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GENDER WAGE DIFFERENTIALS IN THE MALAYSIAN MANUFACTURING SECTOR

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ABSTRACT

Studies have found that on average males earn substantially higher wages than females. Females are paid lower than their male counterparts due to several reasons such as educational attainment, job characteristics and types of industries. Even after accounting for variations in these productivity- related characteristics, gender wage differentials may still prevail as a result of discriminatory practice by employers. This paper attempts to measure the determinants of wage differentials by gender in the Malaysian manufacturing sector. The analysis is based on a survey of 2,046 workers in six major industries conducted in 1999. These are the electrical and electronics, textile, wood-based, transport equipment, food and chemical industries. The determinants of wage differentials are obtained by using the coefficients of the earnings functions. These factors are decomposed into several categories, namely, demographic factors, human capital, job characteristics and industry characteristics. The results reveal that demographic factors and human capital variables play a major role in determining the wage differentials by gender. The divergence coefficient, which might include discriminatory practice by the employers, is also quite small.

JEL classification: J16, J24, J31

Key words: Gender wage differentials, Manufacturing sector, Malaysia

1. INTRODUCTION

Wage differentials between male and female workers prevail in the labour market, where male workers are usually paid comparatively higher wages than their female counterparts. In the Malaysian manufacturing sector, gender wage differential is quite a common phenomenon, even though the workers are involved in the same job category. In 1990, for example, a female's wage as production advisor was only 82.8 percent of that of the male's wage in the electronics industry, 75.2 percent in the textile industry, 75.1 percent in publishing and publication and 86.2 percent in the rubber products industry (Malaysia, 1991). This alarming difference can also be observed in other job categories such as engineers where male workers received RM2,742 compared to RM2,318 received by female workers. In other job categories such as technical workers, clerks and production operators, the monthly wages for men were RM1,206, RM802 and RM531 respectively, while for women they were RM1,119, RM684 and RM432 respectively (Ministry of Human Resource, 1992).

In general, there are several factors contributing to gender wage differentials. They can be classified into four groups; demographic factors including age and ethnicity; human capital variables including education, training and experience; job characteristics such as full-time, part-time and types of skills; and types of industry. Male and female workers may possess similar endowments of these characteristics but wage differentials may still prevail as a result of employers' discrimination. Employers may perceive female workers as being less productive and less creative and possessing lower leadership potential.

This paper attempts to examine the determinants of wage differentials by gender in the Malaysian manufacturing sector. Differences in wage are normally attributed to differences in the productivity-linked characteristics of human capital attainment. However, as mentioned above, there are also other variables that might influence these differences such as demographic factors, job characteristics and industry characteristics, which will be examined in this paper. This paper is organized into seven sections. The next section reviews the literature, while Section 3 describes the methodology and model specification. A description of the data is provided in Section 4

while Section 5 examines the results of the regression estimates. Section 6 examines the decomposition of the wage differentials, while Section 7 summarises and concludes the study.

2. LITERATURE REVIEW

Economic theory beginning with Adam Smith suggests that wage differentials will be primarily determined by differences in occupations. Smith's theory states that wages will adjust so that the labour market for that particular occupation will be in equilibrium. He noted that occupations have many different characteristics, some are pleasant and do not require unusual physical activity or long hours, while others require workers to work long hours doing heavy labour. They also vary according to the preparation for entry into the occupation. Some require long periods of education or training, while others can be learned in a comparatively shorter period. Smith suggests that wages will adjust so that each occupation will have enough workers. Thus, unpleasant occupations will pay higher wages, ceteris paribus, than pleasant occupations and occupations which may require many years of education will pay more than occupations without many requirements or pre-requisites.

A second, more recently developed theory applicable to wage differentials is the human capital theory of Becker (1964). In a nutshell, Becker's theory is that as people invest in "human capital" through education, and by increasing their skills, they make labour more valuable. Thus, we normally expect workers with higher levels of education to be more productive and to receive higher wages.

A competing theory about the value of education is the screening or signalling model. It hypothesises that education does not really teach anything or give people better skills, but it sorts out the most productive workers. It is assumed that since college education is easier for smart people, it costs them less effort and they are more likely to get a degree. Employers are looking for the smartest, most productive workers, and those who have passed the screening test of school are the ones they seek. This theory explains why those who have graduated from college earn so much more than those who have had some college education but did not obtain degrees.

Pay differences by gender can also be explained by standard neoclassical theory. According to this theory, relative income share is determined by the marginal productivity of a production factor. This marginal productivity theory explains the gender wage differential as women are perceived to have lower productivity as a result of overcrowding and low level of human capital attainment. Another theory that can explain gender wage differentials is the dual labour market theory. According to this theory, the labour market can be divided into two categories, i.e., the primary labour market that is more structured and organised and the secondary labour market that is more unorganised. The majority of women are in the secondary labour market because they are perceived to possess less skill. Barron and Norris (1976) suggest that the secondary labour market is by far 'more suitable' and consequently referred to as the female's labour market, with low earning levels as an indicator of the secondary status of a job.

Many studies have shown that male workers are paid higher wages than their female counterparts even though they possess similar qualifications or skills. This is because employers generally perceive female workers to be less productive, immobile and possessing less leadership skills. This phenomenon has resulted in discrimination against women, consequently leading women to hold low-paying or low-profile jobs (Darity and Mason, 1998). Blau (1998) showed that in 1981, the annual earnings of women employed full-time were only 59 percent of annual earnings of men in the US. Similarly, Denny and Harmon (2000) also showed that, in Ireland men were being rewarded significantly more highly than women.

However, most studies in the United States have shown that the male-female wage gap was narrowing. The literature has emphasised a number of factors in explaining this. O'Neil and Polachek (1993) point to convergence in the level of schooling and work experience and the declining pay in blue-collar jobs as important factors in explaining the narrowing gender wage differentials. Blau and Kahn (1997) argued that the important factors were the improvement in the level of experience of women, women's entry into higher paying occupations, unionisation and a decline in the unexplained portion of wage differential.

Polachek (1975, 1981) identified that the biggest part of gender wage differentials could be explained by differences in human capital.

It has also been widely shown that the experience related variables (years of working experience, years of job tenure) have a significant effect on male-female earnings differentials (Mincer and Polachek, 1974, 1978; Polachek, 1981; Mincer and Ofek, 1981; O'Neil, 1983 and Bergmann, 1989).

Lerman (2000) found that between 1984 and 1995, the wage growth rate among the more educated workers was higher than that of the less educated workers especially for females. This consequently reduces the male-female wage gap at all educational levels and the total wage gap decreased by 44 percent or 13 percentage points. Sicilian and Grossberg (2001) found that nearly 40 percent of the gender wage gap in the United States was unexplained. Training played little role in the wage gap but other human capital variables, occupation and industry characteristics were important determinants.

Bullard (1999) studied the United States labour market and found that on average females earned US$7,015 less than males in the 20 Western states but the male-female wage gap was getting smaller. Three major factors that may explain this difference are occupation, experience and educational attainment. Berger and Chandra (1999) carried out another study in the United States using data of the Current Population Survey of 1968 and 1997. They found that gender wage differentials were narrowing and this could be due to unexplained variables, i.e. a decline in discrimination or changes in the career-related decision options of women.

Prisco (1999) studied the wage gap relationship in Italy and found that the gender earnings gap narrowed as the level of education increased. The gender differential among those who completed the same type and level of secondary school was greater than among those who graduated with the same university major. In 1989, the gender gap among university graduates was 10 percent, decreasing to 2 percent by 1995. Luzzi (1998) studied gender differences in wage in Switzerland and found that unexplained variables played greater roles than differences in human capital characteristics, which implied that discrimination was an important element of gender differences in wage. The percentage contribution of human capital variables to the gender wage gap increased slightly from 47 percent in 1991 to 49 percent in 1995.

Chua (1984) studied wage differentials by sex in Malaysia using the Household Income Survey of 1973 and the Labour Force Survey of 1974. He estimated several wage functions and found that unexplained variables contributed between 36 percent to 74 percent of male-female wage differentials. Differences in characteristics explained between 26 percent to 63 percent of the wage differentials. Chapman and Harding (1985) found that the most important factor determining average wage differences was the difference in the occupational distribution of men and women, whereby the women tend to be in low paying occupations. Furthermore, they found that women earned only 71 percent of the earnings of men. Latifah (1998), using data from the Malaysian Family Life Survey 2 (MFLS2, 1988), found that between 87.5 percent to 93.9 percent of gender earnings differentials in Malaysia was attributed by unexplained variables. The explained variables contributed less than 10 percent of earnings differentials. This reflects the fact that discriminatory practices were quite serious in the Malaysian labour market.

3. RESEARCH METHODOLOGY AND MODEL SPECIFICATION

The analysis in this paper is based on data collected from a field survey conducted in the two main industrial areas of Malaysia: (i) the Klang Valley, around the federal capital city of Kuala Lumpur; and (ii) Penang. The choice of industries is based on the number of employees in the major industries of the manufacturing sector, according to the 1991 Malaysian Population Census. Based on this criterion, six industries were selected, namely, electrical and electronics (E&E), textiles, chemical products, transport and transport equipment, wood-based and food industries. The financial resources available for this study determined the sample size, which was 2,046 workers at the production level, comprising 1,221 males and 825 females in the three categories of skilled, semi-skilled and unskilled workers.

The sample was obtained through contact with union leaders in the selected industries. They provided a list of firms and their workers. Based on this list respondents were chosen at random. Some of the respondents were obtained through a snowballing procedure, whereby

workers who were already in the sample would introduce the researcher to other workers. Even though the main objective of this research project was not specifically to analyse gender wage differentials, the distribution of sample by gender provided the opportunity to do gender analysis since it reflected the distribution of employment by gender in the manufacturing sector. In 2000 for example, male-female employment distribution was 58.9 percent to 41.2 percent (Malaysia 2001). In this sample its distribution was 59.7 percent to 40.3 percent.

The statistical framework of the study consists of two models. The first model consists of three wage equations that include, (i) all male and female workers, (ii) only male workers, and (iii) only female workers. These three equations are estimated using the standard ordinary least squares method. The second model uses the Oaxaca–Ransom (1994) wage decomposition equation. The standard wage regression used is as follows:

$$W = \alpha + X'\beta + Z'\phi + Y'\theta + K'\lambda + u \quad (1)$$

where W is the natural logarithm of monthly wages, X represents a vector of demographic variables (age, age^2/100, and four ethnic groups); Z represents a vector of human capital variables (tenure, tenure^2/100, school, school^2/100, and two categories of on-the-job training); Y represents a vector of job characteristics: three main job status categories (contract, full-time, and part-time) and three skill categories (skilled, semi-skilled, and unskilled); K represents a vector of six industry characteristics (electric and electronic, textile, wood and furniture, transportation equipment, foods, and chemicals); and u is a random disturbance term that is assumed to be iid (0, σ_u^2).

Equation (1) can be estimated for men and women separately as follows:

$$W_M = X_M{}' \beta^M + u_M \quad (2)$$

$$W_F = X_F{}' \beta^F + u_F \quad (3)$$

where W_M and W_F are the natural logarithms of male and female workers monthly wages respectively, β^M and β^F are the vectors of

estimated coefficients for male and female workers respectively; X_M and X_F are the vectors of wage-determining variables for male and female workers, and u_M and u_F are the error terms for the two groups.

Thus, the mean gender wage differentials can be written as follows:

$$(4) \qquad \overline{W}_M - \overline{W}_F = \hat{\beta}^*(\overline{X}_M - \overline{X}_F) + \overline{X}_M(\hat{\beta}_M - \hat{\beta}^*) + \overline{X}_F(\hat{\beta}^* - \hat{\beta}_F)$$

where $\overline{W}_M, \overline{W}_F, \overline{X}_M, \overline{X}_F, \beta_M$ and β_F are the means of the natural logarithm of the observed monthly wages, the means of the observed productivity-related characteristics and the coefficient estimates for males and females respectively. The coefficient vector $\hat{\beta}^*$ represents the discrimination-free returns. * is estimated using a pooled sample of men and women. The first term on the right-hand side, i.e., represents the portion of the difference in wages across gender due to gender differences in mean levels of productivity and other characteristics. The last two terms on the right-hand side are the male and female 'treatment effects' which measure the extent to which the returns to male and female characteristics differ from the non-discriminatory returns.

4. DESCRIPTION OF THE DATA

Table 1 (Appendix) shows the descriptive statistics of the variables used in the model. As expected, the mean wage of male workers is higher than that of the female workers. The male workers are slightly older than the female workers. The male workers have longer years of schooling and a higher percentage of them have attended training. In terms of experience, the sample shows that on average, both groups of workers have the same years of working experience in the present jobs. The majority of them are full-time workers and unskilled, but the percentage of unskilled female workers is higher than the males. Both groups are concentrated in the E&E industry, followed by the textile and wood-based industries. However, the percentage of female workers in the textile industry is higher than that of the male workers while in the wood-based industry, the male workers are more dominant. The majority of the sample workers are Malays, followed by the Indians and Chinese.

5. REGRESSION RESULTS

Table 2 (Appendix) reports OLS estimates for a pooled sample of male and female respondents. The results of regression for all workers show that age and tenure, have a positive and significant effect on wages. Wages increase by 13.2 percent for one unit change in worker's age, ceteris paribus. The median monthly earnings of workers who receive any training is higher by about 7.4 percent compared to workers who receive no training, ceteris paribus. Chinese workers have median monthly earnings that are 12.1 percent higher than Malay workers, ceteris paribus. The results of coefficients on levels of formal education show a monotonic increase of earnings with educational levels. Workers with 13 and 16 years of completed schooling have median monthly earnings that are 24.5 percent and 61.8 percent respectively higher than workers who completed less than 9 years of schooling. The semi-skilled workers' median monthly earnings are lower by about 11.4 percent compared to their skilled counterparts. The workers in the textile industry have monthly earnings that are 10.4 percent lower than their counterparts in the electric and electronic (E&E) industry. However, the chemical industry workers' monthly earnings are slightly higher by about 5.9 percent compared to their counterparts in the E&E industry.

The results show that male workers have positive returns to years of age and tenure. Also, it is found that higher earnings are enjoyed by the Chinese workers, who are skilled, receive any training and have at least 9 years of schooling. Part-time, semi-skilled and unskilled workers and those who work in the textile industry are found to have lower earnings. The findings for female workers are quite similar to those of males but wages are higher only for them with 11 or more years of completed schooling and lower for unskilled workers and in the textile and foods industries, ceteris paribus. These results confirm the findings by Latifah (1998) that the incremental effects of successive levels of formal education are higher for females than their male counterparts.

6. DECOMPOSITION OF WAGE DIFFERENTIALS

Table 3 (Appendix) illustrates the decomposition of gender wage differentials, which is divided into two parts. The first part is due to

gender differences in the means of variables entered into the wage functions and the second part is due to differences in the estimated coefficients on those factors. The first part is commonly known as the explained portion of the wage gap while the second part is the unexplained portion of the gender wage gap (treatment effects). The second part is important since it measures the extent to which the returns to male and female characteristics differ from the non-discriminatory returns. The results show that only 74.3 percent of the male-female wage differentials can be explained. The unexplained variables contribute 25.7 percent of male-female wage differentials and the divergence coefficient is 0.0443.

This finding differs from Chua (1984) and Latifah (1998) who found a large divergence coefficient that reflected the degree of discriminatory practice was very high. This difference may be due to differences in sample. Both of the earlier studies used the aggregate data, which covered all sectors in Malaysia, but this study used data from the manufacturing sector. Therefore, the results from this study only imply to gender wage differentials in the manufacturing sector. The manufacturing sector that offers a more structured wage scheme may reduce discriminatory factors as compared to the sectors like in agriculture and services that include in the analysis by Chua (1984) and Latifah (1998).

Gender differences in stocks of human capital and demographic factors explain 29.7 percent and 16.2 percent of the wage gap between men and women, respectively. This result contradicts with Chapman and Harding (1985) who found that occupational difference was the major male-female wage differentials determinant. This difference may be due to different period and dynamism that takes place in the labour market whereby human capital variables have become increasingly important. Training and the level of education are two human capital variables that play a greater role in determining gender wage differential. Although the mean values of most of the demographic and human capital variables are almost the same across gender, females actually have slightly higher mean years of tenure and slightly lower age, while males have a slightly higher level of training.

Job characteristics contribute 25.4 percent of total differential or about almost one-fourth of the explained portion of the wage gap. The

part-time and unskilled workers have larger contribution to wage differentials. However, gender differences due to industry characteristics are very small and only account for 2.9 percent of the explained portion of the wage gap. The textile, wood and furniture industry contribute positively to the differences. The treatment effect of human capital is quite large and helps widen the wage gap by 35.5 percent. However, the large and moderate negative treatment effects of job and industry characteristics together, help shrink the wage gap by about 108.6 percent.

7. SUMMARY AND CONCLUSION

The results from the estimation of the wage function reveal that wage differentials prevail between education levels, races, job characteristics and industry characteristics. Chinese workers are shown to have higher wages than the Malays. However, the wage differential between the Indians and the Malays is not significant. Workers with higher educational levels are able to enjoy significantly higher wages than those with lower education. Workers who attend skill training also receive higher wages than those without training. This indicates the importance of human capital variables in determining individual earnings power. The wage received by the skilled worker is also significantly higher than that of the semi-skilled and the unskilled. Workers involved in the chemical industry, which is more capital intensive, are also paid significantly higher wages than those in the E&E, while workers in the textile industry receive significantly lower wages.

The results of estimation of the wage function for males show that age, training and experience have a significantly positive impact on wages. The better educated male workers receive higher wages than the less educated, while the semi-skilled and unskilled male workers receive lower wages as compared to the skilled workers. Age and training also significantly determine wages for the female workers, but job tenure is not significant. The higher the level of education among the females, the higher the wages they command and receive as compared to those with lower educational attainment, i.e. less than 9 years. However, there is no significant difference in wage received between females with 9-10 year education levels and those with less than 9 years.

The decomposition of gender wage differentials reveals that among the explained variables the most important determinants are the demographic factors, followed by human capital, especially education and training, and job characteristics, especially part-time and unskilled. Industry characteristics play a minor role. The demographic factors also accounted for the highest percentage of unexplained variables followed by human capital. This indicates that these two groups of variables are associated with discriminatory practices among the employers. In contrast, job characteristics and industry characteristics are not associated with discriminatory practices as shown by the negative value of the unexplained variables. The total treatment effects are quite small and this reflects a small degree of discrimination against women. The result differs from Latifah (1998) who found a large value of divergence coefficient that reflected high discriminatory practices. However, our result is confined to the manufacturing sector only, whereas Latifah (1998) covered all sectors of the economy.

As the demographic factors are exogenously determined, other impending factors that contribute to gender wage differentials must be taken into account when designing labour policies. Since human capital variables such as education and training are important determinants of gender wage differentials, the education and training among women must be upgraded before entering the labour market. Women must also be encouraged to attend training programmes provided by the employers. Moreover, employers must provide adequate training facilities to cater for all suitable workers. Training is very much related to the enhancement of skills and this will considerably reduce gender wage differentials since, according to this study, unskilled workers contribute positively to wage differences.

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APPENDIX

TABLE 1
Descriptive Statistics of the Variables

Variables	Pooled Mean (Std. dev.)	Male Mean (Std. dev.)	Female Mean (Std. dev.)
Demographic			
Age	27.5274	27.964	26.8812
	(6.5835)	(6.5344)	(6.6067)
$Age^2/100$	8.0108	8.2465	7.662
	(4.2448)	(4.2554)	(4.2075)
Chinese	0.0376	0.0287	0.0509
	(0.1903)	(0.1669)	(0.2199)
Indian	0.0591	0.0631	0.0533
	(0.2359)	(0.2431)	(0.2248)
Others	0.0049	0.0049	0.0048
	(0.0697)	(0.0699)	(0.0695)
Human Capital			
Training	0.3475	0.4029	0.2655
	(0.4763)	(0.4907)	(0.4418)
Tenure	4.7825	4.7813	4.7842
	(4.0047)	(3.8914)	(4.1692)
$Tenure^2/100$	0.3890	0.3799	0.4025
	(0.7652)	(0.7288)	(0.8164)
Educ_9	0.1261	0.1040	0.1588
	(0.3320)	(0.3054)	(0.3657)
Educ_11	0.6339	0.6233	0.6497
	(0.4818)	(0.4847)	(0.4773)
Educ_13	0.0709	0.0680	0.0752)
	(0.2566)	(0.2518)	(0.2638)
Educ_16	0.0855	0.1245	0.0279
	(0.2797)	(0.3303)	(0.1647)
Job Characteristics			
Full-time	0.9702	0.9705	0.9697
	(0.1701)	(0.1692)	(0.1715)
Part-time	0.0064	0.0049	0.0085
	(0.0794)	(0.0699)	(0.0917)
Semi-skilled	0.1388	0.1392	0.1382
	(0.3458)	(0.3463)	(0.3453)
Unskilled	0.6838	0.6282	0.7661
	(0.4651)	(0.4834)	(0.4235)

TABLE 1 (continued)

Variables	Pooled	Male	Female
	Mean (Std. dev.)	Mean (Std. dev.)	Mean (Std. dev.)
Industry Characteristics			
Textile	0.1774	0.1597	0.2036
	(0.3821)	(0.3664)	(0.4029)
Wood and furniture	0.1447	0.1761	0.0982
	(0.3518)	(0.3810)	(0.2977)
Transportation equipment	0.0626	0.0860	0.0279
	(0.2422)	(0.2805)	(0.1647)
Foods	0.0938	0.1163	0.0606
	(0.2916)	(0.3207)	(0.2387)
Chemical	0.0582	0.0713	0.0388
	(0.2341)	(0.2573)	(0.1932)
Wage	778.1349	846.34	677.18
	(393.43)	(425.48)	(314.67)
Ln Wage	6.5690	6.6486	6.4512
	(0.3933)	(0.4091)	(0.3379)

Note: Control categories for ethnic groups, main job status, skills status and industry characteristics are Malays, without any training, receive less than 9 years of schooling, contract, skilled, electrical and electronics, respectively.

TABLE 2
Regression Results

Variables	Pooled Sample	Male	Female
	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)
Demographic			
Age	0.0791	0.820	0.0742
	(11.597)*	(8.947)*	(7.315)*
$Age^2/100$	-0.0956	-0.0986	-0.0924
	(-9.043)*	(-7.042)*	(-5.778)*
Chinese	0.121	0.183	0.0981
	(3.658)*	(3.732)*	(2.221)*
Indian	0.0229	0.0251	0.0394
	(0.864)	(0.745)	(0.934)
Others	0.208	0.295	0.0455
	(2.367)*	(2.560)*	(0.346)
Human Capital			
Training	0.0711	0.0483	0.0898
	(5.226)*	(2.766)*	(4.171)*
Tenure	0.0169	0.0231	0.0089
	(4.082)*	(4.162)*	(1.481)
$Tenure^2/100$	-0.0501	-0.0717	-0.0229
	(-2.345)*	(-2.472)*	(-0.746)
Educ_9	0.0434	0.0286	-0.0141
	(1.518)	(2.221)*	(-0.347)
Educ_11	0.114	0.117	0.0786
	(4.392)	(3.308)*	(2.081)*
Educ_13	0.219	0.232	0.182
	(6.410)*	(5.051)*	(3.651)*
Educ_16	0.481	0.422	0.603
	(13.529)*	(9.445)*	(8.792)*

TABLE 2 (continued)

Variables	Pooled Sample	Male	Female
	Coefficient (*t*-value)	Coefficient (*t*-value)	Coefficient (*t*-value)
Job Characteristics			
Full-time	-0.0641	-0.0867	-0.0262
	(-1.588)	(-1.670)	(-0.417)
Part-time	-0.157	-0.239	-0.0478
	(-1.822)	(-1.903)*	(-0.407)
Semi-skilled	-0.121	-0.137	-0.0257
	(-5.137)*	(-4.591)*	(-1.406)
Unskilled	-0.309	-0.338	-0.211
	(-15.934)*	(-14.315)*	(-6.185)*
Industry Characteristics			
Textile	-0.110	-0.150	-0.0868
	(-6.189)*	(-5.966)*	(-3.540)*
Wood and furniture	0.0184	-0.0140	-0.0250
	(0.924)	(-0.545)	(-0.744)
Transportation equipment	-0.0132	-0.0584	-0.0268
	(-0.493)	(-1.855)	(-0.472)
Foods	-0.0433	-0.0505	-0.119
	(-1.918)	(-1.790)	(-3.007)*
Chemical	0.0571	0.0190	0.0533
	(2.102)*	(0.576)	(1.092)
Constant	5.238	5.259	5.242
	(45.615)*	(34.317)*	(30.081)*
N	2046	1221	825
$\overline{R}^2$	0.514	0.542	0.409

Note: *Significant at the 5% level.

TABLE 3
Decomposition of Male-Female Wage Differential

Variable	Explained $\beta^*(\overline{X}_M - \overline{X}_F)$ (% of total differentials)	Male Advantage $\overline{X}_M(\beta^M - \beta^*)$ (% of total differentials)	Female Disadvantage $\overline{X}_F(\beta^* - \beta^F)$ (% of total differentials)	Total Treatment Effects $\overline{X}_M(\beta^M - \beta^*) + \overline{X}_F(\beta^* - \beta^F)$ (% of total differentials)	Total Differential $\overline{\ln W}_M - \overline{\ln W}_F$
Demographic	0.0273	0.0587	0.1083	0.167	0.1943
	(16.2)	(34.7)	(64.1)	(98.8)	(115.0)
Human Capital	0.0503	0.0061	0.0539	0.06	0.1103
	(29.7)	(3.6)	(31.9)	(35.5)	(65.3)
Characteristics	0.0430	-0.0428	-0.1259	-0.1687	-0.1257
	(25.4)	(-25.3)	(-74.5)	(-99.8)	(-74.4)
Industry Characteristics	0.0049	-0.0195	0.0046	-0.0149	-0.01
	(2.9)	(-11.5)	(2.7)	(-8.8)	(-5.9)
Total	0.1255	0.0025	0.0409	0.0434	0.1689
	(74.3)	(1.48)	(24.2)	(25.7)	(100.0)
Divergence Coefficient		0.0025	0.0417	0.0443	