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COMMUTING TO PALMERSTON NORTH

AN EXAMINATION OF SOME ASPECTS OF THE
JOURNEY TO WORK IN THE PALMERSTON
NORTH URBAN AREA.

A Thesis Presented in Partial Fulfilment of the Requirements for
the Degree of Master of Arts in Geography at Massey
University.

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PREFACE

While this study could have been undertaken by another whose competence was in some other field, it is offered in the hope that the geographer's point of view may illuminate an area of knowledge about the Manawatu of which we were formerly ignorant. It is offered, too, in the hope of making a contribution, however meagre, to the literature which is available on the local area.

At the outset of the study it was the intention to enumerate commuters in terms of origin areas, the sole destination considered being the Palmerston North Urban Area. The inflow of commuters to the major employment centre in the Manawatu was the main consideration but it was expected that commuting might shed some light upon the distribution of population in the district. It was felt that the existence of an urban hierarchy, formulated on the basis of population size and urban function might well be the result of forces operating both in the settlements and within the area as a whole. Changes within the hierarchy could then be viewed as resulting from alterations of the forces. It was considered that commuting, as it is currently operating, was having an effect upon the Manawatu hierarchy and that settlement patterns were possibly being stabilised or reinforced by the existence of commuting. In this way the examination of commuting as a phenomenon taking place within a changing hierarchy became an important aim and some attempt was made to equate

changes in the hierarchy with commuting patterns.

A study similar to this undertaken at some future time would test the accuracy of some assumptions made here. The imposition of new, and at present unforeseen, forces could well alter the trend which is currently emergent and a further study could point up the development or decline of current changes in the urban hierarchy, and commuting as a factor in those changes.

Some research could be undertaken, too, to study the relationship which may exist between settlement size and the involvement of the population in the social and cultural activities available to them. While economic function is related to population size, little is known about the possible relations between social function and settlement size. A regional study could well embrace an analysis of commuting in the Manawatu from an origin and destination basis so that some assessment might be made of the extent to which the inter-area journey to work is a factor in the continued existence of some settlements.

In order to prosecute the study a survey was made of all known employers in the Urban Area and although no guarantee can be given that this survey was entirely complete, reference to current figures on employment in the Urban Area, as compiled by the Departments of Labour and Statistics, indicates that a coverage approaching 100 per cent may be safely assumed. During this survey some 1,742 contacts were made, and a list was made

of such names and addresses of commuters as could be obtained. Interviews were then conducted with commuters in their homes and in all 445 satisfactory interviews were completed, (See Appendix A.)

In conjunction with the home interviews checks were made in the settlements of the numbers of functions performed in each after lists had been compiled from the Universal Business Directory so that a simple hierarchial arrangement of settlements could be made. This appears in Chapter Five.

While the techniques used in gathering data proved effective in assessing the total position with regard to the numbers of commuters, the time involved in the survey work renders the data less accurate than it would necessarily be if the survey work could have been compressed into a shorter time. Some sixteen months of survey work were undertaken in the course of this study and during this time changes unknown to the author could well have taken place. Where changes were known to have occurred compensation was made so that the number of commuters and the location of their workplaces is considered to be as accurate as is possible under the circumstances in which the survey was carried out.

ACKNOWLEDGEMENTS

Without the ready help and assistance of a large number of people, this study could not have been completed. I take

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I could have done very little, however, without the generous and ready assistance of the employers of the Palmerston North Urban Area who, almost without exception, offered help and advice in a most ready manner, and without the generous co-operation of those commuters who submitted to my questioning I should have learnt very little.

I am grateful, too, to Miss Nola Gordon and the staff of the Computer Unit, Massey University, whose help and courtesy were of great assistance in overcoming the diffidence felt in dealing with the data through the medium of the computer. I extend my thanks, too, to Miss Aileen Claridge, formerly of Massey University Library, who located references in obscure places, Mr. P. Crawford of the Town Planning Office, Palmerston North City Council, for his patient coaching in statistical techniques and Mr. B.R. Greenslade, J. Wattie Canneries, Hastings, for his valuable advice on the economic issues encountered in

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INTRODUCTION

The daily, interurban movement of workers between home and work has implications for population distribution, urban function and the status of settlement within an urban hierarchy. Inter-urban commuting is one aspect of the complex of relationships which operate between urban settlements, the intervening rural areas and the major employment centre and is a reflection of the employment opportunities offered within the commuting region. In this thesis it is proposed to examine the emergence and development of commuting in the Manawatu, to discuss its present status and to assess, as far as possible, the effects which commuting is likely to have upon population and settlement.

The three factors of environment, economy and technology played a major role in the establishment and development of both the settlement pattern of the Manawatu and the urban hierarchy which was imposed upon that pattern. Initially, villages were established in response to the isolation imposed by the bush and the pattern which arose at that time has prevailed with little modification to the present. Changes within the three factors, however, modified the hierarchical order which emerged. The removal of the bush allowed easier communications, the economy became fully market orientated rather than semi-subsistence and technological innovation released manpower from pastoral occupations and from work associated with farming.

The reduction of occupational opportunity was met,

initially, by migration to areas where work was available but the increased mobility which the motor car allowed and which had played a role in the reduction of work opportunities, now became the means of permitting residence in an area other than that in which work was available and led to the emergence of commuting as an acceptable alternative to migration.

At present commuting is accepted by over five per cent of the total workforce of the Palmerston North Urban Area and this proportion is thought to be increasing. For commuters the Urban Area offers security of employment and equitable wages while the smaller centres and rural areas offer attractive residential sites. Although expensive, transport is readily available and presents no difficulty to the commuter.

The continuation of commuting and the possible expansion of the number of commuters could be reflected in the emergence of settlements of dormitory status. As the dormitory function replaces former functions some changes in the areal distribution of population might be expected. The centres closer to the city could gain population while the decline suffered in others might be halted or, perhaps, reversed.

THE LITERATURE

The journey to work has engaged the attention of many workers in various fields and a growing body of literature has appeared from the pens of demographers, ecologists, economists,

civil defence authorities, labour market analysts and planners¹ as well as geographers since Liepmann completed the first major study in 1944.² These works have concentrated, according to the disciplinary interest of their authors, on various social, economic and psychological aspects of the movement of workers to their places of work irrespective of the length of their work trip, commuting being defined as, "the daily trip to and from work from a residence sufficiently distant so that some form of transportation other than walking is involved".³

Hunter and Reid (1968) have discussed the relationship between commuting and mobility, (including geographical mobility) over varying distances, occupational mobility and the problems accruing from such mobility. Hawley (1950), however, describes the journey to work as a measure of the influence of the city on its surrounding area, showing that the influence and the number of commuters decrease with increasing distance from the city centre.

The socio-economic groupings of workers in relation to the distance travelled has been examined by Duncan (1955) and by Reeder (1956), while Goldstein and Mayer (1964), who include a brief and succinct outline of the rise of commuting, have studied commuting in relation to migration. Carroll (1952) has shown that adjustments may be made by commuters in reducing the distance travelled between home and work by moving residence or by changing occupation, and the factors involved in such adjustments,

and Holmes (1968) has examined aspects of commuting in Australia in relation to migration in that country.

These studies have concentrated largely upon the destination area showing commuting in relationship to the work place, but Humphrys (1962) has examined the economic importance of commuters to their places of residence showing that, "commuters who travel to work to sell their labour beyond ... the area in which they reside, are income earners for that area".⁴

While the great majority of works so far produced have been by West European and North American authors, contributions to the literature have been made by Australasians and in New Zealand an increasing volume of reports, articles and theses on the journey to work is appearing. In addition to those transportation studies undertaken by local authorities in this country the work of Dahms (1966) should be mentioned.⁵ This major study undertakes to relate the journey to work in Metropolitan Auckland to past patterns of communications, so largely influenced by the physical configuration of the land, and to the present existing structure of the urban community. Solly (1955) related passenger transport and commuting to the overall problems of passenger transportation in the Metropolitan Planning Area of Auckland. An examination of North Shore, as a dormitory suburb for Auckland workers was undertaken by Conacher (1964), while Robertson (1963) studied the journey to work in Wellington, and in his description and evaluation of the position as it pertains

to that city, has shown that the physical site of the city accounts for many of the problems which arise in the movement of workers from their dormitory suburbs into the city.

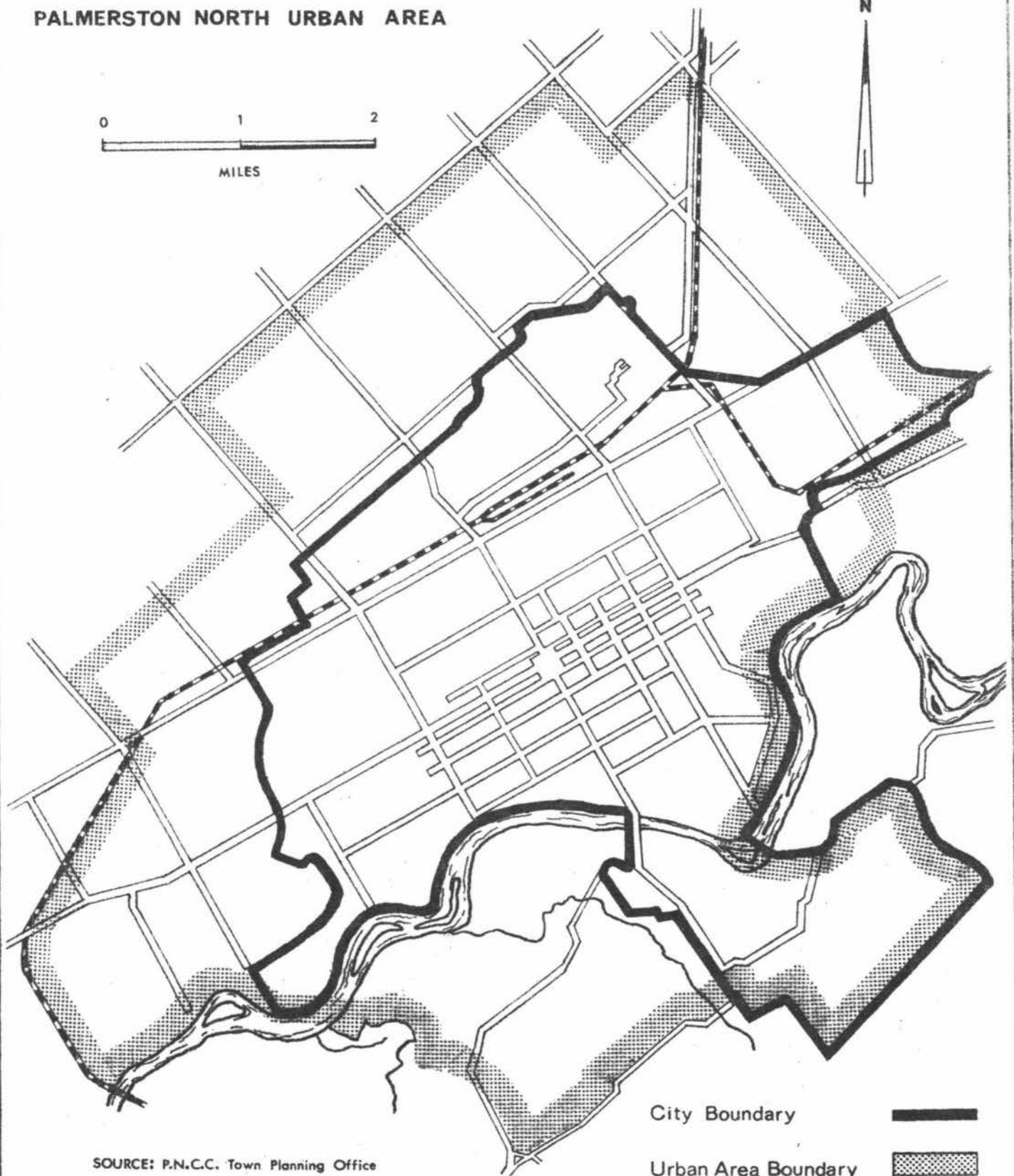
These works have concentrated upon the journey to work in its entirety covering the total work force of a settlement area, usually by sample, but in this present project only a section of the Palmerston North Urban Area's workforce has been studied. Since the aim here is to examine the relationships between settlements in terms of the urban hierarchy only those workers who lived beyond Palmerston North City or Urban Area have been included. "Urban hierarchy" here is taken to mean the arrangement of urban settlements in a hierarchical order based upon the factors of urban function and population size.

For city workers the boundary limiting the destination area was taken as the Palmerston North City boundary as defined by the Palmerston North City Council and gazetted on 30 August, 1967 while for workers in the agricultural zone ⁶ the boundary limiting that destination area was the Palmerston North Urban Area boundary as defined by the Statistics Department and used in the general census of 1966, (See Fig 1). ⁷

The decision to limit the study to commuters crossing either of the boundaries as given was an arbitrary one suggested by the nature of the study. It has given rise to some anomalies with respect to the length of work trip undertaken by some

FIGURE 1

PALMERSTON NORTH URBAN AREA



SOURCE: P.N.C.C. Town Planning Office
B.D.B.

City Boundary

Urban Area Boundary

workers. In some cases workers commuting across the respective boundaries had shorter trips than some city workers whose daily trip may be up to five miles one way.

The intention to relate commuting to settlement patterns has led to the division of the work into six chapters. In Chapter 1 the development of commuting in the Manawatu is traced against the background of the development of the settlement pattern and the urban hierarchy. The origins of commuters are discussed in Chapter 2 together with the reasons given by commuters for travel and their choice of residential location. Some observations are made here on commuting and marriage, migration and the dormitory functions of settlements. In Chapter 3, the destination areas of commuters are discussed in terms of the work types available and the percentages employed in various sections of the city and urban area. Transport as applied to commuting is examined in Chapter 4. Communications and the availability of transport were vital in the emergence of commuting and the continuation and extension of commuting depends upon the continued availability of transport. In Chapter 5 a simple hierarchical order for Manawatu settlements has been formulated on the basis of urban function and population size, and commuting has been related to this hierarchical order. Chapter 6 consists of conclusions drawn from the foregoing work.

FOOTNOTES

1. Schnore, 1960, 8.
2. Dr. Liepmann's study, The Journey to Work, was published shortly before the period of general interest in the subject which was occasioned by the physical reconstruction rendered necessary by the wartime bombing of Great Britain.
3. Foley, 1954, 322.
4. Humphrys, 1962, 73.
5. Transportation studies have been conducted by the following New Zealand local authorities,
 - i. The Northland Regional Planning Authority.
 - ii. The Auckland Regional Planning Authority.
 - iii. The Hamilton City Council.
 - iv. The Palmerston North City Council.
 - v. The Wellington City Corporation.
 - vi. The Christchurch Regional Planning Authority.
 - vii. The Dunedin City Council.
6. For the purposes of the study the Palmerston North Urban Area was divided into four destination zones. These are defined in Chapter 3. The Agricultural Zone referred to here is the area lying between the city boundary and the Palmerston North Urban Area boundary as devised by the Statistics Department.
7. The Palmerston North City boundary was defined and gazetted

on 1 September, 1967, (N.Z. Gazette, 1967 No 54, 1453) and amendments to the definition were gazetted on 30 August, 1967, (N.Z. Gazette, 1968, No 13, 378).