



## A Measure of Attitudes Towards Flexible Work Options

by

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### **Abstract:**

*A short questionnaire, the Flexible Work Options Questionnaire (FWOQ), was developed to measure workers' attitudes to the use of flexible work options (FWOs) such as flexible hours and part-time work. The questionnaire was used with two groups of employees, 344 public service personnel, and 212 non-academic staff from a regional university. In Study 1, the FWOQ was shown to have moderate reliability and to consist of two factors: I, Work/family Balance, and II, Barriers. The Barriers factor did not emerge as a single factor in Study 2. Work/family Balance issues were stronger predictors of the use of FWOs than Barriers. These results were explained in terms of compromises that parents make in order to achieve family/work balance. Further development was suggested to refine the Barriers subscales and to investigate gender differences.*

### **Keywords:**

*WORK/FAMILY; BALANCE; FLEXIBLE WORK OPTIONS; PARENTAL LEAVE; WOMEN AND WORK.*

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## 1. Introduction

The workplace was once seen as a separate domain from home and family, a separation that was largely defined by gender roles. However, recent decades have seen the increasing participation of women in the paid workforce, changes in the structure of families, and an increase in dual-career families. The challenge faced by families and the wider community is to ensure that an appropriate balance is achieved between work and family responsibilities. This study will examine the use of flexible work options (FWOs) as a means of achieving this balance, and will look at factors that facilitate or hinder their use. It will also provide a validation of the Flexible Work Options Questionnaire (FWOQ), a scale designed to measure attitudes to the use of FWOs.

Drago, Scutella and Varner (2002, p. 1) defined one of the main issues of concern resulting from the demographic changes in the workforce as the 'care gap'. They noted that, while previously the separate domain structure of work and home ensured that one parent, usually the mother, would take responsibility for managing the home and caring for children and other dependents, this was no longer the case. Australia's industrial relations in the 20th century were defined by the implementation of the 'basic wage', a policy based on the notion of a family consisting of a 'breadwinner' father and a 'homemaker' mother. The basic wage, which was set to preserve and support this family structure, also spawned workplace agreements based on 'seniority', whereby employees were rewarded for continuous service by promotion, salary increases, and improved retirement earnings (Drago, Scutella & Varner 2002, p. 5). Drago, Scutella and Varner observed that while some might desire the return of the 'traditional' family, such a reversal would be economically unsustainable. The world of work needed to adapt to meet the current circumstances.

Indeed, with Australian data indicating that the employment of women with pre-school children has risen from 35.7% in 1985 to 45% in 2000, and of women with school-aged children from 58.4% to 66.8% (Chapman, Dunlop, Gray, Liu & Mitchell 2001, p. 374), there has been a parallel widespread increase in recognition of and support for achieving work/family balance. In a study of work/family issues in Western Europe, North America, and Australia, Thornthwaite (2002, p. 4) listed three levels at which balance could be managed: time management, dealing with inter-role conflict, and ensuring care arrangements for dependent family members. Some of the arrangements that were used in those countries to achieve the balance were shorter working hours, special leave and career breaks, part-time work, telecommuting, flexitime, child and elder care, parenting seminars, and provisions to ensure job security and career protection for those who take up flexible options. The salience of the issue in Australia is evidenced by current government policies (Abbott & Vanstone 2002) which are directed at overcoming the problem of balancing work and family responsibilities. Initiatives include tax benefits, improved access to childcare, as well as FWOs, including additional leave entitlements and access to part-time work.

Most research has shown positive or equivocal outcomes associated with the use of FWOs. Flexibility is usually a low-cost or no-cost project and has been related to reduced turnover and absenteeism, and increased productivity (Lee 1991). Flexible job scheduling has also been associated with reductions in physical and psychological symptoms of job strain (Thomas & Ganster 1995), and with

minor improvements or no change in measures of organisational effectiveness, attendance behaviour, and job attitudes such as job satisfaction (Christensen & Staines 1990). Women who worked for companies with family-friendly FWOs recorded higher job satisfaction, lower absenteeism, worked more in their own time, worked later into their pregnancies, and were more likely to return to work after parental leave (Galinsky & Stein 1990).

Scandura and Lankau (1997, p. 379) defined the positive outcomes in terms of the psychological contract between employer and employee. They suggested that when employers offered FWOs, employees felt the need to respond by offering, in return, higher commitment, loyalty, and job performance. Their research indicated that this was more likely to be the case for women and those employees with children. A recent survey of Australian workers (FACS 2002) indicated that flexibility was a major factor for parents when considering their choice of work.

Employers see the advantages of FWOs in the impact such arrangements can make to their bottom line, and FWOs are becoming increasingly important to employees. Part-time or flexible work has been consistently favoured by female employees, but flexibility is also becoming more attractive to male employees. Lee (1991, p. 7) reported that the acceptance rate of FWOs for females remained constant at around 75% between 1985 and 1990, while the acceptance rate for males increased from 37% to 56% over the same period.

However, the positive attitudes and benefits associated with workplace flexibility occur only when the introduction of FWOs has been employee-driven. In many industries, notably finance, hospitality, health, education, retail, manufacturing and production, FWOs have been introduced to meet management's agenda. Flexibility has been imposed on workers as a means of reducing penalty rates, expanding 'ordinary' work time, and increasing operating efficiency (HREOC 1996, pp. 5–6). In these cases, the Human Rights and Equal Opportunity Commission (HREOC) noted that the impact on workers and families has been largely negative, with many lower-paid workers, predominantly women, being denied regularity and predictability of employment. The irregularity and unpredictability of income and hours creates financial difficulties, and impacts negatively on those with family responsibilities. Flexibility is not always family-friendly. Work satisfaction and family well-being result from programs and work cultures which give employees a level of control over their work arrangements (Clark 2001, p. 359). The HREOC report emphasises the need to develop 'equiflex' (p. 3) strategies, that is, those designed to meet the needs of both employees and employers.

Where FWOs have been instituted as a means of helping employees achieve a better life/work balance, such changes are well regarded. Organisations that invest considerable time and money into training and developing their staff see it as good business to adopt policies that will attract and retain skilled personnel. Even though Christensen and Staines (1990) found only limited advantages associated with the use of flextime, they noted that employers were likely to continue its use because they were responding to employees' preferences and needs.

Nevertheless, even in organisations where FWOs have been instituted with an employee focus, there are still a number of barriers preventing employees from using them to advantage. Some FWOs involve reduced hours and concomitant reduced income. The main barrier for many workers to taking up these options is

financial. An Australian study (FACS 2002) found that most parents worked the hours they did to meet their financial needs. Lee (1991, p. 2) similarly found that 56% of US mothers in their survey would leave paid work if they had enough money to do so.

Other FWOs allow for leave entitlements or variation of hours which do not involve any such financial penalty. These include options such as flex time, parental leave, carer's leave, telecommuting, and so on. Even so, employees can be reluctant to use these options if they perceive that such use will be viewed unfavourably, or if they feel there is a lack of organisational support for their use. Often this lack of support is experienced at the middle management or supervisory level rather than the organisational level. Allen (2001, p. 415) listed the following as factors preventing employees from using FWOs: lack of informal support from supervisors, negative judgment regarding their lack of work commitment, and possible negative career impact.

This study looked at attitudes towards FWOs of personnel in two organisations. The first group were employees in a state government department, and the second were general staff of a regional university. A short questionnaire was developed for use with the first group to assess attitudes and perceived barriers, and was subsequently used with the university sample to assess the scale's psychometric properties.

## 2. Study 1

### 2.1 Method

*2.1.1 Participants* Data were obtained from 344 participants (173 females, 171 males) employed in a state public service department in 7 city and regional locations. This represented a response rate of 45% of the total staff, however demographic variables indicated that the sample was generally representative of the department as a whole. Most participants were aged between 31–40 (103 participants) or 41–50 (108 participants). Over 60% indicated that they had worked in the public service for more than 5 years. The majority of participants (83.1%) were employed in permanent full-time positions, with 20 employed on a permanent part-time basis. All of the latter also indicated this as their preferred mode of employment. Overall, 81% of the sample were happy with their current employment status. Twenty-six respondents in permanent full-time positions indicated that they would prefer to work part time.

As members of the public service, these participants had access to a wide range of FWOs, including flextime, the 48/52 leave scheme, paid maternity leave, half pay long service leave, parental leave, special leave, part-time, job sharing, and telecommuting. Other family friendly workplace provisions included access to dependant care reimbursements, childcare referral service, and family room.

*2.1.2 Materials* *2.1.2.1 The Flexible Work Options Questionnaire (FWOQ)* The FWOQ was designed to measure attitudes and barriers to the use of FWOs. The questionnaire formed part of a larger staff survey measuring aspects of workplace climate. The item content was based on previous experience, discussion with employees who were familiar with a range of FWOs, and the attitudes and barriers identified in the previously reviewed literature. The 11-item scale is shown

in table 1. Items marked with (R) were reverse-scored. All items were rated on a 5–point Likert scale, with respondents indicating their agreement or disagreement with each statement (1 = *Strongly Disagree*, 5 = *Strongly Agree*). High scores indicated favourable attitudes towards the use of FWOs.

**Table 1**  
**Flexible Work Options Questionnaire (FWOQ)—Version 1**

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Flexible working arrangements help me balance life commitments.
I cannot afford the loss of pay associated with most flexible work options. (R)
Flexible work options do not suit me because they tend to make me feel disconnected from the workplace. (R)
Working shorter hours would negatively impact on my career progress within the organisation. (R)
Working more flexible hours is essential for me in order to attend to family responsibilities.
Flexible working arrangements are essential for me to participate in family and social events.
Flexible working arrangements enable me to focus more on the job when I am at the workplace.
People at my workplace react negatively to people using flexible working arrangements. (R)
People using flexible working arrangements usually have less commitment to their work role. (R)
People using flexible working arrangements often miss important work events or communications, such as staff meetings, training sessions, important notices, etc. (R)
I would not be able to do paid work at all, if I could not use flexible work arrangements.

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*2.1.2.2 Use of FWOs* Participants were asked to indicate whether they had used any of the available FWOs in the previous 12 months, whether they were currently using them, or whether they intended using them in the next 12 months. If they responded positively to any or all of these three options for a particular FWO, then they were counted as using that FWO.

FWOs were subdivided into four separate categories. The first consisted of flexible arrangements that were regularly available to staff and which enabled variation in work hours or conditions without any loss of pay. These options included Flextime, Flexible shift arrangements, and Telecommuting. The second group were regular arrangements that involved reduced hours (and consequently reduced pay). These were 48/52 leave scheme, Half pay long service leave, Part-time work, and Job sharing. The third group were paid and unpaid leave entitlements associated with parenthood, and were made up of paid maternity leave and parental leave. The fourth group of FWOs consisted of ad hoc provisions which people can access to meet unforeseen circumstances. Special leave was the only form of leave in this category. Usage scores for each of these groups and an overall usage score were calculated as a means of assessing the concurrent validity of the FWOQ.

*2.1.3 Procedure* The FWOQ formed one section of a larger survey conducted as part of the organisation’s performance review procedure. Surveys were administered online to all departmental employees across the state, and participation was encouraged by the survey project manager and the upper management team. The full survey took approximately 30 minutes and was completed in work time.

## 2.2 Results

*2.2.1 Descriptive Statistics and Reliability Analysis* Means and standard deviations for the FWOQ items are presented in table 2.

Interitem analyses were conducted to determine the internal consistency of the scale. The overall alpha level for the 11-item scale was 0.79. While this alpha coefficient was lower than might be desired for individual assessment, it was acceptable for group assessment in basic research (Nunnally & Bernstein 1994, p. 265). Items 11 and 8 had very low corrected item-total intercorrelations ( $< 0.20$ ), and the analysis showed that the overall scale reliability would be improved by their removal. Item/scale details are presented in table 2.

**Table 2**  
**Descriptive and Item Analysis Data for the Flexible Work Options Questionnaire—Version 1 (N = 344)**

Item Number	Mean	Standard Deviation	Corrected Item-Total Correlation	$\alpha$ if Item Deleted
1	3.98	0.89	0.58	0.76
2 (R)	2.62	1.04	0.29	0.79
3 (R)	3.49	0.91	0.51	0.76
4 (R)	2.86	1.04	0.29	0.79
5	3.39	1.07	0.67	0.74
6	3.46	1.05	0.63	0.75
7	3.55	0.95	0.62	0.75
8 (R)	3.19	1.03	0.19	0.80
9 (R)	3.75	1.00	0.54	0.76
10 (R)	3.01	1.00	0.49	0.77
11	2.38	0.95	0.11	0.80

However, it was decided that item 8 could be improved by separating out two possibly conflicting elements contained within it. By using the general term, 'People at my workplace', it was not possible to differentiate between negative reactions of supervisors and other staff members. This item would be retained in subsequent studies, but would be expanded into two separate items in order to reflect these distinct areas of concern. Item 11 had the lowest mean score and lowest item-scale correlation, suggesting that the item was not at all consistent with other items in the scale. This item was nevertheless seen as providing valuable information about those workers who used FWOs. It was decided to retain the item as an indicator variable, but not to include it in assessing the total scale score. Items 2 and 4 also had low item-total correlations (0.29). However, these items represented barriers to the use of FWOs as identified from previous research, and it was decided to retain them in the subsequent validation study, and to then reconsider their use in light of their performance within a different workplace culture.

2.2.2 *Factor Analysis* In order to establish the dimensionality of the scale, a principal factor analysis with direct oblimin rotation was conducted on the 10 of the original 11 items, the final item being partitioned from the overall scale as discussed above. The analysis yielded two factors with eigenvalues > 1, which together accounted for 53.00% of the variance. Factor analysis details are shown in table 3. Factor 1 was labelled Work/Family Balance and the Factor 2, Barriers. Lowest communality scores and factor loadings were recorded for item 4, ‘Working shorter hours would impact negatively upon my career progress within the organisation’, and item 8, ‘People at my workplace react negatively to people using flexible working arrangements’. Using a factor loading cut-off criterion of 0.32 (Tabachnick & Fidell 1996, p. 677), item 2, ‘I cannot afford the loss of pay associated with most flexible work options’, did not load on either factor for this group.

**Table 3**  
**Factor Loadings, Eigenvalues, Percent of Variance, and Correlation Matrix for Principal Axis Factoring with Oblimin Rotation of Flexible Work Option Questionnaire—Version 1 (N = 344)**

Item	Factor	
	1. Work/Family Balance	2. Barriers
1	<i>0.56</i>	0.20
5	<i>0.83</i>	0.01
6	<i>0.91</i>	-0.09
7	<i>0.76</i>	0.05
2R	0.14	0.23
3R	0.24	<i>0.47</i>
4R	0.03	<i>0.37</i>
8R	-0.13	<i>0.42</i>
9R	0.13	<i>0.67</i>
10R	0.07	<i>0.64</i>
Eigenvalues	3.89	1.40
Percent of Variance	38.92	14.04
Correlation Matrix		
Factor 1	1.00	
Factor 2	0.45	1.00

Note. Factor loadings > 0.32 are in italics.

The factor analysis indicated that 9 of the original 11 items loaded adequately or better onto one of the two derived factors, which were consequently labelled as subscales. Work/Family Balance subscale scores were calculated by summing and averaging items 1, 5, 6, and 7. Barriers subscale scores were derived using items 3, 4, 8, 9, and 10. For ease of interpretation, actual rather than reversed scores were used to calculate the Barriers subscale. High scores suggest greater impact of these

barriers. Coefficient alphas for the subscales were 0.86 for Work/Family Balance, and 0.67 for Barriers.

**2.2.3 Criterion Validity** In order to establish to concurrent criterion validity of the FWOQ, scale and subscale scores were correlated with levels of usage of the available FWOs reported by the survey respondents. It was expected that higher levels of use would be associated with more positive attitudes as expressed by higher scores on the FWOQ and each of the subscales. Results of the correlation analysis are presented in table 4, along with usage details of the four types of FWOs.

Over half the sample (51.5%) indicated that they did not use FWOs. However, there was a moderate level of correlation among the use of the various types. For those who did use FWOs, over half indicated that they used more than one form. The highest relationship was between parental type leave (Group 3), and reduced hours type options (Group 2). This suggests that the use of FWOs is closely tied to family responsibilities. The most commonly used FWOs were those in Group 1, that is, those that allowed for variation in hours or conditions, but did not incur any loss of pay.

**Table 4**  
**Usage Data and Correlations Between Flexible Work Option Questionnaire—Version 1 (FWOQ) Scores and Use of Flexible Work Options (N = 344)**

	No. of Users	Percent	Correlations								
			1	2	3	4	5	6	7	8	
1. Flex Grp 1	120	34.9	1.00								
2. Flex Grp 2	64	18.6	<i>0.37</i>	1.00							
3. Flex Grp 3	40	11.6	<i>0.21</i>	<i>0.43</i>	1.00						
4. Flex Grp 4	74	21.5	<i>0.24</i>	<i>0.33</i>	<i>0.36</i>	1.00					
5. Tot Flex Use	167 <sup>a</sup>	48.5 <sup>a</sup>	<i>0.70</i>	<i>0.75</i>	<i>0.66</i>	<i>0.69</i>	1.00				
6. FWOQ			<i>0.32</i>	<i>0.29</i>	<i>0.25</i>	<i>0.18</i>	<i>0.37</i>	1.00			
7. Work/Fam			<i>0.34</i>	<i>0.30</i>	<i>0.31</i>	<i>0.22</i>	<i>0.42</i>	<i>0.85</i>	1.00		
8. Barriers			<i>-0.20</i>	<i>-0.18</i>	<i>-0.09</i>	<i>-0.11*</i>	<i>-0.21</i>	<i>-0.80</i>	<i>-0.44</i>	1.00	

Note: All correlations in italics significant at 0.01 level;

\* Significant at 0.05 level; and

<sup>a</sup> Total usage score is not the sum of the usage of the 4 groups as some respondents used more than one form of FWO.

The concurrent criterion validity of the FWOQ was adequately supported by the correlational analysis, with FWO use being positively correlated with FWOQ scores, both overall ( $r = 0.37, p < 0.01$ ), and with each of the four FWO types ( $0.18 < r < 0.32, p < 0.01$ ). The Work/Family Balance subscale showed a stronger relationship with FWO use than the Barriers subscale. Work/Family Balance was positively related with FWO use overall ( $r = 0.42, p < 0.01$ ), as well as all four



FWO types ( $0.22 < r < 0.34$ ,  $p < 0.01$ ). The Barriers score was inversely but weakly related to overall FWO use ( $r = -0.20$ ,  $p < 0.01$ ), and also showed weak but significant correlations with FWOs that incurred no loss of pay ( $r = -0.20$ ,  $p < 0.01$ ), FWOs involving reduced time and pay ( $r = -0.18$ ,  $p < 0.01$ ), and ad hoc leave provisions ( $r = -0.11$ ,  $p < 0.05$ ). The Barriers subscale was not significantly related to leave associated with parenthood.

Regression analysis was then conducted in order to further assess the criterion validity of the two subscale scores derived from the Principal Factor Analysis. FWO use was regressed onto the Work/Family Balance subscale and the Barriers subscale to determine their predictive value. The  $R$  for the regression was significantly different from zero,  $F(2, 341) = 36.29$ ,  $p < 0.001$ . The combination of the two factors accounted for 17.5% of the variability in FWO use. While the correlational analysis revealed that both subscales were significantly related to FWO use, the simultaneous regression of the two scale scores indicated that only Work/Family Balance was a uniquely significant predictor ( $\beta = 0.40$ ,  $t = 7.35$ ,  $p < 0.001$ ) of these participants' use of FWOs.

### 2.3 Discussion

Data from this study have provided some support for the FWOQ as a research tool in the measurements of attitudes to the use of the variety of flexible work arrangements available to employees in the Queensland Public Service. The scale has adequate internal consistency and is a moderate predictor of the use of FWOs.

The scale also appears to consist of two separate but correlated factors, Family/Work Balance and Barriers. Most of the variance attributable to these two factors is largely associated with the Work/Family Balance factor, with Barriers appearing not to impact significantly on people's choice to avail themselves of workplace flexibility. This appears to be contrary to previous research (Allen 2001) which suggests that the use of FWOs is inhibited by concerns about negative evaluations or reactions by supervisors and others, and by concerns about possible damage to career prospects.

A possible explanation for the low relationship between perceived barriers and FWO use was suggested by the FACS (2002) study. They found that families used three strategies to adjust their work/family balance. People vary the way they work during the time they have parenting responsibilities. At times, they may place limits on their career expectations, declining overtime, promotions, and transfers which would negatively impact on their family. They may have a 'one-job, one-career marriage' (p. 8), wherein one parent focuses on a career, while the other places less emotional investment in employment. A third, somewhat similar, strategy may involve parents taking turns at focussing on career or family. Such detachment could explain why some people may choose FWOs despite the possible negative work-related consequences. Another possible explanation may be that there is a strong culture of support in this workplace for the use of FWOs, and employees may not see these as significant barriers. To test the latter, it was decided to retain the Barriers items and see if they had different predictive value within a different organisational culture.

### 3. Study 2

#### 3.1 Method

*3.1.1 Participants* The second study was conducted with 346 non-academic staff members at a Queensland regional university. Completed survey forms were returned for analysis from 212 people (161 females, 49 males, 2 did not say) giving a response rate of 61.3%. While more females than males were included in the sample, it is noteworthy that the response rate for females (68.5%) was higher than that for males (44.1%), reflecting the fact that the issue of FWOs may be a more significant issue for female staff. Sixty percent of the group were aged between 31 and 50. One hundred and sixty-four people were employed full time, and 37 were employed in either part-time, annualised hours, or 48/52 positions. Approximately three-quarters of the staff (74.1%) were currently working in their preferred mode. Most of those who preferred an alternative to fulltime work favoured 48/52 or part-time employment. There were also 12 people working reduced hours who indicated a preference for full time work.

FWOs available to these employees included rostered days off, flextime, working from home, 48/52 leave scheme, part-time work, job sharing, paid and unpaid maternity leave, paid paternity and adoption leave, carer's leave, leave without pay, and special leave.

*3.1.2 Materials* *3.1.2.1 Flexible Work Options Questionnaire (FWOQ)* Some changes were made to the FWOQ in order to improve its internal consistency. Improvements could be achieved in two ways: by adding more items, and by removing or changing items that had low item-total correlation. Based on the previous analysis, the item about workplace reactions was expanded to two separate items. It was also decided to expand the scope of the Balance factor by including additional areas of responsibility that might require variations in working hours or conditions. Item 6 was re-worded to include other interests and responsibilities outside work, and Item 7 was added to assess the extent to which FWOs were used to balance work loads. Items that were considered problematic in Study 1 were again included in order to assess their usefulness within a different workplace culture. The wording of some items was also changed to improve interpretability. The final scale item, 'I would not be able to do paid work at all if I could not use FWOs', was retained as an indicator variable only, and would not be included in the reliability analysis of the overall scale. The revised FWOQ items are shown in table 5.

*3.1.2.2 Use of FWOs* Usage rates were determined as they were in Study 1. For this group, FWO group 1 consisted of rostered days off, flextime, and working from home; group 2 consisted of 48/52 leave scheme, part-time work, and job sharing; group 3 comprised paid and unpaid maternity leave, and paid paternity and adoption leave; and group 4 consisted of carer's leave, leave without pay, and special leave.

**Table 5**  
**Flexible Work Options Questionnaire (FWOQ)—Version 2**

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Flexible working arrangements help me balance life commitments.
I cannot afford the loss of pay associated with flexible work options that involve reduced hours. (R)
Flexible work options do not suit me because they tend to make me feel disconnected from the workplace. (R)
Working shorter hours would negatively impact on my career progress within the organisation. (R)
Working more flexible hours is essential for me in order to attend to family responsibilities.
Flexible working arrangements are essential for me in order to be able to deal with other interests and responsibilities outside work.
Flexible working arrangements are essential for me in order to be able to manage variations in workload and responsibilities.
Flexible working arrangements enable me to focus more on the job when I am at the workplace.
Supervisors at my workplace react negatively to people using flexible working arrangements. (R)
Other people at my workplace react negatively to people using flexible working arrangements. (R)
People using flexible working arrangements usually have less commitment to their work role. (R)
People using flexible working arrangements often miss important work events or communications, such as staff meetings, training sessions, important notices, etc. (R)
I would not be able to do paid work at all, if I could not use flexible work arrangements.

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*3.1.3 Procedure* The study had ethical approval from the University and was conducted with the support of the Human Resources and Corporate Services section. Data were collected over a one week period both online and in paper-based format. One reminder message was sent to participants via email. The survey took about 10 minutes and was completed in work time.

### *3.2 Results*

*3.2.1 Descriptive Statistics and Reliability Analysis* Means and standard deviations for the revised FWOQ items are presented in table 6, along with reliability data for the first 12 items. The 12 items of the scale demonstrated a somewhat lower reliability level ( $\alpha = 0.71$ ) than was found in Study 1, but this could be improved by removing items 2, ‘I cannot afford the loss of pay associated with FWOs that involve reduced hours’, 4, ‘Working shorter hours would negatively impact on my career progress within the organisation’, 9, ‘Supervisors at my workplace react negatively to people using FWOs’, and 10, ‘Other people at my workplace react negatively to people using FWOs’. All of these items had very low item-total correlations ( $< 0.32$ ). The resulting 8-item scale achieved an alpha score of 0.79.

**Table 6**  
**Descriptive and Item Analysis Data for the Flexible Work Options Questionnaire—Version 2 (N = 212)**

Item Number	Mean	Standard Deviation	Corrected Item-Total Correlation	$\alpha$ if Item Deleted
1	4.32	0.91	0.43	0.68
2(R)	2.23	1.06	0.05	0.73
3(R)	3.90	0.92	0.41	0.68
4(R)	3.07	1.05	0.21	0.71
5	3.68	1.07	0.36	0.68
6	3.46	1.03	0.50	0.67
7	3.78	0.95	0.34	0.69
8	3.76	0.99	0.50	0.67
9(R)	3.11	1.24	0.15	0.72
10(R)	3.22	1.04	0.31	0.70
11(R)	4.14	0.90	0.52	0.67
12(R)	3.27	1.12	0.47	0.67
13	2.42	1.01		

While the removal of many of items defining barriers to FWO use had the desired effect of increasing the internal consistency of the scale, Anastasi (1988, pp. 121–3) cautioned that such a strategy was only productive when the test consisted of a single trait. Previous analysis indicated that the scale consisted of two distinct factors, so it was determined that the barriers items should be retained, even if as indicator variables.

*3.2.2 Factor Analysis* Principal factor analysis with direct oblimin rotation of the first 12 items of the revised scale yielded four factors with eigenvalues > 1, which together accounted for 62.8% of the variance. The first factor was similar to the Work/Family Balance factor from Study 1, while the remaining items were spread across three separate factors. This was not surprising in light of the reliability analysis which suggested that the issues presented as barriers to the use of FWOs were not unidimensional. Nevertheless, in an attempt to replicate the factor structure observed in Study 1, a two-factor solution was derived. While the two factors could be generally interpreted as representing Work/Life Balance and Barriers, the factor structure was not as simple as in Study 1. Three items, 3, 11, and 12, were complex variables, loading onto both factors, and again item 2 did not load on either. This unsatisfactory factor solution was rejected in favour of the 4-factor structure consisting of Work/Life Balance and three Barriers factors. The three types of barriers were defined as those relating to the views of others in the workplace (Barriers - Others), those relating to the financial and career costs associated with FWOs (Barriers - Costs), and those relating to individuals' feelings of dissociation from or commitment to the workplace (Barriers - Work Commitment). Details are presented in tables 7 and 8.

**Table 7**  
**Factor Loadings, Eigenvalues, and Percent of Variance for**  
**Principal Axis Factoring with Oblimin Rotation of Flexible Work**  
**Option Questionnaire—Version 2 (N = 212)**

Item	Factor			
	1. Work/Life Balance	2. Barriers - Others	3. Barriers - Cost	4. Barriers - Work Commitment
1	<i>0.57</i>	0.09	-0.03	-0.03
5	<i>0.78</i>	-0.16	0.14	0.07
6	<i>0.76</i>	0.07	-0.02	0.00
7	<i>0.39</i>	0.01	-0.35	-0.21
8	<i>0.49</i>	-0.02	-0.14	-0.28
9R	-0.12	<i>0.66</i>	0.04	-0.01
10R	0.10	<i>0.78</i>	0.02	0.02
2R	0.00	0.01	<i>0.46</i>	-0.01
4R	0.07	0.07	<i>0.52</i>	-0.13
3R	-0.07	-0.05	0.04	-0.68
11R	0.10	0.17	-0.04	-0.54
12R	0.04	-0.00	0.11	-0.62
Eigenvalues	3.38	1.90	1.24	1.01
% of Variance	28.19	15.85	10.37	8.39

Note: Loadings >0.32 are in italics.

**Table 8**  
**Correlation Matrix for Factors of Flexible Work Option**  
**Questionnaire—Version 2 (N = 212)**

	1. Work/Life Balance	2. Barriers - Others	3. Barriers - Cost	4. Barriers - Work Commitment
Factor 1	1.00			
Factor 2	0.02	1.00		
Factor 3	-0.16	0.14	1.00	
Factor 4	-0.50	-0.29	-0.11	1.00

Work/Life Balance subscale scores were calculated by summing and averaging items 1, 5, 6, 7, and 8. The Barriers - Others subscale scores were derived using the actual (not reversed) scores of items 9 and 10, Barriers - Costs used items 2 and 4, and Barriers - Work Commitment was calculated using items 3, 11, and 12. Coefficient alphas for the subscales were 0.79, 0.67, 0.42, and 0.67 respectively. All but the Barriers - Costs subscale demonstrated moderately acceptable reliability.

**3.2.3 Criterion Validity** Concurrent criterion validity of the FWOQ was assessed by correlating scale and subscale scores with levels of FWO usage. Results of the correlation analysis and FWO usage details are presented in table 9.

FWO use was more common among this group, with 86.8% of respondents indicating that they used at least one form of FWO. This different pattern in FWO use was reflective of the higher proportion of women in this sample than in Study 1. Again the most commonly used FWOs were those in Group 1, that is, those that allowed for variation in hours or conditions, but did not incur any loss of pay, while the second most common were ad hoc arrangements, such as special leave, carer's leave, and leave without pay.

The concurrent criterion validity of the FWOQ was again partially supported by this correlational analysis, with FWO use being positively correlated with total FWOQ scores, both overall ( $r = 0.37, p < 0.01$ ), and with three of the four FWO types ( $0.15 < r < 0.22, p < 0.05$ ). The lack of correlation between FWOQ scores and use of Flex group 3, leave associated with parenthood, could be explained by the fact that use of this option was a very low frequency event for this group. Although the overall scale was shown to have a positive relationship with FWO use, the concurrent criterion validity of the subscales was not so well supported. Only two of the subscale scores were correlated with overall FWO use—Work/Life Balance ( $r = 0.25, p < 0.01$ ), and Barriers - Work Commitment ( $r = -0.22, p < 0.01$ ). These two subscales were also related to use of ad hoc leave provisions ( $r = 0.20, p < 0.01$ ;  $r = -0.19, p < 0.01$ , respectively). Work/Life Balance was related to FWOs that resulted in reduced hours and pay ( $r = 0.15, p < 0.05$ ), and Barriers - Work Commitment was associated with lower use of FWOs that did not involve pay loss ( $r = -0.20, p < 0.01$ ). This latter group of flex options was the only one to be associated with perceived barriers due to the attitudes of others in the workplace ( $r = -0.14, p < 0.05$ ). Barriers associated with financial or career costs were not significantly related to any of the FWOs in this study.

Criterion validity for the four factors was then assessed using standard multiple regression. FWO use was regressed onto each of the four subscale scores in order to determine their unique predictive value. The  $R$  for the regression was significantly different from zero,  $F(2, 209) = 8.44, p < 0.001$ . Altogether 7.5% of the variability in FWO use was attributable to these four factors, although only Factor 1, Work/Life Balance, significantly contributed to the prediction of FWO use ( $\beta = 0.25, t = 3.75, p < 0.001$ ). This reinforced the results obtained in Study 1 which suggested that Work/Family balance issues were more important predictors of FWO use than any of the perceived barriers.

**3.2.4 Gender Differences** It was acknowledged earlier that a higher percentage of women than men responded to the survey, suggesting that flexible working arrangements may be more salient for women than men. In order to investigate for gender differences in usage patterns and influencing factors, separate correlations were calculated for males and females. Details are provided in table 10. Correlation coefficients for males are in the upper half of the table, and for females in the lower half.

**Table 9**  
**Usage Data and Correlations Between Flexible Work Option Questionnaire—Version 2 Scores and Use of Flexible Work Options ( $N = 212$ )**

	No. of users	%	Correlations											
			1	2	3	4	5	6	7	8	9	10		
1. Flex Group 1	133	62.7	1.00											
2. Flex Group 2	57	26.9	-0.19**	1.00										
3. Flex Group 3	10	4.7	-0.01	0.06	1.00									
4. Flex Group 4	106	50.0	0.03	0.22**	0.04	1.00								
5. Total Flex Use	184 <sup>a</sup>	86.8 <sup>a</sup>	0.47**	0.54**	0.29**	0.71**	1.00							
6. FWOQ			0.15*	0.16*	0.01	0.22**	0.29**	1.00						
7. Work/Life			0.09	0.15*	0.04	0.20**	0.25**	0.76**	1.00					
8. Barriers - Others			-0.14*	0.00	-0.02	0.02	-0.07	-0.43**	-0.00	1.00				
9. Barriers -Cost			0.05	-0.13	0.01	-0.04	-0.06	-0.37**	0.05	-0.17*	1.00			
10. Barriers - Commitment			-0.20**	-0.05	0.08	-0.19**	-0.22**	-0.73**	-0.41**	-0.22**	-0.18**	1.00		

Note: \*  $p < 0.05$ ;

\*\*  $p < 0.01$ ; and

a Total usage score is not the sum of the usage of the 4 groups as some respondents used more than one form of FWO.

**Table 10**  
**Comparison of Correlation Coefficients on Flexible Work Options Questionnaire—Version 2 for Males and Females**

	1	2	3	4	5	6	7	8	9	10
1. Flex Grp 1—Flex hrs/ No pay loss	1.00	<i>-0.04</i>	<i>-0.07</i>	<i>-0.18</i>	<i>0.50**</i>	<i>0.55**</i>	<b>0.37**</b>	<b>-0.41**</b>	<i>-0.18</i>	<b>-0.45**</b>
2. Flex Grp 2—Reduced hours	<i>-0.23**</i>	1.00	<i>-0.07</i>	<i>-0.01</i>	<i>0.37**</i>	<i>-0.08</i>	<i>-0.04</i>	<i>-0.06</i>	<i>0.12</i>	<i>0.05</i>
3. Flex Grp 3—Parenthood leave	0.00	0.09	1.00	<i>0.25</i>	<i>0.37**</i>	<i>-0.02</i>	<i>0.15</i>	<i>0.04</i>	<i>0.19</i>	<i>0.09</i>
4. Flex Grp 4—Ad hoc leave	0.09	0.25**	-0.02	1.00	<i>0.62**</i>	<i>0.05</i>	<i>0.16</i>	<i>0.00</i>	<i>0.12</i>	<i>-0.01</i>
5. All FWOs	0.47**	0.55**	0.28**	0.72**	1.00	<i>0.35*</i>	<i>0.37**</i>	<i>-0.28</i>	<i>-0.07</i>	<i>-0.25</i>
6. FWOQ total score	0.04	0.20*	0.02	0.25**	0.27**	1.00	<i>0.70**</i>	<b>-0.62**</b>	<b>-0.40**</b>	<b>-0.75**</b>
7. Work/Life Balance	<b>0.02</b>	0.16*	0.01	0.19*	0.20*	0.78**	1.00	<i>-0.14</i>	<i>0.09</i>	<i>-0.32*</i>
8. Barriers - Others	<b>-0.05</b>	-0.03	-0.04	-0.01	-0.05	<b>-0.39**</b>	0.01	1.00	<i>-0.28*</i>	<i>-0.38*</i>
9. Barriers - Costs	0.12	-0.15	-0.03	-0.06	-0.06	<b>-0.36**</b>	0.06	<i>-0.16*</i>	1.00	<i>-0.28</i>
10. Barriers - Work Commitment	<b>-0.12</b>	-0.08	0.08	<b>-0.24**</b>	<b>-0.22**</b>	<b>-0.73**</b>	<b>-0.45**</b>	<i>-0.17*</i>	<i>-0.16*</i>	1.00

Note: \*\*  $p < 0.01$ ;

\*  $p < 0.05$ ; and

Coefficients in italics in top half of table are for males ( $n = 49$ ). Coefficients in lower half are for females ( $n = 161$ ); and Correlation coefficients in bold indicate pairs which are significantly different ( $p < 0.05$ ).



Examination of the correlation pairs suggests that there may be a different pattern of relationships for males and females. However, because of the small number of males in the sample, the differences between many of the correlation pairs did not reach significance at the 0.05 level when tested using Fisher's  $z$  transformations. Differences that were significant were the correlations between the use of Flex group 1 (rostered days off, flex time, working from home) and three of the FWO subscales—Work/Life Balance ( $z = 2.18, p < 0.05$ ), Barriers - Others ( $z = 2.30, p < 0.05$ ), and Barriers - Work Commitment ( $z = 2.16, p < 0.05$ ). This indicates that in this study, work options that enabled flexibility of hours and conditions were more associated with achieving work/life balance for males than for females. Males were also less likely than females to use these FWOs if they perceived negative reactions in the workplace, or if they felt that flexibility was associated with lack of commitment to or disconnection from work.

### *3.3 Discussion of Study 2 and General Discussion*

The revised scale assessed in Study 2 showed slightly poorer psychometric properties than the 11-item scale in Study 1. One improvement however, was that changes to the Work/Family (Work/Life) Balance subscale added to the potential use of the scale in terms of assessing benefits to all employees, not only those with family responsibilities. The Barriers subscale(s) continued to present problems. The items appeared to highlight separate issues and did not represent any specific underlying trait. The factor structure of data obtained in Study 2 supported the notion that barriers are multidimensional. By examining three distinct types of barriers, it has been demonstrated that concerns about financial and career costs do not significantly influence workers' use of FWOs for this sample of workers. The opinion of supervisors and others in the workplace also had little impact on FWO use, being related only to the use of options such as rostered days off, flextime, and working from home. Negative attitudes from others were associated with lower usage rates of these FWO types. The only other barrier to impact on FWO use was that associated with workers' feelings of involvement in or commitment to the workplace. Those who saw FWOs as causing them to feel isolated from the workplace, to miss important work events, or to feel less committed to work were less likely to use flexible arrangements that do not involve pay loss, or ad hoc flexible options, such as carer's leave, leave without pay, and special leave. Use of options such as 48/52 leave scheme, part-time work and job sharing, which involved reduced hours and pay was not influenced by any of the perceived barriers, but was positively associated with measures of Work/Life Balance.

In assessing attitudes to FWOs it will be important to measure possible barriers that prevent people taking up options that might be beneficial to their well-being both at home and at work, so while the Barriers scales continue to show relatively poor psychometric properties, removing them would be counterproductive in terms of measuring attitudes to FWO use. There are two possible ways these issues could be included in the questionnaire. One solution would be to treat them as separate indicators, without expecting them to display any inter-item consistency. A second solution would be to develop more items for each of the barriers and develop them as additional subscales as suggested by the second study. The three Barriers subscales in Study 2 contained only two and three

items. In order for these to be more reliable and valid, additional items would need to be developed.

Another problem with the derived factor structure reported in this paper was identified by a reviewer. All the items that loaded onto the Barriers factor(s) reflect negative attitudes to FWOs and require reverse-scoring, while all the Work/family items reflect positive attitudes to FWOs. It is acknowledged that the factor analysis may simply be reflecting this difference. To overcome this problem, future versions of the scale will be expanded to include both positively and negatively valenced items in each of the subscales.

Nevertheless, it may well be that Barriers may continue to fail as predictors, if, in fact, parents and carers choose to compromise in ways that impact on their careers, in order to enhance their family life and meet their child and/or elder care responsibilities. Barriers may not predict FWO use, but may impact on variables such as work and/or life satisfaction. Future research and scale development are needed to investigate these possibilities.

Results from this study indicate that there are some gender differences in the relationship between FWO use and attitudes. Males associate work/life balance with FWOs that provide flexibility of hours and conditions without any loss of pay, whereas no such association was reported for women. More women used reduced hours and ad hoc leave as a means of achieving that balance. Males were also more wary of the views of others in the workplace and were less likely to use flex time and similar provisions if they felt that flexibility indicated a lack of commitment to work or caused them to feel disconnected from the workplace. It appears that 'family-friendly' issues are a gendered topic and further study is warranted into the different attitudes of men and women to workplace flexibility and their varied usage patterns of available options.

In summary, these studies have provided support for the FWOQ as a research instrument. In both studies 1 and 2, the questionnaire was shown to have adequate internal consistency for use as a basic group assessment tool (Nunnally & Bernstein 1994, p. 265), although further development should be directed at expanding the scale and refining the measurement of Barriers.

Flexibility in the work place will continue to become more important for both men and women. Initially, employees sought flexibility to manage the balance between work and family, an issue predominantly associated with those in the early and middle stages of their career. However, as workplaces develop strategies that enable and encourage flexibility for those with family responsibilities, the needs of those with other commitments, including sport, community or political involvement, other business and even recreational pursuits, will also be able to be accommodated. This flexibility will be beneficial to workers at all stages of their careers by enabling a more holistic work/life balance, and will have the significant advantage of retaining older employees in the workforce, an economic necessity as the mature-aged to working-aged ratio continues to rise (Costello 2002, p.23). Organisations are already seeing flexibility paying dividends in buoying the participation rate of older workers, just as it has been associated with more women actively engaging in the workforce.

The FWOQ is framed from the perspective of flexible options which are provided for the employees' benefit, as in the two organisations surveyed in these studies. As such, it would not be suitable for work environments where 'flexibility'

equated to instability and unpredictability rather than choice and convenience. For policy-makers in employee-focussed organisations, the FWOQ will be valuable in two ways. Firstly, it will give an indication of the attitudes of their staff to FWO initiatives they might introduce, and, secondly, it will help to identify potential barriers that may impact on employees' overall well-being. The instrument warrants further development and research, with future studies taking a more predictive approach, rather than the cross-sectional design employed here.

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