

**THE GENDER WAGE GAP IN
NEW ZEALAND: THEORY AND EVIDENCE**

STUDENT PAPER NO.3

STEPHEN SUMMERS and STUART BIRKS



**CENTRE FOR PUBLIC POLICY EVALUATION
2000**

The Centre for Public Policy Evaluation is based in the College of Business, Massey University, Palmerston North campus. While the primary focus is economics, the centre wishes to promote multidisciplinary perspectives.

The Issues Paper series presents the results of student research and literature review on policy issues.

The Centre's web page is at:

<http://econ.massey.ac.nz/cppe>

Email queries or requests for notification of future publications should be sent to K.S.Birks@massey.ac.nz

Further copies may be obtained from:
The Secretary
Department of Applied and International Economics
Massey University
Private Bag
Palmerston North
NEW ZEALAND
Phone: 06 350 5799 Extn 2679
Fax: 06 350 5660

Student Paper No.03
ISSN. 1174 – 5193
Price \$15

THE GENDER WAGE GAP IN NEW ZEALAND: THEORY AND EVIDENCE

Student Paper No.3

STEPHEN SUMMERS and STUART BIRKS



CENTRE FOR PUBLIC POLICY EVALUATION

Published by
**Centre for Public Policy Evaluation
College of Business, Massey University
Palmerston North
NEW ZEALAND
July 2000**

ACKNOWLEDGMENTS*

I wish to thank all those lecturers and fellow students within the various departments at Massey University for their contributions and ideas towards this thesis. Especially, I would like to take this opportunity to gratefully acknowledge that I am indebted to my supervisor Stuart Birks for his time, assistance and ideas that he bestowed on me. Also, I wish to thank my partner for spending many hours editing and checking my thesis, and for the encouragement and ideas she gave me.

This thesis is dedicated to my mother and father who have always provided love and support throughout my life and encouraged me to make the most of every opportunity presented.

*

This is a revised version of a thesis by Stephen Summers, supervised by Stuart Birks, in partial fulfilment of the requirements for a Master of Business Studies. It is a significant development beyond earlier unpublished work in this general area that was undertaken by Stuart Birks, Gary Burman, Cameron Wheeler, Kevin Heagney and Timothy Savell in 1997 and 1998.

TABLE OF CONTENTS

	<i>Pages</i>
<i>Acknowledgments</i>	<i>i</i>
<i>Table of Contents</i>	<i>ii</i>
<i>List of Figures</i>	<i>iii</i>
<i>List of Tables</i>	<i>v</i>
<i>List of Abbreviations</i>	<i>vii</i>
<i>Abstract</i>	<i>viii</i>
Chapter One: Introduction.....	1
Chapter Two: The Education Sector and the Gender Wage Gap	4
Chapter Three: Occupation and Family Responsibilities and the Gender Wage Gap.....	39
Chapter Four: The Gender Wage Gap: Theories and Policies	75
Chapter Five: Summary and Conclusions	103
<i>Appendices</i>	<i>106</i>
<i>References</i>	<i>116</i>

LIST OF FIGURES

<i>Figure</i>	<i>Page</i>
2.2.1 Attendance of 5 th Year Students at New Zealand Secondary Schools, 1965-1995.	6
2.2.2 Attendance of 6 th Year and Over Students at New Zealand Secondary Schools, 1965-1995.	7
2.2.3 School Participation Rates by Age and Sex, 1997.	7
2.2.4 Retention Rates for 14-16 Year Olds, 1986-1998.	8
2.2.5 Retention Rates for 14-17 Year Olds, 1986-1998.	8
2.2.6 Retention Rates for 14-18 Year Olds, 1986-1998.	9
2.8.1 Total Number of Students Attending New Zealand Universities by Gender, 1965-1997.	23
2.8.2 Internal Full-Time Students Attending New Zealand Universities by Gender, 1965-1997.	23
2.8.3 Internal Part-Time Students Attending New Zealand Universities by Gender, 1965-1991.	24
2.8.4 Extramural Students Attending New Zealand Universities by Gender, 1965-1991.	23
2.8.5 New Zealand Secondary Students Enrolled in Seventh Form Accounting, 1965, 1970, 1975, 1980, 1985 and 1990.	28
2.8.6 Bachelor Degrees in Accounting Awarded in New Zealand, 1975, 1980, 1985 and 1990.	29
2.8.7 New Zealand Secondary School Students Enrolled in Seventh Form Economics, 1965, 1970, 1975, 1980, 1985 and 1990.	29
2.8.8 Bachelor Degrees in Economics Awarded in New Zealand, 1965, 1970, 1975, 1980 and 1989.	29
2.8.9 Bachelor Degrees in Engineering Awarded in New Zealand, 1970, 1975, 1980, 1985, 1990 and 1995.	31
2.8.10 Bachelor Degrees in Psychology in New Zealand, 1965, 1970, 1975, 1980, 1985 and 1989.	32
2.9.1 Students Enrolled in Primary Teacher Training in New Zealand, 1965, 1970, 1975, 1980, 1985 and 1990.	33
2.9.2 Students Enrolled in Secondary Teacher Training in New Zealand, 1965, 1970, 1975, 1980, 1985 and 1990.	34

3.1.1	Labour Force Participation Rates for Males and Females in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	39
3.1.2	Percentage Change in Number of Males and Females Employed in New Zealand, 1971-1976, 1976-1981.	40
3.1.3	Percentage Change in Number of Males and Females Employed in New Zealand, 1986-1991, 1991-1996.	41
3.2.1	Breakdown of New Zealand Part-Time Workers by Hours Employed Per Week, 1996.	42
3.2.2	Breakdown of New Zealand Full-Time Workers by Hours Employed Per Week, 1996.	43
3.8.1	Total Earnings for the Female/Male Ratio of Average Hourly Earnings (1988-1998) and Average Weekly Earnings (1977-1998) in New Zealand.	62
3.8.2	Total Earnings for the Female/Male Ratio of Average Hourly and Weekly Ordinary Time in New Zealand, 1973-1998.	62
3.8.3	Total Earnings for the Female/Male Ratio of Average Hourly And Weekly Overtime in New Zealand, 1973-1998.	62
3.8.4	Full-Time Workers by Age Bracket in New Zealand, 1996.	64
3.8.5	Part-Time Workers by Age Bracket in New Zealand, 1996.	65
3.8.6	Ratio of the Percentage of the Female/Male Ratio of Incomes for those Earning \$40,000+ in 1986, 1991 and 1996.	79
4.2.1	Unemployment Rate for Males and Females in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	

LIST OF TABLES

<i>Table</i>	<i>Page</i>
2.2.1 Percentage Change in Age Group for the Total New Zealand Population, 1966-1996.	5
2.2.2 Numbers of Pupils Attending New Zealand Secondary Schools, 1965-1995.	6
2.2.3 Highest Attainment of School Leavers by Gender, 1987-1997.	9
2.2.4 Percentage of Sitting Students Awarded Higher Grades in New Zealand, 1997.	10
2.3.1 Subjects Taken by All New Zealand Secondary School Students in Form Five at 1 July, 1965, 1970, 1975, 1980, 1985 and 1990.	11
2.3.2 Subjects Taken by All New Zealand Secondary School Students in Form Six at 1 July, 1965, 1970, 1975, 1980, 1985 and 1990.	13
2.3.3 Subjects Taken by All New Zealand Secondary School Students in Form Seven at 1 July, 1965, 1970, 1975, 1980, 1985 and 1990.	14
2.3.4 Percentage of Year 3 School Certificate Students Gaining A or B Grades in Selected Subjects, 1996.	17
2.3.5 New Zealand University Bursaries/Entrance Scholarship Examinations: Percentage of Papers Graded S, A or B in Selected Subjects, 1997.	17
2.7.1 Destination of 1996 School Leavers in Further Education and Training in July, 1997.	22
2.8.1 Courses taken by Full-Time and Part-Time Students in New Zealand, 1965, 1970, 1975, 1980, 1985, 1990 and 1995.	25
2.8.2 Enrolments for Degrees in at New Zealand Universities, 1998.	30
2.9.1 Enrolments in Technical Education in New Zealand, 1965 and 1970.	34
2.9.2 Enrolments in International Standard Classification of Education Level Five Polytechnic Programmes in New Zealand, 1985, 1990 and 1995.	35
2.9.3 Full-Time Occupations for the New Zealand Population Aged 40-65+, 1996.	35
3.1.1 Number of Male and Female Workers Employed Full-Time and Part-Time in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	40
3.3.1 Number of Female-Dominated Occupations and Percentage of Females Employed in them using 60, 70, 80 and 90 Percent Definitions, in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	45
3.3.2 Number of Male-Dominated Occupations and Percentage of Males Employed in them using 60, 70, 80 and 90 Percent Definitions, in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	46
3.4.1 Percentage of the EMLF Employed in the Seven Main Occupational Classifications in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	47

3.4.2	Percentage of the EFLF Employed in the Seven Main Occupational Classifications in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	48
3.4.3	The Highest Male-Dominated Occupations (Based on Percentage Male in Each Occupation) in New Zealand, 1971, 1976 and 1981.	49
3.4.4	The Highest Female-Dominated Occupations (Based on Percentage Female in Each Occupation) in New Zealand, 1971, 1976 and 1981.	50
3.4.5	The Highest Male-Dominated Occupations (Based on Percentage Male in Each Occupation) in New Zealand, 1986, 1991 and 1996.	50
3.4.6	The Highest Female-Dominated Occupations (Based on Percentage Female in Each Occupation) in New Zealand, 1986, 1991 and 1996.	51
3.5.1	The MM, ID and SR* Indices of Horizontal Occupational Segregation in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	54
3.6.1	Summary of Results for CMD, SMD and S_t Indices for New Zealand Studies, 1956, 1961, 1966, 1971, 1976, 1981 and 1986.	57
3.6.2	The CMD, SMD and S_t Measurement of Vertical Gender Segregation for White-Collar Workers in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	58
3.6.3	The CMD, SMD and S_t Measurement of Vertical Gender Segregation for All Workers in New Zealand, 1971, 1976, 1981, 1986, 1991 and 1996.	59
3.8.1	Percentage of Female Workers in the 20-24 and 25-29 Age Bracket in New Zealand, 1986, 1991 and 1996.	67
3.8.2	Percentage of Male Workers in the 20-24 and 25-29 Age Bracket in New Zealand, 1986, 1991 and 1996.	68
3.8.3	Average Salary Comparisons for Diploma/Bachelor Graduates in New Zealand, 1991 and 1996.	69
3.8.4	Average Salary Comparisons for Postgraduates in New Zealand, 1991 and 1996.	71
3.8.5	Female/Male Earnings Ratio for Recent Graduates in New Zealand, 1975, 1980, 1985, 1990 and 1993.	72
3.8.6	Female/Male Earnings Ratio for Recent Graduates in New Zealand, 1996 and 1997.	73
4.5.1	Work Fatalities and Injuries in the New Zealand Work Force, Financial Year, 1989/90.	91

LIST OF ABBREVIATIONS

American Association of University Women	AAUW
Crude Measure of Differentiation	CMD
Equal Employment Opportunities	EEO
Employment Contracts Act	ECA
Employment Equity Act	EEA
Equal Pay Act	EPA
Equivalent Male Labour Force	EMLF
Equivalent Female Labour Force	EFLF
Gini Coefficient Index	G
Human Rights Commission Act	HRCA
Index of Dissimilarity	ID
Marginal Matching Index	MM
National Longitudinal Survey	NLS
not applicable	n.a
not elsewhere classified	n.e.c
Public Service Association	PSA
Scholastic Aptitude Test	SAT
Sex Ratio Index	SR
S_t Ratio	S_t
Standardised Measure of Differentiation	SMD
Standardised Sex Ratio Index	SR*
Third International Mathematics and Science Study	TIMSS
Women and Employment Index	WE

ABSTRACT

This thesis focuses on the issue of the gender wage gap in New Zealand that has been a prevalent topic in most countries and in a variety of academic circles over recent decades. Those who conclude that females are still being discriminated against in the labour market point to the use of a combination of policies, such as affirmative action and comparable worth, as a possible solution. Opponents to this view contend that there are many reasons that, combined, explain why females often earn less than their male counterparts. This thesis, encompassing a variety of statistics, illustrates that females have made, and continue to make, strong progress in all facets of the labour market. Thus, in conclusion, legislation to introduce new policies to narrow any gap is a road fraught with too many dangers and one that we do not need to go down.