

Occupational Segregation and Earnings Differentials by Sex: Evidence from India

S Madheswaran*

T Lakshmanasamy**

Female labour is, on average, rewarded less than male labour in any labour market. The important sources of male-female earnings differences are the differences in occupational distribution and unequal pay for equal work. Most studies on the estimation of wage differentials concentrate either on occupational segregations or on the issue unequal treatment. This paper refines and synthesizes these two approaches, using a multinomial logit analysis and the econometric decomposition technique. Earnings are estimated as a function of productivity measures for each sexes, with sample selectivity correction. The gross earnings differences between sexes is then decomposed into a part that can be attributed to differences in human capital endowments and a part due to unexplained factors called discrimination, using a nationwide sample of science graduates in India. The findings suggest that discrimination accounts for almost two-thirds of gross earnings difference, with Wage Discrimination (WD) being considerably more pronounced than Job Discrimination (JD). Further, selectivity bias is found to be more important for a number of occupational categories.

Introduction

In spite of the rapid growth in both female education and female labour force participation in many developing countries in the last three decades, very few studies focused explicitly on labour market disadvantages of women. Most of the empirical studies are concerned with discrimination by race and sex in developed countries.¹ All studies followed the popular Oaxaca (1973) decomposition method and calculated the discrimination as residual or "unexplained" difference between two reduced form earnings function estimated for each gender group. Much of the research in this area focused on the issue of unequal pay for equal work (for example, some recent works in Psacharopoulos and Tzannatos, 1991).² However, many evidences also show that differences in occupational attainment of men and women comprise an equally important source of the aggregate Wage Differentials (WD) (Banerjee and Knight, 1985; Knight and Sabot, 1991; Birdsall and Sabot, 1991; Brown, *et.al.*, 1980).

Occupational segregation or Job Discrimination (JD) arises when workers with the same endowment do not have equal access to all occupations. Wage Discrimination

* Senior Research Fellow, Department of Econometrics, University of Madras, Madras 600 005.

** Senior Lecturer, Department of Econometrics, University of Madras, Madras 600 005.

We thank Professor A.M. Nalla Gounden for his helpful comments and suggestions. This work is carried out under senior research fellow award of the CSIR. The financial assistance from the CSIR is greatly acknowledged. An earlier version of this paper was presented at the Annual Conference of the Indian Econometric Society held at Pune during May 1995.

¹ Gunderson (1989) makes reference to 117 such studies; not a single study addresses a third world country.

² Throughout this paper wage, pay, earnings and income are interchangeably used.