Male-Female Earnings Differentials: A Case Study of Production Workers in Alor Gajah, Melaka

by

Low Kuek Long

A research paper submitted to the Faculty of Economics and Administration, University of Malaya, in partial fulfilment of the requirements for the Degree of Master of Economics

1997
Abstract

Wage differentials between sexes is a world-wide phenomena. However, studies estimating wage discrimination against women have rarely been conducted for the Third World countries. This study investigates the extent of gender discrimination among production workers in Alor Gajah, Melaka. This study uses a human capital model to estimate the magnitude of male-female earnings gap, and identifies the proportion of this gap which results from discrimination as well as that which stems from differences between males and females in productivity characteristics. This analysis uses the procedure that was introduced by Oaxaca in 1973. The portion of the earnings differentials that is not explained by differences in observable personal characteristics is referred to as ‘discrimination’.

The empirical study is based on a survey conducted on production workers in Alor Gajah, Melaka in 1995. The results indicate that discrimination accounted for about 55 per cent of the monthly earnings differentials. The main factors through which discrimination take place are number of children (dependants), total hours worked, number of job change, education and training.
Acknowledgement

I owe a special debt of gratitude to my supervisor, Professor Dr. Lee Kiong Hock, for his critical review of this study, his guidance at every stage of this research, and his invaluable comments. I shall be ever grateful to him for the completion of this study. However, I alone remain responsible for any errors.

I am indebted to the Institute of Technology MARA for granting me scholarship assistance to pursue this program.

A special thanks is addressed to my wife, Siew Ching, for her patience and encouragement. She has supported me through both the difficulties and joys of my life. Acknowledgement is also made to my beloved daughter, Zhe Ning, for providing inspiration and motivation during the completion of this study.
Chapter 3: Preliminary Findings

3.1 Introduction 48
3.2 The District of Alor Gajah 48
3.3 Spouse Characteristics 50
3.4 Number of Children 51
3.5 Percentage Distribution of Respondents by Place of Origin 52
3.6 Age Distribution by Sex 53
3.7 Educational Distribution by Sex 54
3.8 Work History 55
3.9 Employment Turnover 56
3.10 Job Training 57
3.11 Promotion Prospects 58
3.12 Skill Composition 59
3.13 Measures of Work Commitment 60
3.14 Commuting to Work 61
3.15 Characteristics of the Establishments 62
3.16 Concluding Remarks 63

Chapter 4: Wage Differentials by Sex

4.1 Introduction 65
4.2 Gender Differences in Earnings 66
4.3 The Basic Human Capital Model 69
4.4 An Expanded Earnings Model 76
4.5 Decomposition of Male-female Earnings Differential 97
4.6 Conclusions 100

Chapter 5: Summary of Findings and Policy Implications

5.1 Introduction 103
5.2 Summary of Empirical Findings 106
5.3 Policy Implications 108
5.4 Conclusion 111

References 112

Appendix 1: Questionnaire 117

Appendix 2: Descriptive Statistics of Data 124
List of Tables

1.1 Gross Domestic Product by Industry of Origin, 1979-1995 3
1.2 Employment by Sector, 1970-1995 5
1.3 Percentage Enrolment of Female Students by Level and Stream 7
1.4 Labour Force Participation Rate by Gender and Age Group, 1970-1993 9
1.5 Distribution of New Jobs by Sex and Sector 12
1.6 Percentage Distribution of Employment by Sector and Sex, 1970-1995 13
1.7 Percentage Distribution of Employment by Sector and Sex, 1970-1995 14
1.8 Distribution of New Jobs by Sex and Occupation 16
1.9 Employment Distribution by Occupation and Sex, 1970-1995 18
1.10 Average Female Monthly Earnings as a Percentage of Males Earnings in Selected Occupations in the Manufacturing Subsector, 1974-1990 20

2.1 Female-male Earnings Ratios 24
2.2 Survey of Empirical Findings on Sources of Earnings Differentials by Sex 27

3.1 Distribution of Respondents by Ethnicity and Sex 50
3.2 Percentage Distribution of Employed Spouses by Occupation 51
3.3 Distribution of Respondents' Children by School Level 52
3.4 Percentage Distribution of Respondents by Place of Origin 52
3.5 Distribution of Respondents by Age Groups and Sex 53
3.6 Percentage Distribution of Respondents by Education and Sex 55
3.7 Distribution of Respondent's Experience (mean) 55
3.8 Distribution of Workers by Number of Times Changed Employers 56
3.9 Percentage Distribution of Workers Who Changed Employers by Experience 57
3.10 Distribution of Workers by incidence of Training Received 58
3.11 Distribution of Workers Having Career Mobility During Current Employment 59
3.12 Percentage Distribution of Workers by Skill Categories 60
3.13 Mean Values of Indicators of Labour Force Attachment 61
3.14 Workers Who Daily Commute to Work 62
3.15 Percentage Distribution of Respondents by Industry and Sex 63

4.1 Percentage Distribution of Employees by Income Levels 66
4.2 Gender Earnings Differentials by Educational Attainment 67
4.3 Gender Earnings Differentials by Work Experience 68
4.4 Mean Monthly Earnings of Employees by Skill Category 69
4.5 Estimated Coefficients of Schooling and Experience from Earnings Functions for Production Workers
4.6 Expanded Earnings Functions
4.7 Gender Earnings Functions
4.8 Rates of Return to Education by Educational Attainment and Sex
4.9 Estimated Coefficients for Education, Experience and Total Hour Worked
4.10 Male and Female Earnings Functions
4.11 Male and Female Earnings Functions after Controlling for Duration of Training
4.12 Male and Female Earnings Functions after Controlling for Instances of Training
4.13 Earnings Function for Male and Female after Controlling for Skill Level
4.14 Earnings Function Including Job Turnover
4.15 Male and Female Earnings Functions
4.16 Male and Female Earnings Functions
4.17 Male and Female Earnings Functions after Controlling for Number of Children
4.18 Decomposition of Monthly Earnings Differentials by Gender
4.19 Contribution of Each Variable to Overall Monthly Earnings Differentials