers' reluctance to utilise organisational policies designed to improve work/life balance has been noted by other researchers (e.g. Poelmans and Beham, 2008; Thompson, 2008). The reasons for this resistance are complex and varied but are often associated with workers' perceptions that accessing these entitlements will disadvantage them in some way. The findings of this research suggest that paying more attention to the ways in which different organisational groups interact, and the pressures which they face, would increase our understanding of the reasons why work/life balance initiatives in organisations succeed or fail. The relationship between middle management and other organisational groups is a particularly important arena to investigate as middle managers occupy a pivotal space within organisations and often act as 'gatekeepers' to the implementation of organisational work/life balance policies. McBride (2003) has suggested that middle managers in many organisations experience competing pressures to contain labour costs and increase organisational efficiency whilst

simultaneously adopting organisational practises which improve employees' work/life balance. Managers often perceive these requirements as incompatible. Local managers in multinational organisations, such as the petrochemical company studied here, may face particularly acute dilemmas as key decisions are often taken by Head Office staff in other countries who may have little knowledge of local conditions and limited commitment to the local workforce.

In conclusion, organisational psychology has frequently been criticised for neglecting the impact of specific contexts on organisational behaviour (Greenhaus, 2008; Johns, 2006). This lacunae is unfortunate as paying detailed attention to specific organisational environments often reveals organisational complexities and tensions which are crucial to a genuine understanding of organisational life. The findings of this case study illustrate the importance of locating empirical research within both an organisational level and a macro level socioeconomic framework. The company studied here was, by conventional standards, a principled and responsible employer with a genuine commitment to providing good employment conditions for its staff. Despite this, the company's commitment to its New Zealand workforce was, in the final analysis, dictated by economic considerations. Essentially, the company was only committed to remaining in New Zealand whilst gas supplies remained reliable and production profitable. Whilst this approach makes obvious economic sense for multinational organisations operating within volatile global industries such as petrochemicals, it created considerable dilemmas for shiftworkers and local management, both of whom needed to balance economic considerations against work/life balance issues.

Workers may sell their labour in a rational, freely entered economic exchange but the effect on their lives goes far beyond this. Many workers in this study had spent a large part of their working lives at the plant. Long-term shiftwork makes greater demands on workers than many other types of

labour and has considerable flow on effects on workers' family and social lives. It is only by paying attention to the specifics of shiftwork and family life in particular organisations and locales that we can understand the complexity of the problems facing both workers and organisations.

References

Albertsen, K., Rafnsdottir, G., Grimsmo, A., Tomasson, K and Kauppinen, K. (2008). Workhours and worklife balance. *Scandinavian Journal of Work, Environment and Health, Supplement 5*, 14-21.

Baker, A., Ferguson, S. & Dawson, D. (2003).The perceived value of time: Controls versus shiftworkers. *Time and Society, 12* (1), 27-39.

Bendak, S. (2003).Twelve hour workdays: Current knowledge and future directions. *Work and Stress, 17* (4), 321-336.

Bloom, N. & Van Reenen, J. (2006). Management practices, work-life balance and productivity: A review of some recent evidence. *Oxford Review of Economic Policy, 22* (4), 457-482.

Bourdouxhe, M., Queinnec, Y., Granger, D., Baril, R., Guertin S., Massicote, P., Levy, M. & Lemay, F. (1999). Aging and shiftwork: The effects of 20 years of rotating 12 hour shifts among petroleum refinery operators. *Experimental Aging Research, 25* (4), 323-329.

Collins, G. (2007). Cleaning and work/life balance. *International Journal of Human Resource Management, 18* (3), 416-429.

Collinson, D. (1998). Shifting lives: Work/home pressures in the North Sea oil industry. *Canadian Review of Sociology and Anthropology, 35* (3), 301-324.

Collis, M. (1999). Marital conflict and men's leisure: How women negotiate male power in a small mining community. *Journal of Sociology, 35* (1), 60-72.

Demerourti, E., Geurts, S., Bakker, A. & Euwema, M. (2004). The impact of shiftwork on work-home conflict, job attitudes and health. *Ergonomics, 47* (9), 987-1002.

Dick, P. & Hyde, R. (2006). Line manager involvement in work/life balance and **?** *Counselling, 34* (3), 345-364.

Finch, J. (1983). *Married to the job*. London: Allen and Unwin.

Fine, G. (2003). Towards a peopled ethnography: developing theory from group life. *Ethnography, 4* (1), 41-60.

Fischer, F., Moreno, C., Borges, F., & Louzado, F. (2000). Implementation of twelve hour shifts in a Brazilian petrochemical plant: Impact on sleep and alertness. *Chronobiology International 17* (4), 521-537.

Gadbois, C. (2004). Psychosocial conflicts created by shiftwork patterns: Pending questions. *Travail Humain, 67* (1), 63-85.

Gray, A. (2004). *Unsocial Europe: Social protection or flexploitation?* London: Pluto.

Greenhaus, J. (2008). Innovations in the study of the work-family interface: Introduction to the special edition. *Journal of Occupational and Organizational Psychology, 81*, 343-348.

Healy, G. (2004). Work/life balance and family friendly policies – in whose interest? *Work, Employment and Society, 18* (1), 219-223.

Hertz, R. & Charlton, J. (1989). Making family under a shiftwork schedule: Airforce security guards and their wives. *Social Problems. 36* (5), 491-507.

Hyman, J. & Summers, J. (2004). Lacking balance: Work/life employment practices in the modern economy. *Personnel Review, 33* (4), 418-429.

Jacobs, J. & Gerson, K. (2004). *The time divide: Work, family and gender inequality*. Cambridge M.A.: Harvard University Press.

Jansen, N., Kant, I., Nijhuis, F., Swaen, G. & Kristensen, T. (2004). Impact of worktime arrangements on work-home interference among Dutch employees. *Scandanavian Journal of Work and Environmental Health. 30* (2), 139-148.

Johns, G. (2006). The essential impact of context on organizational behaviour. *Academy of Management Review, 31*, 386-408.

McBride, A. (2003). Reconciling competing pressures for working time flexibility. An impossible task in the National Health Service? *Work, Employment & Society, 17* (1) 159-170.

McKee, L., Mauthner, N. & Maclean, C. (2000). Family friendly policies and practices in the oil and gas industry: Employers' perspectives. *Work, Employment and Society, 14* (3), 557-571

Miller, G. (2004). Frontier masculinity in the oil industry: the experiences of women engineers. *Gender, Work and Organization, 11* (1), 47-73.

Mauthner, N., Maclean, K. & McKee, L. (2000). 'My dad hangs out of helicopter doors and takes pictures of oil platforms': Children's accounts of parental work in the oil and gas industry. *Community, Work and Family, 3* (2), 133-162.

Parkes, K., Carnell, C. & Farmer, E. (2005). Living two lives: Perceptions, attitudes and experiences of spouses of UK offshore workers. *Community, Work and Family, 8* (4), 413-437.

Perrucci, R., MacDermid, S., King, E., Tang, C., Brimeyer, T., Ramadoss, K., Kiser, S. and Swanberg, J. (2007). The significance of shiftwork: Current status and future directions. *Journal of Family and Economic Issues. 28*(4), 600-617.

Poelmans, S. & Beham, B. (2008). The moment of truth: Conceptualising managerial work-life policy allowance decisions. *Journal of Occupational and Organizational Psychology, 81* (3), 393-410.

Regehr, C., Dimitropoulos, G., Bright, E., George, S. & Henderson, J. (2005). Behind the brotherhood: Rewards and challenges for wives of firefighters. *Family Relations, 54* (3), 423-435.

Reiter, N. (2007). Work/life balance: What do you mean? The ethical ideology underpinning appropriate application. *Journal of Applied Behavioral Science, 43* (2), 273-294.

Rouch, I., Wild, P., Ansiau, D. & Marquie, J. (2005). Shiftwork experience, age and cognitive performance. *Ergonomics, 48* (10), 1282-1293.

Sharma, S. & Rees, S. (2007). Consideration of the determinants of women's mental health in remote Australian mining towns. *Australian Journal of Rural Health, 15* (1), 1-7.

Shen, J. & Dicker, B. (2008). The impacts of shiftwork on employees. *International Journal of Human Resource Management. 19* (2), 392-405.

Smith, L. & Folkard, S. (1993). The feelings and perceptions of shiftworkers' partners. *Ergonomics. 36* (1), 299-305.

Thompson, C. (2008). Barriers to the implementation and use of work-life policies. In S. Poelmans & P. Caligiuri (Eds.), *Harmonizing work, family and personal life in organisations: From policy to practice*. Cambridge: Cambridge University Press.

Van Hooff, M., Geurts, S., Taris, T., Kompier, M., Dickers, J., Houtman, I. & van den Heuvel, F. (2005). Disentangling the causal relationships between work-home interference and employee health. *Scandinavian Journal of Work and Environmental Health, 31* (1), 15-29.

Wajcman, J. (1996). The domestic basis for the managerial career. *Sociological Review, 44* (4), 609-629.

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