AN INVESTIGATION OF WORK-LIFE CONFLICT IN REGIONAL AUSTRALIA: EMPIRICAL EVIDENCE FROM AN AUSTRALIAN REGIONAL UNIVERSITY

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ABSTRACT
Work-life conflict is a form of inter-role conflict where simultaneous occurrence of role pressure from work and other aspects of life such as family may lead to a conflict situation as compliance with one may limit an individuals' ability to meet the demands of the other domain. The extent research of work-life conflict literature mostly focused on the issues related with non-regional areas. There is scope of research to be conducted among the work-life balance issues in the regional areas. The purpose of this study was to examine work-life conflict experience among academics and general staff of a regional Australian university. The study would therefore explore how total work-hours and associated variables such as strain and social support affect work-life conflict among university employees. Both academic (n=132) and general (administrative) staff members (n=149) completed a web-based survey (Survey Monkey) designed to measure each of the research variables. Total work-hours of academics was significantly greater than those of general staff (48 vs 38 hours) (p<0.05). The result suggests that total work-hours significantly affect work-life conflict experience for both the academics and general staff members. Further analysis reveals that academics experience significantly more (p< 0.05) work-life conflict compared to the general staff members’. It was found that there is no significant difference in strain experience between these two cohorts. Finally, the study found that the general staff experienced significantly (p< 0.05) greater level of work related social support. The study recommends practical implications for management of academics in regional university in Australia and guides for future research.

Keywords: Work-life conflict, total work-hours, strain, job demands, job control, social support

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INTRODUCTION
Work-life conflict is a form of inter-role conflict where the simultaneous demands from work and non-work roles, may make it difficult to have a balance between these two spheres of life (Greenhaus & Beutell 1985). Historically, the study of work-life conflict can be traced back to a post World War II debate on gender roles (Bardoel, De Cieri & Santos 2008; Barnett 1998). Since then, work-life conflict has been examined by a number of disciplines resulting in a literature base that includes non-empirical and empirical studies. This study on work-life conflict is based upon an empirical research conducted among employees of an Australian regional university.

The issue of work-life conflict has attracted attention of academics, employers, employees and government authorities in developed countries such as Australia and the issue is considered to have significant strategic importance in the workplace (De Cieri et al. 2005). Based on a survey of 2691 employees, Pocock, Skinner and Ichii (2009) found that approximately 20% of Australian employees felt a lack of balance in their work and non-work life needs. The higher education sector in Australia has also observed an increase in level of work-life conflict among the employees across the board in recent decades (Winefield et al. 2002; 2003). Winefield et al. (2002) in his study among employees of Australian higher educational institutions observed that 83% of the academics compared to 58% general staff in that study reported higher level of conflict. Consistent with Winefield et al. (2002); researchers elsewhere also found that academics spent more hours at work and experienced higher level of work-life conflict compared to non-academic staff (Harman & Gyllstorm 1977; Kinman & Jones 2008; Tyth Raleigh et al. 2005). The study will therefore, contrast the work-life conflict experience between the academics and general staff in an Australian regional university setting.

LITERATURE REVIEW
A number of drivers in the contemporary society and workplace can be identified that have contributed to putting pressure on individuals’ ability to minimise work-life conflict. The social drivers may include an increased participation of women at workplace, change in the family structure and a change in social values. The work place has also witnessed a number of changes in work arrangements, employment type, increased workload and an increase in number of work hours. Researchers argued that increased work hours might have implications for work-life conflict (Gutek, Searle and Kelpa 1991; Grzywacz & Marks 2000; Pocock, Skinner & Williams 2007). For example, Pocock, Skinner and Williams (2007) found that those worked very long hours (≥ 60 hours per week) reported maximum work-life conflict scores followed by those who worked ≥ 45 to 60 hours per week. They also found that ‘more than twice as many employees who work very long hours frequently perceive that work interference with their activities outside work, compared to those working around a standard full-time week (35-44 hours)’ (p.2). Therefore, it is assumed that, total work-hours (total time spent for work) would be a key predictor of work-life conflict among academics and general staff.

Previous researchers have also found that work-life conflict is influenced by work and non-work environmental factors such as job demands, an individual’s potential control in managing these job demands, and the level of support available from both work and non-work domains (Burgess & Connell 2006; Grzywacz & Marks 2000; Voydanoff 2005). Job demand is the amount of work one has to perform at workplace or work responsibility (Karasek 1979). The same is also defined as ‘set of prescribed tasks that one has to perform’ (Duxbury, Lyons and Higgins 2008, p. 132). Job control is often considered as having ‘the working individual’s potential control over his tasks and his conduct during the working day’ (Karasek 1979, p. 290). From work perspective, social support is the support available from peers and superiors (Johnson & Hall 1988). The occupational stress models (e.g., Job Strain Model; Karasek 1979 and Demand Control Support Model; Johnson & Hall 1988) traditionally measures the interplay between variables such as job demand, job control and social support. People experience strain as a result of high job demand, low job control or low social support. Besides, strain has been summarised as ‘the ratio between job demand and job control weighted by item numbers’ (Li, Yang & Cho 2006, p. 1068).

Recently a number of studies have viewed work-life conflict as a form of occupational stress (Grönlund 2007; Wallace 2005; Willis, O’Connor & Smith 2008) and applied occupational stress model (Job Strain Model; Karasek 1979) for measuring work-life conflict.Both Grönlund (2007) and Wallace (2005) found the occupational stress model to be a useful vehicle for predicting work-life conflict.

Total work-hours has potential implication for variables such as job demand and employees’ potential control on when and how to accomplish those demands. Total work-hours is closely associated with job demand (Hakanen et al, 2008; Skinner & Pocock 2008). Although some studies argued that work-hours constitute part of job demand (Grönlund 2007; Love et al. 2007), Harma (2006) has argued that these two are something similar. A close examination of the measurement tool of the occupational stress literature (Job Content Questionnaire; Karasek 1985) would reveal that items for measuring job demand is only concerned with the amount and pacing of work: it does not measure the effect of total work-hours (total time spent for work) which would dictate how much time would be available after work for other aspect of life. Since time is a finite construct it may also affect the flexibility or job control that employees have over their job demands. It would therefore be useful to examine work-life conflict experience among employees of a regional Australian university by exploring the influence of total work hour and other associated variable like strain and social support.

**METODOLOGY**

**Sample**

A self-report online survey (Survey Monkey) data was collected from academic (n=132) and general (n=149) staff of five regional campuses of CQUniversity, Australia. The sample worked for at least ≥20 hours per week on campus that might influence the work-life interplay. This measure is consistent with the literature (Bruck, Allen & Spector 2002; Frone, Russel & Cooper 1997; van Steenbergen & Ellemers 2009).

**Data Collection**

The online survey included demographic questions such as age, gender, work-status (full-time or part time), length of service with the University, job status (level of academic/general staff), hours worked per week, and hours worked during the evening at home and/or on weekends. Job Demand, Job Control and Social Support were measured using 22 items of the Job Content Questionnaire (JCQ, Karasek 1985). Responses to the job demand, job control and social support items were measured using a five-point (1-5) Likert scale with a high score (4-5) on each scale means higher job demand, job control, or social support. Strain was computed as ‘the ratio between job demand and job control weighted by item numbers’ (Li, Yang & Cho 2006, p. 1068). A high score (4-5) on strain indicates a higher level of strain. Work-life conflict responses were also made on a five point Likert scale (Grönlund 2007). The variable ‘total work-hours’ was computed by adding hours on campus and hours spent working at home and during the weekend. A question was also included in the survey to assess how satisfied the sample is to take work home? For the scale scores of variables Cronbach’s alpha reliability was
between 0.76 and 0.89. The distribution of the scale score was also examined to ensure that the distributions were normal. Excessive skewness (-0.83) and kurtosis (1.09) were observed in case of social support and henceforth data on social support was transformed through log gamma transformation, which ensured normal distribution.

**Statistical Analysis**

SPSS (V.16.0) was used for data analysis and statistical significance was accepted at p<0.05. Data was analysed using ANOVA and path analysis. A post hoc analysis (ANOVA) was carried out to examine the differences between academics and general staff on variables of interest. Path analysis was carried out to assess the significance of path coefficients of variables in relation to each other. The path analysis was conducted in three stages. The first forward entry linear regression analysis assessed the interface between the dependent variable work-life conflict and independent variables of strain, social support and total work-hours. The second regression assessed the relationship between strain and two predictor variables of total work hours and social support. The third regression analysis examined social support as the dependent variable and total work hours as the predictor variable. Finally, the estimated regression coefficients between academics and general staff were compared using Z score method using the following formula:

\[
Z = \frac{r_1 - r_2}{\sqrt{\frac{1}{n_1 - 3} + \frac{1}{n_2 - 3}}}
\]

Here, \(r_1\) and \(r_2\) denotes regression coefficients; \(n_1\) and \(n_2\) represents the respective sample sizes. A significant difference is considered if the value of Z is outside the range of ±1.96.

**RESULTS**

The sample (n=281) was composed of 44% (n= 132) academics and 56% (n=149) general staff of the university. The response rate was approximately 15% of the total number of academics and general staff within the university. Descriptive statistics of the study is shown at Table 1. The overall sample did not experience excessive job demand; they had fair degree of job control and enjoyed a good level of social support at work.

**TABLE 1. DESCRIPTIVE STATISTICS BETWEEN ACADEMICS AND GENERAL STAFF ON WORK-LIFE CONFLICT, THE JCQ, TOTAL WORK-HOURS AND JOB SATISFACTION**

<table>
<thead>
<tr>
<th></th>
<th>Academics (n = 132)</th>
<th>General Staff (n = 149)</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work-life conflict</td>
<td>3.4 ±0.8</td>
<td>2.8 ±0.7</td>
<td>0.000</td>
</tr>
<tr>
<td>Strain</td>
<td>0.8 ±0.2</td>
<td>0.7 ±0.2</td>
<td>0.289</td>
</tr>
<tr>
<td>Job demand</td>
<td>35.7 ±8.7</td>
<td>32.4 ±8.2</td>
<td>0.001</td>
</tr>
<tr>
<td>Job control</td>
<td>87.4 ±13.1</td>
<td>81.2 ±13.4</td>
<td>0.000</td>
</tr>
<tr>
<td>*Social support</td>
<td>67.7 ±19.0</td>
<td>73.7 ±15.9</td>
<td>0.005</td>
</tr>
<tr>
<td>Total work-hours</td>
<td>47.7 ±8.9</td>
<td>37.7 ±7.1</td>
<td>0.000</td>
</tr>
<tr>
<td>• On campus</td>
<td>37.9 ±7.3</td>
<td>35.9 ±5.8</td>
<td>0.022</td>
</tr>
<tr>
<td>• At home in week days</td>
<td>6.0 ± 5.0</td>
<td>1.0 ± 2.2</td>
<td>0.000</td>
</tr>
</tbody>
</table>
Table 2 shows the correlations between total work-hours, work-life conflict, the JCQ (Karasek 1985) scales of job strain and social support, and some important demographic variables. Total work-hours was positively \( p < 0.01 \) related to work-life conflict and strain \( p < 0.01 \) but negatively \( p < 0.01 \) related to social support \( p < 0.01 \). ANOVA showed that the mean total work hours for academics was 47.7 ± 8.9 hours compared to 37.7 ± 7.1 hours in case of general staff although the mean of total work hours for the whole sample was 42 hours per week. It was found that 67% of the academics compared to only 12% of the general staff worked ≥ 46 hours per week. Among the general staff also there is a significant level of difference \( p < 0.05 \) among those who work ≤ 45 hours per week and those >45 hours. Although there is
### TABLE 2. CORRELATION MATRIX BETWEEN WORK-LIFE CONFLICT, STRAIN, SOCIAL SUPPORT, TOTAL WORK-HOURS AND KEY DEMOGRAPHIC VARIABLES (n=281)

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Work-life conflict</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Strain</td>
<td>0.499**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Social Support</td>
<td>-0.315**</td>
<td>-0.364**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Total work-hours</td>
<td>0.473**</td>
<td>0.204**</td>
<td>-0.225**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Sex (Male/Female)</td>
<td>-0.216*</td>
<td>0.076</td>
<td>0.142*</td>
<td>-0.260**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Job status (Acad/GS)</td>
<td>-0.326**</td>
<td>0.063</td>
<td>0.171**</td>
<td>-0.531**</td>
<td>0.177**</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Dependent children (Y/N)</td>
<td>-0.136*</td>
<td>0.010</td>
<td>0.051</td>
<td>0.040</td>
<td>0.126*</td>
<td>0.031</td>
<td></td>
</tr>
<tr>
<td>8. Marital Status (Single/Married)</td>
<td>0.086</td>
<td>-0.091</td>
<td>-0.102</td>
<td>-0.025</td>
<td>-0.132*</td>
<td>-0.008</td>
<td>-0.344**</td>
</tr>
</tbody>
</table>

**Note**  
** Significant at 0.01 levels (2-tailed); * significant at 0.05 levels (2-tailed); **Acad** = Academic, **GS** = General Staff; **Y** = Yes, **N** = No.
little difference ($p = .058$) between the view of academics and general staff about taking work home; general staff are less satisfied to take work home compared to academics. A post analysis between academics and general staff also revealed that academics had greater level of work life conflict ($p < 0.05$).

The relationship between work-life conflict and predictor variables were examined through path analysis. Social support was however, excluded from the analysis because the t-statistics value of social support was not significant in the regression analysis. Multiple regressions were carried out for academics and general staff (Figures 1 and 2). For academics, strain explained 33% of the variance and total work-hours added an additional 6% (total $R^2 = 39%$). For general staff, both total work-hours ($R^2 = 10%$) and strain ($R^2 = 20%$) proved significant variance (see Table 3).

The direct and indirect effect of total work-hours on work-life conflict was examined through regression analysis. For both academics and general staff a direct relationship between total work-hours and work-life
conflict was observed (Figure 1 & 2). However there were mixed result with regards to the indirect relation between total work hour and work life conflict in case of academics and general staff (Table 3).

**TABLE 3. LINEAR REGRESSION FOR THE ROLE OF SOCIAL SUPPORT AND TOTAL WORK-HOURS ON STRAIN**

<table>
<thead>
<tr>
<th></th>
<th>Academics</th>
<th>General Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social Support</td>
<td>.42 **</td>
<td>.27</td>
</tr>
<tr>
<td>Total work-hours</td>
<td>-</td>
<td>.34</td>
</tr>
<tr>
<td>Change $R^2$</td>
<td>.18 **</td>
<td>.07 *</td>
</tr>
<tr>
<td>$R^2$</td>
<td>.18 **</td>
<td>.07 *</td>
</tr>
<tr>
<td>$F(df)$</td>
<td>26.48(1,121) **</td>
<td>12.63(1,158) *</td>
</tr>
</tbody>
</table>

For academics, the indirect link between total work hours and work-life conflict through strain could not be established, as there was no significant relationship between total work hours and strain. Again, the indirect relation between total work hours and work-life conflict through social support could not also be established (Figure 1). Though total work hour was negatively related to social support the beta weight was not significant. For academics social support however, had significant ($p < 0.001$) negative correlation coefficient with strain, which had significantly ($p < 0.001$) positive relation with work life conflict.

For general staff members, a significant ($p < 0.05$) correlation between total work-hour and work-life conflict was observed. (Figure 2) The indirect effect of total work hour on work life conflict through social support and strain was also observed in case of general staff. For general staff also social support had no direct influence on work-life conflict.

Finally the Z score test indicated that path coefficients between academics and general staff (Figure 1 and 2) differ. Significant difference was observed with respect to path coefficients between total work-hours and work-life conflict ($Z = -2.17$), social support and strain ($Z = -4.23$) and between strain and work-life conflict ($Z = 4.07$).

**DISCUSSION**

The purpose of this study was to examine work-life conflict experience among academics and general staff of a regional Australian university. The relationship between total work-hours, work-life conflict and the associated variables of strain and social support was therefore examined to assess the work-life conflict experience among employees of a regional Australian university. The result showed that, academics worked longer hours, lesser level of social support more strain and greater level of work life conflict compared to general staff. Mean total work-hours was 48 hours per week for academics, compared to 38 hours in case of general staff. During the survey, Australia’s national average working hours was 43.2 hours per week (ABS 2010). The path analysis depicted a direct and indirect effect of total work hour on work life conflict (Figure 1 and 2).
The direct effect of total work-hour on work-life conflict was established in case of both academics and general staff. These findings are consistent with earlier studies that showed that work hours affect work-life conflict experience of individuals (Frone, Yardley & Markel 1997; Grzywacz & Marks 2000; Lu et al. 2009). The results also showed that academics experienced significantly more work-life conflict compared to general staff, despite having greater amount of control at work. Our data suggests that one reason why academics experience a greater level of work-life conflict may be the fact that the academic staff in the present study spent significantly (48 vs 38 hrs) longer hours at work compared to general staff. Devoting long hours at work limited academic staff’s ability to spend time for other non-work roles and as a result the academics experienced more work-life conflict compared to general staff. This result was consistent with previous literature examining intra and inter role conflict among employees of higher educational sector in Australia and overseas (Harman & Gyllstorm 1977; Tythrleigh et al. 2005; Winefield et al. 2003). While the present data suggest general staff spend significantly less time at work than academic staff, those general staff who spent longer hours at work experienced more work-life conflict. Therefore total work hour may be considered a key determinant of work-life conflict for academic and general staff.

The issue of having no boundary between work and non-work life may also explain why academics experience greater level of work-life conflict. For academics, there is no or little boundary to when work is carried out and where it is carried out. For example, there is an established practice of flexible working among academics and a culture of taking work home (Jensen & Morgan 2009; Kinman & Jones 2008; Tythrleigh et al. 2005). A number of previous studies found that working at weekends and at night are linked with greater work-life conflict (Costa, Satori & Åkerstedt 2006; Jansen et al. 2003; Kinman & Jones 2008). For example, Kinman and Jones (2008) found that there is a significantly increased level work-life conflict among academics in the UK who worked weekends and evenings compared to those who did not. In contrast, Kinman and Jones (2008) observed that general staff appear to prefer a clear boundary between the two domains of work and home life. Our study also found that general staff are less satisfied to take work home compared to the academics.

There may be a number of reasons why the academics in our study experienced greater job strain (the ratio between job demand and job control) compared to general staff despite our finding that total work hours did not significantly affect the level of strain in the academic cohort. Firstly, general staff did not have the level of control over their non-work demands as academics do. Secondly, academic staffs have greater flexibility or control at work (see Table 2) that may help explain that despite the total work-hours being longer than general staff, they did not have the same impact on job strain observed in general staff. Indeed, previous research has found that flexibility in working hours was negatively related to psychosocial well-being and work-life conflict (Allen et al. 2013; Costa, Satori & Åkersted 2006). In a study on the effect of overtime among Australian, university academics, Beckers et al. (2008) found that academics worked in a healthier psychological work environment where they enjoyed greater freedom of deciding when to commence and finish their work. Beckers et al. (2008) also found that academics had no set working hours and thus the freedom to decide whether to work in the evening or weekends although they accepted the necessity to work overtime.

In this study the indirect effect of total work hour through social support was established for general staff but not within the academic staff cohort (Figures 1 & 2). The present data however, showed that for the total sample, social support was negatively correlated with total work-hours suggesting that with the increase of total work-hours the level of social support would decrease. Previous work by Johnson and Hall (1988) also proposed that social support might reduce job strain. We thus expected that a reduction in social support would increase job strain and work-life conflict would also increase. For general staff path coefficient between total work hour and social support was significant whereas this was not the case for academics. The beta weight was not significant in case of academics and thus the relationship could not be established (Figures 1 & 2). It indicated that for academic staff total work hour was a key contributor to work-life conflict, not strain or social support.

CONCLUSION
The present study examined the effect of total work hours to predict work-life conflict. Consistent with previous literature, a significant effect of total work-hours on work-life conflict was established in both academics and general staff within an Australian regional university setting. There may be some overlap between the construct of job demands and total work-hours, where job demands encompasses the pacing and intensity of work rather than the actual period of time spent for work. The findings of this study have important implications for organisational practice within Australian regional universities and possibly the higher education workplace as a whole. The study found that lower total work hours and lower levels of job strain contribute to reducing work-life conflict. Compared to general staff, our academic cohort worked significantly longer hours, had significantly less social support, and consequently experienced significantly greater job strain and work-life conflict. Importantly, total work hours were
identified as a key determinant of work-life conflict; especially among academics. Our results found that academics worked approximately 48 hours per week which is above a maximum working hours of 38 hours per week suggested by the Fair Work Australia legislation (Fair work Ombudsman 2014) and five hours above the national average working hours (ABS 2013). Thus, it could be recommended that the organisation implement policies and work practice to reduce total working hours in academic staff. Australia’s higher educational institutions may also develop a system to monitor workload of the academics, as often they do not record their hours of work and practices. A regular survey may be useful tool to monitor academics’ workload, especially the time spent on various types of academic roles such as teaching, research, service and administration.

REFERENCES


