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# Personality Profile of Female Public Accountants

Female Public Accountants

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## Introduction

Public accounting traditionally was a male profession. Until the 1960s, there were virtually no women public accountants. Since then, the increase in the number of women entering public accounting has been called "dramatic" (Trapp *et al.*, 1989, p. 71), and is now approaching 50 per cent of new hires in firms (Lehman, 1992, p. 276). This trend appears likely to continue in the future as it is not unusual to find more female than male accounting undergraduates in many universities.

However, women have not been very successful in reaching the highest levels of the major accounting firms. There are relatively few female partners and managers in the large international accounting firms (Hooks and Cheramy, 1988; Lehman, 1992; Pillsbury *et al.*, 1989). Perhaps the lack of female partners reflects the relatively short time women have been entering the profession, but the lack of female managers is more difficult to explain. There is no obvious reason why women have not been successful in accounting firms. One possible explanation would be that female public accountants are different from their male colleagues, for example in their personality profiles. Little is known about the women who are entering the firms and whether they differ from their male colleagues. If the personalities of women in public accounting firms are similar to those of their male colleagues, then some other factor is responsible for their lack of success.

The purpose of this study is to describe the personality characteristics of women in public accounting firms. A rigorous personality test (the 16 PF) was administered to a sample of female and male public accountants in a large Canadian city. Average scores on 16 individual personality factors and six summary factors are compared to those found in the general population of all women to find if women entering the firms are different from other women. Their personality scores are also compared to their male colleagues' scores and differences are discussed. To determine if only certain types of women are being promoted in the firms, comparisons are made between women in management positions and those at lower levels. To determine if firms of different sizes are hiring different types of women, comparisons are made between women in large international firms and those in small firms.

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### Previous Studies

Although the number of studies that consider gender effects in accounting has increased in the past several years, few studies have considered personal characteristics such as personality. No significant differences in personality profiles have been reported between male and female accountants (Earnest and Lampe, 1982; Johnson and Dierks, 1982). Johnson and Dierks did note that several individual personality traits did appear to be different, but not the overall profile.

Similarly, no significant differences in behavioural tendencies were found in male and female accounting majors (Fraser *et al.*, 1978). However, Fraser *et al.* found that female accounting majors were quite dissimilar from female students in other majors in that they had developed higher goals, were more confident of their abilities, and were more independent. Other personal characteristics such as the enjoyment of mental stimulation and satisfaction were also found to be similar when female and male accountants were compared (Barcelone *et al.*, 1975).

### Development of Research Hypotheses

A number of research hypotheses were developed to consider the personalities of female accountants between them and other comparison groups (*H1* and *H2*) and within the female accountants as a group (*H3* and *H4*). First, the general question of whether accounting is attracting women who are different from the "average" women was tested as *H1* (expressed in the null form):

*H1*: Female accountants have personality profiles that do not differ significantly from women in the general population.

Next, the question of whether female accountants have personality profiles that are different from their male colleagues was explored to determine if the findings of earlier studies (Earnest and Lampe, 1982; Johnson and Dierks, 1982) are still valid. *H2* is also expressed in the null form:

*H2*: Female accountants have personality profiles that do not differ significantly from male accountants.

Research in several areas of accounting has found that differences occur when accountants from the largest firms are compared to their colleagues from smaller firms (for a review of some of the studies in this area, see Boritz *et al.*, 1987). These findings suggest the possibility that female accountants from larger accounting firms may be different from their colleagues from smaller firms. This hypothesis is also expressed in the null form:

*H3*: Female accountants from large accounting firms have personality profiles that do not differ significantly from those of their colleagues from small firms.

Previous research (Amernic *et al.*, 1979) found that the personalities of partners were different from those of accountants at lower position levels. This suggests that personalities may have an influence on promotion decisions. This possibility was explored in Hypothesis 4. Because of the very small number of female partners included in this sample (2), partners and managers together were compared to staff at lower levels. *H4* is also expressed in the null form:

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*H4:* Female accountants in management positions (partners and managers) have personality profiles that do not differ significantly from those of their colleagues in lower position levels.

### **Methodology**

To gather data for the present study, a multidisciplinary research team was assembled, consisting of an accounting researcher and a psychologist, with preliminary advice also obtained from two psychiatrists. This mix of researchers was believed to be necessary to provide the different knowledge and experience needed to conduct a major study of this type and to analyse and interpret the findings.

Partners in seven public accounting firms in one large Canadian city were contacted, all of whom agreed to participate in the study. Four of the seven are offices of the largest international accounting firms and three are smaller local or regional firms. A partner from each firm co-ordinated the delivery of the questionnaire package to all professional staff in their office. Each package contained a cover letter which included a consent form, a copy of the "Sixteen Personality Factor Questionnaire" (Form A), and a form for gathering demographic data such as marital status, birth date, rank, education, etc. Each firm added a letter of support and distributed a package to each member of the professional accounting staff in the office. The firm's letter requested staff to return the sealed envelopes to a contact person in the office for forwarding to the researchers. The questionnaire package was filled out unsupervised and individually. Every effort was made to maintain anonymity and confidentiality.

The test used, the Sixteen Personality Factor Questionnaire (16PF), is an objective test devised and refined by extensive factor-analytic experiments to give the most complete assessment of personality structure in a practical time frame (just over one hour). It is one of the most widely used objective personality measurement instruments, used in a variety of settings such as clinics, research, schools, and industry (Cattell *et al.*, 1970). The instrument is appropriate for individuals whose education level is roughly equivalent to, or above, that of the normal high school graduate. As university degrees have been required of Chartered Accountants for approximately 25 years, this level of education is appropriate. The 16 dimensions or traits measure universal and central concepts in personality theory. In addition to the 16 primary factors, there are six secondary dimensions which are broader traits, scorable from the component primary factors (see Appendix).

The test consists of 188 questions, was constructed to avoid distortion effects and has demonstrated good reliability and validity (Cattell *et al.*, 1970). Each dimension is scaled to result in a mean of 5.5 and a standard deviation of 2.0 for the population as a whole, where the population is defined to be all adult women. The norms were based on a sample of 729 women with a mean age of 30. The racial proportions were congruent with those reported by the US Census Bureau (non-white approximately 12 per cent) at the time the test was constructed. Descriptions of the 16 primary factors are presented in Table I.

Descriptions of these six "second order" factors are presented in Table II.

Factor	Low score direction	High score direction
A	<i>Cool</i> Reserved, impersonal, detached, aloof	<i>Warm</i> Outgoing, kindly, easy-going, participating, likes people
B	<i>Concrete thinking</i> Less intelligent	<i>Abstract thinking</i> More intelligent, bright
C	<i>Affected by feelings</i> Emotionally less stable, easily annoyed	<i>Emotionally stable</i> Faces reality, calm
E	<i>Submissive</i> Humble, mild, easily led, accommodating	<i>Dominant</i> Assertive, aggressive, stubborn, competitive, bossy
F	<i>Sober</i> Restrained, prudent, taciturn, serious	<i>Enthusiastic</i> Spontaneous, heedless, expressive, cheerful
G	<i>Expedient</i> Disregards rules, self-indulgent	<i>Conscientious</i> Conforming, moralistic staid, rule-bound
H	<i>Shy</i> Threat-sensitive, timid, hesitant, intimidated	<i>Bold</i> Venturesome, uninhibited, can take stress
I	<i>Tough-minded</i> Self-reliant, no-nonsense, rough, realistic	<i>Tender-minded</i> Sensitive, over protected, intuitive, refined
L	<i>Trusting</i> Accepting conditions, easy to get on with	<i>Suspicious</i> Hard to fool, distrustful, sceptical
M	<i>Practical</i> Concerned with "down to earth" issues, steady	<i>Imaginative</i> Absent-minded, absorbed in thought, impractical
N	<i>Forthright</i> Unpretentious, open, genuine, artless	<i>Shrewd</i> Polished, socially aware, diplomatic, calculating
O	<i>Self assured</i> Secure, feels free of guilt, untroubled, self-satisfied	<i>Apprehensive</i> Self-blaming, guilt-prone, insecure, worrying
Q1	<i>Conservative</i> Respecting, traditional ideas	<i>Experimenting</i> Liberal, critical, open to change
Q2	<i>Group-oriented</i> A joiner and sound follower, listens to others	<i>Self-sufficient</i> Resourceful, prefers own decisions
Q3	<i>Undisciplined, Self-conflict</i> Lax, careless of social rules	<i>Following self-image</i> Socially precise, compulsive
Q4	<i>Relaxed</i> Tranquil, composed, has low drive, unfrustrated	<i>Tense</i> Frustrated, overwrought, has high drive

**Table I.**  
16PF Primary Factors

*Extroversion*

Low scores indicate a person tends to be shy and inhibited in social contacts  
High scores indicate a socially outgoing, uninhibited person good at maintaining interpersonal contacts

*Anxiety*

Low scores indicate individuals whose lives are generally satisfying and who are able to achieve those things that seem to them to be important  
High scores indicate individuals who are dissatisfied with the degree to which they are able to meet the demands of life and to achieve what they desire

*Tough poise*

Low scores indicate people who are strongly influenced by their emotions  
High scores indicate people who are influenced by facts more than feelings

*Independence*

Low scores indicate people who are dependent and passive  
High scores indicate people who are aggressive, independent, who show considerable initiative

*Superego/control*

Low scores indicate people who typically do not act according to others' values or out of a sense of duty, they tend to be nonconformists  
High scores indicate people who have internalized the rules of the society in which they function

*Leadership*

Low scores indicate people who are not good at asserting themselves and who tend to shy away from conflict  
High scores indicate people who are sociable, relaxed, assertive, and self-assured

**Table II.**  
Second-order Factors

**Description of Subjects**

Data were gathered from both male and female staff of the seven offices included in this study. A total of 89 questionnaires were received from women (and 135 from men) from the 152 female professional staff in the seven firms included in this study, for a response rate of 59 per cent. This response rate was considered to be very good as the questionnaire requires more than one hour to complete. The number of responses by position level is indicated in Table III.

	Partners	Managers	CA/Senior	Junior/Non CA	Not given	Total
<i>Panel A: Females</i>						
Requested	2	35	39	76		152
Received	2	24	24	37	2	89
Response rate (per cent)	100	69	62	49		59
<i>Panel B: Males</i>						
Requested	81	75	58	87		301
Received	36	44	17	31	7	135
Response rate (per cent)	44	59	29	36		45

**Table III.**  
Response Rates

From these data, it is evident that response rate decreased consistently with lower levels of staff. No reason is known for this tendency. It may reflect an increasing personal interest in the profession as women move upward through the organization. The lower response rates for the most junior staff will result in our personality profiles of them being least reliable. This must be considered in the analysis of our findings and in generalizing these results to other situations. No reason is known for the higher response rate of the female accountants.

Average age of the respondents is 27 with a range of 20 to 43. This relatively young group reflects just how recently the first women professionals were hired by accounting firms. Marital status is as shown in Table IV.

A total of 48 of the 89 responses (54 per cent) are from Chartered Accountants (the Canadian equivalent of CPAs). These 48 represent 32 per cent of the 148 female Chartered Accountants in public accounting in the city. The 39 non-CAs who responded represent approximately 25 per cent of the registered female accounting students in the city (accounting students are required to work for approximately 33 months with an approved firm of Chartered Accountants before being admitted to membership). Thus a relatively large proportion of the female professionals in public accounting firms in this city were included in this study.

Of the 87 respondents who indicated their maximum education, only three (3 per cent) have no university degree, the other 84 (97 per cent) have Bachelor degrees. None reported having a masters degree (relatively few CAs have masters degrees in Canada). For the male respondents, 11 per cent have no degree, 89 per cent have a Bachelor degree, and only one (1 per cent) has a Masters.

Of these 84, 68 (78 per cent) were accounting majors, 5 (6 per cent) were other majors, and the other 13 per cent did not indicate their major. For the male respondents, 66 per cent were accounting majors, 10 per cent were other majors, and 24 per cent did not indicate their major.

Of the 48 respondents who are Chartered Accountants (CAs), 39 qualified in the province (81 per cent) and the rest in other provinces. Length of experience as a CA ranged from less than one year to 14 years, again indicating the recency of their hiring. Male respondents had a range of less than one year to 40 years. Three female respondents are Certified Management Accountants (CMA), two are Certified General Accountants (CGA), one is a Professional Engineer, and one specializes in insolvency. Female respondents indicated they work with an average

	Females		Males	
	No.	Percentage	No.	Percentage
Single/never married	38	43	52	40
Separated/divorced	7	8	7	5
Married/common-law	41	47	72	55
Widowed	2	2	0	
Not given	1			
Total	89	100	131	100

**Table IV.**  
Marital Status

of 24 clients per year, with a range of one to more than 100. Male respondents reported a mean of 33 clients, with a similar range.

When asked their area of specialization or predominant type of work, most indicated auditing (63 per cent). The rest generally had not yet developed a specialty, although 40 per cent of all respondents indicated that tax is an important secondary area. A total of 63 of 85 respondents (74 per cent) had worked for only one firm since graduating from university. Male respondents reported similar work experiences.

Annual salary ranges are as shown in Table V.

The responses to the personality questionnaire were scored and analysed by the psychologist (a requirement with the 16PF questionnaire). Raw scores are scaled to a range of 1 to 10 forming a normal distribution with a population mean of 5.5 on each scale and a population standard deviation of 2.0. The population scores used to scale our sample include all women in the general population. The mean age of this population is 30, which is not significantly different from the sample mean of 27.

### Results of Tests for *H1* (Compared with All Women)

The means and standard deviations for the 89 female respondents and the 135 male respondents were computed and are indicated in Table VI. Table VI indicates which of the factors for the female respondents are significantly different from women in the entire population and which are significantly different when the female respondents are compared to the male respondents.

The female public accountants in this sample are different from women in general as eight of the 16 primary factors and four of the six secondary factors for the sample are significantly different from the population averages. The factors that are significantly different are discussed in the following section.

#### Primary Factors

In examining those traits that deviate significantly from the population norm, the most conspicuous is Factor B. This is a measure of abstract thinking rather than concrete thinking and is related to, but not the same as, intelligence. Thus, women accountants have very high general mental capacity, tend to learn quickly, and are inclined to have more intellectual interests than the general population. The mean score of 7.49 is roughly equivalent to the top 16 per cent of the general population in intellectual abilities (Cattell *et al.*, 1970). The opposite finding was

	Females		Males	
	No.	Percentage	No.	Percentage
Less than \$25,000	28	37	27	24
\$25,000 to \$50,000	34	45	40	36
\$50,000 to \$75,000	10	13	14	13
More than \$75,000	4	5	30	27

Table V.  
Annual Salary Ranges

	Women (n=89)		Men (n=135)	
	Mean	SD	Mean	SD
<i>Primary factors</i>				
Low/high scores				
A: Cool/warm	5.58	1.77	5.24	1.88
B: Concrete/abstract thinking	7.49 <sup>a</sup>	1.65	7.82	1.45
C: Affected by feelings/emotionally stable	5.17	1.87	5.41	1.74
E: Submissive/dominant	6.40 <sup>a</sup>	1.93	6.71	2.28
F: Sober/enthusiastic	6.69 <sup>a</sup>	2.32	6.26	2.33
G: Expedient/conscientious	5.34	2.30	5.00	1.97
H: Shy/bold	5.66	2.19	5.19	2.33
I: Tough/tender-minded	4.63 <sup>a</sup>	1.78 <sup>b</sup>	5.58	1.78
L: Trusting/suspicious	6.45 <sup>a</sup>	1.88 <sup>b</sup>	5.82	1.95
M: Practical/imaginative	5.04	1.73 <sup>b</sup>	5.78	1.80
N: Forthright/shrewd	5.36	1.93	5.40	1.80
O: Self-assured/apprehensive	5.79	1.79 <sup>b</sup>	5.13	1.64
Q1: Conservative/experimenting	6.88 <sup>a</sup>	2.08	6.53	1.92
Q2: Group-oriented/self-sufficient	6.62 <sup>a</sup>	1.84	6.51	1.93
Q3: Undisciplined, self-conflict/following self-image	5.65	1.83 <sup>b</sup>	4.91	1.83
Q4: Relaxed/tense	6.43 <sup>a</sup>	2.03	6.30	2.03
<i>Second-order factors</i>				
Extroversion: (shy/outgoing)	5.58	2.02	5.20	2.07
Anxiety: (satisfied/anxious)	6.09 <sup>a</sup>	1.75	5.82	1.67
Tough poise: (emotional/tough)	7.00 <sup>a</sup>	1.81 <sup>b</sup>	5.33	1.59
Independence: (dependent/aggressive)	6.58 <sup>a</sup>	1.98	6.62	2.31
Superego/control: (non-conforming/conforming)	5.46	2.15 <sup>b</sup>	4.87	1.96
Leadership: (follower/leader)	6.04 <sup>a</sup>	1.34	5.72	1.31
<i>Note:</i>				
<sup>a</sup> indicates the means are significantly different from the general population means at a probability level of 0.05 (two-tailed)				
<sup>b</sup> indicates the means of the women and different from the means of the men at a probability level of 0.05 (two-tailed)				

**Table VI.**  
16PF Scores of  
Respondents, by  
Gender

reported by Johnson and Dierks (1982). In their study of 100 women accountants in Texas, the mean factor B score was a very low 2.5.

The high factor E score, at 6.40, indicates that the women sampled are assertive, aggressive, stubborn, competitive, and tend to disregard authority. High factor E is a measure of dominance. These women are not submissive or docile and would not be satisfied with humble positions (Cattell *et al.*, 1970). Johnson and Dierks found their mean score on factor E was low, at approximately 3.5.

The next scale of significance is F, a measure of impulsiveness. The high score on this trait (6.69) indicates that the sample is generally composed of expressive,



enthusiastic, and “happy-go-lucky” individuals (Cattell *et al.*, 1970). Again Johnson and Dierks found the opposite trait in their subjects who had a mean score of 4.

Low factor I scores, such as the 4.63 found in this sample, indicate women who are self-reliant, realistic, tough-minded, and sceptical. These women tend to operate on a “no nonsense” basis and would probably make excellent professionals (Cattell *et al.*, 1970). These findings for factor I are consistent with the Johnson and Dierks study.

L is the next factor scoring above the normal limits with a mean of 6.45. This factor is commonly likened to suspiciousness, although it is labelled “protension,” signifying “projection and inner tension” by Cattell *et al.* (1970). The high score by the group suggests individuals who are somewhat dogmatic, tend to be annoyed by people putting on superior airs and are sceptical of alleged idealistic motives in others. People with high scores often list a high number of annoyances. They also tend not to be influenced by the views of others on the basis of their prominence. Groups averaging high on this factor tend to be less cohesive. This tendency for lack of suitability of group work may be significant for accountants and auditors in public accounting firms as much of their work is done in small teams. The mean score of the Johnson and Dierks study was 2.5, again showing a remarkable contrast with the present findings.

Q1 is a measure of rebelliousness. Our group, with a very high score of 6.88, is thus composed of subjects who share experimenting, liberal, and free-thinking attitudes. Implied is a desire to overturn traditional, conservative, or established ideas or views. There is evidence that persons high on this factor are more well informed, approach problems creatively, and are less inclined to moralize. Previous occupational studies have found this factor high in executives, university professors, those in leadership positions, and especially scientific researchers (Cattell *et al.*, 1970). This high score is the opposite from what the historical stereotype of accountants would have predicted. With such a high mean score on this trait, female accountants will have a significant impact on their firms and the profession. The Johnson and Dierks study found a mean of 4, which would correspond with the traditional stereotype.

Factor Q2 is also above normal at 6.62. This is an indicator of a high degree of self-sufficiency. Individuals with high Q2 scores prefer to make their own decisions alone and are not dependent on the approval of a group. High Q2 scores are found in farmers, writers, scientists, and criminals. This trait also appears to be a very significant contributor to scholastic success (Cattell *et al.*, 1970). Johnson and Dierks found that their factor Q2 score was the most significant for their subjects, with a mean of 2. Their subjects were strongly group oriented.

The high factor Q4 score, at 6.43, is consistent with a high level of tension and anxiety. People with high Q4 tend to be restless, fretful, and impatient. They have a poor view of groups and tend to criticize group leaders and group unity. Again Johnson and Dierks found the opposite tendency, with a mean score of 3.5.

In summary, female accountants, with eight of the 16 primary factors outside normal limits, are obviously a distinct group when compared to the general population. They are intelligent, dominant, enthusiastic, tough-minded, self-

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sufficient, and hard driving. They do not appear to have characteristics that make them work well in groups. The contrast with the earlier Johnson and Dierks 1982 study are significant, with seven of these eight factors having means on the opposite side of the population mean.

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*Secondary factors*

Second-order factors are composite scores. They recognize the fact that although each factor specifies a single trait, primary traits can cluster together. The strength of a tendency for someone to behave in a particular way is usually determined by several personality factors acting together. Thus second-order factors explain personality by combining primary traits to obtain a broader level of understanding a person's personality.

In our sample, four of the six second-order factors are significantly above average. The first is called "Anxiety", with a mean of 6.09. A high anxiety score results from women with high drive who are in situations with limited opportunities to utilize their energy. Frustration often results from these situations (Cattell *et al.*, 1970).

The second factor, labelled "Tough poise," has a very high score of 7.0. People high on this trait are influenced more by facts than feelings and they tend to be bold, hard people who are decisive and enterprising. They show insensitivity to others in their actions and usually make decisions quickly. Occupationally, this trait has been found to be high where careful control over emotions and close attention to tasks are necessary (e.g. air traffic controllers and pilots) (Cattell *et al.*, 1970).

Another second-order factor that is high is "Independence", at 6.58. This is a very broad tendency that reflects individuals who tend to be aggressive, daring, and incisive, and who resist influence from others. They are likely to demonstrate considerable initiative. In groups this may be a problem since the individual may be a "law unto herself". Independence scores are typically higher in men than in women in the general population (Cattell *et al.*, 1970).

The high "Leadership" score, at 6.04, is consistent with people who are dominant, independent, and bold. They will tend to assume an assertive role in any situation.

In summary, the image of female accountants produced by their personality profile is quite different from an "average" woman. Female accountants have personalities which emphasize strength of character: tough, intelligent, and independent. This description is especially notable as all four of the significant second-order characteristics are consistent in that their scores are all in the direction that will reinforce this tendency.

**Results of Tests for H2 (Compared with Male Accountants)**

Table VI also indicates which of the factors are different when the male and female accountants are compared (using multiple two-tailed t-tests). Five of the 16 primary factors (and two of the six secondary factors) are significant at the 5 per cent level. To determine if these differences are significant, a multiple analysis of variance (MANOVA) test was computed, using the 16 primary factors as the

dependent variables and sex as the independent variable (using SAS general linear models and MANOVA option). This test results in a Wilks' lambda statistic of 0.718 which corresponds to an exact *F* statistic of 2.72 which has a probability of 0.0011. This indicates the profiles are statistically different when all traits are considered together. Thus Hypothesis 2 is rejected. Male and female accountants have personality profiles that are significantly different.

To describe which factors contribute to this difference, a more detailed analysis was undertaken. The primary and secondary factors that are significantly different when female and male respondents are compared are summarized in Table VII.

*Primary Factors*

Factor I is the first characteristic that is significantly different when female accountants are compared to their male colleagues. The women's score, at 4.63, indicates women who are self-reliant, realistic, tough-minded, and sceptical. These women tend to operate on a "no nonsense" basis. In contrast, the men's score of 5.58 is average and indicates they have no tendency to be either tough or tender-minded. The low standard deviations for both groups, (1.78 each) indicates these are consistent tendencies.

L is the next factor that is significantly different when the male respondents are compared to the female. The women have a significantly high score of 6.45, but the men have a score that is only slightly above normal (5.82). High factor L is commonly likened to suspiciousness, although the test authors labelled it

		Women (n=89)		Men (n=135)	
		Mean	SD	Mean	SD
<i>Primary factors</i>					
<i>Low/high scores</i>					
I:	Tough/tender-minded	4.63 <sup>a</sup>	1.78 <sup>b</sup>	5.58	1.78
L:	Trusting/suspicious	6.45 <sup>a</sup>	1.88 <sup>b</sup>	5.82	1.95
M:	Practical/imaginative	5.04	1.73 <sup>b</sup>	5.78	1.80
O:	Self-assured/apprehensive	5.79	1.79 <sup>b</sup>	5.13	1.64
Q3	Undisciplined, self-conflict/following self-image	5.65	1.83 <sup>b</sup>	4.91	1.83
<i>Second-order factors</i>					
Tough poise: (emotional/tough)		7.00 <sup>a</sup>	1.81 <sup>b</sup>	5.33	1.59
Superego/control: (non-conforming/conforming)		5.46	2.15 <sup>b</sup>	4.87	1.96
<i>Note:</i>					
<sup>a</sup> indicates the means are significantly different from the general population means at a probability level of 0.05 (two-tailed)					
<sup>b</sup> indicates the means of the women and different from the means of the men at a probability level of 0.05 (two-tailed)					

**Table VII.**  
Summary of Significant Differences: Female versus Male

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“protension”, signifying “projection and inner tension” (Cattell *et al.*, 1970). The high score by the women suggests individuals who are somewhat dogmatic, tend to be annoyed by people putting on superior airs and are sceptical of alleged idealistic motives in others. People with high scores often list a high number of annoyances. They also tend not to be influenced by the views of others on the basis of their prominence. Groups averaging high on this factor tend to be less cohesive.

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Although neither the male nor female respondents differ significantly from the population mean for factor M, they are significantly different from each other and are on opposite sides of the population mean. Women accountants (at 5.04) tend to be more attentive to practical matters and details while their male colleagues (at 5.78) are more imaginative and impractical.

Similar results are found with factor O. Although neither the males (at 5.13) nor the females (at 5.79) are significantly different from the population mean, they are different from each other and are on different sides of the population mean. These results indicate the women tend to be more apprehensive while their male colleagues are more self-assured.

Our male sample, with a low Q3 score of 4.91, tend to be careless of social rules and standards. They tend to make no strong efforts to conform to a pattern of socially approved behaviour. Individuals with low Q3 are often considered to be impetuous and not overly considerate, careful, or painstaking. The males' results are significantly different from the female group's mean score, which, at 5.65, is close to the population mean of 5.5. The women would be more socially precise with a stronger sense of self-image.

In summary, we find that male and female accountants share a number of strong personality characteristics (six of the 16 primary factors). They are very intelligent (high factor B), assertive (high E), enthusiastic (high F), open minded (high Q1), self-sufficient (high Q2), and are hard driving and frustrated because they have not been able to achieve their goals (high Q4). Male and female accountants are significantly different from each other in five primary factors (I, L, M, O, and Q3) and are fairly normal in the other five characteristics (A, C, G, H, and N).

#### *Secondary Factors*

A very interesting difference is found with the factor labelled “Tough poise”. The female accountants have a very high score of 7.0 while their male colleagues scored slightly low at 5.33. People high on this score are more influenced by facts than feelings, and they tend to be bold, hard people who are decisive and enterprising. They show insensitivity to others in their actions and usually make decisions quickly. Occupationally, this trait has been found to be high where careful control over emotions and close attention to tasks are necessary (eg. air traffic controllers and pilots). People who score low on this scale are affected more by their emotions (Cattell *et al.*, 1970).

The other second order factor which is significantly different when males are compared to females is labelled Superego/Control. The men's low mean score (at 4.87) shows a tendency for this group to be nonconformist and not to act according

to others' values or out of a sense of duty. They have a tendency not to hesitate to bend rules or follow impulses. However, the women have a normal mean at 5.46 which indicates they have a balance between conforming and following the rules of society.

**Results of Tests for H3 (Size of Firm)**

To test H3, the female respondents were grouped by the size of their firms into large international ( $n = 63$ ) and smaller firms ( $n = 26$ ). A MANOVA test statistic using the 16 primary factors as the dependent variables and firm size as the independent variable. This resulted in a Wilks' lambda of 0.812 which is equivalent to an exact  $F$  statistic of 1.04 which has a probability of 0.43. This indicates no overall difference in the sets of personality profiles and  $H3$  is not rejected.

However, a number of individual differences appeared when the factors are compared using two-tailed  $t$ -tests. These are summarized in Table VIII.

Women in large firms had a significantly higher score on scale E (6.67 versus 5.77 with a two tailed  $t$ -test score of 2.02 that has a probability of less than 0.05) and were also significantly higher than the general population norm. This factor indicates that women in large firms are significantly more assertive and self-assured than those from smaller firms. In a similar fashion they scored much higher on factor H, a measure of "Boldness" (6.05 versus 4.73,  $t = 2.66, p < 0.01$ ). Thus they are more adventurous and "thick-skinned" than their female counterparts in smaller firms. Women in large firms are also significantly more suspicious (6.73 versus 5.77,  $t = 2.25, p < 0.03$ ) as indicated by higher scores on scale L. They were also significantly more rebellious (scale Q1, 7.19 versus 6.12,  $t = 2.27, p < 0.03$ ). In keeping with these differences the second-order factors of women in large firms showed greater extroversion (5.91 versus 4.77,  $t = 2.5, p < 0.02$ ) and independence (6.95 versus 5.69,  $t = 2.8, p < 0.01$ ) than women in smaller firms.

	Large firms ( $n=63$ )	Small firms ( $n=26$ )
<i>Primary factors</i>		
Low/high scores		
E: Submissive/dominant	6.67*	5.77
H: Shy/bold	6.05**	4.73
L: Trusting/suspicious	6.73*	4.77
Q1: Conservative/experimenting	7.19*	6.12
Second-order factors		
Extroversion	5.91**	4.77
Independence	6.95**	5.69
<i>Note: Means are significantly different at a probability level of:</i>		
* 0.05 (two-tailed)		
** 0.01 (two-tailed)		

**Table VIII.**  
Summary of Significant Results by Firm Size



Thus the personality profiles of female accountants from large firms are not significantly different from their colleagues in smaller firms, although a few differences in individual factors were found.

**Results of Tests for H4 (Position Level)**

Respondents were separated into senior management (Partners and Managers) and junior staff (CA/Senior and non-CA/Junior) to determine if women who have achieved management ranks in these public accounting firms are different from women who have not been promoted. Resulting means are given in Table IX.

On none of the 16 primary factors or six second-order factors did any significant differences appear (using two-tailed *t*-tests at the 0.05 level). The null hypothesis *H4* is not rejected. Women in management positions do not have personality profiles that are different from those of women who have not yet been promoted. This lack of difference indicates that promotion decisions are not being based on

	Partners and managers ( <i>n</i> =28)		Seniors and juniors ( <i>n</i> =61)	
	Mean	SD	Mean	SD
<i>Primary factors</i>				
Low/high scores				
A: Cool/warm	5.25	1.80	5.74	1.75
B: Concrete/abstract thinking	7.11	1.52	7.67	1.69
C: Affected by feelings/emotionally stable	5.29	1.76	5.11	1.92
E: Submissive/dominant	6.54	1.60	6.34	2.08
F: Sober/enthusiastic	7.07	2.40	6.51	2.28
G: Expedient/conscientious	5.04	2.53	5.48	2.20
H: Shy/bold	5.93	1.82	5.54	2.35
I: Tough/tender-minded	4.54	1.93	4.67	1.72
L: Trusting/suspicious	6.25	2.01	6.54	1.82
M: Practical/imaginative	5.36	1.68	4.90	1.75
N: Forthright/shrewd	5.50	1.71	5.30	2.03
O: Self-assured/apprehensive	5.75	1.82	5.80	1.80
Q1: Conservative/experimenting	6.68	1.98	6.98	2.14
Q2: Group-oriented/self-sufficient	6.93	1.86	6.48	1.82
Q3: Undisciplined, self-conflict/following self-image	5.89	2.30	5.54	1.59
Q4: Relaxed/tense	6.39	2.33	6.44	1.89
<i>Second-order factors</i>				
Extroversion: (shy/outgoing)	5.60	1.84	5.57	2.11
Anxiety: (satisfied/anxious)	5.95	1.96	6.16	1.66
Tough poise: (emotional/tough)	7.05	1.76	6.97	1.84
Independence: (dependent/aggressive)	6.80	1.58	6.48	2.14
Superego/control: (non-conforming/conforming)	5.37	2.51	5.50	1.98
Leadership: (follower/leader)	6.15	1.50	5.99	1.27

**Table IX.**  
16PF Scores:  
Management versus  
Staff

obvious personality differences. This finding indicates either that promotion decisions are being based on factors other than personality, such as work effectiveness and technical knowledge or that new recruits are selected on the basis of their personalities being suitable for promotion. This study is not able to determine which of these alternatives is more accurate.

Similar results were found when the respondents were split into two groups by high and low salaries (above and below \$50,000) and by those who are already CAs compared to those who are not. No significant differences were found in either of these additional tests.

We also compared the CA/Seniors to the non-CA/Juniors. No significant differences were found in this analysis. The only difference between the women in these levels is the passing of the Uniform Final Examination that is the final hurdle in becoming a Chartered Accountant in Canada. Thus all the female professionals have the personality characteristics which are consistent with passing the final test for admission to the profession.

These results all consistently indicate that all women included in this sample appear to have the personality characteristics which are not inconsistent with promotion and success in these firms. Although the proportion of women in management positions in accounting firms is relatively low, it has been stated that it is not a matter of whether women will assume a significant role in accounting firms, it is a matter of when (Hooks and Cheramy, 1989).

### Summary

Contrary to the findings of earlier studies (Earnest and Lampe, 1982; Johnson and Dierks, 1982), results of the current study show that women accountants have personality profiles that are very different from their male colleagues. Their profiles are also very different from the "average" woman.

In choosing a career, many factors influence an individual. A British study (Silverstone and Williams, 1979) found the most important reasons for women choosing to become accountants were that they thought the work would be interesting, favourable career prospects, and an "aptitude for working with numbers". Undoubtedly personality traits are important not only in steering general interests, but also in making a field appear to be interesting and in influencing the satisfaction derived from specific types of work. Although there is no obvious reason why people with specific personalities seek a particular career, occupational studies have repeatedly shown consistent personality traits in different professions. Unfortunately, most of this work has focused on men or on women in traditional female occupations. The current study indicates that women accountants do not conform to the traditional stereotype of (male) accountants and should be studied on their own merits.

This study indicates that female public accountants may be described as intelligent, bold, decisive, and enterprising. They are independent, confident, and assertive. Several authors have suggested that male accounting professionals discriminate against women (Borgia, 1989; Silverstone and Williams, 1979). However, with this personality profile, it would appear that female accountants

will be successful in the accounting profession in spite of any discrimination against them.

By presenting group profiles, it is not our wish to replace one stereotype with another, but simply to document in an objective fashion the observed traits which may eventually be useful in occupational guidance or in shaping job specifics to suit individuals drawn to the field. Since personality traits are considered to be enduring and longstanding that they result from both genetics and early childhood experience, the similarities found in this study do not reflect occupational or organizational influences on the individuals, but indicate either the results of a selection or self-selection process.

Several limitations of this study must be recognized before its generalizability to other groups is assumed. First of all, women in only seven firms in one Canadian city are included. While every attempt was made to assure the confidentiality of the respondents, the questionnaires were distributed by a contact person in the firm. Whether this method had any effect on the type of persons who responded is not known. Although the number of respondents is large as a proportion of the number of female accountants in public accounting firms in the city, it is not possible to claim the respondents are similar to those who chose not to respond.

The findings in this study are not consistent with those found in previous personality studies, especially the 1982 study by Johnson and Dierks that used the same instrument to measure personality. Further research is needed to determine if these findings are generalizable to other groups and to determine the reasons for the changes. As other researchers have also called for additional research on gender effects (Hooks, 1992; Kirkham, 1992), personality should be included as a variable of interest.

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#### Appendix: Calculation of Secondary Factors

Secondary factors are calculated by combining combinations of the primary factors as follows:

Extroversion	= (0.28A + 0.35F + 0.36H - 0.38Q2 + 2.15)
Anxiety	= (- 0.29C - 0.12H + 0.13L + 0.340 - 0.12Q3 + 0.34Q4 + 3.96)
(Female) tough poise	= (-0.13A + 0.39E + 0.21F - 0.58I + 0.21L - 0.43M + 7.32)
(Female) independence	= (0.48E - 0.13G + 0.34Hn + 0.19M + 0.37Q1 + 0.13Q2 - 2.09)
Superego/control	= (0.68G + 0.49Q3 - 0.94)
Leadership	= (0.1B + 0.1C + 0.1E + 0.2F + 0.2G + 0.2H - 0.1I - 0.1M + 0.1N - 0.20 + 0.2Q3 - 0.1Q4 + 1.7)