



6 Modelling the determinants of access to family-friendly work practices

The finding that employees have differential access within organisations to family-friendly work practices raises the question as to the characteristics which affect the likelihood of an employee having access to, or using, these practices. This question is explored using a formal statistical model.

The formal statistical modelling of access and usage is restricted to three of the work practices examined in the previous section: control over start and finish times (hours flexibility); access to a telephone for family reasons; and the availability of permanent part-time employment. The analysis is restricted to workplaces where at least some employees are using the work practice. The determinants of the type of leave taken to care for family members is not modelled because the lack of information on the frequency of use for each type of leave makes meaningful interpretation of the estimation results impossible.

Estimation method and model specification

As the variables measuring access to the work practices are binary (that is, they take the value of zero or one), ordinary linear regression is inappropriate. Consequently, a technique appropriate for a dependent variable with only two possible values is necessary. Data of this type are conventionally modelled using logit (logistic) or probit regression.

As foreshadowed earlier in the paper, controlling for unobserved differences between workplaces (sometimes called unobserved heterogeneity) is important in order to obtain accurate estimates of the determinants of each work practice.¹³ The effects of these unobserved differences can be statistically controlled for using a random effects (RE) probit or a fixed effects (FE) logit (sometimes called a conditional logit).

In this paper an RE probit is used. There are two advantages of the RE probit model as compare to the FE logit. First, the RE probit estimates can be used to calculate the probability of an individual with a given set of characteristics having access to the work practice. This is not possible using the FE logit estimates (Greene 2000). The inability to calculate probabilities limits the interpretability and therefore usefulness of the FE results. Second, as with all FE estimators, variables that take the same value for all employees in the same workplace are not estimated (these are workplace or organisation level variables such as workplace size and industry).

The RE model includes an error term with two components: an error for each employee; and an error for each workplace. The workplace error controls for unobserved differences between workplaces in terms of their tendency to provide work practices globally to employees.¹⁴

The theoretical framework outlined in Chapter 2 suggests that the probability of a particular employee being able to access a family-friendly work practice is a function of the value employees place on the work practice, the costs to the employer of providing the work practice, and the incentive the employer faces to retain the employee.

Controls are included for highest level of educational attainment: primary education; incomplete secondary education; a basic vocational qualification; a skilled vocational qualification; an associate diploma level qualification; a degree level qualification; a postgraduate qualification; and other qualifications. The omitted category is completed secondary school. Age is included as a proxy for labour market experience. Age squared is also included to allow for a non-linear relationship between the probability of accessing each work practice and age.

An important variable is gender, with females being expected to have greater need for family-friendly work practices.

Empirical studies have consistently found being a migrant to be related to labour market outcomes (Preston 1997). The literature has also found that migrants from English-speaking countries have different labour market outcomes than migrants from non-English-speaking countries.¹⁵ Hence variables measuring being a migrant from an English-

speaking country and being a migrant from a non-English-speaking country are included. A control for speaking a language other than English at home is included.

An important variable is gender, with females being expected to have greater need for family-friendly work practices. Employees with young children are likely to have considerable family demands. The demands upon parents' time and the types of family-friendly work practices required clearly differs according to the age of their children. Controls for having a youngest dependent child less than four years of age, four to 12 years of age, and aged 13 years or older are included. Many employees have care responsibility for non-child family members, so a control for having a non-child dependant was also included.

As dependent children are likely to have a different impact for male and female employees, variables that interact gender with each of the variables measuring having dependent children are included. This allows the effects of the variables relating to children on the probability of having control over start and finish times to differ between males and females.

The theoretical discussion in Chapter 2 suggests that employers are most likely to offer family-friendly work practices to employees in whom they have invested the most (in terms of training). A variable measuring whether or not the employee had received employer-provided (or paid for) training in the previous 12 months is included. Tenure (length of time with current employer) is included as a proxy for the amount of organisation-specific training received. Tenure squared is also included to allow a non-linear relationship. Hours of work are captured using a variable which distinguishes between part-time (less than 35 hours per week) and full-time employees.

Occupation is thought to be an important determinant of access to family-friendly work practices. This is partly due to the fact that it is easier to provide some work practices to employees in some types of jobs than others. Occupation is also related to earnings and skills level.

A number of workplace and organisation level characteristics which are expected to be related to the probability of a firm offering employees family-friendly work practices are included. Workplace size may be related to the ability of an employer to offer flexibility. It may also be related to management style and the degree to which work practices can be applied differentially to employees in the same workplace. Workplace size squared is included to allow a non-linear relationship.

One reason for differential treatment of employees in the same workplace is that entrenched work cultures may make it difficult for certain types of employees to access family-friendly work practices. In an attempt to control for the feminisation of work culture, a variable that measures the proportion of managers who are female is included. The feminisation of the workplace using the proportion of employees who are female is also controlled for. A control for the workplace sector is also included because the incentives facing government, private and non-commercial employers may differ.

Having an equal employment opportunity (EEO) policy is expected to increase the proportion of employees within firms able to access the work practice and reduce the chance that employees are discriminated against. While the presence of an active trade union may increase the bargaining power of employees, it also may lead to a formalisation of work practices that reduces management flexibility. Hence the presence of an active trade union is controlled for. Hours of operation of the workplace is also controlled for using a variable which measures whether the workplace operates 24 hours a day, seven days a week.

The sample used in the estimation is restricted to workplaces that had two or more useable employee responses. The estimates of the probability of being able to get permanent part-time employment if needed excludes part-time employees since the question as to whether they can get permanent part-time employment if needed is largely irrelevant – they are either permanent or casual.

Variable definitions are included in Appendix B. Descriptive statistics of all of the variables used in the estimation are presented in Appendix D.

Results

This section presents the estimates of the determinants of the probability of having access to each work practice. Because the effects of changes in the explanatory variables on the probability of accessing the work practice varies with the value of *all* the explanatory variables in the model, simply reporting these coefficients conveys very little to the reader. Hence the “marginal effects” for each of these variables is illustrated using a base case. The effects reported show the change in the predicted probability of accessing the work practice for a *ceteris paribus* change in a variable (that is, when the value of other variables is held constant). These effects are presented in Table 2.

The marginal effects are calculated relative to a base case person who is aged 30 to 34 years, has a highest level of educational attainment of completed secondary school, is female, in good health, has a tenure of one year with their current employer and has not received employer-provided training in the last 12 months. They are employed full-time, do not have dependent children and work as a salesperson or personal service worker. The organisation they are

employed by has 1,000 to 5,000 employees and there are 300 employees in their immediate workplace. Within this workplace, 10 per cent of managers and 25 per cent of the employees are female. The workplace does not have a written EEO policy and is classified as a non-commercial organisation. There is not an active trade union and the firm does not operate 24 hours a day, seven days a week.

All three models estimated appear to be well specified. The estimates find that unobserved differences between workplaces are present. This means that estimates which do not take into account the unobserved workplace differences may be misleading.¹⁶

Control over start and finish times

A wide range of factors were found to be related to the probability of an employee having control over their start and finish times (hours flexibility) after controlling for the effects of employee and workplace characteristics (observed and unobserved). An example may assist with the interpretation of the marginal effects presented in Table 2. For the base case individual described above, having received organisation-provided training in the previous 12 months is estimated to increase the probability of having control over start and finish times by 5.3 percentage points as compared to an otherwise similar employee who did not receive organisation-provided training. The effect is statistically significant at the 5 per cent or better confidence level.

Increases in age are estimated to increase the probability of having control over start and finish times at an increasing rate with the effect becoming negative once age reaches 50 to 54 years. An increase in age from 30 to 34 years to 35 to 39 years is estimated to increase the probability of having control over start and finish times by 1.8 percentage points.

There is little evidence of a relationship between highest level of educational attainment and having control over start and finish times. This is primarily due to the correlation between occupation and educational attainment.

Occupation is found to be a powerful factor impacting upon the chances of having control over start and finish times. For example, professionals are estimated to be 14.4 percentage points more likely to have flexibility over hours worked than are salespersons and personal workers, and managers and administrators are estimated to be 35.6 percentage points more likely to have control over start and finish times than are salespersons or personal workers. Plant and machinery operators and drivers are estimated to be 12.3 percentage points less likely to have control over start and finish times.

Gender is found to have no impact upon the chances of having control over start and finish times once employee and workplace characteristics (observable and unobservable) are taken into account. Employees with a health condition or disability which is likely to last for more than six months are estimated to be 4.5 percentage points less likely to have control over their start and finish times. This effect is statistically significant.

The variables for age of youngest child are statistical insignificant, meaning that there is no evidence of any relationship between having dependent children and the likelihood of an employee having control over their start and finish times. This finding implies that within workplaces that offer to at least some

employees control over start and finish times, those with children are no more likely to have control over their start and finish times than employees without dependants. This confirms the results of cross-tabulations conducted using ABS data (Kilmartin 1996). Further, there is no evidence that people with dependent children who would benefit from flexibility of start and finish times are sorting into workplaces that offer this work practice. According to the AWIRS95 data, employees with dependent children are equally likely to be employed in workplaces that offer these work practices as firms that do not.¹⁷

Part-time workers are estimated to be 3.8 percentage points less likely to have control over start and finish times. This finding suggests that part-time employees trade off flexibility in working times for a lower number of hours of work. There are similar findings using US data (Golden 2001a, 2001b). There is no relationship between being a casual employee and having control over start and finish times. Increases in tenure with the current employer are estimated to increase significantly the probability of having control over start and finish times at a decreasing rate. For example, increasing tenure from four to five years is estimated to increase the probability of having control over start and finish times by 0.4 percentage points.

After controlling for other factors, having dependent children has no impact on control over start and finish times.

Being a member of a trade union is estimated to significantly decrease the probability of having control over start and finish times by 6.3 percentage points. This result is probably the reflection of the fact that unions tend to formalise work arrangements and reduce supervisor discretion. Given that many firms have a formal policy of fixed start and finish times, but supervisors exercise their discretion not to strictly enforce this rule, reducing supervisor discretion may reduce the chances of an employee having flexibility over the actual hours worked.¹⁸

Similarly, the presence of an active trade union in the workplace is estimated to have a negative and statistically significant effect on the flexibility of hours worked, reducing it by 5.0 percentage points. This result probably reflects the desire of unions to reduce employer discretion in decisions about work practices by formalising work arrangements.

An interesting finding is that the variable measuring the proportion of managers who are female is not statistically significant. However, the proportion of employees who are female is estimated to have a positive impact upon the probability of having control over start and finish times.

Access to a telephone for family reasons

Increases in educational attainment are estimated to increase the probability of an employee being able to access a telephone for family reasons. For example, having a degree-level qualification is estimated to increase the probability of telephone access by 4.0 percentage points as compared to an otherwise similar employee with the highest level of educational attainment being completed secondary education. The effects of occupation are surprisingly small, with only professionals and managers and administrators being 4.8 and 8.0 percentage points, respectively, more likely to have access to a phone than sales and personal service workers.

Table 2 Determinants of access to family-friendly work practices, marginal effects of key variables

	Control over start and finish times	Access to telephone for family reasons	Access to permanent part-time work
Age	1.8*	0.5	-0.3
Educational attainment			
Primary	-4.3	-4.1	-0.2
Incomplete secondary	0.0	-3.0*	2.8
Basic vocational	-0.4	0.2	1.3
Skilled vocational	-3.9*	1.7	-2.2
Associate Diploma	2.5	2.0	-3.1
Degree	3.5	4.0*	-2.1
Postgraduate	3.2	5.1*	2.0
Other qualification	-5.0	-1.4	4.5
NESB	5.6*	-5.1*	-1.9
Migrant – ESB country	5.3*	2.6	-4.5*
Migrant – NESB country	1.7	2.8*	-1.2
Female	-2.7	-2.7	8.5*
Indigenous	0.5	0.7	14.8*
Health problem	-4.4*	2.1	3.4
Age youngest dependent – Males			
Aged 0 to 3 years	0.3	-1.6	0.6
Aged 4 to 12 years	2.9	1.8	0.4
Aged 13 years or older	2.4	-2.3	4.0
Non-child dependent	-3.0	-3.1	-3.9
Age youngest dependent – Females			
Aged 0 to 3 years	-3.2	-0.6	0.6
Aged 4 to 12 years	-4.1	-3.0	0.4
Aged 13 years or older	-6.0	5.3*	4.0
Non-child dependent	-4.1	0.7	-3.9
Tenure	0.4*	-0.3*	0.4*
Organisation-provided training	5.3*	6.4*	10.9*
Part-time employee	-3.8*	-3.1*	
Casual employee	0.4	-3.5	
Member of a trade union	-6.3*	-3.0*	3.6*
% managers who are female	1.6	1.1	2.8
% employees who are female	-3.6*	-3.5	9.8*
Written EEO policy	2.4	1.4	-3.3
Government	4.7	-7.9*	7.8
Private	3.1	-0.7	5.1
Active trade union	-4.0*	4.3*	-2.6
Firm operates 24 hrs/7 days a week	-9.2*	-3.1*	0.9
Occupation			
Labourers	-8.6*	-1.0	-4.2
Plant & machinery operators & drivers	-12.3*	1.2	-3.2
Clerks	7.1*	2.4	-9.4*
Tradespersons	-8.3*	-0.5	-15.0*
Paraprofessionals	3.6	-1.3	-8.5*
Professionals	14.4*	4.8*	-11.2*
Managers & administrators	35.6*	8.0*	1.9
Other occupation	5.6	-0.1	0.0

Notes: * signifies statistical significance of the underlying regression coefficient at the 5 per cent level. Full estimation results are presented in Appendix E. Marginal effects are calculated relative to the base case employee. The estimates of the probability of having access to permanent part-time employment excludes part-time employees.

Source: Derived from estimates made using AWIRS95.

Employees who speak a language other than English at home are estimated to be 5.1 percentage points less likely than those who speak English at home to have access to a telephone for family reasons. As for control over start and finish times, there appears to be no differences between women and men after controlling for other factors.

In respect to access to a telephone for family reasons, there is little evidence of a relationship between having dependent children and having access to a telephone for family reasons. The only effect is that women with a youngest dependent child aged 13 years or older are estimated to be 5.3 percentage points more likely to have access to a telephone than women without dependent children (or non-child dependant).

As for having control over start and finish times, having received organisation-provided training is estimated to increase the probability of telephone access by 6.4 percentage points.

Part-time employees are estimated to be 3.1 percentage points less likely to have telephone access. Being a casual employee is found to have no effect on control over start and finish times.

Availability of permanent part-time work

Before discussing the estimates of the probability of being able to get permanent part-time work if needed, it is worth reiterating that the estimates are restricted to full-time employees. The determinants of access to permanent part-time work differ somewhat to those of hours flexibility and telephone access. Age and highest level of educational attainment are not statistically significant. Women are estimated to be 8.5 percentage points more likely to report being able to get permanent part-time work in their current workplace if needed than are men. It is noteworthy that Indigenous employees are 14.8 percentage points more likely to report being able to get permanent part-time employment than non-Indigenous employees with otherwise similar characteristics.

As for control over start and finish times and access to a telephone for family reasons, there are no statistically significant relationships between having dependent children and the probability of being able to get permanent part-time work.

Having received organisation-provided training in the previous 12 months is estimated to increase the probability of permanent part-time work being available by 10.9 percentage points. Increases in tenure are estimated to increase the probability of being able to get permanent part-time employment at a decreasing rate. In other words each additional year of tenure has a smaller impact upon the likelihood of being able to get permanent part-time employment if needed. For example, an increase in tenure from one to two years is estimated to increase the probability of being able to get permanent part-time employment by 0.4 percentage points.

There are strong occupational effects. Unlike hours flexibility and access to a telephone for family reasons, paraprofessionals, professionals, clerks and tradespersons are less likely to report being able to get permanent part-time work if needed than are sales and personal service workers.

Overall patterns and implications

While variations exist between each of the work practices examined, a number of clear patterns emerge. First, there appears to be no relationship between having dependent children and the likelihood of having access to each work practice, the only exception being that mothers with teenage children are more likely to report having access to a telephone for family reasons.

Second, employees who have recently received employer-provided training are much more likely to have access to each work practice than otherwise similar employees who have not received such training. Increases in tenure are estimated to increase the probability of having access to each of the work practices. This finding is consistent with theoretical arguments which suggest that employers have the greatest incentive to provide family-friendly work practices to employees in whom they have invested the most, either through formal or informal on-the-job training.

No differences are evident between males and females in the probability of having control over start and finish times or access to a telephone for family reasons. However, women are found to be more likely to be able to get permanent part-time work in their current workplace than are men.

There is a very strong occupation effect, with professionals and managers and administrators being much more likely to have control over start and finish times and access to a telephone for family reasons than other occupations. However, full-time employed professionals, paraprofessionals, clerks and tradespersons are less likely to report being able to get permanent part-time work if needed.

These results suggest that in spite of the work practices analysed being of assistance to employees in successfully managing their family and work responsibilities, those with the greatest care commitments (at least in terms of time) have no increased probability of reporting being able to access these work practices.