

Report for the Department of Labour on  
Impact of Employment Practices on Productivity

## Quitting behaviour in good (and bad) work places

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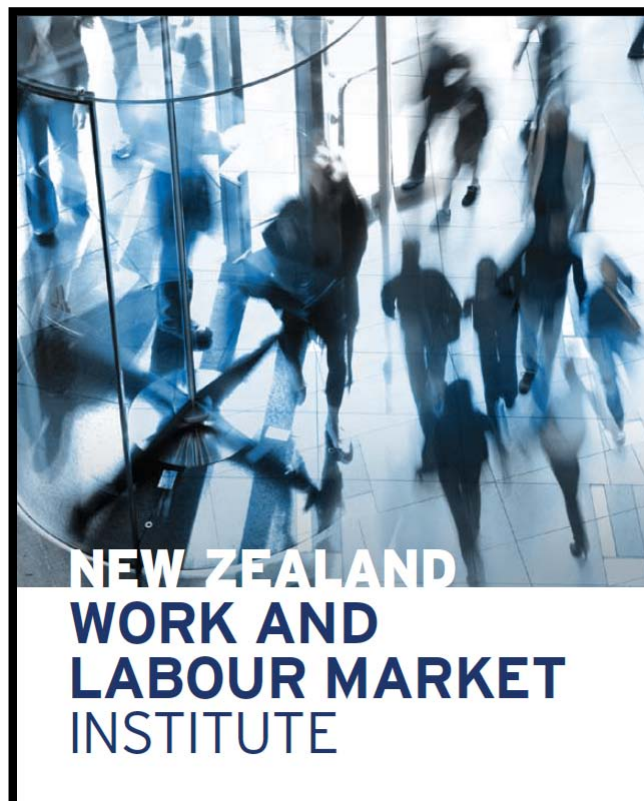
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## **Quitting behaviour in good (and bad) work places**

### **Abstract**

This paper argues that the decision to quit is strongly influenced by employee perceptions of the quality of the work environment (QWE), and that ignoring QWE can lead to incorrect conclusions concerning the influence of other factors on the quitting decision. However, our empirical results also illustrate that some of the antecedents of quitting, namely high levels of stress, gaining information about important decisions and changes, and changes in job satisfaction, are only significant if the overall QWE is perceived to be good; if the QWE is perceived to be bad then these factors appear to have no significant influence on the quitting intention of the worker. This paper contributes to the literature through a work environment approach to understanding the complexities of the quitting decision.

## **Introduction**

This study investigates the impact on quitting intentions of an employee's perception of whether a workplace is a good or bad place to work. It uses a quality of the work environment (QWE) approach and finds, as expected, that the probability of quitting is greater when the workplace is perceived to be a bad place to work. A good workplace is characterised by low levels of stress, employees feeling appreciated by management and not feeling threatened at work. However, we also find that some key attributes of the QWE have a greater impact on quitting intention when the workplace is perceived to be good. Importantly, this theoretical development is underwritten by an empirical investigation which illustrates that QWE can be seen as a sample selection issue.

The role that the QWE has on influencing the quitting behaviour of employees has received increasing attention in the academic literature (Boxall, Macky and Rasmussen 2003; Cottini, Kato and Neilsen 2009; Delfgaw 2007; Hom and Ellis 2008; Scott, Bishop and Chen 2006; Simons and Jankowski 2008; Taplin and Winterton 2007). However, this literature has focused largely on individual employee or job attributes rather than the broader context of the work environment. Levels of stress and information about important decisions and changes, along with changes in the level of job satisfaction, are all embedded in the literature as important contributory factors behind the quit decision. Our empirical results illustrate that these factors are only important if the QWE is perceived to be good; if the QWE is perceived to be bad then they appear to have no significant influence.

The remainder of this paper is organized as follows: the first section outlines antecedents of quitting, what constitutes a bad and good workplace, and how this relates to QWE. Section 2 describes the data and outlines the methodology employed, as well as the results obtained. The final section discusses our results in the context of the existing literature and makes some concluding comments.

### **1 The quitting decision and what constitutes a good or bad workplace**

There are well established antecedents for quitting behaviour in the literature. Boxall, Macky and Rasmussen's (2003) meta analysis summarised some of the key findings in the literature and indicated that job security, job satisfaction, autonomy and responsibility, how much employees felt appreciated by their employers, and how their employers cared for their wellbeing impacted on quitting intentions. While job satisfaction has been largely referred to as resulting from workplace and personal attributes, many of the measures of job satisfaction incorporate aspects reflecting the quality of the work environment. For example, the Warr-Cooke scale of job satisfaction includes measures such as ability to choose method of work,

amount of responsibility, recognition for work done and the variety in work (Scott et al. 2006).

Employee participation is also linked both with increased job satisfaction, and decreased turnover. For example, a work environment that allows participation in decision making has been shown to increase job satisfaction (Scott et al. 2003); and greater involvement in care planning for nurses' assistants has been linked with decreased turnover (Simons and Jankowski 2008). Conversely, lack of opportunity for influence in the organization and a lack of communication with management have been associated with increased quitting intentions (Simons and Jankowski 2008). Furthermore, the outcomes of employee participation may have differing effects on intention to quit. Landau (2009) found that positive outcomes from voicing dissatisfaction *decreased* the intention to quit, whereas a negative outcome or no change outcomes of voicing dissatisfaction *increased* intention to quit. Indeed, participation, in terms of strong information sharing has been found to reduce the negative effect of physical hazards on quitting behaviour (Cottini et al. 2009). The extent to which 'employees believe that their organization values their contribution and care about well-being' (Perryer et al. 2010, p.913) also affected intention to leave.

Where broader workplace conditions have been considered there have been connections found between general appreciation of employees and concern for their wellbeing (Mohamed, Taylor and Hassan 2006); job satisfaction (incorporating aspects including hours of work, physical conditions and influence on method of work) and quitting behaviour (Boxall et al. 2003; Delfgaw 2007; Scott et al. 2006). Adverse conditions (harm, hazard, uncertainty, emotional distress, lack of promotion and discrimination) have been shown to have variable impacts on quitting (Bockerman and Ilmakunnas 2009; Cottini et al. 2009). Lack of training opportunities and lack of promotion opportunities also have a negative impact on satisfaction (Dickey, Watson and Zangelidis 2009).

These established antecedents of quitting behaviour could be categorised into participation, physical working conditions and psycho-social conditions. In their positive, employee beneficial form these antecedents indicate a 'good' workplace. Conversely, when reversed to their negative, employee adverse state, these same antecedents indicate a 'bad' workplace.

Similar relationships have also been debated in the High Performance Workplace Practices (HPWP) literature. HPWPs are theoretically designed to achieve higher performance through increased employee involvement, higher skills and better performance incentives. It is premised that in HPWPs employees will have greater participation in the workplace, through more autonomy and control over decisions affecting work tasks, full communication with co-workers and managers in their work group and other groups, and participation in work teams and/or quality circles (Appelbaum, Bailey, Berg and Kalleberg 2000). Appelbaum et al (2000) outlined the employee welfare outcomes of HPWP as being improved skills, and

therefore higher wages, perceived trust of managers, job satisfaction and lower levels of stress. The HPWP concept has been principally put forward as increasing productivity and organisational outcomes, and it has been much criticised for what is perceived to be a focus on the organisational outcomes to the detriment of employee outcomes. Some forms of HPWP systems appear beneficial to organisations in the short-term, but may also prove harmful for employees by, for example, intensifying the work they do even as they increase participation (Busck et al. 2010; Godard 2004; Macky & Boxall 2008b; Wood and Wall 2007).

Alternatively, the QWE perspective has as its central concern the wellbeing of employees. As opposed to the literature on quitting, QWE does not focus on individual or job characteristics employees (Boxall et al. 2003; Cottini et al. 2009; Delfgouw 2007; Hom et al. 2008; Scott et al. 2006; Simons and Jankowski 2008; Taplin and Winterton 2007) but instead it is a concept that encompasses physical aspects, psycho-social and organisational surroundings of work (Busck et al. 2010; Sell and Cleal 2011). The QWE is a central concern of employees and employers that has often been linked with productivity as well as the well-being of employees, hence the HPWP approach. These connections have been a strong tradition in Scandinavian and socio-technical literature (Emery and Thorsrud 1976; Gustavsen and Hunnius 1981).

The concept of QWE has its origin in Scandinavia where, from the 1970s it largely replaced the narrower concept of ‘occupational health and safety’, which was associated mainly with physical risks and hazards at work. In particular, the concept of ‘psycho-social work environment’, which denotes how job demands and social structures and interactions in the organisation influence the psychological well-being of employees, thus allowing a broad understanding of how people are affected by their employment, including experience of job satisfaction and stress (Hvid and Hasle 2003). Measures often used for QWE are those that denote aspects of employee participation in the workplace, such as how much control employees have over their work including, flexibility in how tasks are carried out and when (Gustaffson and Szebely 2009; Sell and Cleal 2011); whether employees feel appreciated by management (Boxall, Macky and Rasmussen 2003; Gustaffson and Szebely 2009); and the amount of information about decisions in the workplace that concern employees (Sell and Cleal 2011). Psycho-social elements of the work environment include conflicts, threats or violence at the workplace (Sell and Cleal 2011), and workload and the levels of stress experienced (Busck et al. 2010; Sell and Cleal 2011)

Why then, according to the literature, might employees who perceive they have a good quality of the work environment have an intention to quit? There is little in the literature to suggest reasons for this. Some studies indicate a ‘shine’ factor, particularly in terms of recruitment of minority groups into the workplace: ‘while effective at bringing people into

the organization, [these recruitment policies] may ironically contribute to high early turnover if they raise expectations for a positive diversity climate that is not fulfilled' (McKay and Avery 2005, cited in Hom et al. p.25). These studies suggest that where workplaces are perceived to be good, any change to this perception has a greater impact than in a bad workplace. This is somewhat confirmed by studies that indicate that HPWP and some types of participation have been found to increase turnover because where 'a greater rewards climate in which compensation is merit based, goals are clear, and relationships between management and employees are fostered' it has been perceived by employees as paternalistic (Simons and Jankowski 2008, p.8). However, our present study illustrates that, independently of change to the QWE, in workplaces that are perceived to be 'good' workplaces, the impact of stress, changes in job satisfaction and not receiving information about important decisions and changes have a greater impact on intention to quit in a good workplace than in a bad workplace.

## **2 Data, Model and Results**

### **Data**

Data for this research were collected via an anonymous survey, aimed at investigating the interrelationships between employee participation, the QWE, productivity, and quitting intention. The research design for the overall project was a multi-method multiple case study approach targeting two case organisations in each of the following four industries in New Zealand: education, health, hotels and food manufacturing.

Out of a total of 240 distributed survey questionnaires across eight workplaces nested within these four industries, a total of 133 questionnaires were returned; corresponding to a response rate of 55 per cent. Due to omitted responses to questions that are employed in this empirical work, the total number of usable questionnaires was 118.

The survey asked respondents three types of questions. First, they were asked if they considered their workplace 'a good place to work'. Second, they were asked how frequently they thought about leaving their workplace. Third, they were asked a set of questions about their QWE, incorporating the physical work environment, psycho-social work environment, and overall job satisfaction. The physical work environment was indicated by a survey question as to whether respondents were satisfied with the safety and comfort of their working conditions. The psycho-social aspect of the work environment was proxied by questions on workload and stress, whether the employee thought they were appreciated by management, whether they received information on important decisions, changes and future plans in due time, what degree of influence they had over their job, and whether they felt

threatened at work. Regarding the final aspect of QWE, overall job satisfaction, respondents were asked whether their level of job satisfaction had increased or decreased recently. Demographic information on the respondents were also collected. This included data on their age, gender, and parental status. The length of service for the worker in both the organisation and industry were also gathered.

Table 1 presents a cross-tabulation of QWE with quitting intention. More specifically, it shows the extent of the relationship between the responses to questions about whether they had thought about leaving their job and whether they perceive their work environment as good or bad. Seventy-two per cent of respondents perceived that they work in a good environment and 63 per cent had not thought about leaving their job. There are relatively few respondents who had not thought about leaving their job but did perceive that they worked in a bad working environment (6.78 per cent); similarly of those individuals who did report that they worked in a good environment only 18 per cent reported that they had thought about leaving their job. These descriptive correlations give the first indication of a possible statistical relationship between perceptions of the work environment and quitting intention.

**Table 1:**

		Good QWE?		
		No	Yes	Total
Intention to quit?	No	8 6.78%	67 56.78%	75 63.56%
	Yes	23 21.19%	18 15.25%	43 36.44%
	Total	33 27.97%	85 72.03%	118 100%

Theoretically, it is possible that the link between the perceived quality of the work environment and whether the employee thinks about leaving their job may be a sequential process. Figure 1 presents a tree diagram that presents the data along this line of thought. The first issue is whether the employee perceives that the quality of the work environment is good. It can be seen that 72 per cent of the respondents perceive that they work in a good environment; out of this 72 percent sub-sample, 78 per cent of them have not thought about leaving their job. This branch of the tree ends with nearly 57 per cent of the overall sample; the end probabilities correspond directly with those presented in Table 1.

**Figure 1: Tree diagram**

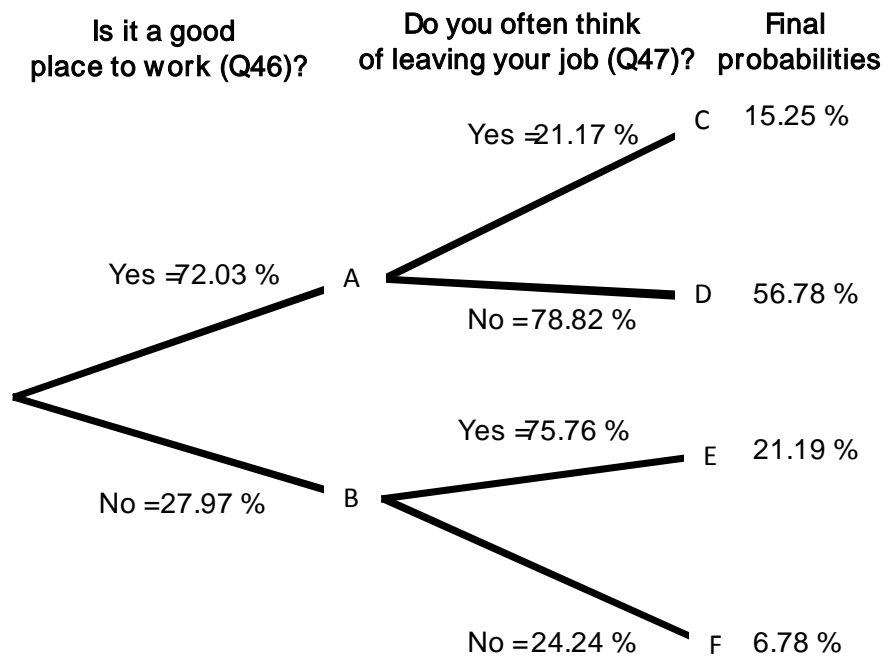


Figure 1 also illustrates that out of the 28 percent of respondents who perceive that they work in a bad working environment, nearly 76 per cent of them have thought about leaving their job. These clear asymmetries are worthy of further investigation and as such these two sequential dichotomous issues are the focus of the econometric analysis below.

Of interest are the drivers of these two dichotomous issues.

Descriptive statistics on many of the relevant independent variables used in the upcoming econometric analysis are presented in Table 2. It illustrates that 64 per cent of the respondents have children; 14 per cent of workers in the final sample agree with the statement that they get information on important decisions, changes and future plans in due time; 32 per cent are stressed at work; 25 per cent have experienced a reduction in their job satisfaction during the past 12 months; and 14 per cent believe that their work is not appreciated by their management.



**Table 2: Variable description**

Variable	Description	Mean	Min	Max
Quit job	Dummy variable: 1 = Agree with statement 'I often think of leaving my job'; 0 = otherwise	0.364	0	1
Good place	Dummy variable: 1 = Agree with statement that your work place 'is a good place to work'; 0 = otherwise	0.720	0	1
Parent	Dummy variable: 1 = have children; 0 = otherwise	0.636	0	1
Info lacking	Dummy variable: 1 = Agree / Strongly agree with 'I get information on important decisions, changes and future plans in due time'; 0 = otherwise	0.144	0	1
Satisfaction increased	Dummy variable: 1 = Satisfaction with job increased in last 12 months; 0 = otherwise	0.288	0	1
Satisfaction decreased	Dummy variable: 1 = Satisfaction with job decreased in last 12 months; 0 = otherwise	0.246	0	1
Threatened	Dummy variable: 1 = Having ever felt threatened at work; 0 = otherwise	0.297	0	1
Stressed	Dummy variable: 1 = Always / Often feeling stressed; 0 = otherwise	0.322	0	1
Not stressed	Dummy variable: 1 = Rarely / Never feeling stressed; 0 = otherwise	0.254	0	1
Appreciated	Dummy variable: 1 = Agree / Strongly agree that 'my work is appreciated by management'; 0 = otherwise	0.729	0	1
Not appreciated	Dummy variable: 1 = Disagree / Strongly disagree that 'my work is appreciated by management'; 0 = otherwise	0.144	0	1

Note: N = 118. Respondents who provided the answer 'not sure' were omitted from the analyses.

Table 3 presents the correlation coefficients for these variables, and they are in line with *a priori* expectations. For instance, often thinking about leaving a job is positively correlated with a recent decrease in job satisfaction, a feeling that they lack information on important decisions, changes and future plans in due time, feeling threatened, stressed and not appreciated. The perception that the quality of the work environment is good is positively correlated with being appreciated, not being stressed and experiencing a recent increase in job satisfaction.

**Table 3: Correlation coefficients**

	Quit job	Good place	Satisfaction increased	Satisfaction decreased	Parent	Info lacking	Threatened	Appreciated	Not appreciated	Stressed	Not stressed
Quit job	1.000	–	–	–	–	–	–	–	–	–	–
Good place	-0.509***	1.000	–	–	–	–	–	–	–	–	–
Satisfaction increased	-0.248***	0.230**	1.000	–	–	–	–	–	–	–	–
Satisfaction decreased	0.508***	-0.434***	-0.363***	1.000	–	–	–	–	–	–	–
Parent	-0.232**	0.117	-0.101	-0.099	1.000	–	–	–	–	–	–
Info lacking	0.442***	-0.497***	-0.261***	0.495***	-0.091	1.000	–	–	–	–	–
Threatened	0.241***	-0.339***	-0.044	0.233**	-0.202**	0.103	1.000	–	–	–	–
Appreciated	-0.410***	0.597***	0.220**	-0.449***	0.093	-0.618***	-0.105	1.000	–	–	–
Not appreciated	0.241***	-0.605***	-0.261***	0.495***	-0.040	0.656***	0.262***	-0.673***	1.000	–	–
Stressed	0.420***	-0.460***	-0.078	0.365***	-0.307***	0.337***	0.307***	-0.314***	0.285***	1.000	–
Not stressed	-0.199**	0.364***	0.187**	-0.288***	0.078	-0.240	-0.294***	0.269***	-0.240***	-0.402***	1.000

Notes: \*\*\*, \*\* and \* signify statistical significance at the 1%, 5% and 10% confidence level, respectively.

## Econometric approach

We adopt the formal model for estimating quitting probabilities according to Greene (2003). An important issue in any stochastic modelling process is to identify what influences the dependent variable. In our case we have two dependent, albeit presumably sequential, variables to model. Let  $y_{1i}$  be a latent variable that denotes the probability that a worker is thinking about quitting, which is dependent on a range of motivators,  $X_{1i}$ . Also let  $y_{2i}$  be a latent variable that denotes the probability that the worker thinks that they work in a good workplace, where this is also dependent upon a range of factors,  $X_{2i}$ . The model is represented as follows:

$$y_{1i} = \beta_1 X_{1i} + \varepsilon_{1i}$$

$$y_{2i} = \beta_2 X_{2i} + \varepsilon_{2i}$$

where the values for  $y_{1i}$  are observable and related to the following binary dependent variables, on the basis of the following conditions:

$$Quit_i = 1, \text{ if } y_{1i} > 0 \qquad \qquad \qquad Quit_i = 0, \text{ if } y_{1i} \leq 0$$

and

$$Good\ Place_i = 1, \text{ if } y_{2i} > 0 \qquad \qquad \qquad Good\ Place_i = 0, \text{ if } y_{2i} \leq 0$$

where  $Quit_i = 1$  denotes that the worker is thinking about quitting their job, and  $Good\ Place_i = 1$  denotes that the worker feels that they work in a good place. The errors  $(\varepsilon_{1i}, \varepsilon_{2i})$  are assumed to have the standard bivariate normal distribution, with  $E(\varepsilon_{1i}) = 0 = E(\varepsilon_{2i})$ ,  $V(\varepsilon_{1i}) = 1 = V(\varepsilon_{2i})$  and  $Cov(\varepsilon_{1i}, \varepsilon_{2i}) = \rho$ . Thus the worker's quitting probability can be written as:

$$P(Quit)$$

$$= P(Quit_i = 1, Good\ Place_i = 1)$$

$$= P(X_{1i} < x_{1i}, X_{2i} < x_{2i})$$

$$= \int_{-\infty}^{x_{2i}} \int_{-\infty}^{x_{1i}} \phi_2(z_{1i}, z_{2i}; \rho) dz_{1i} dz_{2i}$$

$$= F(\beta_1 X_{1i}, \beta_2 X_{2i}; \rho)$$

where  $F$  denotes the bivariate standard normal distribution function with correlation coefficient  $\rho$ . Greene (2003) shows that the density function is given by:

$\phi_2 = e^{-\frac{1}{2}(x_{1i}^2 + x_{2i}^2 - 2\rho x_{1i}x_{2i})/(1-\rho^2)} / 2\pi(1-\rho^2)^{1/2}$ . The bivariate probit model has full observability if  $Quit_i$  and  $Good Place_i$  are both observed in terms of all their four possible combinations (i.e.  $(Quit_i = 1, Good Place_i = 1)$ ,  $(Quit_i = 1, Good Place_i = 0)$ ,  $(Quit_i = 0, Good Place_i = 1)$ , and  $(Quit_i = 0, Good Place_i = 0)$ ); this is the case in our study and full observability naturally leads to the most efficient estimates (Ashford and Sowden 1970; Zellner and Lee 1965).

## Results

The results of seemingly unrelated bivariate probit estimations are presented in Table 4 and represent the most parsimonious model. The results hold even once we have controlled for a range of socioeconomic variables including age; gender; carer, smoker and alcohol drinking statuses; job status (permanent, part-time, casual, seasonal, contractor); training status (on-the-job, industry, tertiary, other); the amount of time the employee has worked in the industry (1 year or less; 1 to 2 years; 2 to 5 years, more than 5 years), organisation (3 months or less, 1 year or less, 1 to 2 years, more than 2 years) and in their current job (3 months or less, 1 year or less, 1 to 2 years, more than 2 years); and whether the respondent wanted to have more influence at their place of work. These pseudo-stability test results are not included for brevity. The econometric estimation also controlled for possible differences across industries through the application of a clustering algorithm to allow for greater similarity between workers in the same industry and greater differences between workers in different industries.

**Table 4: Coefficient estimates in biprobit model**

	(1)	(2)
	Quit	QWE
Constant	-0.668 (0.313)**	0.719 (0.318)*
Parent	-0.477 (0.175)***	- -
Info lacking	1.403 (0.675)**	- -
Satisfaction increased	-0.279 (0.172)	- -
Satisfaction remains the same	<i>Control variable</i>	- -
Satisfaction decreased	0.931 (0.388)**	- -
Threatened	0.253 (0.246)	-0.737 (0.389)*
Stressed	0.687 (0.277)**	-0.661 (0.168)***
Neither stressed nor not stressed	- -	<i>Control variable</i>
Not stressed	- -	6.972 (0.216)***
Appreciated	- -	0.793 (0.365)**
Neither appreciated nor not appreciated	- -	<i>Control variable</i>
Not appreciated	- -	-1.933 (0.331)***
<i>N</i>		118
Log pseudo likelihood		-79.908
Rho		-0.789 (0.086)***

Notes: \*\*\*, \*\* and \* represent statistical confidence at the 1%, 5% and 10% levels. Rho suggests strong negative correlation between regressions ( $\chi^2(1)=22.091, p<0.000$ ).

Table 4 presents two columns of results which correspond to the biprobit estimation. The first column corresponds to the dichotomous response to the statement that ‘I often think of leaving my job’. These results are in line with *a priori* expectations that are ingrained in the literature: those respondents who report that they are stressed at work and have experienced a recent reduction in their level of job satisfaction are more likely to think about leaving their job. However those respondents who have recently experienced an increase in their level of job satisfaction are less likely to think about leaving their job, as are parents.

The second column of results corresponds to the dichotomous response to the statement that they perceive that their work place ‘is a good place to work’. These results are also in line with *a priori* expectations which were discussed above: perceiving that the work place is a good place to work is positively influenced by being appreciated by management and not being stressed, and negatively influenced by being threatened or stressed at work and by not being appreciated by management.

Although there is nothing particularly new or surprising about these results, the important thing to note from Table 4 is that there is strong negative correlation between these two sets of regressions, as illustrated through the Rho coefficient and its respective statistical significance. Given the proposed sequential nature of these two issues, it is worth pursuing this line of thought and attempting to identify whether the (direct or indirect) influence of the variables on the quitting regression vary depending on whether the initial quality of the work environment is perceived to be good. Accordingly the marginal effects of the variables under the condition that the QWE variable is equal to 1 and 0 (zero) are presented in Table 5.

Table 5 effectively displays a comparison of routes C and D on the tree diagram, with E and F, i.e. determinants of thinking about leaving the job with and without perceiving that the quality of the work environment is good. Most importantly, and the main result of this paper, the marginal effects of explanatory variables do vary substantially between the columns of results. This means that the determinants of thinking about leaving the job are sensitive to the quality of the work environment. If the employee perceives that they work in a good work environment then a business can dissuade them from thinking about quitting their job by ensuring that their level of job satisfaction does not decrease, by continually providing the employee with information about important decisions, changes and future plans in due time, by ensuring that the employee is not overly stressed with work issues and by ensuring that the employee perceives that the management do appreciate their work efforts. Importantly, and the crux of this paper, these issues are not statistically significant if employees perceive that they work in a bad work place environment, which is most likely to be the case if they are stressed, threatened and not appreciated by management.

**Table 5: Marginal effects**

	(1)		(2)	
	<i>Quit given</i>		<i>Quit given</i>	
	<i>QWE = 1</i>		<i>QWE = 0</i>	
Parent	-0.184	(0.071)***	-0.005	(0.011)
Info lacking	0.515	(0.193)***	0.007	(0.015)
Satisfaction increased	-0.104	(0.063)*	-0.005	(0.011)
Satisfaction decreased	0.361	(0.142)**	0.008	(0.015)
Threatened	0.082	(0.098)	-0.005	(0.016)
Stressed	0.254	(0.104)**	0.002	(0.008)
Not stressed	0.166	(0.036)***	0.199	(108.06)
Appreciated	0.021	(0.015)	0.016	(0.027)
Not appreciated	-0.143	(0.047)***	-0.166	(0.106)

Notes: \*\*\*, \*\* and \* represent statistical confidence at the 1%, 5% and 10% levels.

Rather than simply reporting on the statistical significance of the variables' marginal effects, it is also worth emphasising the strength of difference in the marginal effects. Several issues are worth emphasising. First, the influence of being stressed on the thought of leaving is 116 times greater in a good work place. Interestingly not being stressed has similar effects on the thought of leaving in good and bad workplaces. It increases the probability of quitting by 25.4 per cent (0.02 per cent) if you work in a good (bad) place, so good places should reduce stress levels to reduce quitting behaviour. Meanwhile, the effect of not being stressed on the probability of quitting is 1.19 times larger in a bad workplace; it decreases the probability of quitting by 16.6 per cent (19.9 per cent) if you work in a good (bad) place.

Second, the effect of not receiving information about important decisions on the probability of quitting is 76 times larger if you're in a good work place; it increases the probability of quitting by 51.5 per cent (0.6 per cent) if you work in a good (bad) place. Third, the influence of reductions (increases) in job satisfaction on the thought of leaving is 48 (21) times greater in a good work place. Decreases in the level of satisfaction on the probability of quitting increases the probability of quitting by 36.1 per cent (0.8 per cent) if you work in a good (bad) place. The effect of an increase in the level of satisfaction on the probability of quitting is 21 times smaller if you are in a bad work place; it decreases the probability of quitting by 10.4 per cent (0.5 per cent) if you work in a good (bad) place. Satisfaction, therefore, is important but not the only influence on quitting behaviour.

Fourth, the influence of management appreciation on the thought of leaving is very similar in good and bad work places. The effect of being appreciated on the probability of quitting is only 1.28 times larger if you're in a bad work place; it decreases the probability of quitting by 14.3 per cent (16.6 per cent) if you work in a good (bad) place. So managers should employ similar appreciation strategies to reduce the quitting behaviour of key employees in good and bad workplaces alike. Finally, the effect of being a parent on the probability of quitting is 33 times larger if you're in a good work place; it decreases the probability of quitting by 18 per cent (0.5 per cent) if you work in a good (bad) place. Being a parent in a good workplace means you're very unlikely to quit.

#### *Additional drivers of quitting intention*

The data set included six further questions that relate to QWE, and these variables were used to conduct sensitivity analyses. Their inclusions in the model had no significant impacts on the key results. First, three questions relating to influence on work organisation failed to elicit statistically significant responses or affect any of the results. Second, feeling really tired from work did not affect the probability of quitting. Third, working a significant degree of overtime lowered the probability of quitting; this was statistically significant and changed slightly the marginal effects of other variables. This counter-intuitive result could be explained as employees feeling that they are more valued if they work more overtime, in which case this variable captures a similar issue as the feeling appreciated variable. Fourth, there was a very small though statistically significant marginal effect of satisfaction with the safety and comfort of working conditions on the probability of quitting (0.009,  $p=0.77$ ). On inspection this variable had the smallest marginal effect and its inclusion does not appear to bias the observed marginal effects of the other variables on the probability of quitting. Analysis of a larger data set could corroborate our findings.

### **3 Discussion and conclusion**

This research shows three important findings. Firstly, it confirms the importance of the quality of the work environment in the quitting decision. Employees are significantly less likely to intend to quit their job if they perceive it to be a good workplace. The majority of employees who thought of leaving their job perceived their workplace to not be a good workplace. Good quality of the work environment was indicated by low stress levels, feeling appreciated by management and not feeling threatened. This is consistent with what is suggested by separate sources in the literature (Bockerman and Ilmakunnas 2009; Boxall et al 2003; Cottini et al 2009; Gustaffson and Szebely 2009). Secondly, the research also confirmed that an employee is more likely to want to leave if they are not a parent, believe



that they do not receive enough important information in time, are stressed and experience a reduction in the level of job satisfaction.

Thirdly, the impact of those factors contributing to the desire to quit is differential between workplaces rated as having good or bad QWE. In workplaces with a good QWE, then the impact of i) high stress levels; ii) lack of information on important decisions; and iii) decreases in satisfaction are much greater on employees' intention to quit. This finding is interesting. However, there are few explanations for this phenomenon in the existing literature because of the paucity of research on quitting decisions within the framework of the QWE, rather than from a narrower job/person attributes approach (Boxall et al 2003; Cottini et al 2009; Delfgaw 2007; Hom et al 2008; Scott et al 2006; Taplin and Winterton 2007). The results reported here could be compared to another study showing that employees who come to a workplace because of a reputation of a 'good employer' may be disappointed when they discover practice differs from policy or reputation (Hom et al 2008). However, that study relates to turnover in the first year of tenure, and our results show that length of tenure/service in the organisation has no effect on the intention to quit. Furthermore, the study by Hom et al (2008) does not account for the impact of a *lack* of information on the quitting intentions of employees in a good workplace. Landau's (2009) explanation of the impact of the *outcomes* of employee voice on dissatisfaction and quitting intentions provides a stronger basis for our results, by linking employees' expectations and experience, potentially explaining why a workplace perceived as good is more impacted by decreases in job satisfaction, stress and lack of information from management.

Conversely, the results indicate that if the QWE is considered bad by employees, then high levels of stress, information on important decisions and job satisfaction decreases have less of an effect. Low stress levels and the effect of being appreciated by management decrease the probability of quitting bad workplaces only slightly more than in good workplaces. Again, few studies investigate bad work environments and quitting behaviours. However, it has been suggested that in a poor quality work environment, employees feel resigned to staying and perceive that they have few other opportunities (Taplin and Winterton 2007). This implies that perhaps, in a workplace where employees already feel they are not appreciated by management, suffer stress and feel threatened at work, there is a concurrent sense of resignation and disempowerment manifested in lesser reaction to stress, negative changes in the QWE and lack of information about changes and other important issues.

This paper contributes to the literature in a number of areas. First, it has corroborated earlier evidence that an employee is more likely to feel that they work in a good place if they are appreciated, not threatened and not stressed (Bockerman and Ilmakunnas 2009; Boxall et al 2003; Cottini et al. 2009; Gustafsson and Szebely 2009). Secondly, it confirms that a bad work environment has a negative impact on quitting behaviour. More surprisingly, it has

found that the effects on quitting of some key factors that are associated with QWE are greater in a workplace with good QWE. These factors with greater impact in workplaces with good QWE are high levels of stress, decreased job satisfaction and not receiving information about important decisions. On the other hand, the impact of not being stressed and of being appreciated by management in reducing the likelihood of quitting is significant in all workplaces.

Consequently, organisations that wish to retain their quality workforce should adopt a two-stage approach. They should focus initially on achieving a good QWE, in this case low stress levels, perceptions of appreciation by management and a lack of threats at work. This is essential to reduce quitting intentions before then expending effort on adjusting factors that contribute to job satisfaction and increasing information to employees in important decision making processes. Retaining low levels of stress remain important in the second stage. This research highlights the need for further research into 'good' *and* 'bad' workplaces, and their differential impact on quitting intentions.

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