Supervisory factors affecting job satisfaction in public accounting firms

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SUPERVISORY FACTORS AFFECTING JOB SATISFACTION IN PUBLIC ACCOUNTING FIRMS

ublic accounting firms have a very high attrition rate among junior-level accountants. This is expensive as recruitment and training costs during an employee's early years are high. In addition, many competent accounting graduates who might have had successful public accounting careers seek other employment because they come to feel that a career in public accounting will be less satisfying than other accounting careers.1 Some of the blame has been placed on the traditional educational system that accounting majors are required to follow, which many argue is outdated (Carcello et al, 1991). In addition, some blame has been placed on accounting firms for failing to provide an interesting and satisfying employment experience for entry-level accountants, leading to "occupational reality shock", job dissatisfaction and employee turnover (AECC, 1993). Accountants' job satisfaction has been found to be negatively related to their intention to leave their employer (Benke and Rhode, 1984; Bullen and Flamholtz, 1985; Gregson and Bline 1989) and accounting firms need to consider this.

One response of the American accounting profession has been to provide substantial funding to the Accounting Education Change Commission (AECC), which makes recommendations about changes in accounting education and employment experiences in the hope that better students will decide to major in accounting and that there will be greater employment satisfaction for entry-level accountants. In 1993 the commission released Issues Statement No. 4, which noted (p. 431) that "recent studies indicate that many accounting graduates find that their early employment experience falls short of the expectations they had brought to the business world", a finding that could also be valid in Australia. The AECC made several recommendations designed to improve employees' job satisfaction and suggested actions that need to be taken by accounting firms to solve the problem. Issues Statement No. 4 included recommendations for accounting academics, students, recruiters, supervisors of early work experience and employer management.

This paper reports the results of a survey of 350 junior-level accountants working at public accounting firms in Australia. The survey obtained information on their perceptions of the extent to which the supervisory actions recommended in the Accounting Education Change Commission's (AECC) Issues Statement No. 4 were applied in their organisations. We test whether these supervisory actions have an effect on their job satisfaction. The results indicate that each of the three major elements of supervisory actions recommended by the AECC leadership and mentoring, working conditions and assignments — are significantly associated with overall job satisfaction.

It recommended, for example, that supervisors of early work experience should provide strong leadership and mentoring, build working conditions conducive to success and provide challenging and stimulating work assignments (AECC, 1993, p. 432). The detailed recommendations for supervisors of early work are shown in Appendix A.

If the supervisory actions recommended by the AECC are sound, it would be reasonable to expect a positive relationship between these actions and the overall job satisfaction of junior-level accountants working in public accounting firms.

Patten (1995)argued that. because of their different organisational structure, many of these activities may have already been addressed by non-Big 5 public accounting firms. If there is a relationship between the factors raised in the AECC report and the level of satisfaction, and if there are differences between Big 5 and non-Big 5 public accounting organisations, then entry-level staff at non-Big 5 firms should be more satisfied with their jobs than their Big 5 counterparts. If there are differences between non-Big 5 and Big 5 public accounting firms relative to the supervisory activities suggested by the AECC, then the non-Big 5 firms could serve as a valuable model for the larger firms as they attempt to improve the early employment experiences of their junior accounting professionals. Although research has been conducted in this area in the US, there has been no such research in Australia.

This paper reports the results of a survey of 350 junior-level accountants at non-Big 5 and Big 5 public

accounting firms in Australia. The survey instrument is a modified version of Patten's (1995) instrument, which is based on the specific actions recommended in the AECC's Issues Statement No. 4. The survey obtained information on junior-level accountants' perceptions of the extent to which the AECC's recommended supervisory actions were applied in their organisations. We measured the level of overall job satisfaction for each respondent and tested whether the supervisory actions had an effect on this.

The results of this survey indicate a moderate level of job satisfaction (mean of 4.5 on a seven-point scale) for accountants working in public accounting firms.² The results also indicate that composite scores for each of the three major elements of supervisory actions - leadership and mentoring, working condi-

tions, and assignments — are significantly associated with the respondent's level of overall job satisfaction. However, the working conditions composite is the only supervisory action variable that is significantly higher (p < .01) for non-Big 5 firms. On average, there was no significant difference between the level of overall job satisfaction for junior-level accountants

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PRIOR RESEARCH

Prior research in accounting found a relationship between various aspects of supervisory-related actions and job satisfaction. For example, Albrecht et al (1981) reported that partners in accounting firms were satisfied with their jobs, whereas junior staff, seniors and managers were not. Factors about which iunior staff were less satisfied included the amount of supervision received, feedback on performance, opportunities for participation and recognition for work well done.

Carcello et al (1991) examined differences between accounting students and junior-level accountants' perceptions of job duties and responsibilities, advancement training and supervision and personal concerns. They found significant differences between the two groups on almost every item. Accounting students generally had higher expectations than did junior-level accountants, which suggests that their on-the-job experiences were generally less satisfying than they had expected. Carcello et al (1991) found that the divergence between expectations and experiences was

greater in the area of advancement, training and supervision. A question asking respondents to indicate what they liked least about public accounting firms was included in a free response section of that survey. One frequent response to this question was inadequate training and supervision.³

Gregson and Bline (1989) found that two job-satisfaction dimensions, work satisfaction and promotion satisfaction, were inversely related to public accountants' intentions to leave. One of the factors significantly related to both work satisfaction and promotion satisfaction was an individual's satisfaction with supervisor communication. Individuals who were satisfied with various aspects of communication with their supervisors were more likely to be satisfied with their jobs and less likely to leave the organisations.

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Bullen and Flamholtz (1985) measured various dimensions of job satisfaction and the probability of staff at a Big 8 public accounting firm leaving the organisation. They found that supervision and evaluation had a significant positive relationship with overall job satisfaction and a significant negative relationship with peoples' intention to leave.

Patten (1995) adopted a different approach, developing a questionnaire based on the specific action items recommended by the AECC in its Issues Statement No. 4. Using a sample of entry-level accountants at 14 local, regional, and Big 5 public accounting firms in the US, he reported significant positive relationships between job satisfaction and:

- the provision of strong leadership and mentoring;
- working conditions that were conducive to success; and
- the provision of challenging and stimulating work assignments.

He also found that entry-level accountants working for local and regional accounting firms rather than Big 5 firms were more satisfied with their jobs and that there were significant differences between large and non-Big 5 accounting firms' views about specific action items affecting leadership and mentoring and the provision of working conditions conducive to success.

The present study was undertaken to examine these issues in the Australian context.

HYPOTHESES

Based on prior research (eg, Norris and Niebuhr, 1983; Bullen and Flamholtz, 1985; Gregson and Bline, 1989; Patten, 1995), a positive relationship between supervisory-related actions and job satisfaction for junior-level accountants in public accounting firms could be expected. The hypotheses investigated in this paper are:

H1a: There is a positive relationship between juniorlevel accountants' perceptions of the extent to which leadership and mentoring aspects of supervision are currently in place in their firm and their level of job satisfaction.

H1b: There is a positive relationship between juniorlevel accountants' perceptions of the extent to which there are appropriate working conditions currently in place in their firm and their level of job satisfaction.

H1c: There is a positive relationship between juniorlevel accountants' perceptions of the extent to which they are given appropriate work assignments and their level of job satisfaction.

The second aspect of this study focused on potential differences in supervisory activities and job satisfaction in different-sized accounting firms. Researchers have argued that non-Big 5 public accounting firms provide a different working environment than larger accounting firms (eg, Carpenter and Strawser, 1971; Sterner *et al*, 1984; Kochanek and Norgaard, 1985a, 1985b).

Although there is little empirical work supporting the proposition that large public accounting firms are different in supervisory style, there is considerable anecdotal evidence which suggests that non-Big 5 public accounting firms may provide a supervisory environment that more closely corresponds to the AECC's recommendations. For example, Ardoin (1986) suggested that an entry-level accountant joining a non-Big 5 public accounting firm can expect greater diversity in job assignments and a better opportunity to work one-on-one with partners, whereas entry-level accountants with a Big 5 firm cannot expect such opportunities until much later in their careers. In addition, Gaertner and Ruhe (1981) found that large public accounting firms have a more stressful work environment than do non-Big 5 public accounting firms, which can lead to greater job dissatisfaction (Collins and Killough, 1992).

Anecdotal evidence obtained from discussions with partners of non-Big 5 public accounting firms indicates that these firms attempt to differentiate themselves from the Big 5 by emphasising different supervision style, task diversity, responsibility levels, client contact, regular interaction with partners, a personal work environment, promotion opportunities and job satisfaction as a means of attracting graduates to their organisations (Crowe Chizek, 1992). Many of these items are associated with the supervisory environment recommended by the AECC and may lead to higher levels of job satisfaction for junior-level accountants in non-Big 5 accounting firms if these opportunities are not available in Big 5 firms.

Two other hypotheses were examined in this study:

H2: Junior-level accountants at non-Big 5 public accounting firms will more strongly agree that the supervisory activities recommended by the AECC are already in place than will junior-level accountants at Big 5 public accounting firms.

H3: Junior-level accountants at non-Big 5 public accounting firms will report higher levels of overall job satisfaction than will junior-level accountants at Big 5 public accounting firms.

RESEARCH METHOD

Following Patten (1995), data on the three supervisory areas of interest (leadership and mentoring, working conditions and the stimulation of assignments) were obtained using a questionnaire (see Appendix B). While the questions were based on Patten's study, some changes were made to ensure that each item measured a single aspect and to reflect the Australian nature of the sample.4 As a result, the number of items in the "leadership" instrument increased from nine to twelve and the number of items in the "assignment" instrument increased from six to eight. Further, to ensure that the items were consistent with other questions asked in the survey, the number of points in the scale was increased from five to seven.5 Respondents were asked to indicate their degree of agreement or disagreement with each of the items.

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We also included a uni-dimensional measure of job satisfaction, which was measured on a seven-point scale ranging from very dissatisfied (1) to very satisfied (7).6 Some demographic data were also collected.

As noted earlier, the present study was an attempt to investigate some aspects of the work experiences of junior-level accountants. Accounting staff working in a public accounting firm who were undertaking their Professional Year Program with the Institute of Chartered Accountants in Australia were identified as an appropriate group for this purpose. Such a group should provide a sample of junior-level accountants with one to three years of experience. The data used in the present study were obtained from participants in a national training course designed to assist them in preparing for their Professional Year examinations. The training course included individuals working for a variety of Big 5 and non-Big 5 public accounting firms and several non-accounting firms. Since the focus of this study was on job satisfaction in public accounting firms, respondents working in non-accounting organisations were excluded from the analysis.7 A total of 350 people working for public accounting firms in 1995 completed the questionnaire. Table 1 provides some background information on the respondents.

RESULTS

Composite scores for each of the three independent variables were obtained by averaging the scores for the twelve, seven, and eight items in the research instrument used to measure the three variables. The summary results obtained for these variables, together with the job satisfaction item, are shown in Table 2.

As can be seen from Table 2, the three subscales were reliable with alpha coefficients (Cronbach, 1951) above 0.70, suggesting that the scales are unidimensional and that they can be used with confidence in subsequent analysis. Respondents were reasonably satisfied with their job, rating it 4.5 on the seven-point satisfaction scale used. They were also reasonably positive about the leadership provided and the types of assignments provided to them. However, they were less positive about their working conditions, rating them just below the midpoint of the seven-point scale used.

Initially, a regression analysis was used to examine the relationship between the three potential explanatory variables and respondents' overall job satisfaction. The estimated regression had an adjusted R² statistic of 0.39. The *t*-statistics, shown in Table 3, suggested that all three variables contributed to job satisfaction. The table shows that each of the three variables had a significant, positive relationship with overall job satisfaction. Hypotheses H1a, H1b, and H1c are all supported by these results.

The standardised coefficients obtained suggest that the three variables are about equally important in explaining job satisfaction. Consequently, employers need to take all three aspects into account when designing work experiences for junior-level staff.

Interestingly, when a dummy variable was added to take account of respondent's firm size (Big 5 or non-

	Big 5	Non-Big 5	Total
Number of respondents	251	99	350
Gender of respondents			
Female	112	34	146
Male	139	65	204
Highest degree earned			
Bachelor	211	91	302
Honours	11	2	13
Graduate Diploma in Accounting	27	5	32
Masters	2	1	3
Area of practice			
Audit	145	13	158
Tax	32	48	80
MAS/consulting/corporate services	56	30	86
Insolvency	18	8	26
Average number of years with firm	2.17	2.20	2.18

TABLE 2: SUMMARY STATISTICS — SUBSCALES					
Number of questions	Mean score	Alpha reliability			
12	4.37	.90			
7	3.95	.72			
8	4.47	.87			
1	4.51	n.a.			
	12 7	12 4.37 7 3.95 8 4.47			

Variable	Regression coefficient	Standardised coefficient	t-statistic
Leadership and mentoring	0.43	0.09	4.91 *
Working conditions	0.28	0.09	3.29 *
Assignments	0.33	0.08	4.43 *
Constant	0.02	- 0.07	
Adjusted R square	0.39 *		
* Significant at p < .01.			

TABLE 4: DIFFERENCES BETWEEN BIG 5 AND NON-BIG 5 FIRMS						
Scale	Big 5 Mean	Non-Big 5 Mean	Statistic	Significant		
Leadership and mentoring	4.37	4.31	0.50	0.62		
Working conditions	3.85	4.11	2.54	0.01		
Assignments	4.52	4.34	1.54	0.13		
Job satisfaction	4.52	4.53	0.05	0.96		

Big 5), it was not found to be significant, suggesting firm size had no impact on employees' overall job satisfaction. Potential differences between the Big 5 firms and non-Big 5 accounting practices were of particular interest to the present study and further analyses were undertaken to determine if there were differences. Initially, a series of *t*-statistics were computed and the results obtained are shown in Table 4.

With the exception of working conditions, respondents from the Big 5 firms had generally more positive views about supervisory actions. However, the only significant difference was for working conditions; junior-level accountants at non-Big 5 firms were significantly more positive about their working conditions, a result identical to that found by Patten. Results relating to hypothesis H2 appear to be mixed.

There was no significant difference between the level of overall job satisfaction for junior-level accountants working at non-Big 5 public accounting firms and their Big 5 counterparts. Thus, hypothesis H3 was not supported. This conflicts with Patten's results, as he reported that entry-level accountants at non-Big 5 public accounting firms had higher levels of job satisfaction than did their Big 5 counterparts.

It would seem that firm size does have an impact, but that differences between organisations may be more significant than differences between types of organisations. While the previous analysis shows the relationship between each of the variables by turn, a multivariate analysis is required to examine the overall differences. In order to perform a discriminant analysis, the sample was divided into those who worked in non-Big 5 and Big 5 firms. An *F*-statistic can be estimated to determine if the groups differ over the entire set of variables (Johnson 1977). In this case, the *F*-statistics suggested that the Big 5 firms differed from the other two but that the non-Big 5 firms could not be differentiated.

However, using the *I*-squared statistic suggested by Peterson and Mahajan (1976), it was found that only

5% of the variance between the groups could be explained by the various subscales. Clearly, the earlier comment that differences between firms within each of the categories are more important than are differences between the three categories holds true within the multivariate analysis as well. The discriminant analysis results also revealed that it was only working conditions that differentiated the three groups, which was not surprising given the earlier *t*-statistics.

Examining the results in more detail provides some insight into the managerial implications of this research. For example, a great deal of reliance is placed on supervisory actions, implying that organisations must provide for the identification, development and reward of effective managers.

Another issue which is evident from this research is the importance of supervisors' direct contact with subordinates. The feedback, minimisation of job-related stress, supervision of work to completion, inquiring about subordinate concerns and plans, acknowledgment of subordinate job dissatisfaction, and acknowledgment of good performance items included all rely on close, direct managerial observation and supervision of subordinates.

This suggests some responsibilities on the part of the organisation. The organisation must have a structure which supports narrow spans of control in order for supervisors to maintain close contact with employees. There must be, at an organisational level, an openness that allows information about the "big picture" to be provided to supervisors and for the disclosure of this information to subordinates. Finally, the organisation's culture must support the development of managerial competency.

CONCLUSIONS

This study examined the relationship between the supervisory actions recommended by the AECC in its Issues Statement No. 4 and the level of overall job satisfaction experienced by junior-level accountants in

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public accounting firms. In addition, the study investigated whether there were significant differences in these action dimensions between Big 5 and non-Big 5 firms. A moderate level of job satisfaction was found within the sample of accountants working in public accounting firms (mean of 4.5 on a seven-point scale). There was, however, no significant difference between the level of overall job satisfaction for junior-level accountants working at non-Big 5 accounting firms and those working in their Big 5 counterparts.

The three major elements of supervisory action (leadership and mentoring, working conditions, and assignments) were found to be significantly associated with respondents' levels of overall job satisfaction. Respondents were reasonably positive about the leadership provided and the types of assignments provided to them. However, they were less positive about their working conditions, rating them just below the midpoint of the seven-point scale used. Interestingly, the working conditions factor was the only supervisory action variable that was significantly higher for non-Big 5 staff than for Big 5 firms. Junior-level accountants at non-Big 5 firms were more positive about the working conditions currently in place in their firms. It appears that the Big 5 firms should address these working conditions for junior-level accountants if they wish to improve their early employment experiences.

Improving such conditions should improve the level of overall job satisfaction of junior-level staff working at public accounting firms, and this, in turn, should reduce job turnover rates for that group of employees. In addition, such improvement are likely to result in more productive employees because, as noted by the AECC (1993, p. 432), "satisfied personnel are more productive, and disgruntled personnel undermine the teamwork needed to perform today's accounting".

APPENDIX A: AECC RECOMMENDATIONS FOR SUPERVISORS OF EARLY WORK EXPERIENCE

Supervisors should provide strong leadership and mentoring.

Give frequent, honest, open and interactive feedback to recent hires under your supervision.

Listen to new or recent hires for indirect messages about their employment experience; when dissatisfaction is expressed, inquire directly about its nature and causes.

Work to improve counselling and mentoring — for example, by always acknowledging good performance, by treating employees under your supervision as individuals with careers (not just short-term tasks), by helping employees to understand future opportunities and by inquiring about their concerns and plans.

Be a role model of a professional, conveying pride in your work and its importance to clients/customers and society.

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Supervisors should build working conditions that are conducive to success.

Inculcate a do-it-right-the-first-time mentality and create conditions to help make it possible. For example, explain assignments thoroughly, allocate sufficient time to do high-quality work, be open about any necessary constraints (including budgetary constraints), explain how assignments fit in with the "big picture", and supervise work to completion. Analyse your own experience as a new hire and treat new or recent hires as you would have liked to be treated.

Maintain a "level playing field" for your subordinates, fairly distributing the opportunities and the burdens.

Minimise job-related stress (realising that recent hires are especially subject to stress and that you may be the source of it).

Supervisors should provide challenging and stimulating work assignments.

Delegate responsibility to recent recruits as soon as they are ready to assume it.

Maximise your subordinate's opportunities to use verbal skills (both oral and written), critical thinking and analytic techniques and help subordinates improve those skills.

APPENDIX B: ITEMS USED TO DETERMINE SUBSCALES

Leadership and mentoring

My supervisors have given me open feedback on my performance.

My supervisors have given me frequent feedback on my performance.

My supervisors have given me honest feedback on my performance.

My supervisors have given me interactive feedback on my performance.

My supervisors have listened to me for indirect messages about my employment experience.

When I have expressed dissatisfaction, my supervisors have attempted to determine its nature and causes.

My supervisors always acknowledge good performance.

My supervisors treat me as an individual with a career.

My supervisors help me to understand my future opportunities.

My supervisors inquire about my concerns and plans. My supervisors have been role models as to what a professional should be.

My supervisors convey pride in their work and its importance to clients/customers and society.

Working conditions

My supervisors explain assignments thoroughly.

My supervisors allocate sufficient time to do high quality work.

My supervisors are open about any necessary constraints (including budgetary constraints).

My supervisors explain how assignments fit in with the "big picture".

My supervisors supervise my work to completion.

My supervisors distribute opportunities and the burdens fairly across all of their subordinates.

My supervisors attempt to minimise job-related stress.

Assignments

My supervisors have delegated responsibility to me as soon as I was ready to assume it.

My supervisors have maximised my opportunities to use oral communication skills.

My supervisors have maximised my opportunities to use written communication skills.

My supervisors have maximised my opportunities to use critical thinking skills.

My supervisors have maximised my opportunities to use analytic techniques.

My supervisors have helped me to improve my communication skills.

My supervisors have helped me to improve my critical thinking skills.

My supervisors have helped me to improve my analytic skills.

Job satisfaction

How satisfied are you with your job overall?

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NOTES

- 1 For example, Dean *et al* (1988) reported that industrial firm accountants had significantly higher pre-entry expectations of being satisfied in their work than individuals entering a career in public accounting. Significant differences still existed after one year of employment.
- Patten (1995) used a five-point scale and reported a mean level of satisfaction of 3.8. Adjusting our results for the differences in scaling would result in a mean level of 3.2, which is considerably below the average level of satisfaction reported by Patten. One possible explanation for this is that in the US, accountants are able to sit for their professional exams before they have any experience with a public accounting firm. This is different from the ICAA requirement that candidates must have at least one year of work experience before commencing their Professional Year Program (with the exception of Honours graduates). In Patten's study, 75% of respondents had already completed their professional exams, whereas in our study, all of the respondents were undertaking their professional exams. The added pressure of working full-time and studying for their professional exams at the same time may have contributed to this result.

- 3 The most frequently cited items, in order, were overtime, unrealistic deadlines/budgets, stress/pressure, firm politics, uncertainty of job assignments, menial job assignments, travel, total lack of personal life and inadequate training and supervision. The items liked most about public accounting were diversity of job assignments, opportunity to develop skills, technical challenge, pleasant colleagues, opportunity for responsibility, intelligent professional colleagues and professional atmosphere at work.
- Some of Patten's original items contained multiple concepts and we separated the concepts into individual items. For example, one of Patten's original items was: "My supervisors have given me frequent, honest, open, and interactive feedback on my performance." We converted this item to four items, one relating to frequent feedback, one relating to honest feedback, one relating to open feedback, and one relating to interactive feedback. The reason for this modification is that, for example, a supervisor may provide frequent feedback that is not interactive or frequent feedback that is interactive. By isolating the various dimensions of feedback, we obtain a cleaner measure of the various aspects of feedback provided by supervisors.
- 5 The results reported in this paper are part of a much larger project which examines factors such as stress, organisational commitment, quality of life, firm performance, firm size and uncertainty on job satisfaction, performance and turnover in public accounting firms. The other factors are reported in other papers by the authors.
- 6 A uni-dimensional measure of job satisfaction has been found to be highly correlated with more complex measures (eg, see Smith *et al* 1969 or Bullen and Flamholtz 1985).
- 7 This resulted in 24 respondents being excluded from the analysis reported in the paper. If these 24 respondents are included in the data analysis, the results concerning the relationship between supervisory actions and job satisfaction are not different from those reported later in this paper.

REFERENCES

AECC. 1993, "Improving the Early Employment Experience of Accountants: Issues Statement No. 4", *Issues in Accounting Education*, Fall, 431–5.

Albrecht, W.S., S.W. Brown, and D.R. Field, 1981, "Toward Increased Job Satisfaction of Practicing CPAs", *Journal of Accountancy*, August, 61–6.

Ardoin, K., 1986, "The Joys of Small Firm Accounting", *New Accountant*, March, 7–12, 51.

Benke, R.L., and J.G. Rhode, 1984, "Intent to Turnover Among Higher Level Employees in Large CPA Firms", *Advances in Accounting*, 1, 157–74.

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AUSTRALIAN ACCOUNTING REVIEW

Bullen, M.L., and E.G. Flamholtz, 1985, "A Theoretical and Empirical Investigation of Job Satisfaction and Intended Turnover in the Large CPA Firm", *Accounting, Organizations and Society*, 10, 3, 287–302.

Carcello, J.V., J.E. Copeland Jr, R.H. Hermanson and D.H. Turner, 1991, "A Public Accounting Career: The Gap Between Student Expectations and Accounting Staff Experiences", *Accounting Horizons*, 5, 3, September, 1–11.

Carpenter, C.G., and R.H. Strawser, 1971, "Job Selection Preferences of Accounting Students", *Journal of Accountancy*, June, 84-6.

Collins, K.M., and L.N. Killough, 1992, "An Empirical Examination of Stress in Public Accounting", *Accounting, Organizations and Society*, 17, 6, September, 535–47.

Cronbach, L.J., 1951, "Coefficient Alpha and the Internal Structure of Tests", *Psychometrika*, 16, 297–334.

Crowe Chizek, 1992, Regional Accounting Firms as an Alternative to the Big Six (Crowe Chizek, Oakbrook, III)

Dean, R.A, K.R. Ferris and C. Konstans, 1988, "Occupational Reality Shock and Organisational Commitment: Evidence from the Accounting Profession", Accounting Organisations and Society, 13, 3, 235–50.

Gaertner, J.F., and J.A. Ruhe, 1981, "Job Related Stress in Public Accounting", *Journal of Accountancy*, June, 68–74.

Gregson, T., and D. Bline, 1989, "The Relationship of Communication Satisfaction to Turnover Intentions and Job Satisfaction for Certified Public Accountants", *Advances in Accounting*, 7, 203–22.

Hair, J.F., R.E. Anderson, R.L. Tatham and W.C. Black, 1992, *Multivariate Data Analysis* (MacMillan Publishing Co., New York).

Johnson, R.M., 1977, "Multiple Discriminant Analysis: Marketing Research Applications", in J.N. Sheth, ed, *Multivariate Methods for Market and Survey Research* (American Marketing Association, Chicago), 65–79.

Klecka, W.R., 1980, "Discriminant Analysis", Sage University paper series on Quantitative Applications in the Social Sciences (Sage Publications, Beverley Hills).

Kochanek, R.F., and C.T. Norgaard, 1985a, "Student Perceptions of Alternative Accounting Careers — Part I", *The CPA Journal*, May, 36–43.

Kochanek, R.F., and C.T. Norgaard, 1985b, "Student Perceptions of Alternative Accounting Careers — Part II", *The CPA Journal*, June, 26–32.

Norris, D.R., and R.E. Niebuhr, 1983, "Professionalism, Organizational Commitment and Job Satisfaction in an Accounting Organization", *Accounting, Organizations and Society*, 9, 1, December, 49–59.

Patten, D.M., 1995, "Supervisory Actions and Job Satisfaction: An Analysis of Differences Between Large and Small Public Accounting Firms", *Accounting Horizons*, 9, 2, June, 17–28.

Peterson, R.A., and V. Mahajan, 1976, "Practical Significance and Partitioning Variance in Discriminant Analysis", *Decision Sciences*, 7, 649–58.

Smith, P.C., L.M. Kendall, and C.L. Hulin, 1969, *The Measurement of Satisfaction in Work and Retirement* (Rand McNally, Chicago).

Sterner, J.A, P.J. Yunker and M. Costigan, 1984, "How Accounting Students View Potential Employment Conditions", *The National Public Accountant*, March, 36–8.