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# What about me? avoiding fatigue and gaining personal time in the work to leisure transition in work-life balance initiatives

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**What about me? Avoiding Fatigue and Gaining Personal Time in the Work to Leisure Transition in Work-Life Balance Initiatives**

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*Keywords: Work-life Balance, Personal time, Work Border theory*

## What about me? Avoiding Fatigue and Gaining Personal Time in the Work to Leisure Transition in Work-Life Balance Initiatives

### Abstract

*Fatigue and overwork are problems experienced by numerous employees in many industry sectors. Focusing on improving work-life balance can frame the 'problem' of long work hours to resolve working time duration issues. Flexible work options through re-organising working time arrangements is key to developing an organisational response for delivering work-life balance and usually involves changing the internal structure of work time. This study examines the effect of compressed long weekly working hours and the consequent 'long break' on work-life balance. Using Spillover theory and Border theory, this research considers organisational and personal determinants of overwork and fatigue. It concludes compressed long work hours with a long break provide better work-life balance. Further, a long break allows gaining 'personal time' and overcoming fatigue.*

*Keywords: Work-life Balance, Personal time, Work Border theory*

### Introduction: Work fatigue and tiredness from overwork

Fatigue and overwork are often hallmarks of contemporary workplaces, and may characterise entire industry sectors as diverse as financial services (Wharton and Blair-Loy, 2002), mining; (Baker, Heiler and Ferguson, 2003), transportation (Monaco, Olsson, and Hentges, 2005) and construction (Lingard and Francis, 2005). While long work hours and work intensity have been the subject of Occupational Health and Safety research at the workplace (Dinges, Pack, Williams, Gillen and Powell, 1997; Lingard and Rowlinson, 1994; Ng, Cheng and Skitmore, 2005) and fatigue and tiredness have been studied in relation to work and commuting time and distance (Rogers, Holmes and Spencer 2001; Horne and Reyner, 1995; Di Millia, 2006; Di Milia and Bowden, 2007; Akerstedt and Torsvall 1978), there has been less attention to the deleterious effects of overwork and work fatigue on work-life balance and the pursuit of leisure and recreation activities.

The paper examines work-life balance (WLB) and working time. It proposes possible theoretical frameworks to examine long work hours and the effects on non-work time. It reports on findings of a study into work-life balance in a sector that is characterised by overwork and problems of fatigue, the construction industry. The paper concludes work-life balance in a highly pressured industry sector can be achieved by compressing long work hours into a shorter working week rather than implementing a regime of shorter hours. An important component of satisfaction is non-work time comprising 'personal' time.

### **In the Balance: Work and ‘Non-Work’**

The starting point for the research is the presumption that work organisation can ameliorate the deleterious effects of fatigue and overwork. It is argued that a focus on work-life balance that concentrates mainly on the relationship between work and non-work time does not necessarily address the composition of the components of rest and leisure.

Long work hours are considered to be weekly hours above 40 hours per week, and very long hours constitute weekly hours above 49 (Campbell, 2005). Employees within the construction industry are working very long hours with site-based employees averaging around 63 hours per week (Lingard and Rowlinson 2005). It is contended that there are a complex mix of issues relating to externally-imposed work pressures as a result of contract deadlines and long work weeks. Studies have demonstrated that insufficient rest is deleterious to personal health and well-being (Bittman, 2005; Chatzitheochari and Arber, 2009; Sonnentag, Bennewies and Mojza, 2008) and fatigue through work stress leads to problems such as burn-out (Lingard and Francis, 2005). However there has been less attention to understanding how a ‘long break’ affects work and non-work life in the construction industry.

Spillover Effect theory and Segmentation theory (see Morris and Madsen, 2007) are used to guide the examination into the effects of long work hours and the pursuit of recreation.

#### **Spillover Effect:**

The Spillover Effect theory refers to the effects of work and family on one another with mood, values, skills and behaviour spillovers prevalent constructs (Edwards and Rothbard, 2000). It is contended that mood spillovers occur for example, when negative moods stemming from work interfere with family relationships. Value spillovers occur when values from one domain directly impact on the other. Skills spillover can occur when skills in one domain can be translated into general knowledge structures which apply in another domain and when skills in one domain can be directly exported to the other. Behavioural spillovers can be behaviour influencing the other domains. This theory asserts despite the existence of boundaries between work and family, emotions and behaviours in one system can spillover into another when porous boundaries between work and life allow either positive or negative spillovers into the interdependent spheres.

In view of the long work hours within the construction industry and the feelings of fatigue and tiredness often experienced by the employees, the spillover perspective would suggest that these feelings negatively spillover into the family domain. However, critics of spillover theory contend that this argument is limited in that it does not adequately explain and help solve problems of people facing work-life imbalance (Lambert 1990). While spillover theory explains that work and family are interdependent, it fails to explain how individuals are able to gain balance and focuses only on the emotional linkages between work and family not the spatial, temporal and social. Segmentation theory, in particular Clark's (2000) Border theory, provides a possible way of examining how people and organisations can shape borders between the two domains to achieve balance.

### **Segmentation Theory:**

This theory refers to the complete compartmentalisation of work and family and seeks to address the limitations of spillover theories. It is argued that people shape the separate worlds of work and family and mould the borders between the two. In particular, it is how individuals segment or integrate work and home and the degree of separation or integration between borders that leads to balance (Clark 2000). These borders can be physical, temporal and psychological and characteristics of these borders include their permeability, flexibility and blending. It is suggested that strong borders are impermeable, inflexible and deter blending between the two domains. However, there is an inherent tension between impermeable and permeable boundaries. Weak boundaries such as flexibility are most functional for individuals and family to achieve work-life balance, however, Clark (2000) argues that when boundaries between work and family are less clear, there is greater difficulty for employees to negotiate when and where work and family responsibilities are to be enacted.

Organisations are in a position to alter work and family domains to increase employee work-life balance (Clark 2000). Clark (2000) suggests that if making associated changes to organisational culture and values is not possible, or desirable for organisations, then borders between work and family should be kept strong in both directions to achieve balance.

Clark (2000) contends that work-life border theory offers a way of more fully understanding why work/family conflict occurs and how to identify strategies to balance the domains of work and family through border permeability or strength. It is therefore arguable, that in the case of the

construction industry, the work domain is significantly different to the family domain and therefore according to border theory, requires strong borders between work and family to facilitate balance. In contrast to this, a family business working from home may be an example of domains which are similar and therefore require more permeable boundaries for balance.

In view of our examination of long work hours and time for recreation and leisure, strong temporal boundaries may be facilitated by the compressed work week to allow for a greater break between work weeks. Having strong borders between work and life may be vital for achieving recreation and recovery time especially when work is characterised by very long hours.

### **The pursuit of personal time and recovery**

There is a growing body of literature which recognises the importance of personal time and recovery to work-life balance. A recent study by Ransome (2007) examined the need for recreational labour and the importance of extending the WLB discourse beyond working families with children. The author proposes a new understanding of work-life balance called 'total responsibility burden' and argues that recreation should be considered an important construct of work-life balance as it provides a means of seeing how people put time and energy into other kinds of activity outside of market and non-market work. Similarly Roberts' (2008) study of individuals who were successful in customising work to achieve work-life balance found that 'me time' was a major part of customising work patterns. The various nature and perceptions of this time ranged from painting nails, leisure with friends and family, long distance cycling, to everyday tasks such as washing the dishes (Roberts 2008).

Authors such as Ransome (2007) and Roberts (2008) highlight the issue of recreation being a constituent part of work-life balance rather than an aspect perceived as remaining after other 'life' activities such as child-rearing and chores have been undertaken. While it is evident that there is growing recognition of the importance of recovery and recreation, there is scant information on how long work hours impact upon an individual's ability to participate in these activities and the effects on well-being. In order to address these aspects, this paper draws upon Clarks (2000) border theory as a guiding framework to analyse how organisational interventions such as a compressed work week, can assist in creating stronger boundaries between work and life that allow for a longer break and enables employees to engage in personal and recreation time. Consequently, the research question addressed

in this research is; Can initiatives that re-arrange long working hours over long working weeks into long working hours over shorter working weeks with a long break, avoid problems of fatigue and achieve work-life balance?

### **Method**

The research used a case study analysis of the leisure/work nexus and identified the various components of non-work time in the construction industry. Examining the features of work and leisure in an industry sector characterised by a long work hours culture and inattention to work-life balance allows insights into how changes in the mix of work and leisure may deliver benefits to the individual worker and organisation as a whole. The traditional work pattern of the construction industry features a standard six-day week and comprises long hours and significant amounts of unpaid overtime (Lingard and Francis, 2005). The case study investigated the change from a six day week to a five day week that was implemented to deliver better WLB for the employees. The construction industry has a history of union involvement and the terms and conditions of employment are highly regulated, especially for waged employees, as these are set according to industry standards (Underhill, 2002). The Compressed Working Week (CWW) was a managerial response to ensure that workers did not lose pay in rearranging their work hours to a shorter working week. The case study was an alliance project involving a consortium of firms and a head contractor. Shortly before the research project commenced, the project implemented a form of alternative work schedule in order to improve work-life balance for employees. This change involved a shift from the standard six-day work week to a compressed five day week. For example, at commencement of the project, the site was operating on a 57.5 hour week, spread over 6 days (approx 5 x 10 hour days on week days and 7.5 on Saturdays). The new work schedule initiative compressed the working hours from six to five days (approx 5 x 11.5 hour days during the week) to enable the workforce to have the full weekend without compromising pay and site productivity.

The participants comprised of a mixture of both professional (salaried) staff members and wage earning employees. Roles ranged from managerial and administrative staff, engineers and skilled and unskilled labourers. A total of 33 construction industry workers were involved in the study. This involved 19 site staff (14 salary and 5 wages) at time one 14 of whom were interviewed again at time

two (10 salary and 4 wages). Four female staff who were not directly affected by the roster change were included in the sample. Overall, the sample size represented approximately 20% of the workforce and covered a wide range of occupations and employment types.

Data was collected in two stages using semi-structured interviews. The compressed work week intervention had been in operation for two months before the first round of interviews were conducted thus allowing for a measure of reactions to the five day week and the longer daily working hours. The second round of interviews was conducted three months after the first round to provide a measure of more long-term sustained reactions to the change and whether or not there were associated improvements to their work-life balance. Tables 3 and 4 in the Appendix outline the interview schedule.

### **Results**

The interviews conducted at time one of the research sought to elicit general information about the participant's work-life balance satisfaction, their various commitments, and non-work activities, as well as demographic information. The aim was to provide information on the participants' work-life situation in order to enable a more detailed examination of the impact of the five day week to their work-life at time two. Table One outlines the information collated at time one of the interviews. It shows how the participants allocated their non-work time and whether or not they were able to enjoy any hobbies or personal time.

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Insert Table One about here

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#### **Time One:**

It is evident that the majority of participants were satisfied with the five day week with the exception of one employee who felt that the compressed work week resulted in the loss of Saturday penalty rates. Most participants were satisfied with their work-life balance, while some cited that more personal time would improve their satisfaction. An example is a mother with a small child who complained about the lack of personal time and found even walking for half an hour three times a week was difficult to achieve.

It was found that those less likely to mention time spent on hobbies and personal time were those with family or carer responsibilities. This group spent most of their non-work time on activities



with their children. However, while many participants with family and carer responsibilities did not participate in personal time activities or hobbies, there are examples of those with family who were still able to allocate time for personal interests. An example is one father with children aged 4 and 1 who played touch football as well as participated in windsurfing. This person reported he was very satisfied with WLB. For those with family responsibilities, most of their non-work time is allocated to family responsibilities and activities. Once these are completed, there is limited time to pursue recreation.

Participants without family care responsibilities more often allocated time for personal activities outside of work. Activities included sport, surfing, motorcycles, watching cooking shows, sailing and restoring old cars. However, common complaints among participants with and without family responsibilities was feeling tired and exhausted working six day a week. This hindered their ability to enjoy their break as they spent time recovering or doing chores and family responsibilities.

*“Saturday, come 2/3 o’clock, I was buggered. I had to start having sleeps in the afternoon on a Saturday, just to refresh yourself. Or to have a decent day on a Sunday. I thought... I didn’t come home for this. (Person 1; male; blue collar employee; 3 children aged 9, 6 and 5).*

Dissatisfaction was felt by those without care responsibilities as well:

*I find 6 day weeks – we work nearly 10/11 hours a day – and you get home, you still feel tired, still don’t feel like going out – so you don’t (Person 10; male; white collar; no children).*

To examine if this situation improved, interviews were conducted a second time, three months after the initial interviews giving time for the compressed work week intervention to take effect.

### **Time Two:**

Questions such as: ‘how would you describe your work-life balance now?’ ‘Is it different to when you were interviewed last time and ‘how does working five days a week affect your work-life balance?’ were used. Table Two includes summaries of the participants’ reactions to the change, whether or not there was a change to their non-work time, and how they described their work-life balance after they were able to access the full weekend.

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Insert Table Two about here

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It was found that three months after the initial interviews were conducted, while some participants did not report any changes to their non-work activities, some engaged in more 'enjoyable' activities such as spending more time with family, going away for the weekend, and pursuing personal interests. More importantly were the reported effects this had on the satisfaction of the employees. The following outlines the main themes that emerged from the analysis of the interviews.

- **T1: More time and energy to pursue 'enjoyable' activities**

The majority of participants cited significant improvements to their work-life balance in the second round of interviews. While not all participants reported specific changes to their non-work activities since the last interviews, there was an increase in 'enjoyable' activities. For example, one employee took up rock climbing and running again (Person 14) and another made more plans to go away for the weekend (Person 12). Increased energy and time to see family and friends was a common change cited by the participants (Person 1, 2, 7, 9, 12, 10, and 14). It was found that working six days left very little time to pursue fun activities once the chores and other responsibilities had been fulfilled, however, the compressed week allowed more time to rest so that they could engage in personal interests or spend time with the family. The ability to achieve quality time was perceived as a huge advantage for the participants.

- **T2: Increased work-life satisfaction and feeling refreshed.**

While the majority of employees were very satisfied with their work-life balance at the start of the research there were reported improvements to work-life satisfaction and increases in energy in the second round of interviews. In particular this is reflected in a comment by one participant who described the increases in personal time and spending time with friends in time two.

*"Now it is better. Cause like I said before, now we actually have a proper weekend, two days to do stuff, plan things, go out, so time to yourself"* (Person 1; male; white collar employee; no children).

This participant described improvements to work-life satisfaction to include 'more energy, feeling more rejuvenated and being able to look forward to the weekend'.

Another example of increased personal time and increased satisfaction since the time one interviews was a participant who noted that his work-life was better than the last interview and

reported feeling 'more in control, better about his work and increased energy' and, "Now I try to set a goal every weekend to do something. For example surfing, getting back into that" (Person 14; male; white collar employee; no children).

As well as satisfaction with the ability to engage in personal time, other participants particularly those with family, noted they used the time to spend with family which also improved work-life satisfaction.

The following is an example of a person who reported increases in family time and increased satisfaction in the second round of interviews. At time one he reported working 6 days a week for 25 years and found once the family had finished the chores, the weekend was over. Since the introduction of the five day week he has a 'few more batteries'. While he was satisfied in the first round, the second round of interviews revealed even greater satisfaction as, since then, he spends more time with family and started to attend all soccer matches on Saturday which was previously not possible under the six-day week. He reported that his family had become closer and his wife was also happier about the compressed week, this seems to have improved his WLB even more (Person 7; male; white collar employee; 2 children aged 5 and 8).

Another participant also provided an example of improved work-life satisfaction in time two in that he finds the two days better as he is able to spend more time with his two-year old son. Under the six-day week he felt that he 'missed out'. During the second round of interviews he noted that while his workload at work had **increased** since the last interview, his work-life balance had improved and he felt that he was delivering more in less time. The five day week had a positive impact on home and the family was happier with the two days as they can plan to go camping or boating and noted that he would 'hate to give up' this increase in recreational activities and hoped other projects would be similar (Person 12; male; white collar employee; 1 child aged 2 years).

A third example is of a participant who cited the ability to have a break and enjoy quality time rather than just doing chores on the weekend was a significant advantage of the 5 day week. Since the first round of interviews this person felt more positive about work and more enthusiastic on Monday morning. He preferred longer hours during the day as there is the opportunity for the break at the end where he could sleep in and spend more time with the family. He found that he was more family

orientated since the time one interviews and was extremely happy with this change (Person 10; male; blue collar employee; 1 child).

Findings indicate that without a long break, workers report fatigue, tiredness and an inability to undertake family responsibilities, 'couldn't go out on a Saturday night – too tired' (Person 15; male; white collar employee; no children). However, when a 'long break' is instituted, even when long hours are worked during the working week, employees do not report experiencing long-term fatigue. Further, when employees experience 'personal' time and enjoyable 'family time' in their long break, tiredness is not reported as problematic, 'The week-ends rejuvenate you' (Person 1; male; white collar employee; no children). Feeling refreshed for the next week's work is the response.

### **Analysis/Discussion Personal time**

It is evident from the Time One interviews that some employees were experiencing negative spillover from work to home during the six-day week schedule. The respondents reported tiredness and fatigue during the previous six-day week which prevented them from enjoying their weekend. Spillover theory argues that despite the existence of boundaries between work and family, these are porous in nature and therefore, mood, values, and behaviour can spillover between the two domains (Edwards and Rothbard, 2000). For many employees, the reported fatigue during time one interviews is an example of spillovers. The participants had little time to recover from work fatigue and as a result these feelings 'spilled over' into their family and recreation time and hindered their ability to pursue these activities. While the CWW delivered a longer break this incurred a trade-off for longer working hours during the week. However, the findings show that there was overwhelming support for the longer break despite the added hours during the week.

In Time Two, respondents reported the long break allowed them time to recover from fatigue and participate in recreation and personal time activities. The resultant increase in work-life satisfaction, energy and overall well-being reported is attributed to this 'longer' break. This finding is explained by border theory which argues that when work and family life are different, as in the case of the construction industry, then borders should be strong to improve work-life balance. Clark (2000) argues that temporal boundaries influence psychological boundaries which assist employees in making a distinction between work and life which leads to improved work-life balance. We argue that the

compressed work week is an example of a temporal border which afforded the participants more time to recover and participate in recreation. By having the 'longer' break it also allowed them to recover from fatigue spillovers.

The five day week allowed for a stronger border between work and life which gave the participants more opportunity to take part in non-work activities such as chores and family responsibilities, recover, as well as engage in 'enjoyable' activities. This is a change from the six-day week which only gave the participants time to complete non-work activities and recover but gave little opportunity to pursue 'enjoyable' recreation and personal time. Our findings indicate that the ability to achieve this leisure and personal time through the temporal border of the compressed work week is key to improving the work-life of employees. Employees spent their long break on either personal time or enjoyable family time and also reported increases in their satisfaction which suggests this working arrangement is ideal for the improving the WLB of employees without changing the number of working hours.

That many employees experienced fatigue that hindered their work-life balance and ability to pursue recreation in the six day schedule, highlights the need for rest and recovery. Sonnentag (2008) argued it is important for employees to switch off from work when at home by segmenting work and home-life to relax. Totterdall (1995) examined increasing the number of rest days between spans of work-days within nursing shiftwork and found that measures of sleep, mood, and social satisfaction tended to be worse on the first rest day. This finding suggests work recovery did not occur until the second day and confirmed that two consecutive rest days are needed to enhance rest periods.

Our research results support these studies as rest and recovery were important for the participants to be able to enjoy recreation and personal time. However we make a distinction between rest and recreation as it was the time to do 'enjoyable' activities that increased satisfaction. O'Driscoll and Allis (2008) argued that engagement in family and personal benefit activities results in positive well-being and work related outcomes. In line with their study, we find that recreation and doing 'enjoyable' activities with family increased the participants' satisfaction and energy levels. Therefore the ability to reach this time is necessary for work-life balance and is distinct from rest. Recreation is defined as activities that are 'freely chosen and produce personal satisfaction' (Ransome, 2007). For

the respondents, choosing to spend a longer break on family and personal time and the ability to engage in these activities through the compressed work week clearly benefited their work-life balance.

### **Conclusion**

Gaining time for engaging in personally enjoyable activities in work breaks can contribute to lessening fatigue. Results of the study indicated that problems of a long working week without a long break resulted in reported fatigue, tiredness and family breakdown. Following the intervention of the compressed working week, findings indicated positive effects in work and non-work time balance. Respondents indicated changes involved spending time away from home on short holidays, feeling refreshed, spending time with family and more time on hobbies and leisure activities. This suggests the long break allows workers to not only undertake family responsibilities and chores but allows space for the pursuit of personal time. Work-life border theory appears to explain the result of this increased satisfaction as the compressed working week allowed a long work break that clearly separated work from non-work time. Spillover theory suggests that positive experiences of non-work time can spillover into work time and this appears to have happened in this study.

This research has been undertaken with a small sample size however, the result indicates that employees prefer less porous and stronger boundaries between work and non-work activities. The applicability of these findings to a wider range of settings should be addressed in future research. Further study of the effects of an improved balance between work and leisure could determine whether an increase in the balance satisfaction between work and leisure translates into better employee work performance and organisational outcomes. Almost all of the respondents reported greater satisfaction with work-life balance by adopting the compressed working week. Despite working the same number of long hours, compressed working hours over a shorter working week appeared to offer a very good option to relieve tiredness and fatigue suffered by working a long work week. Those who were able to engage in activities that contributed to improving their 'personal time' reported a better work-life balance. Managing WLB for employees working long work hours is possible by re-organising work time, without implementing shorter hours, however, it is important that rest *and* recreation are part of non-work time.

## References:

- Akerstedt T & Torsvall L (1978) Experimental Changes in Shift Schedules Their Effects on Well-Being, *Ergonomics* 21(10): 849 – 856.
- Baker A, Heiler K & Ferguson SA (2003) The Impact of Roster Changes on Absenteeism and Incident Frequency in an Australian Coal Mine, *Occupational and Environmental Medicine* 60(1): 43-49.
- Bittman M (2005) Sunday Working and Family Time, *Labour and Industry* 16(1): 59-81.
- Bray M, Deery S, Walsh J & Waring P (2005) *Industrial Relations: A Contemporary Approach*, Third Edition, McGraw-Hill, Sydney.
- Campbell I (2002a) Extended Working Hours in Australia, *Labour and Industry* 13(1): 91-110.
- Campbell I (2005b) Long Working Hours in Australia: Working-Time Regulation and Employer Pressures. CASR Working Papers No. 2005-2, RMIT University, Melbourne.
- Chatzitheochari S & Arber S (2009) Lack of Sleep, Work and the Long Hours Culture: Evidence from the UK Time Use Survey, *Work Employment Society* 23(1): 30-48.
- Clark SC (2000) Work/Family Border Theory: A New Theory of Work/Family Balance, *Human Relations* 53(6): 747-770.
- Di Milia L (2006) Shift Work Sleepiness and Long Distance Driving, *Transportation Research Part F: Psychology and Behaviour* 9(4): 278-285.
- Di Milia L and Bowden B (2007) Unanticipated Safety Outcomes: Shiftwork and Drive-In, Drive-Out Workforce in Queensland's Bowen Basin, *Asia Pacific Journal of Human Resources* 45(1): 100-112.
- Dinges D, Pack F, Williams K, Gillen K & Powell J (1997) Cumulative Sleepiness, Mood Disturbance and Psychomotor Vigilance Performance Decrements During a Week of Restricted Sleep to 4-5 Hours Per Night, *Sleep* 20(4): 267-277
- Edwards JR & Rothbard NP (2000) Mechanisms Linking Work and Family: Clarifying the Relationship Between Work and Family Constructs, *Academy of Management Review* 25(1): 178-199.
- Grzywacz JG & Carlson DS (2007) Conceptualizing Work Family Balance: Implications for Practice and Research, *Advances in Developing Human Resources* 9(4): 455-471.
- Horne, J & Reyner L (1995) Sleep Related Vehicle Accidents, *British Medical Journal* 310(6979): 565-567.
- Kearns P (2003) *HR Strategy Business Focused, Individually Centred*, Butterworth-Heinemann, Burlington, MA.
- Lambert SJ (1990) Processes Linking Work and Family: A Critical Review and Research Agenda, *Human Relations* 43(3): 239-257.
- Lingard H (2004) Work and Family Sources of Burnout in Australian Engineering Profession: Comparison of Respondents in Dual and Single-Earner Couples, Parents and Nonparents " *Journal of Construction Engineering and Management* 130(2): 290-298.
- Lingard H & Francis V (2005) The Decline of the 'Traditional' Family: Work-Life Benefits as a Means of Promoting a Diverse Workforce in the Construction Industry of Australia, *Construction Management and Economics* 23(10): 1045-1057.
- Lingard H & Francis V (2007) 'Negative Interference' between Australian Construction Professionals' Work and Family Roles, *Engineering, Construction and Architectural Management* 14(1): 79-93.
- Lingard H & Rowlinson S (1994) Construction Site Safety in Hong Kong, *Construction Management and Economics* 12(6): 501-510.
- Lingard H & Sublet A (2002) The Impact of Job and Organizational Demands on Marital or Relationship Satisfaction and Conflict Among Australian Civil Engineers, *Construction Management and Economics* 20(6): 507-522.
- Lingard H, Townsend K, Bradley L & Brown K (2008) Alternative Work Schedule Interventions in the Australian Construction Industry: A Comparative Case Study Analysis, *Construction Management and Economics* 26(10): 1101-1112.

- Monaco, K, Olsson L & Hentges J (2005) Hours of Sleep and Fatigue in Motor Carriage, *Contemporary Economic Policy* 23(4): 615-624.
- Morris ML & Madsen SR (2007) Advancing Work Life Integration in Individuals, Organizations and Communities, *Advances in Developing Human Resources* 9: 439.
- Ng S, Cheng K & Skitmore M (2005) A Framework for Evaluating the Safety Performance of Construction Contractors, *Building and Environments* 40(10): 1347-1355.
- O'Driscoll M & Allis P (2008) Positive Effects of Nonwork-to-Work Facilitation on Well-being in Work, Family and Personal Domains, *Journal of Managerial Psychology* 23(3): 273-291.
- Ransome P (2007) Conceptualizing boundaries between 'life' and 'work', *International Journal of Human Resource Management* 18(3): 374-386.
- Roberts E (2008) Time and Work-Life Balance: The Roles of 'Temporal Customization and 'Life Temporality', *Gender, Work and Organization* 15(5): 430-453.
- Rogers A, Holmes S & Spencer M (2001) The Effect of Shiftwork on Driving to and From Work, *Journal of Human Ergology* 30: 131-136.
- Sonnentag S, Binnewies C & Mojza EJ (2008) Did you have a nice evening?' A day-level study on recovery experiences, sleep, and affect, *Journal of Applied Psychology* 93(3): 674-684.
- Totterdell, P, Spelten E, Smith L, Barton, J & Folkard, S (1995) Recovery From Work Shifts: How Long Does it Take?, *Journal of Applied Psychology* 80(1): 43-57.
- Underhill, E., (2002) 'The Australian Construction Industry: Union Control in a Disorganised Industry' Victoria University of Technology, School of Management Working Paper Series, 6/2002.
- Van Wanrooy B & Wilson S (2006) Convincing the Toilers? Dilemmas of Long Working Hours in Australia, *Work Employment Society* 20(2): 349-368.
- Wharton AS & Blair-Loy M (2002) The Overtime Culture in a Global Corporation: A Cross-National Study of Finance Professionals' Interest in Working Part-Time, *Work and Occupations* 29(1): 32-63



## Appendix:

Table One: Time One

P:	Gender and Children	Children activities and family	Hobbies/Personal time	Satisfied? Yes/no
1	Female 0 Children	Time with sister	Watching cooking shows Social with friends	Yes
2	Male 3 Children (Aged:15, 18, 21)	Football, cycling, sailing	Sailing on weekends	Yes
3	Female 2 Children (Aged:15 and 16)	Children not at home	Pet dog	Yes
4	Female 0 children		Competitive squash 1x per week, Pet dog and walking every night. If more time – would play more squash and volunteer for wildlife	Yes
5	Male 2 Children (Aged: 17 and 15)	Dancing, trampolining and tennis – taxi service 3x a week Visits dad every other weekend	Voluntary youth club	Yes
6	Male No Children		Social sport once a week	Relatively satisfied
7	Male 2 Children (Aged: 16 and 8)	Picnics, beach, fishing, building cubby house, riding bikes		No. would like to work more for pay
8	Female 0 Children	See family. Help mother every Sunday with chores	See friends, Swimming 3x per week, Owns cats, dogs, horses, Travelling, rides horses	Yes
9	Male 2 Children (Aged: 4 and 1)	Pony club, swimming, reading books at night and play time	Windsurfing, Touch football, Run 4 and half kms with friend three times a week	Yes
10	Male 0 children	Spend time with family	Basketball , Church, Meet friends on weekends	Yes but tired
11	Male 3 Children (Aged: 9, 6, 5)	Camping, 4WDing, spare time is for kids	Renovating Queenslander	Yes
12	Female 1 Child (Aged: 4)	Jazz ballet, reading, cooking, would like to do circus with her. In caring role for cousin living downstairs	<b>No time</b>	Would like personal time
13	Female 0 Children	Spend time with family and partner	Diploma of business Study in evenings Gym classes, boxercise, running, AFL	Yes
14	Female 0 Children		Show dogs	Yes
15	Male 0 Children		Buying house	Yes
16	Male 2 Children (Aged: 17 and 11)	Soccer	Motorcycles	Yes
17	Male No Children		Surfing every second weekend, 4WDing, Travel to see friends in Brisbane, Running and riding bikes	Satisfied but room for improvement

P:	Gender and Children	Children activities and family	Hobbies/Personal time	Satisfied? Yes/no
18	Male 1 Child (Aged: 20months)	Swimming, boating, camping	Basketball	Yes
19	Male 2 Children (Aged: 5 and 8)	Homework, soccer, fishing, dancing on Wed and Thurs and piano on Fri		Yes
20	Female 0 Children		See friends and attend food group, touch football, swing dance 3 – 4 hours night per week	Yes
21	Male 0 Children	Planning a wedding	Windsurfing , Gym	Yes
22	Female 0 Children	Sundays with partner	Restoring old car, see friends, Boxercise 1 hour every day 5x per week, Wants to do more	No – would like more recreation time rather than chores
23	Male 0 Children		Swimming 2-3 times per week, Gym two nights per week, Running on weekends, Cricket and tennis once per week, Golf on weekends	Yes
24	Male Two Children (Aged: 9 and 11)	Movies, go-karting Wants to learn guitar together	<b>No time</b>	Yes
25	Male Three children (Aged: 2, 5, 7)	Parks, swimming, riding bikes, dance concerts Spends most of time with kids	Mature aged apprentice study and building own house	Yes

**Table Two: Time Two**

<b>P:</b>	<b>Reported Changes to Non-Work Activities at Time Two</b>	<b>Description of Work-Life Balance at Time Two</b>	<b>In favour of 5 day week yes/No</b>
1	Spending more time with friends, ability to plan and go out and have personal time	Rejuvenated, more energy, looks forward to weekends	Yes
2	More energy to see friends and family	Realised work too much in past before compressed week	Yes
3	No change	Improved work-life balance	Yes
4	No change	No change	No
5	No change	Improved work-life balance since last interviews	Yes
6	More sleep	WLB 100%	Yes
7	Goes to all soccer matches on Saturday and more time with kids	Family and wife is happier	Yes
8	Always worked 5 days	Happy with work-life balance	Yes
9	Spends more time with kids and around the house	Enjoys having proper weekend	Yes
10	More family orientated, sleep in, doing more than just chores	Happier to go to work, more enthusiastic	Yes
11	Always worked 5 days	Satisfied with five days	Yes
12	More camping and taking the boat out	Very happy, improvements to home life and family	Yes
13	Always worked 5 days	Satisfied with 5 days	Yes
14	Set goals now to go surfing and travelling to visit friends, started rock climbing	Improved satisfaction from last interview. More energy and in control	Yes
15	No changes	Believes WLB has improved slightly	Yes

**Table Three: Interview Schedule Time One**

Interview Questions Time One	
1	How long have you been involved in the Wivenhoe Alliance? What is it like to work here?
2	What is your current job title?
3	Do you have children? YES/NO  If so, how many and what are their ages? What kind of activities do you take part in with your children? What other activities would you like to take part in with your children?
4	Do you have any elder care responsibilities? YES/NO  How many hours per week would you spend looking after this person? What sort of activities does this caring involve?
5	What other significant non-work responsibilities do you have? (e.g. care of a person with disability, study, hobbies, volunteer activity)  Approximately how much time does this take up each week? How satisfied are you with your non-work activities?
6	Could you tell me a bit about your current experiences with balancing your working life with non-work activities?  Flexibility? Positives? Negatives?
7	Are there any other types of work arrangements that would be helpful for you to work-life balance?
8	Do you think you would be able to negotiate alternative arrangements to balance your work and non-work life in the Wivenhoe Alliance?
9	How does your experiences balancing work and non-work in the Wivenhoe Alliance compare with work-life balance in other employment experiences?
10	Do you have any other comments about the issue of work-life balance?

**Table Four: Interview Schedule Time Two**

<b>Interview Questions Time Two</b>	
1	Have there been any changes in your work responsibilities, or the way you do your work? (If yes, please give examples)
2	Have there been any changes in your responsibilities or activities outside of work? (If yes, please give examples)
3	How would you describe your work-life balance now? Is it different to when you were interviewed last time? (If yes, please give examples)
4	Now that you have been working a 5 day week for (x) months, can you describe how this affected your work-life balance? Has it had an impact on other people you work with? Has it had an impact on the way you view the organisation?
5	Are there any other obstacles (within the way you work and/or the organisation) that <b>still</b> impact on your work-life balance, and would be things you would like to change?
6	Are there any other initiatives that the organisation could (or should) introduce to help improve your work-life balance?