
JOB SATISFACTION OF SOUTH AFRICAN QUANTITY SURVEYORS: IS SALARY A SIGNIFICANT FACTOR?

P Bowen, K Cattell and K Michell (Department of Construction Economics
and Management, University of Cape Town)

G Distiller (Department of Statistical Sciences, University of Cape Town)

A web-based national questionnaire survey of the opinions of South African quantity surveyors was undertaken to establish differences in job satisfaction on the basis of remuneration. Respondents were grouped into two salary categories, namely, those earning more than R300k per annum, and those earning R300k or less. Issues explored included demographic factors; factors influencing job satisfaction; choice of career; salary, gender and race in the workplace; and salary and harassment and discrimination at work. The relationship between remuneration and job satisfaction was found *not* to be significant ($p=0.32$), with salary being given a low rank as a motivating factor. *Very few* significant differences exist between the two respondent groupings, except with regard to: the perceived importance of remuneration as a motivating factor; opportunities to do challenging and creative work and to participate in creative teams; and the flexibility of employers concerning adherence to statutory minima with respect to maternity and paternity entitlements. Instances of *harassment* and *discrimination* (especially racial and gender) at work are not uncommon, although differences between the groups are not significant.

Key phrases: Job satisfaction, salary, influencing factors, harassment, discrimination, quantity surveyors, South Africa

INTRODUCTION

Employee satisfaction has become a major organizational objective in recent years, with job satisfaction perceived to be a pre-condition for competitive levels of quality and organizational success (Garcia-Bernal *et al* 2005). Attempts at defining 'satisfaction' recognise that satisfaction is the '*final state of a psychological process*' (Garcia-Bernal *et al* 2005). There is no universal definition of 'job satisfaction', but it can be thought of as a multi-dimensional concept that includes a set of favourable or unfavourable feelings in terms of which employees perceive their jobs (Davis & Newstrom 1999).

The importance of job satisfaction and motivation to the wellbeing of the construction industry has been highlighted (Loosemore *et al* 2003). Despite the wealth of research in job satisfaction and motivation generally, little research has been undertaken concerning its application to the construction industry (Asad & Dainty 2005). This is particularly true in respect of design team professionals. No study to date has focused solely on the job satisfaction of *quantity surveyors* in general, or on the

relationship, if any, between remuneration and quantity surveyor job satisfaction. The purpose of this paper is to report on a comparison of the opinions, on the basis of salary, of quantity surveyors in South Africa regarding job satisfaction. A web-based national questionnaire survey was utilised.

RESEARCH INTO JOB SATISFACTION

Studies into job satisfaction have centred on differences around diverse variables which can be grouped into two main categories: the personal characteristics of employees; and the characteristics of the job itself (see Reiner & Zhao 1999). Research into the first group has typically dealt with issues such as: gender (Oshagbemi 2000); age and gender (Moyes *et al* 2006); rank (Holden & Black 1996); length of service (Oshagbemi 2003); marital status, number of children, and education level (Koustelios 2001); education level (Clark 1997); ethnicity (Sloane & Williams 2000); health (Clark 1997); and psychological well-being (Wright *et al* 2007). Not all findings are conclusive, with contradictory findings being reported (Koustelios 2001).

Research into job satisfaction and the second group of characteristics includes studies on: leadership style (Rad & Yarmohammadian 2006); work characteristics and characteristics of the work environment (Irvine & Evans 1995); job security (Yousef 1998); disability and workplace characteristics (Uppal 2005); adverse working conditions (Bockerman & Ilmakunnas 2006); size of business (Davis 2004); and socio- and racio-ethnic differences in perceptions (Friday *et al* 2004; Friday & Friday 2003).

Motivation theories can be broadly classified into *process* and *content* theories (Gilbert & Walker 2001). The former focus on *how* motivation occurs (e.g. expectancy theory, goal setting theory, etc.), whilst the latter focus on *what* motivates (e.g. Maslow's (1954, 1943) Hierarchy of Needs and Herzberg's (1966) Two Factor Theory (Motivation Hygiene Theory), etc.). A comprehensive overview of these theories is provided by Vecchio (1995). Maslow's theory is considered one of the more influential content theories (Asad & Dainty 2005) and has been applied to much research in construction industry motivation (see Asad & Dainty 2005; Olomolaiye & Ogunlana 1988). It is considered an ideal typology for understanding motivational factors in the construction industry (Asad & Dainty 2005).

JOB SATISFACTION AND MOTIVATION IN THE CONSTRUCTION INDUSTRY

'Job satisfaction' research in the industry has largely dealt with '*motivation*', with a focus on construction *worker* motivation (see Ogunlana & Chang 1998). There is a paucity of material dealing with the motivation of *professional* staff (Asad & Dainty 2005), notable exceptions being the work of Asad and Dainty (2005), Gilbert and Walker (2001), Smithers and Walker (2000), Hammuda and Dulaimi (1997), and Chan (1993). Asad and Dainty (2005) compared the motivation of three occupational groups in organizations of differing sizes. They found that professional staff are motivated largely by intrinsic factors, contrasting markedly with the unskilled workers. Gilbert and Walker (2001) examined the relationship between motivation and gender, particularly whether or not professional men and women are motivated or demotivated by the same variables. They found no significant differences in overall motivation, but highlighted differences with regard to the perceived attractiveness of certain workplace and job characteristics. Smithers and Walker (2000) investigated the effect of workplace environment on the motivation and demotivation of construction professionals. Variables found to be significant factors included long work hours, non-recognition for work done, and colleagues' aggressive management styles. Hammuda and Dulaimi (1997) found that the process of empowering is a powerful motivator for project managers. Chan (1993) examined the motivation of Australian project managers. He found that, with increased salary, project managers desired a corresponding increase in achievement, power and control.

No evidence could be found in the literature of research into the relationship between salary and job satisfaction of design professionals in general, and quantity surveyors in particular.

THE QUANTITY SURVEYING PROFESSION IN SOUTH AFRICA

In South Africa the quantity surveying profession is governed by the Quantity Surveying Profession Act (No. 49 of 2000) (RSA 2000) and Regulations promulgated in terms of the Act. Only persons registered with the South African Council for the Quantity Surveying Profession (SACQSP), a statutory body, are permitted to call themselves 'quantity surveyors' (Pr. QS) and perform work reserved for quantity surveyors. The requirements for registration generally consist of the holding of a 4-year degree in quantity surveying, 3-year's practical experience under the mentorship of a Pr.QS, and successfully passing an Assessment of Professional Competence (APC). As at June 2007, 1756 quantity surveyors were registered with the SACQSP.

QUESTIONNAIRE DESIGN

The final questionnaire consisted of four sections. Section A focused on demographic issues such as age, gender, ethnicity, qualification, income, and employment characteristics. The purpose of these questions was to provide a contextual background against which to analyse the responses.

Section B contained questions relating to the *presence* and *importance* of motivating factors in promoting feelings of job satisfaction. Factors explored included the salary level, overtime versus access to leisure time, job security, recognition and promotion prospects, feelings of personal satisfaction regarding work completed, feedback in terms of performance, task variety, use of initiative, team participation and social interaction at work. Section C explored respondents' opinions regarding their career choice. This section covered factors influencing the choice of quantity surveying as a career, whether or not respondents considered themselves to be well informed regarding career prospects, fulfillment of career expectations, sources of job dissatisfaction, whether they would choose the same career again (or recommend it to others), the ranking of factors considered important when deciding on a career, and an overall assessment (all things considered) of their current level of job satisfaction.

Section D covered issues relating to discrimination at work. Issues explored included perceived discrimination on the basis of gender or race with respect to salary; the importance of remuneration equity; views on flexible working hours and maternity / paternity leave above statutory minima; the gender profile of their organization and how that affects their perceptions of promotion prospects and team participation; opinions regarding promotion on the basis of one's 'PDI (*previously (historically) disadvantaged individual*) status' (race and gender) rather than ability; the importance of race and gender representivity within the organisation; and whether or not respondents had personally experienced harassment or discrimination at work.

The range of motivational factors and issues included within the survey instrument were drawn from the literature (see Uppal 2005; Asad & Dainty 2005; Gilbert & Walker 2001; Smithers & Walker 2000; Olomolaiye 1988).

METHODOLOGY AND DATA COLLECTION

The data were collected via a web-based, online questionnaire survey. This instrument was adopted as it would facilitate the comparatively easy (and inexpensive) national coverage of every registered quantity surveyor. A pilot web-

based study was conducted with the co-operation of a branch office of a national firm. The pilot study demonstrated that all questions were easily understood, data were collected successfully onto the system, and so no changes were made. The full survey was launched in May 2007. The SACQSP emailed all registered quantity surveyors for whom email addresses were on record ($N = 1448$), requested their participation in the survey, and provided a link to a URL where the questionnaire could be completed. The final response rate of 10.08% ($n = 146$) is considered adequate for a survey of this nature (Oppenheim 1992).

Generally, the questions in Sections B and D consisted of a sequence asking respondents to rate each motivating factor in terms of its '*presence*' and '*importance*'. Unless otherwise noted, rating was carried out using 6-point Likert scales (see Nunnally & Bernstein 1994). For example, respondents were asked about the *presence* of job security in their employment, followed by a question asking how *important* that particular factor is in influencing their feelings of satisfaction or dissatisfaction with their occupation. A score representing the 'subjective emotion' for each factor was obtained by determining the product of the ratings for the *presence* and *importance*. This methodology follows that of Gilbert and Walker (2001), Smithers and Walker (2000), and Olomolaiye (1988), who successfully adopted the Michigan organisational assessment rating technique.

Nonparametric versions of the *t*-test (Mann-Whitney test) were used to test for group differences because of the fact that most response variables were ordinal and skewed. For these ordinal variables, Fisher's exact test would have greatly reduced the power to detect associations. Fisher's exact test was used to test for associations between pairs of categorical variables.

The data were analysed using SPSS for Windows. For the purposes of analysing salary and job satisfaction, differences were assessed by grouping respondents' remuneration into two categories, namely: those earning R300k or less per annum, and those earning more than R300k (Note: as at 1st October 2007, R14.00 = 1 Pound Sterling). These particular categories were selected as a majority of all respondents fell into the 'more than R300k per annum' grouping. Unless otherwise stated, percentages given below relate to the responses to individual questions.

ANALYSIS OF THE DATA

Sample profile

An salary-based examination of the respondents reveals that, in keeping with the profile of quantity surveyors registered with the SACQSP, the majority of respondents are male (\leq R300k: 76%; $>$ R300k: 86%), South African citizens (\leq R300k: 88%; $>$ R300k: 96%), 'White' (\leq R300k: 73%; $>$ R300k: 88%), and under the age of 45 years (\leq R300k: 68%; $>$ R300k: 54%). Most report being employed in the private sector (\leq R300k: 76%; $>$ R300k: 81%), in professional quantity surveying practices (\leq R300k: 84%; $>$ R300k: 83%), and holding a four-year full-time degree or equivalent (\leq R300k: 81%; $>$ R300k: 84%). Insofar as the personal circumstances of respondents is concerned, 84% (\leq R300k: 73%; $>$ R300k: 87%) report being married or in a relationship, and 75% are parents (\leq R300k: 66%; $>$ R300k: 77%). Differences between the two groups with respect to these factors are not significant.

Insofar as remuneration is concerned, although 75% of those less than 45 years old and 78% of those 45 years or older, respectively, receive an annual salary of R300 000 or more, a greater proportion (3x) of women (9%) than men (3%) receive a salary of less than R180 000 per annum. With regard to experience, the salary profile of the respondents is reflected in the number of year's experience they have had. More specifically, 36% of those earning R300k or less per annum report less than 10 years experience in the industry compared to 12% of their higher earning counterparts. Interestingly, whilst almost two thirds of the men claim to have had more than 15 years experience, only 39% of women report this. The comparative difference in the experience of the two age groupings does not appear to be associated with salary differences between the two groups.

Insofar as 'seniority' within the profession is concerned there appears little difference between the two salary groups, with 53% of the lower income group and 58% of the higher income group, respectively, reporting being either sole proprietors, directors or partners. With regard to the length of time respondents have been with their present organisation, 52% of those earning R300k or less report a service length of exceeding 5 years whilst 56% of their higher paid counterparts report this. Differences between the two salary groups are not significant.

Factors influencing feelings of job satisfaction

As described above, 6-point Likert scales were used to explore the *presence* and *importance* of motivating factors in promoting feelings of job satisfaction. The relative *importance* to the younger and older quantity surveyors of the factors tested is shown

in Tables 1(a). The scores for each factor were calculated on the basis of the mean responses. The ranked factors of importance were then clustered on the basis of correspondence with Maslow's need-based hierarchy (see Asad & Dainty 2005) and are shown in Table 1(b). Statistics relevant to the overall sample are provided for comparison purposes.

The relative importance (ranking) of each Maslow factor was then determined from the mean Likert scores. Composite variables (with scores for each participant), derived from the original questions, were created for each Maslow group that was associated with more than one question. The means of the factor groupings, along with their standard errors, differences, and associated *p*-values are displayed in Tables 1(a) and 1(b). This approach meant that a person with a missing value for any of the questions was effectively excluded.

Table 1(a): Classification and importance of individual motivating factors by salary according to Maslow's Hierarchy of Needs

Motivating factors grouped according to Maslow's Hierarchy of Needs	Importance of individual factors: mean scores (+/- std error)							
	Overall	Rank	Salary: ≤ R300k	Rank	Salary: > R300k	Rank	Difference	<i>P</i> -value
1. Physiological needs a Money	2.09 (+/- 0.08)	9	2.41 (+/- 0.16)	10	1.99 (+/- 0.09)	8	0.42 (+/- 0.18)	<i>p</i>=0.02
2. Safety needs a Job security	2.04 (+/- 0.10)	8	2.15 (+/- 0.25)	8	2.00 (+/- 0.11)	9	0.15 (+/- 0.27)	<i>p</i> =0.88
3. Belonging needs a Job promotion prospects	2.10 (+/- 0.12)	10	2.39 (+/- 0.29)	9	2.01 (+/- 0.13)	10	0.38 (+/- 0.31)	<i>p</i> =0.26
b Feedback on past performance	1.85 (+/- 0.08)	6	1.91 (+/- 0.15)	6	1.83 (+/- 0.09)	6	0.07 (+/- 0.18)	<i>p</i> =0.62
c Participation in a team	1.57 (+/- 0.05)	3	1.72 (+/- 0.13)	3	1.53 (+/- 0.06)	3	0.19 (+/- 0.14)	<i>p</i> =0.23
d Social interaction	2.62 (+/- 0.11)	11	2.58 (+/- 0.24)	11	2.63 (+/- 0.12)	11	0.05 (+/- 0.27)	<i>p</i> =0.75
4. Need for esteem (a) Recognition of achievements	1.81 (+/- 0.09)	5	1.84 (+/- 0.18)	5	1.81 (+/- 0.10)	5	0.04 (+/- 0.20)	<i>p</i> =0.78
5. Need for self-actualisation a Self-satisfaction from the work done	1.42 (+/- 0.05)	1	1.42 (+/- 0.11)	1	1.42 (+/- 0.06)	1	0.01 (+/- 0.12)	<i>p</i> =0.99
b Challenging and creative work	1.74 (+/- 0.07)	4	1.78 (+/- 0.14)	4	1.73 (+/- 0.08)	4	0.05 (+/- 0.16)	<i>p</i> =0.66
c Varied and non-repetitive work	1.94 (+/- 0.07)	7	1.97 (+/- 0.20)	7	1.93 (+/- 0.07)	7	0.04 (+/- 0.21)	<i>p</i> =0.53
d Low degree of supervision (autonomy)	1.50 (+/- 0.05)	2	1.48 (+/- 0.12)	2	1.51 (+/- 0.06)	2	0.03 (+/- 0.13)	<i>p</i> =0.66

Scale values: 1 = Very important; 6 = Unimportant; *P*-values from the Mann-Whitney test

Table 1(b): *Importance of motivating factor groupings by salary according to Maslow's Hierarchy of Needs*

Motivating factors grouped according to Maslow's Hierarchy of Needs	Importance of factor groupings: mean scores (+/- std error)						Difference	P-value
	Overall	Rank	Salary: ≤ R300k	Rank	Salary: >R300k	Rank		
1. Physiological needs								
a Money	2.09 (+/- 0.08)	5	2.41 (+/- 0.16)	5	1.99 (+/- 0.09)	3	0.42 (+/- 0.18)	p=0.02
2. Safety needs								
a Job security	2.04 (+/- 0.10)	3	2.15 (+/- 0.25)	3	2.00 (+/- 0.11)	4	0.15 (+/- 0.27)	p=0.88
3. Belonging needs								
a Job promotion prospects	2.06 (+/- 0.06)	4	2.18 (+/- 0.13)	4	2.02 (+/- 0.07)	5	0.16 (+/- 0.14)	p=0.38
b Feedback on past performance								
c Participation in a team								
d Social interaction								
4. Need for esteem								
a Recognition of achievements	1.81 (+/- 0.09)	2	1.84 (+/- 0.18)	2	1.81 (+/- 0.10)	2	0.04 (+/- 0.20)	p=0.78
5. Need for self-actualisation								
a Self-satisfaction from the work done	1.64 (+/- 0.05)	1	1.66 (+/- 0.12)	1	1.64 (+/- 0.05)	1	0.02 (+/- 0.13)	p=0.63
b Challenging and creative work								
c Varied and non-repetitive work								
d Low degree of supervision (autonomy)								

Scale values: 1 = Very important; 6 = Unimportant; P-values from the Mann-Whitney test

The *presence* of factors affecting the job satisfaction of younger and older quantity surveyors is depicted in Table 2(a). A similar procedure to that described above was used to determine a score for each factor, as well as the relative rank of *presence* for the factors (with mean values). The differences in the means of the two groups, together with their standards errors and associated *p*-values, are also shown. The product of the ratings for the *presence* and *importance* scores yielded a score representing the 'subjective emotion' for each factor; essentially a 'job satisfaction score' (see Table 2(b)). The various motivating factors were then ranked in terms of the derived job satisfaction scores. The product means, their differences, and associated *p*-values are also shown in Table 2(b). Again, statistics relating to the overall sample are provided.

Table 2(a): *Presence of individual motivating factors by salary*

Motivating factor	Presence of individual factors: mean scores (+/- std error)						Difference	P-value
	Overall	Rank	Salary: ≤ R300k	Rank	Salary: > R300k	Rank		
Salary (with presence adjusted)	3.32 (+/- 0.10)	8	4.01 (+/- 0.17)	10	3.12 (+/- 0.11)	8	0.89 (+/- 0.20)	p<0.01
Security of employment	2.82 (+/- 0.13)	6	2.91 (+/- 0.29)	6	2.79 (+/- 0.15)	6	0.12 (+/- 0.32)	p=0.82
Prospects for promotion	3.51 (+/- 0.16)	10	3.77 (+/- 0.31)	9	3.42 (+/- 0.18)	10	0.34 (+/- 0.36)	p=0.40
Feelings of personal satisfaction and accomplishment	2.10 (+/- 0.09)	2	2.15 (+/- 0.19)	2	2.09 (+/- 0.11)	3	0.07 (+/- 0.21)	p=0.71
Recognition for achievements above normal responsibilities	3.37 (+/- 0.13)	9	3.58 (+/- 0.30)	8	3.31 (+/- 0.15)	9	0.27 (+/- 0.33)	p=0.36
Opportunity to do challenging and creative work	2.81 (+/- 0.13)	5	3.41 (+/- 0.31)	7	2.63 (+/- 0.14)	4	0.78 (+/- 0.34)	p=0.03
Varied and non-repetitive work	2.67 (+/- 0.10)	4	2.67 (+/- 0.22)	4	2.67 (+/- 0.12)	5	0.00 (+/- 0.25)	p=0.96
Regular feedback on performance	3.74 (+/- 0.13)	11	4.03 (+/- 0.24)	11	3.64 (+/- 0.15)	11	0.39 (+/- 0.28)	p=0.20
Low degree of supervision and encouraged to show initiative	1.91 (+/- 0.10)	1	2.06 (+/- 0.20)	1	1.85 (+/- 0.11)	1	0.21 (+/- 0.23)	p=0.33
Participation in a working team	2.14 (+/- 0.10)	3	2.58 (+/- 0.20)	3	2.00 (+/- 0.11)	2	0.58 (+/- 0.22)	p<0.01
Opportunities for social interaction and the development of close friendships	2.86 (+/- 0.12)	7	2.82 (+/- 0.23)	5	2.87 (+/- 0.13)	7	0.05 (+/- 0.26)	p=0.83

Scale values: 1 = Very important; 6 = Unimportant; P-values from the Mann-Whitney test

Table 2(b): *Importance of factor product scores (subjective emotion of job satisfaction) by salary*

Motivating factor	Subjective emotion of job satisfaction: Product scores (Presence x Importance): mean scores (+/- std error)							
	Overall	Rank	Salary: ≤ R300k	Rank	Salary: > R300k	Rank	Difference	P-value
Salary (with presence adjusted)	7.01 (+/- 0.35)	9	9.74 (+/- 0.75)	11	6.24 (+/- 0.36)	8	3.50 (+/- 0.83)	<i>p</i> <0.01
Security of employment	5.73 (+/- 0.41)	6	5.64 (+/- 0.63)	5	5.76 (+/- 0.50)	6	0.13 (+/- 0.80)	<i>p</i> =0.47
Prospects for promotion	7.75 (+/- 0.64)	10	8.59 (+/- 1.24)	10	7.48 (+/- 0.75)	10	1.11 (+/- 1.45)	<i>p</i> =0.21
Feelings of personal satisfaction and accomplishment	3.11 (+/- 0.19)	2	3.09 (0+/- .36)	2	3.11 (+/- 0.22)	2	0.02 (+/- 0.42)	<i>p</i> =0.76
Recognition for achievements above normal responsibilities	6.01 (+/- 0.34)	7	6.19 (+/- 0.64)	7	5.95 (+/- 0.41)	7	0.24 (+/- 0.75)	<i>p</i> =0.51
Opportunity to do challenging and creative work	4.95 (+/- 0.30)	4	5.94 (+/- 0.66)	6	4.63 (+/- 0.33)	4	1.30 (+/- 0.74)	<i>p</i> =0.06
Varied and non-repetitive work	5.39 (+/- 0.30)	5	5.33 (+/- 0.65)	4	5.41 (+/- 0.33)	5	0.07 (+/- 0.73)	<i>p</i> =0.75
Regular feedback on performance	6.95 (+/- 0.35)	8	7.44 (+/- 0.68)	8	6.80 (+/- 0.41)	9	0.64 (+/- 0.79)	<i>p</i> =0.36
Low degree of supervision and encouraged to show initiative	3.02 (+/- 0.20)	1	3.06 (+/- 0.38)	1	3.00 (+/- 0.24)	1	0.06 (+/- 0.44)	<i>p</i> =0.75
Participation in a working team	3.50 (+/- 0.19)	3	4.48 (+/- 0.43)	3	3.20 (+/- 0.21)	3	1.28 (+/- 0.48)	<i>p</i> <0.01
Opportunities for social interaction and the development of close friendships	8.28 (+/- 0.57)	11	8.06 (+/- 1.13)	9	8.35 (+/- 0.65)	11	0.29 (+/- 1.31)	<i>p</i> =0.76

Scale values: 1 = Very important; 6 = Unimportant; *P*-values from Mann-Whitney test

Overall levels of job satisfaction

Quantity surveyors' overall levels of job satisfaction for the two age groups are shown in Table 3. A variety of response options were provided, ranging from 'I love it' to 'I hate it' on a 7-point Likert scale. The percentage response against each category is given.

Table 3: Overall feelings of job satisfaction by salary (n = 137)

Feeling of job satisfaction	Responses	
	Salary: ≤ R300k (n=32)	Salary: > R300k (n=105)
I love it	16%	11%
I like it very much	19%	33%
On the whole I like it	62%	41%
I am indifferent to it	0%	11%
I am not really keen on it	3%	3%
I dislike it a great deal	0%	0%
I hate it	0%	1% (n=1)

Scale values: 1 = I love it; 7 = I hate it: Mean value = 2.61; Fisher's exact test: *p*-value=0.095

Perceptions of the degree to which aspects of quantity surveying practice cause job dissatisfaction are given in Table 4.

Table 4: Aspects of the job giving rise to job dissatisfaction by salary (n = 132)

Aspects of job	Responses	
	Salary: ≤ R300k (n=31)	Salary: > R300k (n=101)
Interactions with other professionals	10%	14%
Measuring quantities of builders' work	23%	24%
Preparation of final accounts	10%	19%
The provision of cost estimates	6%	6%
Project administration	16%	17%
Other	35%	20%

Note: 1 = Interactions with other professionals; 5 = Project administration; Fisher's exact test: p -value=0.64

A function of professional life is the requirement to sometimes undertake overtime (paid or unpaid) to meet the work demands of the organization. Overtime is invariably done at the expense of leisure and family time. Quantity surveyors' opinions regarding overtime as a source of dissatisfaction and access to leisure time were explored using 'yes', 'no' and 'not applicable' questions (with the exception of overtime). The results are shown in Table 5.

Table 5: Overtime as a source of dissatisfaction by salary

Overtime versus leisure time	Salary: ≤ R300k			Salary: > R300k			P-value
	Yes	No	Not applicable	Yes	No	Not applicable	
Paid overtime is a source of job dissatisfaction to me (n=32; 104)	0%	25%	75%	2%	20%	78%	$p=0.78$
Unpaid overtime is a source of job dissatisfaction to me (n=32; 106)	31%	31%	38%	15%	31%	54%	$P=0.11$
Access to me leisure time is very important in influencing my feelings of job satisfaction (n=32; 105)	78%	22%	-	87%	13%	-	$p=0.13$

P-values from Fisher's exact test

Choice of career

Comparative data relating to factors influencing the choice of career by quantity surveyors are shown in Table 6.

Table 6: Factors influencing career choice by salary (n = 136)

Factor of influence	Responses	
	Salary: ≤ R300k (n=32)	Salary: > R300k (n=104)
Status of the profession	3%	1%
Family / tradition	3%	15%
Salary	22%	31%
Security	16%	10%
None (drifted into career)	41%	27%
Other	15%	16%

Fisher's exact test: p -value=0.18

Table 7 indicates the two groups of quantity surveyors' opinions (with the benefit of hindsight) regarding issues relating to their choice of career. Aspects covered are: were they well informed about a career in quantity surveying; has their career to-date fulfilled their expectations; would they choose the same career again; would they consider moving to another type of career in the built environment; and would they recommend a career in quantity surveying to others?

Table 7: Respondents' feelings regarding their choice of career by salary

Opinions regarding choice of career	Salary: ≤ R300k				Salary: > R300k				P-value
	Definitely 'yes'	Probably 'yes'	Probably "no"	Definitely 'no'	Definitely 'yes'	Probably 'yes'	Probably 'no'	Definitely 'no'	
Well informed about career choice? (n=33; 105)	15%	40%	27%	18%	8%	37%	38%	17%	p=0.46
Fulfilment of career expectations? (n=33; 103)	21%	58%	18%	3%	24%	62%	12%	2%	p=0.64
Choice of same career again? (n=33; 105)	27%	52%	15%	6%	19%	47%	27%	7%	p=0.48
Consideration of alternative built environment employment? (n=33; 104)	12%	43%	30%	15%	13%	39%	36%	12%	p=0.87
Recommend a career in quantity surveying to others? (n=33; 105)	24%	67%	9%	0%	23%	46%	26%	5%	p=0.08

Scale values: 1 = Definitely 'yes'; 4 = Definitely 'no'; P-values from Fisher's exact test

Finally, respondents were provided with a number of factors on a 6-point Likert scale and asked to rank their importance when choosing a career. The overall ranking of the factors was determined by calculating the mean score of each factor. The results (as well as standard errors for the means) are given in Table 8.

Table 8: Ranking of factors considered important in choosing a career by salary

Factors considered in career choice	Salary: ≤ R300k		Salary: > R300k		Difference	P-value
	Ranking (mean) score (+/- std error)	Rank	Ranking (mean) score (+/- std dev)	Rank	Mean score (+/- std error)	
Having a job with a high position (status) [Belonging need] (n=33; 105)	3.21 (+/- 0.32)	6	2.87 (+/- 0.17)	4	0.35 (+/- 0.36)	p=0.33
Working as part of a supportive team [Belonging need] (n=31; 101)	2.52 (+/- 0.29)	4	2.95 (+/- 0.17)	6	0.43 (+/- 0.34)	p=0.23
Good salary [Physiological need] (n=32; 105)	2.03 (+/- 0.21)	2	1.85 (+/- 0.10)	1	0.18 (+/- 0.23)	p=0.51
Security of employment [Safety need] (n=33; 105)	2.33 (+/- 0.22)	3	2.43 (+/- 0.14)	3	0.10 (+/- 0.26)	p=0.95
Doing work which is personally satisfying [Esteem need] (n=33; 105)	1.52 (+/- 0.18)	1	1.90 (+/- 0.12)	2	0.38 (+/- 0.22)	p=0.07
Flexible working hours (n=33; 105)	2.55 (+/- 0.25)	5	2.93 (+/- 0.17)	5	0.39 (+/- 0.30)	p=0.40

Scale values: 1 = most important; 6 = least important; P-values from the Mann-Whitney test

Issues relating to salary, gender and race at work

Using 6-point Likert scales, the *presence* and *importance* of factors relating to gender and race, with respect to salary category, in influencing feelings of job satisfaction

were determined and are shown in Tables 9 and 10, respectively. These tables provide the means and standard errors for the whole sample as well as for the two age groupings, and associated *p*-values. Table 11 summarises the responses of the two groups regarding issues relating to gender and race at work. Means are given for Likert scale questions and proportions for categorical responses. Standard errors for the difference in proportions are not calculated under the assumption that the proportions are equal; *p*-values are from either the Fisher's exact test or the Mann-Whitney test. The issues covered encompass perceived male dominance at work, participation in decision-making, degree of perceived supervision, promotion on the basis of PDI status, the importance of professional status and gender and race representivity as means of combating discrimination in the workplace, the importance of respecting individual diversity at work, and whether or not respondents had experienced gender or race-based discrimination or harassment at work.

Table 9: Presence of the factors relating to gender and race by salary in influencing feelings of job satisfaction

Factors relating to gender and race	Presence of factor (mean scores +/- std error)				
	Sample	Salary			
		Salary: ≤ R300k	Salary: > R300k	Difference	<i>P</i> -value
Remunerated at a level below equivalent colleagues due to gender (n = 30; 99)	2.34 (+/- 0.13)	2.30 (+/- 0.26)	2.36 (+/- 0.15)	0.06 (+/- 0.30)	<i>P</i> =0.93
Remunerated at a level below equivalent colleagues due to race (n = 32; 98)	3.18 (+/- 0.16)	3.34 (+/- 0.33)	3.13 (+/- 0.18)	0.21 (+/- 0.38)	<i>p</i> =0.62
Employer permits flexible working hours for parents to facilitate absences from work during normal working hours (n = 31; 90)	2.19 (+/- 0.11)	1.97 (+/- 0.21)	2.27 (+/- 0.13)	0.30 (+/- 0.25)	<i>p</i> =0.15
Adherence by the employer to statutory minima in respect of maternity and paternity entitlements (n = 28; 87)	2.07 (+/- 0.11)	2.50 (+/- 0.24)	1.93 (+/- 0.11)	0.57 (+/- 0.27)	<i>p</i>=0.01
Recognition by employer of achievements regardless of gender (n = 31; 95)	2.05 (+/- 0.10)	2.42 (+/- 0.24)	1.93 (+/- 0.10)	0.49 (+/- 0.27)	<i>p</i>=0.06
Recognition by employer of achievements regardless of race (n = 33; 94)	2.42 (+/- 0.13)	2.76 (+/- 0.28)	2.30 (+/- 0.14)	0.46 (+/- 0.32)	<i>p</i> =0.11
Provision of secure physical environments at work for staff (n = 32; 99)	2.90 (+/- 0.16)	3.06 (+/- 0.32)	2.85 (+/- 0.18)	0.21 (+/- 0.37)	<i>p</i> =0.43

Scale values: 1 = Strongly agree; 6 = Strongly disagree; *p*-values are from the Mann-Whitney test

Table 10: Importance of the factors relating to gender and race by salary in influencing feelings of job satisfaction

Factors relating to gender and race	Importance of factor (mean scores +/- std error)				
	Sample	Salary			
		Salary: ≤ R300k	Salary: > R300k	Difference	P-value
Remuneration being fair and equitable regardless of gender and race (n = 33; 104)	1.45 (+/- 0.07)	1.42 (+/- 0.13)	1.45 (+/- 0.08)	0.03 (+/- 0.16)	p=0.92
Flexible working hours for parents to facilitate absences from work during normal working hours (n = 33; 104)	1.98 (+/- 0.09)	1.76 (+/- 0.15)	2.05 (+/- 0.10)	0.29 (+/- 0.18)	p=0.18
Provision by the employer of maternity and paternity entitlements above the statutory minimum (n = 30; 94)	3.03 (+/- 0.14)	2.80 (+/- 0.28)	3.11 (+/- 0.16)	0.31 (+/- 0.32)	p=0.44
Equality in recognition by employer regardless of gender and race (n = 33; 102)	1.47 (+/- 0.07)	1.45 (+/- 0.12)	1.47 (+/- 0.08)	0.02 (+/- 0.14)	p=0.78
Provision of secure physical environments at work for staff (n = 33; 103)	1.63 (+/- 0.06)	1.61 (+/- 0.12)	1.64 (+/- 0.07)	0.04 (+/- 0.14)	P=0.82

Scale values: 1 = Very important; 6 = Unimportant; p-values are from the Mann-Whitney test

Table 11: Factors relating to gender and race in the workplace by salary

Factors relating to gender and race	Importance / Prevalence of factor: mean scores or proportions (+/- std error)				
	Sample	Salary			
		Salary: ≤ R300k	Salary: > R300k	Difference	P-value
Male management actively blocks female advancement to managerial ranks (n = 2; 9)	10% (3%)	8% (5%)	10% (3%)	3% (6%)	p=0.69
Not allowed to contribute meaningfully to the decision-making process (n = 6; 9)	14% (3%)	24% (9%)	11% (4%)	13% (9%)	p=0.11
Participation in decision making (n = 33; 103)	1.72 (+/- 0.07)	1.88 (+/- 0.18)	1.67 (+/- 0.07)	0.21 (+/- 0.20)	p=0.44
Subjected to a high degree of supervision because of gender (n = 30; 94)	5.25 (+/- 0.10)	5.03 (+/- 0.24)	5.32 (+/- 0.11)	0.29 (+/- 0.26)	p=0.25
Subjected to a high degree of supervision because of race (n = 31; 94)	5.13 (+/- 0.11)	4.90 (+/- 0.27)	5.20 (+/- 0.12)	0.30 (+/- 0.29)	p=0.33
Promotion on the basis of "PDI" status is acceptable (n = 32; 103)	6% (2%)	6% (4%)	6% (2%)	0% (5%)	p=0.93
Professional status is important in combating perceptions of discrimination in the work place (n = 33; 97)	2.26 (+/- 0.10)	2.12 (+/- 0.19)	2.31 (+/- 0.12)	0.19 (+/- 0.23)	p=0.43
Race representativity in the QS profession is important in combating discrimination in the work place (n = 33; 101)	3.55 (+/- 0.14)	3.33 (+/- 0.28)	3.62 (+/- 0.16)	0.29 (+/- 0.32)	p=0.37
Gender representativity in the QS profession is important in combating discrimination in the work place (n = 33; 101)	3.54 (+/- 0.13)	3.21 (+/- 0.27)	3.64 (+/- 0.15)	0.43 (+/- 0.31)	p=0.17
I consider respect for individual diversity within the workplace to be important (n = 33; 104)	1.66 (+/- 0.07)	1.67 (+/- 0.18)	1.65 (+/- 0.08)	0.01 (+/- 0.20)	p=0.60

Means are given for Likert scale questions (scale values: 1 = Very important; 6 = Unimportant) and proportions for categorical responses; std errors for the difference in proportions are not calculated under the assumption that the proportions are equal; p-values are from either Fisher's exact test or the Mann-Whitney test

The gender profiles of management in the respondents' practices are shown in Table 12. Table 13 depicts the perceptions of those quantity surveyors whose firms are 'predominantly male' regarding promotion and participation in decision-making in relation to gender (by salary category).

Table 12: Gender profile of the management of quantity surveying practices (n=135) by salary

Gender profile of management	Frequency	
	Salary: ≤ R300k (n=32)	Salary: > R300k (n=103)
Predominantly male	84%	81%
Predominantly female	6%	4%
Balanced profile	10%	15%

Fisher's exact test: p -value=0.59

Table 13: Promotion and participation in organisations where management is predominantly male by salary

Managerial actions within the organisation relating to:	Frequency		P-value
	Salary: ≤ R300k	Salary: > R300k	
(a) Promotion			
Management actively blocks female advancement to managerial ranks (n = 2; 9)	8%	10%	$P=1.00$
Management does not discriminate on the grounds of gender in promotions to managerial ranks (n = 24; 78)	92%	90%	
(b) Participation in decision-making			
Not allowed to contribute meaningfully to the decision-making process (n = 6; 9)	24%	11%	$p=0.19$
Allowed to contribute meaningfully to the decision-making process (n = 19; 72)	76%	89%	

P-values from Fisher's exact test

Salary category, harassment and discrimination at work

The results relating to perceptions of harassment and discrimination at work are shown in Tables 14 and 15, respectively. In general the small sample sizes preclude definitive inferences, suffice it to say that instances of harassment and discrimination are present in the quantity surveying workplace.

Table 14: Extent to which harassment has been personally experienced at work by salary

Form of harassment	Frequency ('yes')		P-values
	Salary: ≤ R300k	Salary: > R300k	
Sexual harassment	0% (n=0)	6% (n=6)	$p=0.34$
Racial harassment	15% (n=5)	13% (n=14)	$p=0.78$
On the basis of sexual orientation	0% (n=0)	1% (n=1)	$p=1.00$
On the basis of religious affiliation	0% (n=0)	4% (n=4)	$p=0.57$
On the basis of gender	9% (n=3)	6% (n=6)	$P=0.44$

P-values from Fisher's exact test

Table 15: Extent to which discrimination has been personally experienced at work by salary

Form of discrimination	Frequency ('yes')		P-value
	Salary: ≤ R300k	Salary: > R300k	
On the basis of educational background	6% (n=2)	8% (n=8)	$p=1.00$
On the basis of race / ethnicity	39% (n=13)	36% (n=38)	$p=0.84$
On the basis of sexual orientation	0% (n=0)	2% (n=2)	$p=1.00$
On the basis of religious affiliation	0% (n=0)	6% (n=6)	$p=0.34$
On the basis of physical disabilities	0% (n=0)	1% (n=1)	$p=1.00$
On the basis of gender	18% (n=6)	11% (n=12)	$P=0.37$

P-values from Fisher's exact test

Finally, respondents' opinions concerning the importance of respect for individual diversity within the work place were tested using a 6-point Likert scale (1 = very important; 6 = unimportant).

DISCUSSION OF THE RESULTS

The findings indicate that the majority of the respondents may be considered to be less than 45 years old, 'White', males, South Africa citizens, senior professionals, with considerable experience. Most consider themselves to be paid an average, to above average, salary. The majority (76%) earn above R300000 per annum. Although differences are apparent between the two salary categories with respect to the demographic variables, these are only significant in the cases of age group ($p<0.01$) and years of professional experience ($p<0.01$). Interestingly, whilst not significant at the 95% level, the relationship between salary category and race is discernible ($p=0.055$). Insofar as salary as a motivating factor is concerned, a majority of both salary categories ($\leq R300k$: 63%; $>R300k$: 74%) claim that salary is 'important' to 'very important' in influencing feelings of job satisfaction. However, the difference between the two groups is significant ($p<0.05$). A function of professional life is the requirement to sometimes undertake overtime (paid or unpaid) to meet the work demands of the organization. Overtime is invariably done at the expense of leisure and family time. Very few quantity surveyors in either salary category view being required to do paid overtime as a source of job dissatisfaction ($p=0.78$) (see Table 5). Having to do unpaid overtime is a source of job dissatisfaction to nearly 31% of those earning R300k or less, and to 15% of their higher-earning colleagues, with no significant differences between the two groups ($p=0.11$). Overwhelmingly ($\leq R300k$: 78%; $>R300k$: 87%), participants see access to their leisure time as being very important in influencing feelings of job satisfaction ($p=0.13$). Clearly, Quantity surveyors value their leisure time and unpaid overtime, whether voluntary or involuntary, is a source of job dissatisfaction for many.

Factors influencing feelings of job satisfaction

Table 1(a) reveals that (for both salary categories) the seven most *important* factors (amongst the 11) influencing the job satisfaction of both age groupings are (ranked in order of importance): personal satisfaction and accomplishment, a low degree of supervision and being encouraged to take the initiative, being part of a team, undertaking challenging work, receiving recognition for achievements above the ordinary, receiving feedback on past performance, and undertaking varied and non-repetitive work. Thereafter, slight differences of opinion become apparent between the two salary groupings, with the lower salary group favouring job security above either promotion or remuneration. The higher-paid group see remuneration level as being more important than either job security or promotion prospects. Differences in the mean rankings of the two groups are evident, but are not generally significant ($p > 0.20$) - with the noteworthy exception of the importance of *remuneration* ($p = 0.02$). In other words, although both groups rank salary as low in importance with respect to job satisfaction, they differ as to the *degree*.

Issues of social interaction (close friendships at work), job promotion prospects, salary, and job security are ranked as being of the least importance by both groups. When the factors of *importance* are grouped in terms of Maslow's Hierarchy of Needs (see Table 1(b)), the pre-eminence of those factors relating to the 'need for self-actualisation' becomes apparent; being deemed to be the most important as a group by both the lower- and higher-paid groups. The 'need for esteem' grouping is ranked second. Interestingly, money, a 'physiological need' and an extrinsic reward, is ranked last by the lower-paid group, but third by the higher-paid group ($p = 0.02$). No other significant differences exist between the two groups of respondents ($p \geq 0.38$). Quantity surveying firms need to appreciate the role of 'self-actualisation' factors as motivators of professional staff irrespective of remuneration.

The above results agree to some extent with the findings of Asad and Dainty's (2005) study of job motivational factors for disparate occupational groups ($n = 38$) (construction management, quantity surveying and supervisory) within the UK construction sector. Their study found that professionals, whilst demonstrating a significant desire for intrinsic rewards, also desired money and job security; these two factors being ranked first and fourth, respectively. In that study job security was rated as being of equal importance to feelings of accomplishment. The bias of construction managers ($n = 23$) and supervisors ($n = 8$) in their sample, or possibly cultural differences between the industries, may be responsible for the differences.

The findings relating to undertaking challenging and creative work with autonomy and receiving recognition within the organisation accord with those of Asad and Dainty (2005) and Dollard *et al.* (2000). The latter study found that a lack of autonomy and support can result in frustration, job strain and burn-out. Being part of a team, participating in the decision-making process, and being allowed to use one's initiative, relate to the employees' need for empowerment. This finding is consistent with previous research (Hammuda & Dulaimi, 1997) where empowerment was found to be a powerful motivating factor. Empowerment has also been associated with higher morale, improved teamwork, and greater enthusiasm towards work (Umiker 1992). Effective teams and teamwork have been associated with increased output, greater creativity, increased work quality and higher morale amongst team members (Schermerhorn *et al* 2003). In contrast to the findings of Asad and Dainty (2005), job security and job promotion were not ranked highly as motivating factors by both salary groupings (see Table 1(a)). Given the demands being placed on the industry by preparations for the 2010 Soccer World Cup (large *stadia* and infrastructure projects), these results are not surprising given the shortage of professional quantity surveyors in South Africa.

The *presence* in the workplace of factors influencing job satisfaction (see Table 2(a)), when combined with the perceived *importance* of those same factors (Table 1(a)), yields a *job satisfaction rating score* for each factor (see Table 2(b)) (Smithers and Walker 2000). Significant differences between the two salary groups arise from the *presence* of the motivating factors with respect to perceptions relating to adequacy of salary ($p < 0.01$), being given the opportunity to do challenging and creative work ($p = 0.03$), and being able to participate in a working team ($p < 0.01$). Differences with regard to the presence of the other motivating factors were not significant ($p \geq 0.20$).

Consideration of the job satisfaction scores indicates that low levels of supervision, coupled with high feelings of personal satisfaction and accomplishment and participating in an effective team are currently the main drivers of job satisfaction amongst both salary groups of quantity surveyors. No statistically significant differences exist between the two groupings ($p \geq 0.21$), *except* in the cases of remuneration ($p < 0.01$) and participation in a team ($p < 0.01$). Being given the opportunity to do challenging and creative work is marginal ($p = 0.06$). For these three motivating factors, the higher salary group see them as more important than their lower-paid colleagues. Differences between the *importance* and the *presence* of factors (where the presence of a factor does not match its importance) is most acute for both groups in the instances of receiving regular feedback from seniors on performance, and recognition for work done over and above normal duties. Quantity

surveying practices need to adopt a more empowering style of management in this regard.

Overall levels of job satisfaction

The relationship between salary and job satisfaction is not significant ($p=0.32$). Although the vast majority of participating quantity surveyors appear to like the work they undertake, discernible differences do exist between the two groups of respondents, albeit not significant ($p=0.095$). Thirty five percent of those earning not less than R300k per annum report that they 'like it very much' or 'love it', compared to 44% of the older group (see Table 3). Comparatively few quantity surveyors from both groups experience high levels of job dissatisfaction at all times; certain aspects of the work obviously giving rise to job dissatisfaction to a greater or lesser degree – most notably the measurement of builders' work, the preparation of final accounts, and project administration (see Table 4). The differences between the groups are not significant ($p=0.64$). Reasons cited by both groups under 'Other' included: perceived incompetence of other professionals; poor documentation from, and lack of faith in, designers; bureaucracy; dealing with government officials (political interference); contractual disputes; professional appointments made on the basis of affirmative action; and dealing with 'incompetent' emerging contractors. A female respondent reported disparaging attitudes displayed towards 'White' women by 'Black' male clients.

Choice of career

Regarding reasons for choosing a career in quantity surveying (see Table 6), many respondents ($\leq R300k$: 41%; $>R300k$: 27%) report 'drifting' into the career. Salary, despite its comparative lack of perceived importance as a factor influencing job satisfaction, is cited as a main driver ($\leq R300k$: 22%; $>R300k$: 31%) for having chosen a career in quantity surveying. 'Other' reasons included: a liking for working outdoors; a love of buildings and architecture; an interest in the construction sector; an interest in property and property development; an aptitude for figures; and as a result of an aptitude test. The perceived status of the profession had the least influence of all ($\leq R300k$: 3%; $>R300k$: 1%). The differences between the two groups are not significant ($p=0.18$).

With the benefit of hindsight, 55% of the lesser-paid respondents and 45% of the higher-paid quantity surveyors indicated that they were either 'probably' or 'definitely' well informed about their choice of intended career (see Table 7). The differences between the two groups are not significant ($p=0.46$). Most respondents ($\leq R300k$:

79%; >R300k: 86%) claim to have 'probably' or 'definitely' experienced fulfilment with regard to their career expectations (whether informed or not), with no significant difference between the groups ($p=0.64$). When asked if they would choose the same career again, significant differences do not exist between the two groups ($p=0.48$) with 79% of the lower salary group and 66% of the higher salary group stating that they would. Just over half of both groups said that they would 'probably' or 'definitely' consider moving into a different field of employment within the built environment, with no significant difference between groups ($p=0.87$). Finally, when asked whether or not they would recommend a career in quantity surveying to others, a discernible difference is apparent between the two groups ($p=0.08$). More specifically, whilst a clear majority of the lower paid respondents (91%) and their better paid colleagues (69%) said they would 'probably' or 'definitely' do so, more of the higher salary group (5%) than the lower salary respondents (0%) were emphatic that they would *not*. Clearly, not all quantity surveyors are experiencing sustained levels of job satisfaction. These findings broadly correspond with the results pertaining to overall levels of job satisfaction.

The importance, when choosing a career, of doing work that is personally satisfying (esteem need) and of being paid a good salary (physiological need) are confirmed (see Table 8). These two attributes were given the highest rankings and their standard errors confirm a significant difference between these two factors and the rest. In contradiction with the findings relating to the importance of factors giving rise to job satisfaction (see Table 1(a)), physiological needs (salary) is ranked as comparatively important (no difference between the groups with $p=0.51$). Interestingly, a discernible difference exists between the two groups with respect to doing work that is personally satisfying ($p=0.07$); with the less paid grouping seeing it as more important. It would seem that the importance of salary changes over time with increased maturity and self confidence in one's worth. Interestingly, no significant difference between the groups is apparent regarding the importance of flexible working hours when deciding upon a career ($p=0.40$).

Issues relating to salary, gender and race at work

Earlier work by Gale (1991) and Gilbert and Walker (2001) investigated whether men and women perceive the same issues (variables) at work to be motivating and demotivating. The relatively low numbers of women in the industry is said to be related, directly or indirectly, to perceived male 'domination' at work. This dominance is said to have led to male orientation of the industry (Court & Moralee 1995), and a lack of promotion prospects, maternity leave, child care facilities and flexible working hours

(Sommerville *et al* 1993). In South Africa, women, together with 'Non-white' persons, are classified as PDIs for the purposes of affirmative action. It was decided not to restrict the issue of gender to women. Rather, gender differences in questions were ignored because, for example, men might conceivably view flexible working hours for paternal duties as extremely important. Thus, in exploring the *presence* and *importance* of the factors relating to gender or race in influencing feelings of job satisfaction, relevant questions were gender 'neutral'. Data concerning the presence and importance of the factors relating to gender in influencing feelings of job satisfaction are shown in Tables 9 and 10, respectively.

The majority of quantity surveyors (\leq R300k: 91%; $>$ R300k: 92%) rate highly the *principle* of remuneration being fair and equitable regardless of gender and race, with no significant difference between the two salary groups ($p=0.92$) (see Table 10). When the *reality* of the situation is examined, interesting differences emerge. Whilst a clear majority of both salary groups (\leq R300k: 70%; $>$ R300k: 69%) are convinced that they are not discriminated against in terms of salary with respect to gender, some of their colleagues claim that they are (10% and 12%, respectively). Differences between the two salary groups are not significant ($p=0.93$). When race is considered, the situation changes somewhat. Thirty eight percent of the lower income group and 30% of their higher paid colleagues report that they feel discriminated against in terms of salary because of their race. Again, differences between the two salary groups are not significant ($p=0.62$) (see Table 9).

With reference to Table 10, both salary groups ($>90\%$) consider equality in recognition of achievements by employers to be important ($p=0.78$). There is no significant difference between the two salary groups regarding the *presence* of equality of recognition in the workplace by employers regardless of race ($p=0.85$), being reported by 57% and 73% of both groups, respectively (see Table 9). However, when the same issue is considered with respect to gender, a *discernible* difference between the two salary groups emerges ($p=0.06$). More specifically, 65% of the lower salary group and 85% of the higher-paid group, respectively, claim there is equality of recognition in their workplace by employers regardless of gender.

There is considerable support from both salary groups for flexible working hours, a practice reportedly supported by a clear majority of employers ($>70\%$). Differences between groups by salary in respect of both the importance ($p=0.18$) and presence ($p=0.15$) of this factor are not significant. Whilst a clear majority of both salary groups (\leq R300k: 64%; $>$ R300k: 86%) report that their organisations adhere to the statutory minimums with respect to maternity and paternity leave, a significant difference of

opinion exists between the two salary groups ($p=0.01$) (see Table 9). The lower-paid grouping report greater flexibility on the part of employers than their higher-paid colleagues. Interestingly, there is no significant difference ($p=0.44$) of opinion between the two salary groups regarding the *importance* of such entitlements being above the statutory minima, with 40% of the lower income group and 39% of the higher income group, respectively, seeing entitlements *above* the minimum as 'important' or 'very important' (see Table 10).

Whilst a secure working environment [safety needs] is deemed important by the vast majority of all quantity surveyors ($\leq R300k$: 88%; $>R300k$: 90%), nearly 30% of them ($\leq R300k$: 31%; $>R300k$: 30%) claim not to work in a safe and secure environment. There was no significant difference between the way the two salary groups responded to the presence ($p=0.43$), or importance ($p=0.82$), of a secure working environment. Given current crime levels in South Africa, security is an important consideration.

Table 11 summarises results with respect to issues of *gender and race in the workplace* by salary, with no significant differences between the two groups. A minority of both salary groupings ($\leq R300k$: 8%; $>R300k$: 10%) feel that female advancement is actively blocked within organisations perceived to be dominated by male management (see also Table 13). Differences between the two salary groups in this regard are not significant ($p=0.69$). Similarly, there is no significant difference of opinion between the two salary groups regarding the extent to which firms are perceived to be male dominated ($p=0.59$), with 84% of the lower income group respondents compared to 81% of the higher income group claiming this to be the case (see Table 12).

Reference to Table 11 indicates that, whilst the majority (94%) of all respondents see promotion on the basis of one's PDI status rather than on ability as *unacceptable*, minorities (6%) of both salary groups see the practice as acceptable, with no significant difference between the two age groups ($p=0.93$). A majority of both salary groups do not see themselves as being subjected to a high degree of supervision because of their gender ($\leq R300k$: 83%; $>R300k$: 89%) or race ($\leq R300k$: 81%; $>R300k$: 85%), with no significant differences between the two groups in respect of either gender ($p=0.25$) or race ($p=0.33$). There is also no significant difference between the two salary groups regarding not being allowed to contribute meaningfully to the decision-making process ($p=0.11$), with 24% of the lower income group (compared to 11% of the higher earners) claiming this to be the case (see also Table 13). Most respondents ($\leq R300k$: 76%; $>R300k$: 89%) report being allowed to

participate in decision-making, with no significant difference between the groups ($p=0.44$) (see also Table 13).

Regarding whether or not professional status is important in combating perceptions of discrimination in the workplace, slightly more of the lower income group (76%) than the higher income group (72%) state that it is ($p=0.43$). When similarly questioned regarding gender representivity, the difference in responses between the groups is not significant ($p=0.17$); with 39% of the lower earners compared to 27% of their higher income colleagues stating that it is important. For race representivity, the comparable figures are 36% and 27%, respectively ($p=0.37$).

Salary and harassment and discrimination at work

Details relating to the extent to which harassment and discrimination have personally been experienced at work are shown in Tables 14 and 15, respectively. Whilst incidences of *harassment* do occur, their frequency is comparatively low with lower income respondents experiencing proportionately slightly more racial (15%) and gender (9%) harassment than their higher earning colleagues. Interestingly, a greater degree of sexual harassment is reported by higher income earners (6%). No statistically significant differences between the two groups occur with regard to any of the aforementioned forms of harassment, with $p=0.78$, $p=0.44$, and $p=0.34$, respectively. Clearly, any form of harassment is unacceptable and management needs to be alert to these practices and implement remedial and supportive action where necessary.

Perceived *discrimination* in the workplace appears to be more widespread, particularly with regard to race, gender, and educational background. Racial discrimination appears to be the most widespread, being reported by more than a third of total respondents ($\leq R300k$: 39%; $>R300k$: 36%). Despite lower income earners reporting more incidents of racial discrimination at work than higher income colleagues, differences between the two groups are not significant ($p=0.84$). It is not clear whether the incidences of racial discrimination are 'active' rather than in a 'passive' form associated with affirmative action. These results tend to agree with those of Ellison (2001). In terms of numbers, the higher income group appear to experience more incidences of discrimination across the board. However, there is no statistically significant association between salary and discrimination on the basis of gender ($p=0.37$), educational background ($p=1.00$), sexual orientation ($p=1.00$), physical disabilities ($p=1.00$), and religious affiliation ($p=0.35$). Management needs to be aware of the presence of harassment and discrimination in the workplace.

Interestingly, close to a majority of female respondents (48%) report having experienced gender *discrimination* at work, whilst gender and sexual *harassment* at work is reported by 30% and 17% of women, respectively. These results agree with those of Gurjao (2006). Again management needs to be sensitive to issues of harassment and discrimination at work.

Finally, an overwhelming majority of both respondent salary groups regard respect for individual diversity in the workplace to be important, with no significant difference between the two salary groupings ($p=0.60$); with more lower income (58%) than higher income respondents (48%) citing it as being 'very important'. Any intolerance is contrary to the provisions of the South African Constitution (RSA 1996).

CONCLUSIONS

The focus of this paper has been a comparison of the opinions, on the basis of remuneration, of quantity surveyors in South Africa regarding job satisfaction. An overview of research relating to the nature of job satisfaction was provided. Motivation theory was introduced and previous research into job satisfaction and motivation in the construction industry was discussed. The dearth of literature relating to quantity surveyors' job satisfaction was noted.

The focus of this research centred on a number of issues, namely: how satisfied are lower income and higher income quantity surveyors with their jobs; what influences their job satisfaction; how did they choose a career in quantity surveying; what issues relating to remuneration affect job satisfaction; and to what extent do lower and higher paid quantity surveyors experience harassment and discrimination at work?

Although differences of opinion exist between the two respondent groups of quantity surveyors on the basis of salary, *very few* are significant. Indeed, *the relationship between salary and job satisfaction is not significant* ($p=0.32$). However, *discernible differences* on the basis of salary appear to exist as follows: proportionately more 'Whites' earn higher salaries than their 'Non-white' counterparts ($p=0.055$); as a group lower income earners report higher overall levels of job satisfaction ($p=0.095$); lower income earners are more enthusiastic about regarding a career in quantity surveying to others ($p=0.08$); when considering factors deemed important in choosing a career, lower income earners report placing greater importance on doing work that is personally satisfying than do their higher income colleagues ($p=0.07$); and proportionately more higher paid workers report equality of recognition in their workplace by employers regardless of gender ($p=0.06$).

Significant differences of opinion exist as follows: although ranked down the scale by both groups as a motivating factor, lower income earners see remuneration as more important than higher paid colleagues ($p=0.02$); lower income earners report fewer opportunities to do challenging and creative work and less participation in creative teams, than do higher income earners ($p=0.03$ and $p<0.01$, respectively) – these same group differences manifest themselves in the subjective emotion job satisfaction scores; and lower income earners see employers as more accommodating and flexible in terms of adherence to statutory minima with respect to maternity and paternity entitlements ($p=0.01$).

Instances of *harassment* and *discrimination* at work are not uncommon. In numerical terms, the higher earning respondents report more instances of harassment and discrimination at work than lower income earners. Most prevalent of these is both harassment and discrimination on the basis of race and gender. Differences between the groups, however, are not significant.

The results provide valuable indicators for how quantity surveying firms can create a more conducive work environment for professional staff, regardless of salary.

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