

**Employment and remuneration of Irish chartered accountants:
Evidence of gender differences**

**Niamh Brennan
University College Dublin**

**Patrick Nolan
Chapman Flood & Co., Chartered Accountants**

We thank The Leinster Society of Chartered Accountants and Mr. Brendan Burgess of The Accountants' Panel for access to the data necessary to carry out this research.

Address for correspondence: Prof. Niamh Brennan, Department of Accountancy, University College Dublin, Belfield, Dublin 4. E-mail: niamh.brennan@ucd.ie

**Employment and remuneration of Irish chartered accountants:
Evidence of gender differences**

ABSTRACT

Literature on gender based salary differentials has proliferated in recent years but there have been few studies on salary differentials in the accounting profession. This paper examines factors influencing remuneration of Irish chartered accountants. Responses to the Leinster Society of Chartered Accountants (LSCA) annual salary survey in 1995 and 1996 were analysed. Employee-related and employer-related factors influencing remuneration were examined including Gender, Work experience, Level of responsibility, Employment contract and Size and Industry.

Gender was a significant explanatory variable in explaining differences in salaries paid to employees working in non-audit businesses. Gender, however, was not found to be significant in explaining differences in salaries paid in audit practices. As partners in auditing firms are not included in this research (because partners do not earn a salary) this finding must be interpreted cautiously.

INTRODUCTION

The late 1980s and early 1990s have seen significant changes in the structure and size of the accounting profession in Ireland. There has been substantial growth in numbers, in particular of women, joining the profession.

While a degree of anecdotal evidence exists that male chartered accountants in Ireland are paid more than their female counterparts (LSCA, 1990-1996), there has been no empirical research to date to statistically support these findings. The objective of this paper is to examine the extent of salary differences between male and female chartered accountants and their causes. Economic factors found in prior research to influence salary are examined in respect of earnings of Irish chartered accountants working in the Leinster region.

Equality legislation

The issue of whether there exists any difference in the salaries earned by male and female chartered accountants, and whether these differences are as a result of discrimination or of other factors, is a question of significant importance particularly in the light of Irish and European Union (EU) legislation aimed at preventing discrimination (Fennell and Lynch, 1993). If discrimination persists this raises questions about the effectiveness of such legislation.

Prior to Ireland's entry to the European Economic Community (EEC) there was no legislation in place granting equal rights to men and women in the labour market. The introduction of European Community Directive 75/115 on equal pay and Directive 76/207 on equal treatment forced the Irish government to introduce legislation designed to guarantee equal pay and full equality to women (Fennell and Lynch, 1993).

The Anti-Discrimination (Pay) Act, 1974, states that every contract of employment under which a woman is employed shall contain a term that she will be entitled to the same rate of remuneration as a man who is employed in that place by the same employer, if they are both performing like work. The Employment Equality Act, 1977, provides that an employer shall not discriminate against an employee in relation to

access to employment, training or experience for, or in relation to, employment promotion or re-grading in employment or classification of posts in employment. The grounds for discrimination are wide and include discrimination on the basis of gender or marital status.

Despite the comprehensive nature of the 1977 Act, the legislative framework in Ireland for equality has been criticised as being inadequate in preventing discrimination. Some have queried whether a new direction, apart from legislation, is needed to adequately address the problem.

The primary contribution of this paper is that, for the first time, factors influencing remuneration of chartered accountants in Ireland are analysed using multivariate statistical techniques, with discussion of initial insights into the issue of gender discrimination as it exists in the Irish accounting profession.

LITERATURE REVIEW AND RESEARCH QUESTIONS

Influence of gender

Research into the reasons why women are paid less than men was first given serious attention in the early part of this century. These studies are reviewed by Sapsford and Tzannatos (1993). Factors suggested include:

- Crowding: over-representation of women in certain employment sectors resulting in depressed earnings in those sectors;
- Women constrained by family responsibilities and social conventions from mobility in the labour market;
- Refusal of men to work with, or under the supervision of, women;
- Prejudice of (i) employers (ii) employees or (iii) customers.

Research into gender differentials in Ireland has been limited. Ruane and Dobson (1990) examined differences in academic salaries in Ireland. Their research found that factors determining salaries of male and female academics differed, with children having a positive effect on men's salaries but not on women's salaries. They found that the burden of childcare is borne primarily by women. No men in their sample

took career breaks to engage in childcare. Where women took such career breaks it had a significant negative impact on their earnings when they returned to the workforce. The introduction of equality legislation in the 1970's and the change in government attitudes to gender discrimination had little effect on such gender differentials. The extent of the differential was found to be less for younger women than for women with greater work experience. This may indicate a narrowing of the gender differential.

Evidence of salary differentials in accounting

There have been relatively few studies on earnings differentials in the accounting profession. A number of US studies survey women accountants and find perceptions of substantial differences in pay between male and female accountants (Pillsbury, Capozzoli and Ciampa, 1989; Trapp, Hermanson and Turner, 1989; Hunton, Neidermeyer and Wier, 1996).

Few studies have had access to objective salary data to confirm whether these perceptions are well founded. An exception is Cao and Buchanan (1987) who found a compensation gap between male and female management accountants. The major causes of this were work experience and position in the organisation. Other causes were gender, education and professional competence. Although gender was statistically significant, the magnitude of its effect was minor compared with work experience and position in the organisation. Hunton, Neidermeyer and Wier (1996) obtained aggregate compensation data in three manufacturing industries. As they were not given access to individual personnel information they were unable to perform statistical analyses on the data. However, examination of the aggregate compensation information suggested that males employed in the accounting department of the three industries earned more than females at all hierarchical levels.

Other employee-related factors

There are reasons, however, why women earn lower remuneration than men which are unrelated to discrimination.

Light and Ureta (1995) and O'Neill and Polachek (1993) found significant differences in the amount of work experience of women in various age groups. Continuous work experience was found to be more highly valued by employers than experience with breaks for various reasons. As women are more likely to have career interruptions than men, women's salaries will tend to be lower than those of men with similar years of work experience.

Malkiel and Malkiel (1973) found that differences between male and female earnings tend to disappear when differences in job level and worker characteristics are taken into account. They found, however, that on average women tend to be assigned to lower level jobs than men. Approximately half of this could be explained by differences in characteristics such as education and work experience, but remaining differences appeared to be due to discrimination and provided evidence of the "glass ceiling" i.e. organisational barriers impeding promotion of women to high levels of responsibility within organisations.

Differences in employment contract (temporary or permanent) are expected to have some impact on salary differences. Temporary employees tend to be paid less than permanent employees. This occurs because they are less valued by the organisation and the cost of replacing them tends not to be significant.

Employer-related factors

Employer effects, employer characteristics and corporate structure variables have been found to influence remuneration (Hodson, 1983; Nolan and Brown, 1983; Groshen, 1991a). Previous research suggests that size is a critical factor in determining remuneration (Mellow, 1982; Brown and Medoff, 1989; Dunn, 1980, Dunn, 1984; Personick and Barsky, 1982; Nolan and Brown, 1983).

Surveys of executive salaries in Ireland conducted by the Irish Management Institute (IMI) show considerable differences in salary earned between those employed in the largest firms compared with smaller firms (IMI 1991, IMI 1995).

Explanations put forward to explain the size effect are employment of higher quality workers (Hamermesh, 1980), compensation for inferior working conditions (Stafford, 1980), threat of unionisation (Podgursky, 1986) and sharing by larger firms of above normal profits with workers (Mellow, 1982). Higher recruitment costs, coupled with greater expenditure on job training, makes labour turnover quite expensive and Groshen (1991b) claimed that larger employers tend to pay higher wages to avoid incurring these additional costs.

Industry

The sector of the economy in which a firm operates can often affect remuneration paid to employees (Krueger and Summers, 1988; Dickens and Katz, 1987a, 1987b). The principal factors giving rise to such differentials are differences in productivity and profitability among industries (Pugel, 1980), the degree of industry concentration (Dalton and Ford, 1977), compensating differentials and bargaining power of workers in industries with economic rents.

Many studies into gender differentials have found some unexplainable difference in salary levels, after accounting for measurable differences between male and female attributes. In this research, amount of work experience, level of responsibility, status of employment contract, size of employer and industry sector of employment are examined to see if they influence salary. Differences in any or all of these factors could account for differences in salary. To summarise, the variables hypothesised to influence remuneration, and the model tested in this research, are as follows:

Remuneration = f (Gender, work experience, level of responsibility, employment contract, size, industry)

RESEARCH METHODOLOGY

Population

The population includes all chartered accountants employed in the LSCA area. Partners in accounting firms, and those practicing as sole practitioners who are self employed, are excluded because their remuneration is based on a share of profits which by nature may be variable.

Information on the population and sample is summarised in Table 1. The Institute of Chartered Accountants in Ireland (ICAI) had 9,476 members on 31 January 1996. The sample is drawn from the Leinster area, which includes the capital city of Dublin. Leinster is one of four provinces in Ireland. The LSCA is the largest of ICAI's four district societies and contains approximately 48 percent of the total members of the Institute, 17 percent of whom are women.

Selection of sample

The data used in this research were collected as part of the LSCA salary survey in 1995 and 1996. A questionnaire is sent out each January to all LSCA members, excluding those who are partners in accounting practices and those working as sole practitioners. There were 667 (1995) and 721 (1996) responses received - a response rate of approximately 20 percent in each year. A two year sample was chosen to correct for any distortions arising in a single period. One respondent was unemployed and was dropped from the analysis as that person had no salary.

In all, there were 277 (20%) female and 1,110 (80%) male chartered accountants in the sample.

Table 1: Population and sample						
	Male		Female		Total	
	No.	%	No.	%	No.	%
Membership of ICAI	<u>7,814</u>	<u>82%</u>	<u>1,662</u>	<u>18%</u>	<u>9,476</u>	<u>100%</u>
Membership of LSCA	<u>3,769</u>	<u>83%</u>	<u>790</u>	<u>17%</u>	<u>4,559</u>	<u>100%</u>
Sample	<u>1,110</u>	<u>80%</u>	<u>277</u>	<u>20%</u>	<u>1,387</u>	<u>100%</u>
Source: The Institute of Chartered Accountants in Ireland						

Sample bias

There are a number of sources of bias in the sample:

- The financial services sector in Ireland is concentrated in the Leinster region. The sample therefore includes a higher proportion of chartered accountants in the financial services sector than the population as a whole.

- “Big Six” accounting firms are concentrated in the Dublin area where these firms have their headquarters. A large proportion of small and medium sized practices are situated outside the Leinster Society area. The proportion of “Big Six” employees in the sample will therefore be greater than that in the population, while the proportion of employees of small and medium-sized practices will be smaller.
- The proportion of women in the sample (20%) is slightly greater than in the population as a whole (17%).
- Those earning high levels of remuneration may, for reasons of confidentiality, be reluctant to disclose details of their remuneration package, suggesting that a large proportion of those not responding are high earners. In addition, higher earners are likely to be busier and to have less time to complete the survey questionnaire. Conversely, less well paid accountants who are unhappy with their earnings will be more motivated to respond to the survey. This will result in the sample having a bias in favour of lower salaries and average salary levels in the sample may be lower than for the population as a whole.

Dependent variable

The dependent variable is remuneration from employer. This is measured as annual salary in Irish pounds to the 31st of January of the year under review, excluding any bonus, overtime pay and fringe benefits.

Independent variables

The independent variables in this study fall into two groups, namely employee-related and employer-related variables. Employee-related variables include:

- Gender (GENDER): Male/Female;
- Work experience (EXP): Years since passing final exam: 1 = 1-5 years, 2 = 6-10 years, 3 = 11-15 years, 4 = 16-26 years, 5 = 27-35 years, 6 =>35 years;
- Level of responsibility (RESP): 1 = Managing director, 2= No.1 in finance department, 3 = No.2 in finance department, 4 = No.3 in finance department, 5 =

Other; 11= Senior/supervisor, 12= Manager, 13 = Other position with accounting practice;

- Employment contract (CONTRACT): Permanent/Temporary.

Employer-related variables include:

- Size (SIZE): Non-audit (No. of employees): 1 = 1-50, 2 = 51-250, 3 = 251-1,000, 4 = 1,000+; Audit: 1 = Big-six firm, 0 = Other accounting firm;
- Industry (IND): 1= Financial services, 2 = Audit practice, 3 = Manufacturing industry, 4 = Other, 5 = Service industry, 6 = Government/non-commercial organisation.

RESULTS

Results are presented separately for non-audit and audit employments as multivariate analysis can only be carried out separately for these two groups.

Univariate and bivariate descriptive statistics

Dependent variable

Table 2 shows that the average salary for the sample was IR£37,143, ranging from a minimum of IR£9,000 per annum to a maximum of IR£170,000. Salaries are higher in the non-audit sector. Partners in audit firms (who do not earn a salary) are excluded from the audit sample which as a result contains employees at lower pre-partnership levels of remuneration. In both audit and non-audit sectors, the mean salary of female chartered accountants is lower compared with their male counterparts.

Table 2: Descriptive statistics of the dependent variable - Remuneration							
	Mean IR£	Median IR£	Minimum IR£	Maximum IR£	Skewness	Std. Deviation	No. cases
Non-audit							
Male	42,088	38,000	14,000	170,000		20,070	931
Female	28,813	27,142	15,000	65,000		8,693	<u>212</u>
Total	39,628	35,000	14,000	170,000	2.26	19,200	<u>1,143</u>
Audit							
Male	26,349	24,000	9,000	80,000		10,988	65
Female	23,158	20,000	12,000	54,000		10,144	<u>179</u>
Total	25,499	22,250	9,000	80,000	1.35	10,842	<u>244</u>
Total audit and non-audit							
Total	37,143	33,000	9,000	170,000	2.22	18,798	<u>1,387</u>
Logarithm of Remuneration	10.42	10.4			0.32	0.44	

Mann-Whitney U test results in table 3 show that differences in mean rankings of average salary of female chartered accountants are significantly lower than those of male chartered accountants. This difference does not, however, indicate *per se* that discrimination exists, but it does provide evidence supporting the hypothesis that salary earned by women is less than that earned by men.

Table 3: Mann-Whitney U tests of differences in mean rankings of salary between male and female chartered accountants		
	Male	Female
Non-audit		
Mean rank of salary	623	350
Mann-Whitney U test: Z statistic -10.84; Two-tailed probability 0.00		
Audit		
Mean rank of salary	129	104
Mann-Whitney U test: Z statistic: -2.46; Two-tailed probability: 0.01		

Differences in employment characteristics of male and female chartered accountants

Lower remuneration earned by female chartered accountants may be attributable wholly or in part to differences in the employment characteristics of female chartered accountants when compared with their male counterparts. An examination of the independent variables (other than gender) is set out in tables 4 to 8.

Table 4 analyses years of work experience by gender. Chi-square statistics show that there is a significant difference in work experience between male and female chartered accountants in both the audit and non-audit sectors. In the non-audit sector, 45 percent of male respondents have more than ten years work experience compared with 16 percent of female respondents. This compares with 24 percent of males and 5 percent of female respondents in the audit sector having more than ten years work experience. Thus, the sample in the audit sector contains a greater proportion of more recently qualified chartered accountants compared with the non-audit sector. This is probably because partners in audit firms are excluded from the audit sample.

Only 36 female respondents (13%) have more than ten years work experience; none have more than 26 years work experience. This compares with 41 percent of men with more than ten years work experience and 7 percent with more than 26 years work experience. This supports our expectation that women have less labour force experience than men - having only relatively recently entered the workforce in sizeable numbers.

Many studies have highlighted the key importance of labour force experience as a determinant of salary. As female chartered accountants have significantly less labour force experience than their male counterparts, their remuneration levels will consequently be lower.

Table 4: Years work experience analysed by gender				
Years work experience - Non-audit	Male		Female	
	No.	%	No.	%
1-5 years	219	(24%)	102	(48%)
6-10 years	286	(31%)	77	(36%)
11-15 years	153	(16%)	28	(13%)
16-26 years	196	(21%)	5	(3%)
27-35 years	67	(7%)	-	(0%)
> 35 years	10	(1%)	=	(0%)
	<u>931</u>	<u>(100%)</u>	<u>212</u>	<u>(100%)</u>
Pearson chi-square 92.16 (d.f. 5) Significance 0.00				
Years work experience - Audit				
1-5 years	112	(62%)	54	(83%)
6-10 years	43	(24%)	8	(12%)
11-15 years	14	(8%)	3	(5%)
16-26 years	9	(5%)	-	(0%)
27-35 years	1	(1%)	-	(0%)
> 35 years	=	(0%)	=	(0%)
	<u>179</u>	<u>(100%)</u>	<u>65</u>	<u>(100%)</u>
Pearson chi-square 10.41 (d.f. 4) Significance 0.03				

Table 5 analyses level of responsibility by gender. Results for non-audit employees confirm that women tend to be underrepresented in higher paid positions. Sixty one percent of males in the sample are employed at head of finance or higher, while all managing directors are men. In contrast only 31 percent of women are at head of finance level and there are no female managing directors in the sample. This clearly indicates that level of responsibility is related to gender. This may be partly due to women in the sample having less years work experience than men such that they lack the seniority and experience necessary for appointment to more senior positions.

Chi-square statistics reveal that there is no significant difference in level of responsibility between males and female chartered accountants employed in audit practices.

Table 5: Level of responsibility analysed by gender				
Level of responsibility -Non-audit	Male		Female	
	No.	%	No.	%
Managing director	91	(10%)	-	(0%)
No.1 in finance department	471	(51%)	66	(31%)
No.2 in finance department	176	(19%)	85	(40%)
No.3 in finance department	61	(6%)	34	(16%)
Other	<u>129</u>	<u>(14%)</u>	<u>27</u>	<u>(13%)</u>
	928	(100%)	212	(100%)
Missing values	<u>3</u>		<u>=</u>	
	<u>931</u>		<u>212</u>	
Pearson chi-square 87.27 (d.f. 4) Significance 0.00				
Level of responsibility - Audit	Male		Female	
	No.	%	No.	%
Senior/supervisor	74	(41%)	35	(54%)
Manager	86	(48%)	26	(40%)
Other	<u>19</u>	<u>(11%)</u>	<u>4</u>	<u>(6%)</u>
	<u>179</u>	<u>(100%)</u>	<u>65</u>	<u>(100%)</u>
Pearson chi-square 3.35 (d.f. 2) Significance 0.19				

The proportion of men and women employed on temporary and permanent contracts is set out in table 6. Nearly all chartered accountants are employed on permanent contracts. In the non-audit sector significantly more women are on temporary contracts compared with male chartered accountants.

Table 6: Employment contracts analysed by gender				
Employment contract - non-audit	Male		Female	
	No.	%	No.	%
Permanent	918	(99%)	197	(93%)
Temporary	<u>13</u>	<u>(1%)</u>	<u>15</u>	<u>(7%)</u>
	<u>931</u>	<u>(100%)</u>	<u>212</u>	<u>(100%)</u>
Pearson chi-square 23.31 (d.f. 1) Significance 0.00				
Employment contract - audit	Male		Female	
	No.	%	No.	%
Permanent	173	(97%)	62	(95%)
Temporary	<u>6</u>	<u>(3%)</u>	<u>3</u>	<u>(5%)</u>
	<u>179</u>	<u>(100%)</u>	<u>65</u>	<u>(100%)</u>
Pearson chi-square 0.21 (d.f. 1) Significance 0.64				

The distribution of men and women in the different employer size categories is presented in table 7. Approximately one third of respondents are employed in small

firms of fifty employees or less. The remaining respondents are spread equally over the other size categories.

Differences in size of organisation employing male and female chartered accountants are not significant in audit practices but are significant at 6% in non-audit businesses. Women are less well represented in larger size categories of firms. This may impact on salary as larger firms are expected to pay higher salaries.

Table 7: Size of employer analysed by gender				
	Male		Female	
Size of employer - Non-audit	No.	%	No.	%
1-50 employees	315	(34%)	72	(34%)
51-250	308	(33%)	52	(24%)
251-1,000	185	(20%)	50	(24%)
> 1,000	<u>122</u>	<u>(13%)</u>	<u>37</u>	<u>(18%)</u>
	930	(100%)	211	(100%)
Missing values	<u>1</u>		<u>1</u>	
	931		212	
Pearson chi-square 7.53 (d.f. 3) Significance 0.06				
Size of employer - Audit				
Big-six firm	110	(61%)	44	(68%)
Other	<u>69</u>	<u>(39%)</u>	<u>21</u>	<u>(32%)</u>
	179	(100%)	65	(100%)
Pearson chi-square 0.80 (d.f. 1) Significance 0.37				

Industry sectors are classified into six broad categories. Table 8 shows that manufacturing industry is the largest employer (41%) of chartered accountants responding to the survey. Over 26% of the responses were from those working in the financial services sector, showing the growing importance of this sector. Only 18% of respondents were employed in accounting practices.

There is a significant difference in industry sector of male and female employees. More women work in financial services and audit practice; less work in manufacturing businesses. This is expected to influence salary as financial services companies tend to pay higher salaries while audit practices pay lower salaries. This confirms our expectation of a different distribution of male and female chartered accountants in different industry sectors and differs from the results of Watts and Rich

(1993) which found a low level of occupational segregation among professional and managerial professions.

Table 8: Industry sector analysed by gender				
Industry sector	Male		Female	
	No.	%	No.	%
Financial services	278	(25%)	85	(31%)
Manufacturing industry	483	(44%)	86	(31%)
Service industry	102	(9%)	22	(8%)
Government/Non-commercial organisation	38	(4%)	13	(5%)
Other	<u>23</u>	<u>(2%)</u>	<u>6</u>	<u>(2%)</u>
	924	(84%)	212	(77%)
Audit Practice	<u>179</u>	<u>(16%)</u>	<u>65</u>	<u>(23%)</u>
	1,103	(100%)	277	(100%)
Missing values	<u>7</u>		<u>=</u>	
	<u>1,110</u>		<u>277</u>	
Pearson chi-square 17.97 (d.f. 5) Significance 0.00				

In conclusion, bivariate analysis shows significant differences between male and female chartered accountants in salary, years work experience, level of responsibility (non-audit area only), employment contract (non-audit area only) and industry sector. Size of employer is the only variable where there was no significant difference (at 5%) between male and female chartered accountants.

Multiple regression

Multiple linear regression is used to analyse the model presented earlier to explain differences in salary. Analysis is carried out separately for audit and non-audit employments.

As salary is highly skewed, the natural logarithm is used as the dependent variable in the regression equations.

Regression diagnostics

A number of assumptions must be satisfied for multiple regression to be appropriate, namely linearity, normality, equality of variance and independence of error. Scatterplots of the predicted values and residuals for each independent variable were

constructed and the evidence from these suggests that the linearity assumption is not violated. The spread of residuals also indicates that the equality of variance assumption is not violated. A casewise serial plot of the studentised residuals indicates that there was no discernible pattern in the distribution of the residuals and that the independence of error assumption is not violated. An examination of the condition indices for the independent variables indicate that collinearity among the variables is not a problem. Variance inflation factors (VIF) showed no evidence of multicollinearity problems. VIFs in excess of 10 are often taken as an indication that multicollinearity may unduly influence the results (Neter, Wasserman and Kutner, 1985). The highest VIF found was 2.9.

Multiple regression analysis for non-audit employees reported in table 9 shows that gender is significantly related to salary. The explanatory power of the model is high with an R^2 of 0.64.

Male chartered accountants have significantly larger salaries than female chartered accountants. However, examination of changes in R^2 shows that gender contributes only 3% improvement in R^2 . Years of experience is most important in explaining variations in salary, accounting for 0.48 (75%) of the total R^2 of the model. Less experienced employees earn significantly lower salaries.

The results in table 9 show that managing directors and the number 1 in finance departments earn significantly higher salaries, as do employees in financial services businesses. Smaller companies up to 1,000 employees pay significantly lower salaries than larger companies.

Table 9: Multiple regression analysis of log of salaries - Non-audit							
Independent variable	Coefficient	Standard error	Std. Regression coefficient	Partial correlation coefficient	Change in R²	t-value	Sig. T
EXP (1-5 years)	-0.44	0.02	-0.48	-0.47	0.38	-17.79	0.00**
EXP (6-10 years)	-0.14	0.02	-0.16	-0.18	0.10	-6.29	0.00**
RESP (Managing director)	0.45	0.03	0.30	0.39	0.05	14.18	0.00**
IND (Financial services)	0.21	0.02	0.24	0.27	0.01	9.31	0.00**
GENDER (Male)	0.11	0.02	0.10	0.16	0.02	5.30	0.00**
RESP (No.1 Finance Dept.)	0.15	0.02	0.18	0.24	0.01	8.17	0.00**
SIZE (1-50 employees)	-0.29	0.03	-0.33	-0.30	0.01	-10.64	0.00**
SIZE (51-250 employees)	-0.23	0.03	-0.25	-0.26	0.01	-8.86	0.00**
EXP (16-26 years)	0.15	0.03	0.14	0.17	0.01	5.96	0.00**
RESP (No.3 Finance Dept.)	-0.13	0.03	-0.09	-0.13	0.01	-4.28	0.00**
SIZE (251-1,000 employees)	-0.14	0.03	-0.13	-0.15	0.01	-5.24	0.00**
EXP (27-35 years)	0.14	0.04	0.08	0.11	0.00	3.83	0.00**
IND (Manufacturing industry)	0.07	0.02	0.09	0.10	0.00	3.47	0.00**
CONTRACT (Temporary)	0.15	0.05	0.06	0.09	0.00	3.06	0.00**
Constant	10.39	0.06				180.04	0.00**
Variables not in the equation							
EXP (>35 years)	-					-	-
IND (Other)	0.02					1.18	0.24
IND (Service industry)	0.05					1.79	0.07
RESP (No. 2 Finance Dept.)	-7.46E-04					-0.03	0.98
Regression equation characteristics							
R ²	0.64						
Adjusted R ²	0.64						
F	143.24						
Significance F	0.00**						
Cases	1,140 (3 missing cases)						
** = Significant at the 1% level of significance							

Table 10 shows that gender is not significantly related to salary in audit practices. Level of responsibility, years of experience and whether the practice is a big-six firm or not explained variations in salary. The explanatory power of the model, as revealed by an R² of 0.81, is high. Level of responsibility and big-six firms explained 85% of R².

Table 10: Multiple regression analysis of log of salaries - Audit

Independent variable	Coefficient	Standard error	Std. Regression coefficient	Partial correlation coefficient	Change in R²	t-value	Sig. T
RESP (Senior)	-0.40	0.03	-0.51	-0.71	0.55	-15.44	0.00**
SIZE (Big-Six)	0.26	0.02	0.31	0.59	0.15	11.22	0.00**
EXP (11-15 years)	0.49	0.05	0.32	0.56	0.05	10.51	0.00**
EXP (6-10 years)	0.24	0.03	0.25	0.45	0.03	7.70	0.00**
EXP (16-26 years)	0.37	0.06	0.18	0.37	0.03	6.23	0.00**
EXP (27-35 years)	0.48	0.17	-0.08	-0.18	0.01	-2.82	0.01**
Constant	9.99	0.02				411.65	0.00**
Variables not in the equation							
CONTRACT (Temporary)	0.04					1.29	0.20
RESP (Manager)	0.07					1.36	0.18
GENDER (Male)	0.04					1.53	0.13
Regression equation characteristics							
R ²	0.82						
Adjusted R ²	0.81						
F	178.93						
Significance F	0.00**						
Cases	244 (No missing case)						

** = Significant at the 1% level of significance

SUMMARY, CONCLUSIONS AND IMPLICATIONS OF THE RESEARCH

This paper set out to analyse remuneration of Irish chartered accountants to see if it differed in any substantial way between male and female chartered accountants. Other variables influencing salary were also examined including work experience, level of responsibility, employment contract and size and industry of employer.

As expected, the salary of female chartered accountants was significantly lower than that of male chartered accountants. In addition, there was a significant difference between male and female chartered accountants in the other factors influencing salary. Women had significantly lower years work experience, and, consistent with this, women hold lower positions of responsibility than men. These differences may account for some of the differences in salary. In addition, some significant differences in employment contract, size of employer and industry of employer were also noted between male and female chartered accountants.

Multivariate analysis showed that gender was a significant determinant of salary in the non audit area, even controlling for women having less work experience than men, and being employed at lower levels of responsibility. This provides evidence of pay discrimination based on gender. However, the influence of gender was small compared with the influence of work experience and level of responsibility. Gender was not a significant influence on salary in audit practices. Level of responsibility, size of employer and years work experience were the primary determinants of salary.

In summary, these results provide only weak evidence of gender discrimination in relation to salary. The salaries paid to male and female chartered accountants tended to reflect their levels of responsibility and years work experience.

Limitations

While this research has provided much useful information, it has been subject to certain limitations:

- Partners in auditing firms are excluded because they do not earn a salary and are therefore not asked to respond to the salary survey. Thus, the finding of no difference in earnings between male and female chartered accountants in audit practices must be interpreted cautiously. The audit sample is highly biased in favour of younger chartered accountants. Were information available to enable partners to be included in the research, the results might be different, as most audit practice partners are males.
- The information on years work experience is limited in that only the number of years potential post-qualification experience is provided. This does not take into account periods of unemployment, career breaks or periods of part-time work. It is possible that actual experience is less than potential experience for any one of those reasons. This is likely to understate the impact of experience on the results and to overstate the effect of gender.
- As the sample is drawn entirely from one geographical area, Leinster, it is questionable whether these results can be applied to the country as a whole.

- No information was collected on respondents personal circumstances. It would be interesting to test the effect of marital status and of children on salaries and whether the effect is the same for male and female chartered accountants.

Future research

The focus of this study is differences in pay. Evidence of gender discrimination is weak. The results in this study show little overt differences in salary. Salaries paid are reasonably consistent with years work experience and level of responsibility. However there appear to be significant differences in the variables driving salary differences. This suggests that future research might focus on some of these variables other than salary.

A different issue, which deserves further research, is whether gender plays a significant causal role in determining continuity of employment (years work experience) and promotion (level of responsibility). The analysis suggests that women are more likely to be found in junior positions. It is not clear from this research that lower levels of responsibility are caused by lower work experience. Could lower levels of responsibility be because female chartered accountants do not get promoted as readily as their male colleagues?

This may point towards non-salary gender discrimination in terms of promotion and, perhaps, in the related area of survival in employment. Factors not examined in this paper include periods of interruption from work (career breaks) since qualification and the effect of marriage and parenthood. These factors should be examined in the context of promotional equality and level of responsibility, rather than (as in this paper) against salary. This paper suggests that women are getting paid (more or less) the equivalent salary as men for the positions they hold. Further research needs to examine in more depth whether the positions they hold are similar to those of men of the same years work experience to provide a more reliable indicator of whether gender discrimination adversely impacts on women accountants in terms of promotion.

REFERENCES

- Brown, C. and Medoff, J. (1989) 'The employer size - wage effect'. *Journal of Political Economy*, 97 (5): 1027-1059.
- Cao, L. T. and Buchanan, P. G. (1987) 'The gender gap in accounting: Salary disparity among management accountants', *Akron Business and Economic Review*, 18 (4): 34-43.
- Dalton, J. A. and Ford, E. J. (1977) 'Concentration and labor earnings in manufacturing and utilities', *Industrial and Labor Relations Review*, 31 (1): 45-60.
- Dickens, W. T. and Katz, L. F. (1987a) 'Industry wage differences and theories of wage differences determination', Working Paper No. 2271, National Bureau of Economic Research, Cambridge, MA.
- Dickens, W. T. and Katz, L. F. (1987b) 'Industry wage differences and industry characteristics', in Lang, K. and Leonard. J. S. (eds) *Unemployment and the structure of labor markets*, New York: Basil Blackwell, pp. 48-89.
- Dunn, L. F. (1980) 'The effects of firm and plant size on employee well-being', in Siegfried, J. J. (ed) *The economics of firm size, market structure and social performance*. Washington, DC: Federal Trade Commission, pp. 348-358.
- Dunn, L. (1984) 'The effects of firm size on wages, fringe benefits and worker disutility', in Brock, B., Goldschmidt, H., Millstein, I. M. and Scherer, F. M. (eds) *The impact of modern corporations*. New York: Columbia University Press, pp. 1-58.
- Fennell, C. and Lynch, I. (1993) *Labour law in Ireland*. Gill and Macmillan, Dublin.
- Groshen, E. L. (1991a) 'Five reasons why wages vary among employers', *Industrial Relations*, 30 (3): 350-381.

- Groshen, E. L. (1991b) 'The structure of the female/male wage differential: Is it who you are, what you do, or where you work?', *Journal of Human Resources*, 26 (?f): 457-472.
- Hamermesh, D. S. (1980) 'Commentary', in Siegfried, J. J. (ed) *The economics of firm size, market structure and social performance*. Washington, DC: Federal Trade Commission, pp. 383-388.
- Hodson, R. (1983) *Workers' earnings and corporate economic structure*. New York: Academic Press.
- Hunton, J. E., Neidermeyer, P. E. and Wier, B. (1996) 'Hierarchical and gender differences in private accounting practice', *Accounting Horizons* 10 (2): 14-31.
- Irish Management Institute (IMI) (1991) *Survey of executive salaries in Ireland*. Dublin: Irish Management Institute.
- Irish Management Institute (IMI) (1995) *Survey of executive salaries in Ireland*. Dublin : Irish Management Institute.
- Krueger, A. B. and Summers, L. H. (1988) 'Efficiency wages and the inter-industry wage structure', *Econometrica*, 56 (2):259-293.
- Leinster Society of Chartered Accountants (LSCA) (1990-1996) *Salary survey*. Dublin: Leinster Society of Chartered Accountants.
- Light, A. and Ureta, M. (1995) 'Early-career work experience and gender wage differentials', *Journal of Labour Economics*, 13 (1): 121-153.
- Malkiel, B. G. and Malkiel, J. A. (1973) 'Male - female pay differentials in professional employment', *American Economic Review*, 63 (4): 693-705.

- Mellow, W. (1982) 'Employer size and wages', *Review of Economics and Statistics*, 64 (August): 495-504.
- Neter, J., Wasserman, W. and Kutner, M. W. (1985) *Applied linear statistical models*. Homewood, Illinois: Irwin.
- Nolan, P. and Brown, W. (1983), 'Competition and workplace wage determination', *Oxford Bulletin of Economics and Statistics*. 45 (August): 269-287.
- O'Neill, J. and Polachek, S. (1993) 'Why the gender gap in wages narrowed in the 1980's', *Journal of Labour Economics*. 11 (1): 205-228.
- Personick, M. E. and Barsky, C. B. (1982) 'White-collar pay levels linked to corporate work force size', *Monthly Labor Review*, 105 (May): pp. 23-28.
- Pillsbury, C. M., Capozzoli, L. and Ciampa, A. (1989) 'A synthesis of research studies regarding the upward mobility of women in public accounting', *Accounting Horizons*, 3 (1): 63-70.
- Podgursky, M. (1986) 'Unions, establishment size, and intra-industry threat effects', *Industrial and Labor Relations Review*, 39 (2): 277-294.
- Pugel, T. A. (1980) 'Profitability, concentration and the interindustry variation in wages', *Review of Economics and Statistics*, 62 (May): 248-253.
- Ruane, F. and Dobson, E. (1990) 'Academic salary differentials - Some evidence from an Irish survey', *The Economic and Social Review*, 21 (2): 209-226.
- Sapsford, D. and Tzannatos, Z. (1993) *The economics of the labour market*. Basingstoke: Macmillan.

- Stafford, F. P. (1980) 'Firm size, workplace public goods, and worker welfare', in Siegfried, J. J. (ed) *The economics of firm size, market structure and social performance*. Washington, DC: Federal Trade Commission.
- Trapp, M. W., Hermanson, R. H. and Turner, D. H. (1989) 'Current perceptions of issues related to women employed in public accounting', *Accounting Horizons*, 3 (1): 71-85.
- Watts, M. and Rich, J. (1993) 'Occupational sex segregation in Britain, 1979-1989: the persistence of sexual stereotyping', *Cambridge Journal of Economics*, 17 (1): 159-177.