

Ibrahim M. Abdalla

United Arab Emirates University

SECTORAL ASSIGNMENT AND EARNINGS DETERMI- NANTS AND DIFFERENTIALS IN ABU-DHABI EMIRATE, UAE

Key Words

*Wage Equations;
Labor Market
Discrimination;
Selectivity Bias.*

Abstract

This paper utilizes human capital theory and Abu-Dhabi family survey data, 1997, to present empirical evidence regarding the determinants of labor market sectoral assignments, employing probit formulations, and determinants of earnings, adopting a Mincerian framework for each gender. In practice, the labor market in the UAE is segmented into public and private sectors. This segmentation hypothesis is ascertained and the question of wage differentials and decomposition is discussed. Results indicate that education is positively associated with the assignment of males in the public sector, but negatively with females. Within the public sector, the higher pay sector, absolute male earnings are at rough parity with female earnings, however in the private sector they are higher.

Introduction

One prevailing feature of most economies in developing countries is the existence of labor market segments that are likely to differ in terms of factors affecting entry to employment and earnings. This is discussed by many researchers including Gindling (1991) who investigated data from Costa Rica in South America, noting that the higher pay sector workers are somehow protected from

competition from lower pay workers. He further suggests that segmentation implies differences in earnings for identical workers. Moreover, entry into different sectors would not reflect the worker's own choice, but rather reflect the employers preference to hire workers from the excess supply to that sector. Glick and Sahn (1997) raised similar issues about the Guinean labor market in Africa, indicat-

ing that the determinants for entry into the various sectors of a labor market are different, stressing education as the most important factor in both entry and wage equations for both males and females.

In a study based on Kuwait's national labor force survey in 1983, Al Qudsi (1989) confirmed the segmentation of the labor market in Kuwait into public and private sectors with the public sector being identified as the higher pay sector. The role of the public sector is noted as being mainly restricted to the expenditure side, with the state being identified as the sole employer with overall control over a pay system that maintains separate scales for Kuwaiti nationals and non-Kuwaiti nationals. On the other hand, the private sector is driven by profit maximization forces and is mainly dominated by non-Kuwaiti workers with a market-based wage-setting mechanism that is not governed by the Kuwaiti labor code. Al Qudsi (1989) sights two reasons for the dependence of the private sector in Kuwait on non-Kuwaiti workers, namely, the low employment cost of non-Kuwaitis and their docility relative to Kuwaiti workers.

Market forces operating in Kuwait are similar to those operating in the United Arab Emirates (UAE), as the two countries are members of the GCC

(The Gulf Cooperation Council). Both economies share similar geographic, cultural, social and demographic characteristics and both depend heavily on oil resources and foreign labor. In practice, there can be similar presumptions that the UAE labor market is mainly comprised of two distinct labor market segments; namely, a less competitive and government-controlled public sector and a relatively liberal private sector. Earnings in each sector are presumed to be determined by a different process. According to official reports (Ministry of Planning 1997), the government and the public sector have a share of 36.4% of the country's labor force and the private sector accounts for 58.1%. The rest of the labor force is either involved in joint employment (government, public and private) or other employment including self-employment.

The analysis carried out in this article applies to the UAE labor market, employing data made available from 1997 family income and expenditure survey in Abu-Dhabi Emirate, and is focussed on employed males and females in the government, public and private sectors, aged 15 years or above. This work is intended to contribute to the very limited body of research in the area of labor market and labor discrimination in the UAE. It has two objectives, realized by employing standard techniques in la-

Table 1 (cont'd)
Mean Values and Standard Deviations of Variables Used in the Assignment
and Wage Equations, Abu-Dhabi Emirate, 1997

Variable	Males		Females	
	Public	Private	Public	Private
Household head:				
Head	0.760 (0.430)	0.840 (0.360)	0.110 (0.320)	0.043 (0.200)
Not head (ref.)	0.240	0.160	0.890	0.957
Marriage:				
Married	0.860 (0.347)	0.890 (0.313)	0.728 (0.445)	0.849 (0.358)
Not married (ref.)	0.140	0.110	0.172	0.151
Nationality:				
Emirati	0.433 (0.496)	0.055 (0.228)	0.342 (0.475)	0.023 (0.150)
Expat. (ref.)	0.567	0.945	0.658	0.977
λ	0.330 (0.258)	0.613 (0.210)	0.487 (0.353)	0.840 (0.251)
Sample size	2384	744	500	305

NOTE: Standard deviations are quoted in parentheses. The abbreviation 'ref.' Indicates that the category is used as a reference in the assignment and wage equations.

Public sector workers (males and females) have on average better education than the private sector workers at all educational levels, except the university level or above. Of all male employees in the private sector more than half (55%) attain university qualifications or above compared to a quarter of all male employees in the public sector. Similar conclusions apply to females.

It is evident (Table 1) that almost all of the labor force (males and females) in the private sector resides in urban areas. Most of the male labor force is dominated by heads of households. The reverse is true for females. The rate of marriage is higher amongst male workers in the public sector compared with females, but almost the same in the

private sector. Expatriate male and female workers represent the majority of both the private (95% or over) and the public (57-66%) sectors.

Probit Estimates of Sectoral Assignments and Wage Equations

Sectoral Assignment

Table 2 displays the parameter estimates from the sector assignment equations for both genders based on previously discussed characteristics in the previous section. The age variable which reflects general experience is significantly (at 1% and 5% levels, respectively) and positively related with assignment in the public sector for both males and females, with increased probabilities for females.

Table 2
Probit Estimates of the Sector Assignment Equations:
The private Sector is Used as a Reference, Abu-Dhabi Emirate, 1997

Variable	Males	Females
Intercept	-0.765 (0.432)***	-0.694 (1.025)
Age	0.059 (0.023)*	0.104 (0.051)**
Age ² /1000	-0.403 (0.269)	-0.837 (0.674)
Education:		
Primary	0.493 (0.148)*	-1.281 (0.615)**
Preparatory	0.526 (0.134)*	-0.781 (0.551)
Secondary	0.432 (0.109)*	-0.510 (0.436)
Univ. or above	0.013 (0.106)	-0.855 (0.430)**
Area of residence:		
City	-0.759 (0.009)*	-0.807 (0.259)*
Nationality:		
Emirati	1.375 (0.094)*	1.937 (0.207)*
Marriage:		
Married	-0.052 (0.122)	-0.496 (0.172)*
Log-likelihood	-1398.7	-428.6
Sample size	3128	805

*, **, *** and significant at 1%, 5% and 10% levels, respectively. Standard deviations are quoted in parentheses.

Females' education coefficients are negative, implying that the bulk of educated women, particularly at the university level or above, are employed in the private sector. In reality, public sector access to females holding university qualifications or above is guaranteed for indigenous females; however, their limited numbers in the labor market, which is dominated by expatriate females, does not sway

education to positively associate with the public sector. Although the public sector would also be the first choice for expatriate females holding high qualifications, their access is limited and assignment in this case is dictated by employer's preference rather than employee's choice. The probability of a male being assigned to the public sector significantly (at 1% level) increases with education. The increase is

Table 4
Expatriate and Emirati workers' Predicted Wages by Employment Sector
and Gender, Abu-Dhabi Emirate, 1997 (UAE Dirhams per hour)

Education level	Males		Females	
	Public	Private	Public	Private
Expatriate workers				
Secondary	20.68	12.15	27.26	7.04
Univ. or above	29.79	16.62	39.07	7.12
Emirati workers				
Secondary	47.76	30.49	32.60	25.12
Univ. or above	68.80	41.70	46.73	25.40

Note: ^aWage equation estimates presented in Table 3 were utilized in calculating predicted wages. They are based on married workers aged 36 years (average age).

Decomposition of Wage Differentials

Discussion of wage differentials between sectors of employment has received a wide coverage in the literature. It has been argued that wage differentials are either attributed to differences in workers' perceived productivity and wage generating characteristics or differences due to employers' treatment and discrimination. The following analysis is concerned with studying the wage gap between the private and the public sectors for both males and females based on Abu-Dhabi Emirate survey data, 1997. The objective is to investigate if wage differentials between sectors is due to productivity differences or to employers' treatment. No attempt is made to decompose the wage gap between males and females within a specific sector mainly due to females'

low counts that might render the conclusions inappropriate. Oaxaca (1973) and Blinder (1973) approach of decomposing the total differential in mean log wages between the public and the private sectors is employed. To account for the presence of sample selectivity in the decomposition, the following expression (see Idson and Feaster 1990; Terrel 1993) is used.

$$\ln \bar{W}_P - \ln \bar{W}_R = \eta_{0P} - \eta_{0R} + (f_P \eta_P + f_R \eta_R) (\bar{X}_P - \bar{X}_R) + (f_P \bar{X}_P + f_R \bar{X}_R) (\eta_P - \eta_R) + \tau_P \bar{\lambda}_P - \tau_R \bar{\lambda}_R$$

where η_P and η_R are the vectors of estimated parameters from the public and the private sectors wage equations, respectively, $\bar{X}_P$ and $\bar{X}_R$ are the mean values of the explanatory variables and τ_P , τ_R are the coefficients of the selec-

tor, the welfare orientation of the government policies, the desire to provide enough incentives for locals to improve their skills and replace foreign labor, and investment in human development designed to create a wage-working class. Such policies would eventually reduce the economic dependence on foreign labor and reduce negative social and cultural consequences; however, in return this would encourage the private sector into relying almost exclusively on cheap foreign labor to the extent of discrimination against the citizens of the U.A.E.

The presence of Emirati nationals in the private sector is practically negligible. It is argued that recent attempts by the government to encourage national labor participation in the private sector are facing resistance mainly from private sector employers, and to a lesser extent from the nationals themselves due to limited rewards, compared with the public sector. Employers' resistance is mainly grounded on the perception of high employment costs of nationals in the presence of cheap foreign labor, lack of experience, together with the inability to take employment in jobs that are considered low waged and socially unacceptable.

A step forward to encourage participation of the indigenous popula-

tion in the private sector, would emphasize technical training and vocational education, at demand in the private sector, such as that advocated by the recently established colleges of technology. Other possible measures would include the provision of job strategies and income policies such as setting efficient minimum wages in the private sector. This would decrease sectoral wage inequality and increase the demand for national workers as a consequence of the increased employment cost of foreign labor. Attempts to reduce inequality in pay would largely benefit from provision of a uniform and equitable pay structure that links pay to performance.

In conclusion it is important to note that family income and expenditure surveys are usually subject to sampling bias due to improper representation of population and possible improper sampling techniques. Therefore, any results and conclusions from this study should be interpreted with caution.

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الملخص

موجهات العمالة ومحددات الدخل وتباينه داخل قطاعات سوق العمل بإمارة أبوظبي

إبراهيم محمد عبدالله
جامعة الإمارات العربية المتحدة

يرتكز هذا البحث على نظرية رأس المال البشري (human capital) والاستعانة بالبيانات التي يوفرها مسح الإنفاق الأسري لإمارة أبوظبي للعام ١٩٩٧ في إجراء دراسة تطبيقية تناقش موجهات العمالة ومحددات الدخل داخل سوق العمل بدولة الإمارات العربية المتحدة، ممثلة في إمارة أبوظبي. تعتمد الدراسة على نموذجين في إجراء التحليل الإحصائي هما النموذج الاحتمالي (Probit Model) لدراسة موجهات العمالة، والنموذج الأساسي لمنسر (Mincerian Framework) لدراسة محدّدات الدخل، وذلك حسب الجنس ونوع قطاع العمل. وقد خلصت الدراسة إلى تأكيد انقسام سوق العمل في دولة الإمارات إلى قطاعين خاص وعام (يشمل القطاع الحكومي)، مع وجود محدّدات مختلفة للعمالة والدخل داخل كل قطاع. وأبرزت نتائج التحليل الدور الإيجابي للمستوى التعليمي للذكور في الحصول على وظائف القطاع العام خلافا للإناث، حيث يرتبط ازدياد مستواهن التعليمي بفرص عمل أكبر في القطاع الخاص. من النتائج الأخرى التي أبرزتها الدراسة أن مستويات الدخول للذكور والإناث في القطاع العام متقاربة بصورة عامة، أما في القطاع الخاص فإن مستوى دخل الذكور أعلى، مقارنة بالإناث.

Ibrahim M. Abdalla (Ph.D. Applied Statistics, 1997), Assistant Professor, College of Business and Economic, United Arab Emirate University. Research Interests: Generalized Linear Models, Data Analysis, Social and Economics Statistics.