

Life Experiences and Job Satisfaction Among Mobile and Stable Personnel on Large-Scale Construction Projects*

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A two-phase investigation of job satisfaction at two energy-related construction projects revealed that 'mobile' and 'stable' personnel did not differ significantly in their initial levels of overall job satisfaction, but mobile workers were less satisfied six months later. The experience of stress and changes in their non-work lives substantially affected the job satisfaction of mobile employees at both sites, although the patterns of influence varied between the two locations. Significant differences at Time 2 between energy and non-energy samples, as well as between occupational categories, illustrate the need for longitudinal research taking account of changes in working conditions and quality of life variables. Regression analyses of the contribution of stress and non-work factors highlighted the relevance of extended research on the relationship between job satisfaction and experiences in the non-work domain.

Several large-scale industrial development projects, many of them designed to utilize energy resources, have been initiated in New Zealand over the last decade. As a consequence, New Zealand has experienced the growth of a transient or mobile workforce which moves to a region at the initiation of a construction project and transfers elsewhere as construction-related jobs terminate. There has been extensive documentation, both internationally and in New Zealand (see Fookes, 1981; Taylor & Sharp, 1983), of the social impact of such short-term population changes. However, although employee transfer within an organization to a new location has been given considerable attention (e.g., Brett, 1982; McRae, 1979), less information has been gathered about the effects of mobility on workers and their families when the relocation involves multiple changes—in the job, company and accommodation—and when the future, once the construction project has been completed, is uncertain. The present research was planned as an exploratory investigation of a range of factors which may influence mobile workers of this type,

and as a comparison between mobile and 'stable' job-holders who have been settled in an area for some time.

Job satisfaction was the principal focus of this study. Although their association with actual performance on the job is tenuous, work attitudes have been implicated as determinants of employee turnover in organizations, especially in a prosperous economic climate (Muchinsky & Morrow, 1980), and have also been linked with low rates of absenteeism under certain conditions (Steers & Rhodes, 1978). Given that events which occur in both work and non-work domains may affect work attitudes, our study was designed to examine the relative contributions of work-related variables and general life experiences to job satisfaction among mobile and stable workers.

Job Satisfaction and Work Related Variables

Hackman and Oldham's (1976) job characteristics model has provided the theoretical basis for much previous research on the relationship between job satisfaction and variables such as autonomy, feedback and skill-utilization. We did not wish to generate further evidence for this model, but to explore other work-related variables which have been given less attention, such as the total amount of time spent at work and travelling to work, changes in work conditions, and whether or not shiftwork is involved. For example, employees on large scale construction sites

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frequently work long hours and may travel considerable distances to project sites, especially when these are located away from residential areas, but this combined work and travel time has received little recognition from researchers. Similarly, the impact of shiftwork on family life and non-work activities is clearly an important moderator of reactions to the job, although recent research (e.g., Peterson, 1985) indicates varying effects on work attitudes.

Life Events and Job Satisfaction

Growing sensitivity over recent years to the concept of quality of life has generated increased interest in the association between life experiences and quality of work life. Research on this topic has typically focussed on the extent to which job satisfaction is a cause of general life satisfaction, with most support being found for the spillover or generalization hypothesis, which contends that dissatisfaction with one's job will have a detrimental influence on adaptation to or satisfaction with other areas of life (Kabanoff, 1980; Near, Rice, & Hunt, 1980).

There has been much less investigation of the converse hypothesis: that life experiences may contribute to differences in job satisfaction. Rizzo, Reynolds, & Gallagher (1981) reported a significant association, in an Australian survey, between psychosocial problems (such as stress and excessive alcohol consumption) and job satisfaction, while Near et al. (1980) have summarized research assessing a variety of demographic and community variables, physical health, family life and participation in non-work activities. Moderate correlations (around .30) between job satisfaction and these other variables were obtained in most studies, but evidence for the impact of non-work factors was not conclusive.

The present research builds upon the foundations laid in earlier studies, by examining life experiences which may function as potential contributors to job satisfaction—changes in areas such as accommodation, financial situation, and close personal relationships, as well as problems with family members and relatives. Following arguments outlined by Schmitt & Mellon (1980), who found that life satisfaction affected work satisfaction, we predicted that

individuals reporting a relatively greater number of positive life experiences would be more satisfied with their jobs, whereas the converse would apply in respect of negative experiences.

The amount of stress experienced in life was also examined in relation to job satisfaction. Earlier research has studied the link between satisfaction with work and job stress (e.g., Teas, 1983), but evidence concerning general life stress is lacking. Consistent with the assumption that life experiences may spill over into the work domain, we anticipated that physical stress and emotional problems related to life events would also affect job satisfaction. Our study provided an opportunity to assess this proposition.

Finally, we expected that certain personal characteristics would be relevant to work attitudes. It was assumed that, among members of a mobile workforce, an orientation toward exploration of new environments, or what might be termed 'openness to new experiences', would predispose individuals to be more satisfied with their new job, whereas persons with an overriding concern for security and stability may experience a more difficult adjustment period and consequently exhibit less job satisfaction. These individual difference variables were incorporated into the study on an exploratory basis.

Method

Sample

The first phase of this research entailed interviews with 376 persons in paid employment, who were identified from various sources, including employers, accommodation centres, schools, and local councils in the two geographical regions under study (see Thomas, O'Driscoll, & Robertson, 1984, for complete details of the sample selection procedures). Using the criterion of having resided in an area and occupied their present job for less than three months, 66% of the sample were selected for classification as 'mobile' workers, on the assumption that they would not have developed the patterns of stability which would have been experienced by the remaining 34% of the sample, who were chosen because they had lived in the same region for at least two years. Residency of between two and eight years was specified for the 'stable' sample to ensure that they had settled in the region and could be considered relatively permanent (but not

Table 1: *Occupational Categories of Mobile and Stable Workers*

Occupational Category	Stable Sample	Mobile Sample	Total
	%	%	%
Professional/Managerial	13.9	14.5	14.3
Administrative/Clerical	33.3	29.0	30.3
Trade/Manual	52.8	56.5	55.3

lifetime) residents. On average, members of this sample had been employed in their current job for over twelve months.

Of the total sample, 80% were males, 36% were 20-29 years of age and 42% fell within the 30-39 years age category. In respect of ethnic origin, 8% identified themselves as either Maori or part-Maori and 31% were overseas migrants, mainly from the United Kingdom. The majority of people in the sample (60%) were married and had dependent children, a further 19% were married with no children, and the remaining 20% were unmarried. Employees on energy construction sites comprised 61% of the sample, with the majority being engaged in trade and manual work. Percentages of mobile and stable workers who were categorized into each occupational grouping are shown in Table 1.

Six months after the first interview, 74% of the original sample were re-interviewed, to enable analysis of changes in job satisfaction over time and to assess the stability of relationships between the predictor variables and work attitudes. Of the 26% from whom Time 2 data were not collected, 22% of the mobile sample and 8% of the stable workforce had left the region, while 8% declined a second interview.

Measures

Work satisfaction. The instrument chosen to measure levels of job satisfaction was adapted from studies which have assessed ratings of specific job facets (O'Brien & Dowling, 1981; Varca, Shaffer, & McCauley, 1983; Warr, Cook, & Wall, 1979). This technique has been used previously as an alternative to the Job Description Index and was anticipated to be more suitable for interviews with the heterogenous occupational sample of the present study. Eleven work-related aspects were selected because they reflect a range of relevant features: Use of previous training and experience, opportunity to learn new skills, opportunity to perform the job appropriately, relationships with workmates, supervision, pay, physical environment, management-employee relations, work pressure and stress, the work itself,

and job security. Participants indicated how satisfied they were with each facet on a 5-point scale ranging from 'very dissatisfied' to 'very satisfied'. Item-total correlations ranged from .51 to .70 at Time 1 and .40 to .75 at Time 2, and the total scale exhibited an adequate level of internal reliability at both time periods ($\alpha = .82$ and $.83$ respectively), with a test-retest coefficient of .48. Principal components analyses, with varimax rotation, were performed on the eleven items, yielding a single factor which accounted for a high proportion of the variance (87% at Time 1, 89.5% at Time 2). Factor loadings varied from .39 to .74, hence all items contributed to the overall job satisfaction factor. Further analyses used the unweighted total satisfaction score.

Life change events. Respondents were asked what important changes had occurred over the previous six months in their accommodation, close personal relationships, accidents or illness, family problems, working conditions, and their financial situation. In addition, participants were invited to note any other areas in which they had experienced significant change and whether the changes were positive or negative. This procedure was preferred to scales such as the Holmes and Rahe (1967) Social Readjustment Rating Questionnaire, since it ensured that changes were defined as favourable or unfavourable by respondents themselves. Two scores were generated, the total number of positive life change events and the total number of negative changes.

Stress. To measure short-term reported stress, a set of items similar to a symptom checklist was constructed. Previous research (e.g., Goldberg, Rickels, Downing, & Hesbacher, 1976) has demonstrated that checklists discriminate well between groups which vary in stress levels. Positive and negative items, covering physical and psychological health and well-being, were included to counteract response set effects. Examples of positive reactions were feeling good and enjoying life, while negative reactions included headaches, tiredness, and insomnia. Respondents indicated, on a scale ranging from 'never' to 'very often', how frequently they had experienced each of these during the past four weeks. The 12-item scale showed adequate reliability ($\alpha = .75$ and $.77$ at Times 1 and 2 respectively).

Openness to new experiences. Six items were devised as exploratory measures of the importance to individuals of a range of social and recreational activities, such as participating in sports, meeting new people, having close friendships, and pursuing diverse interests. During the Time 1 data collection phase, respondents rated each attribute on a 5-point response scale ('not important' to 'very important'). Item-total correlations for this

measure varied from .22 to .47, while the internal consistency was marginal at .64.

Security. A further six exploratory items assessed the importance of basic security needs (e.g., earning money, job security, having a good place to live) for individuals at Time 1. Item-total correlations were .19 to .37, and given the low reliability ($\alpha = .51$) of the total scale, its relationships with work satisfaction must be interpreted cautiously.

Work-related variables. Specific questions were generated to determine the type of work respondents were engaged in, whether or not their job involved shiftwork, their average number of working hours and commuting time per day, and whether or not they had experienced unemployment during the past five years. These situational items were analysed individually, except that working hours and commuting time were combined to yield a derived work-and-travel time variable.

Procedure.

After pilot testing and revision of the interview schedule to ensure appropriate item wording, interviews were conducted among workers located at two major construction sites—one situated in the Whangarei region and the second in North Taranaki. Respondents were interviewed individually, normally in their own residence. Follow-up interviews were carried out six months later. On completion of the data collection, written

summaries were provided to participants and feedback meetings held in both areas.

Results

Levels of satisfaction with the eleven job facets were moderate at both time periods (mean scores ranging from 3.62 to 4.37) and correlations between Time 1 and Time 2 scores (range of .20 to .43) were significant at $p < .001$. As noted earlier, there was a significant relationship ($r = .48$, $p < .001$) between work satisfaction scores from the two phases.

At Time 1, the mean total satisfaction scores of stable ($M = 43.2$, $SD = 7.41$) and mobile workers ($M = 42.11$, $SD = 6.79$) did not differ significantly, $t(322) = 1.29$. An Energy \times Occupation \times Site three-way ANOVA for the mobile workforce, which was the primary focal group, demonstrated no significant main effects for any of the three independent variables (see Table 2). However, a significant Energy \times Site interaction indicated that mobile energy workers in Whangarei were significantly more dissatisfied than those in North Taranaki, while the converse applied in the non-energy sample. Comments made by interviewees

Table 2: Time 1 Work Satisfaction Among the Mobile Workforce

Independent Variable					F
<i>Energy</i>					
		Energy	Non-Energy		
<i>M</i>		41.65	43.18		2.63
<i>SD</i>		7.02	5.89		
<i>n</i>		163	74		
<i>Occupation</i>					
		Profess/Manag	Admin/Cleric	Trade/Manual	
<i>M</i>		43.41	41.94	41.95	.60
<i>SD</i>		4.89	7.37	6.71	
<i>n</i>		29	70	138	
<i>Site</i>					
		North Taranaki	Whangarei		
<i>M</i>		42.38	42.04		
<i>SD</i>		6.34	7.01		
<i>n</i>		89	143		
Energy \times Occupation interaction					.42
Energy \times Site interaction					8.96**
Occupation \times interaction					.09

** $p < .01$

Note: n's vary due to missing data

Table 3: Time 2 Work Satisfaction Among the Mobile Workforce.

Independent Variable					F
<i>Energy</i>					
		Energy	Non-Energy		
<i>M</i>		32.50	39.14	21.32***	
<i>SD</i>		10.50	10.51		
<i>n</i>		165	87		
<i>Occupation</i>					
		Profess/Manag	Admin/Cleric	Trade/Manual	
<i>M</i>		40.61	36.50	32.43	9.38***
<i>SD</i>		8.10	11.03	10.87	
<i>n</i>		36	74	142	
<i>Site</i>					
		North Taranaki	Whangarei		
<i>M</i>		34.90	34.92	.24	
<i>SD</i>		10.95	10.95		
<i>n</i>		94	158		
Energy × Occupation interaction					.51
Energy × Site interaction					2.56
Occupation × Site interaction					2.15

*** $p < .001$

Note: n's vary due to missing data

highlighted working conditions, poor management and supervisor-subordinate relations, as well as those between unions and management, as sources of dissatisfaction at the Whangarei energy-construction site.

Higher satisfaction levels at Time 2 were shown by stable ($M = 38.3$, $SD = 10.54$) than mobile workers ($M = 34.8$, $SD = 10.90$), $t(351) = 2.78$, $p < .01$, and two significant main effects were obtained from three-way ANOVA or total satisfaction scores within the mobile sample (Table 3). Energy-related mobile workers were significantly more dissatisfied than non-energy workers, while professional/managerial personnel were more satisfied than administrative/clerical staff, who in turn reported greater satisfaction than trade/manual workers. The site difference observed at Time 1 was not replicated at Time 2.

Stepwise multiple regression analyses on work satisfaction scores at Time 1 are shown in Table 4. For greater clarity, only the significant effects are presented. In the total sample analysis, stress and negative life changes contributed significantly to variance in job satisfaction, as did the combined amount of work and travel time. Interest-

ingly, however, the actual number of working hours had a positive effect on work satisfaction.

The job satisfaction of mobile personnel engaged in energy-related work was negatively influenced by three of the predictor variables—stress, negative life changes and shiftwork. In the non-energy mobile sample, stress and changes in work conditions produced lower satisfaction. Workers in both North Taranaki and Whangarei were affected by stress, but for the latter group the experience of negative life changes and shiftwork also contributed to lower satisfaction scores.

A summary of Time 2 stepwise regression analyses is presented in Table 5. In the total sample, stress had a significant impact on job satisfaction and its influence was more marked than at the first interview. Another determinant was the amount of satisfaction reported at Time 1, suggesting some degree of stability over time in levels of work satisfaction. Positive life changes contributed to Time 2 satisfaction, but in contrast to Time 1, individuals reporting more negative life changes also displayed higher job satisfaction. Changes in working conditions and job

Table 4: Summary of Time 1 Regression Analyses of Work Satisfaction.

Variable	Beta	t	p	MultR	R ²
<i>Total Sample</i>					
Stress	-.33	-5.68	.000	.36	.13
Work & Travel Time	-.60	-3.93	.000	.41	.17
Working Hours	.44	2.93	.003	.44	.19
Negative Changes	-.14	-2.39	.017	.46	.21
Age	.12	2.10	.037	.48	.23
<i>Mobile Energy Sample</i>					
Stress	-.38	-5.68	.000	.36	.13
Negative Changes	-.29	-3.22	.001	.51	.26
Shiftwork	-.21	-2.35	.020	.56	.31
<i>Mobile Non-Energy Sample</i>					
Stress	-.36	-3.17	.002	.41	.17
Work Conditions	-.23	-2.02	.046	.47	.22
<i>North Taranaki Mobile Energy Sample</i>					
Stress	-.50	-3.17	.003	.50	.25
<i>Whangarei Mobile Energy Sample</i>					
Negative Changes	-.33	-2.73	.008	.43	.18
Stress	-.33	-2.75	.008	.53	.28
Shiftwork	-.25	-2.14	.037	.58	.34

changes were associated negatively with satisfaction.

Stress, positive life changes, and Time 1 work satisfaction were predictors of Time 2 satisfaction among both energy and non-energy personnel. However, negative life changes (which were linked with dissatisfaction in the total sample) influenced non-energy, but not energy-related workers. In contrast, job changes had a detrimental effect on the job satisfaction of energy workers, but not their non-energy counterparts.

Separate analyses for the North Taranaki and Whangarei sites again demonstrated the overriding influence of stress. Individuals who experienced a greater degree of stress were more likely to show dissatisfaction with their jobs, whereas positive life changes were linked with higher levels of job satisfaction in both locations. In North Taranaki, job changes had a substantial negative impact, as did changes in working conditions.

Discussion

The present study highlights important issues for job satisfaction research. One major theme emerging was the dependence of work attitudes on both work context variables (such as working conditions and the number of work hours) and events in the non-work domain. Our findings complement research

focussing on the impact of work satisfaction on global life satisfaction (e.g., Steiner & Truxillo, 1987) and support recent emphases on the reverse relationship (Bhagat, McQuaid, Lindholm, & Segoris, 1985; Schmitt & Pulakos, 1985). In particular, our data illustrate that efforts to enhance quality of worklife and increase understanding of affective reactions to the job must take into account the contribution of general stress levels, along with positive and negative changes occurring in individuals' lives. From this and other studies it is evident that, while spillover has typically been depicted as unidirectional, work attitudes and non-work experience may exert influence on each other.

A second feature of our results was that, although we were primarily concerned with the impact of various factors on the attitudes of workers defined here as 'mobile', both mobile and stable samples exhibited an overall decline in job satisfaction between the two interview periods. In addition, the test-retest correlation between Time 1 and Time 2 total work satisfaction, while significant, can at best be described as moderate and the standard deviations indicated greater variation in Time 2 scores within each sample.

One potential explanation for this pattern is that the measure of job satisfaction lacked adequate temporal stability. However even

Table 5: Summary of Time 2 Regression Analyses of Work Satisfaction.

Variable	Beta	t	p	Mult R	R ²
<i>Total Sample</i>					
Stress	-.47	-10.13	.000	.64	.41
Positive Changes	.30	6.24	.000	.67	.45
Time 1 Work Satisfaction	.21	4.92	.000	.70	.49
Negative Changes	.21	4.80	.000	.72	.52
Work Conditions	-.16	-3.11	.002	.74	.55
Sample	.14	3.54	.001	.76	.58
Job Change	-.11	-2.40	.016	.77	.59
<i>Mobile Energy Sample</i>					
Stress	-.50	-7.11	.000	.71	.51
Positive Changes	.41	5.23	.000	.76	.58
Job Change	-.24	-3.38	.001	.79	.63
Time 1 Work Satisfaction	.15	2.48	.014	.81	.66
<i>Mobile Non-Energy Sample</i>					
Stress	-.46	-4.56	.000	.58	.34
Negative Changes	.34	3.63	.000	.65	.43
Work Conditions	-.38	-3.68	.000	.69	.47
Positive Changes	.37	3.39	.001	.74	.56
Time 1 Work Satisfaction	.21	2.18	.033	.77	.59
<i>North Taranaki Mobile Energy Sample</i>					
Stress	-.36	-8.20	.000	.67	.44
Job Change	-.45	-8.18	.000	.81	.66
Positive Changes	.48	10.73	.000	.89	.80
Negative Changes	.46	9.64	.000	.92	.86
Work Conditions	-.42	-7.49	.000	.97	.94
Time 1 Work Satisfaction	-.09	-2.08	.045	.97	.95
<i>Whangarei Mobile Energy Sample</i>					
Stress	-.57	-7.13	.000	.78	.61
Positive Changes	.32	4.10	.000	.84	.71
Time 1 Work Satisfaction	.14	2.02	.048	.85	.73
Sample	.14	2.00	.049	.86	.75

though changes in work attitudes might be expected over a six-month period, previous research (e.g., O'Brien & Dowling, 1981; Varca et al., 1983) suggests that score differences would not be due to low test-retest reliability of the instrument itself. Measurement of job affect via satisfaction with specific facets has been demonstrated to be both reliable and valid (Cook, Hepworth, Wall, & Warr, 1981).

Sample attrition and change of job may also have influenced the variation between Time 1 and Time 2 levels of job satisfaction. Between-sample differences at Time 2 may have been due, in part, to the higher proportion of respondents unavailable for retesting in the mobile than stable categories. Assuming, however, that workers who had left their job or the region were less satisfied or experiencing greater stress, attrition might be expected to increase rather than reduce mean satisfaction scores for the two samples.

Similarly, while a small number of personnel reported a change in the nature of their work at Time 2, relative differences between the two categories could not be accounted for by these changes, since the proportions were virtually identical (7% of mobile, 9% of stable workers).

A more plausible explanation for the reduction in job satisfaction over time is that both groups experienced changes in their work and non-work environments which affected their evaluations of the job and that these changes were accentuated in the subgroups among the mobile sample. Analyses of the mobile workforce data indicated that stress and life changes were consistent predictors of job satisfaction, but interesting differences emerged between energy and non-energy personnel, between occupational groups and between the two sites investigated. Comparisons between mobile workers involved in energy-related construction

projects and those employed in non-energy occupations yielded negligible differences in satisfaction at Time 1, but this was not the case six months later, when the energy sample reported considerably lower satisfaction with their jobs. Although stress, positive life changes and Time 1 work satisfaction all contributed to levels of Time 2 satisfaction, energy workers were more affected by stress but not by negative life events and changes in working conditions, which did influence their non-energy counterparts.

Between-site comparisons of mobile energy personnel also illustrated the contribution of life stress to job satisfaction, as well as highlighting site-specific relationships and changes over time in predictor variables at the two locations. At the time of the second interview, Whangarei workers were more strongly influenced by stress than mobile energy employees in North Taranaki, but job attitudes among the latter were affected by a wider range of work and non-work factors. These between-site variations confirm the importance of examining contextual variables (on and off the job) which determine job satisfaction, even among personnel employed in the same industry.

Finally, within the mobile sample there were no differences between professional/managerial, administrative/clerical and trade/manual workers at the first interview but the level of job satisfaction among all three groups decreased at Time 2, with greatest change being observed in trade/manual employees. Our data suggest that, while mobile workers as a group may be more susceptible to negative life experiences, individuals employed in 'lower status' occupations may be especially vulnerable, as they may not have access to material and social resources which can buffer the impact of life stress and job uncertainty associated with a transient lifestyle (Broadbent, 1985).

In summary, this study provides evidence of an association between events occurring in people's lives and their level of job satisfaction, especially following the initial phase of employment. Whereas previous research has demonstrated the influence of work-related variables on job satisfaction and, in recent years, has recognized the effects of work satisfaction on satisfaction with life generally (Near, Smith, Rice, & Hunt, 1983),

the present findings illustrate the potential importance of determining the impact of variables outside the work environment on work attitudes. They have also shown that factors which contribute to work satisfaction in personnel employed on large scale energy projects may vary from those which are salient to persons engaged in non-energy occupations and that occupational groups may be differentially affected by the consequences of mobility.

Given the structure of the labour market and employment prospects in New Zealand, increases can be anticipated in the number of workers belonging to the mobile category as it has been defined in the present context. Replications of this study are needed in other work settings, but there are clear indications that organizations and researchers should consider the implications of transience or mobility for job satisfaction and other work attitudes. From a practical perspective, data of the kind reported here can provide information which may help employers and support organizations identify work context variables (such as the amount of time spent at work and travelling to work) and non-work variables (including accommodation, social relationships and family life—see Thomas, O'Driscoll, & Robertson, 1984), which may contribute to dissatisfaction with the job. Although individuals may adopt a mobile or transient lifestyle for primarily financial reasons, systematic investigation of the impact of stress and non-work experiences will increase understanding of the determinants of work attitudes and facilitate the development of environments which enhance quality of worklife and organizational effectiveness.

References

- Bhagat, R., McQuaid, S., Lindholm, H., & Segovis, J. (1985). Total life stress: A multimethod validation of the construct and its effects on organizationally valued outcomes and withdrawal behaviours. *Journal of Applied Psychology*, 70, 202-214.
- Brett, J. (1982). Job transfer and well-being. *Journal of Applied Psychology*, 67, 450-461.
- Broadbent, D. (1985). The clinical impact of job design. *British Journal of Clinical Psychology*, 24, 33-44.
- Cook, J., Hepworth, S., Wall, T. & Warr, P. (1981). *The experience of work*. New York: Academic Press.
- Fookes, T. (1981). Conclusions. *Monitoring social and economic impact: Huntly case study*. Final Report Series No. 12, University of Waikato.

- Goldberg, D., Rickels, K., Downing, R., & Hesbacher, P. (1976). A comparison of two psychiatric screening tests. *British Journal of Psychiatry*, *129*, 61-67.
- Hackman, J., & Oldham, G. (1976). Motivation through the design of work: Test of a theory. *Organizational Behaviour and Human Performance*, *16*, 250-279.
- Holmes, T., & Rahe, R. (1967). The Social Readjustment Rating Scale. *Journal of Psychosomatic Research*, *11*, 213-218.
- Kabanoff, B. (1980). Work and non-work: A review of models, methods and findings. *Psychological Bulletin*, *88*, 60-77.
- McRae, J. (1979). Labour mobility in New Zealand industry. In S. Wallman (Ed.), *Ethnicity at work*. London: Macmillan.
- Muchinsky, P., & Morrow, P. (1980). A multidisciplinary model of voluntary employee turnover. *Journal of Vocational Behavior*, *17*, 263-290.
- Near, J., Rice, R., & Hunt, R. (1980). The relationship between work and non-work domains: A review of empirical research. *Academy of Management Review*, *5*, 415-429.
- Near, J., Smith, C., Rice, R., & Hunt, R. (1983). Job satisfaction and non-work satisfaction as components of life satisfaction. *Journal of Applied Social Psychology*, *13*, 126-144.
- O'Brien, G., & Dowling, P. (1981). Age and job satisfaction. *Australian Psychologist*, *16*, 49-61.
- Peterson, M. (1985). Attitudinal differences among work shifts: What do they reflect? *Academy of Management Journal*, *28*, 723-731.
- Rizzo, C., Reynolds, I., & Gallagher, H. (1981). Job satisfaction: A study of Sydney adults. *Australian Journal of Social Issues*, *16*, 138-148.
- Schmitt, N., & Mellon, P. (1980). Life and job satisfaction: Is the job central? *Journal of Vocational Behaviour*, *16*, 51-58.
- Schmitt, N., & Pulakos, E. (1985). Predicting job satisfaction from life satisfaction. *International Journal of Psychology*, *20*, 155-168.
- Steers, R., & Rhodes, S. (1978). Major influences on employee attendance: A process model. *Journal of Applied Psychology*, *63*, 391-407.
- Steiner, D., & Truxillo, D. (1987). Another look at the job satisfaction-life satisfaction relationship: A test of the disaggregation hypothesis. *Journal of Occupational Behaviour*, *8*, 71-78.
- Taylor, N., & Sharp, B. (1983). *Social impacts of major resource development projects: Concerns for research and planning*. Christchurch: Lincoln College, Centre for Resource Management.
- Teas, R. (1983). Supervisory behaviour, role stress and the job satisfaction of industrial salespeople. *Journal of Marketing Research*, *20*, 84-91.
- Thomas, D., O'Driscoll, M., & Robertson, N. (1984). *The mobile workforce in New Zealand: Social network development, health and wellbeing*. University of Waikato, Department of Psychology.
- Varca, P., Shaffer, G., & McCauley, C. (1983). Sex differences in job satisfaction revisited. *Academy of Management Journal*, *26*, 348-353.
- Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*, *52*, 129-148.