

Copyright is owned by the Author of the thesis. Permission is given for a copy to be downloaded by an individual for the purpose of research and private study only. The thesis may not be reproduced elsewhere without the permission of the Author.

THE DEVELOPMENT AND EFFICIENCY
OF NEW ZEALAND'S EDUCATION

BOARDS:

A STUDY IN THE CHANGING NATURE OF
CONTROL

A thesis presented in partial fulfilment of
the requirements for the degree of Master of
Philosophy in Geography at Massey University

STEPHEN JAMES COX

1980

TABLE OF CONTENTS

	PAGE
Abstract	i
Acknowledgements	iii
List of Figures	iv
List of Tables	v
Introduction	vi
Chapter 1	
THE CHANGING NATURE OF CONTROL, 1947-1851, 1852-1876, 1877-1913, 1914-1947, 1948-1963, 1964-1979.	13
Chapter 2	
THE STRUCTURAL EVOLUTION OF NEW ZEALAND'S EDUCATION ADMINISTRATION SYSTEM	53
Spatial Evolution of Education Administration	58
Derivation of the Shape Index	66
Derivation of the Moment of Inertia Index	68
Derivation of the Index of Spatial Efficiency	75
Analysis	79
Chapter 3	
MOVEMENTS IN DECISION-MAKING IN EDUCATION ADMINISTRATION	86
The Centrality Index	95
Analysis	104

Chapter 4	THE OPTIMUM SIZE OF EDUCATION DISTRICTS	112
	Economies of Scale	115
	Analysis	123
	Personnel and the Size of Organisation	132
	Analysis	136
Chapter 5	POLICY AND DECENTRALISATION	142
Bibliography		155

ABSTRACT

The form of the administration of New Zealand's education system, has in part, been the outcome of a constant struggle between local and central authorities for the right of ultimate control of the school system. The movement of the key responsibilities in the development of education administration is reviewed and reasons are suggested for these changes. The shifts in responsibility are also viewed in conjunction with the various structural changes to the size and number of education districts since the formation of the Provincial Governments in the 1850's.

The research draws extensively from the geographical techniques that assess the spatial effectiveness of administrative systems. These are adapted to measure the varying spatial effectiveness of systems belonging to four time-periods; so that the complete development of education administration can be monitored. The varying spatial arrangements of schools, education districts and administrative centres shows increasing spatial effectiveness up until the present system.

Structural changes in the number and size of education districts can only partly explain the process of decentralisation or centralisation of authority. While sub-division of administrative units means some access for schools and parents to the processes of administration it does not necessarily mean that the new administration will have more authority. Together with the

structural changes in administration, a study of the movement in the "loci of decision-making" must be undertaken. A 'Centrality Index' technique is employed to assess the changing location for the responsibility of 6 key decisions that affect education administration. Using this technique, conclusions are made, wherein the system of education administration is seen as centralising up until 1947, after which a process of decentralisation evolves.

Spatially, it seems that the smaller education districts would ensure more contact for schools with their administrative centre, therefore the present policy of structural decentralisation and the sub-division of existing education districts might allow more effective administration. Decentralisation of decision-making also guaranteed that more decisions were being made at the local level.

Finally, these assessments are matched against the economics of operating administrative districts. The principal conclusion in this section of the study is that the larger districts are relatively less expensive to operate and that the optimum size for an education district is approximately 130,000 pupils. The conflicting conclusions concerning the economic and spatial efficiency of education boards highlights the complexity in assessing total administrative efficiency or trying to gauge an effective optimum size for an administrative unit.

ACKNOWLEDGEMENTS

I would like to extend my thanks to Professor K.W. Thomson, and other members of the Department of Geography for their guidance and support given to me throughout my period of study at Massey University. In particular I would like to acknowledge Mr D.B. Williams for his helpful criticism in all aspects of the presentation of this dissertation.

My thanks also go to my family for their help with the preparing of drafts and proof-reading and for their kindness and concern throughout my two years of study in New Zealand.

Finally, the help of various officials within the Boards of Education, must be recognised. Their co-operation and patience is a significant factor in the final completion of this study.

LIST OF FIGURES

Figure		PAGE
1	A Conceptual Framework for the Spatial Evolution of Administrative Systems	59
2	Boundaries and Administrative Centres of Education Districts (1820, 1890 and 1914, 1978)	63
3	Administrative Centres and Points of Minimum Aggregate Travel (1870, 1890, 1914, 1978)	71
4	Moment of Inertia Indices	80
5	Mean Indices of Efficiency and Shape	82
6	Total Indices of Centralisation	105
7	Mode Availability for Inter-Regional Contact (1840-1978)	108
8	Relationships between output and cost-per-unit	114
9	Average Cost Curves	114
10	Cost Curve: Total Grant per Education Board	124
11	Cost Curve: Administrative Expenses per Education Board	124
12	Cost Curve: Maintenance Grant per Education Board	125
13	Transportation Grant per Education Board	125
14	Average Size of School per Education Board	131
15	Relationships between Organisational Unit Size and the Supervision Ratio	131
16	Relationships between Organisational Unit Size and Administrative Ratio per Education Board	138

	PAGE
1 Indices of Shape for Education Boards through four Time-periods	67
2 Moment of Inertia Indices for Education Boards through four Time-periods	69
3 Indices of Efficiency for Education Boards through four Time-periods	76
4 Changes in the Locus of Decision-Making through five Time-Periods	98
5 Indices of Centrality	102
6 Time-Space Adjustments for Total Centrality Index	109
7 Cost Curve Studies of Scale Economies	117
8 Criteria for Selection of Administrative/Non Administrative Personnel	135
9 Administrative and Non-Administrative Personnel in New Zealand Education Boards	137