Comparison of NZ and UK Trips and Parking Rates

Findings from Draft Research Report LTR 0079

Introduction

"Can we apply UK data to improve trip and parking prediction information in NZ?"

1. Background to the research
2. Aims of the study
3. The approach to the study and scale of analysis
4. Results of the analysis
5. Study Findings and applications

1. Backgound

- Previous collaborative working with TRICS of the UK and NZ's TDB had shown that at a basic level similarities in data may exist.
- NZ Data base (TDB) is well used but remains small, limiting statistical reliability of its information.
- The low rate of growth of the NZ data base means that it is unable to respond quickly enough to inform practitioners of multi-modal travel.
- Is there a potential for the NZ and UK data bases to merge.

2. Aims of the Study

- Determine any linkages between the UK TRICS data base and the NZ Trips Data Base (TDB).
- Review those variables that give the strongest explanations of vehicle trips and parking characteristics.
- Identify how the NZ database can be enhanced to reflect the evolutions of the UK data base.
- Identify the land use activities that are poorly represented and are required to be surveyed to overcome data base deficiencies.

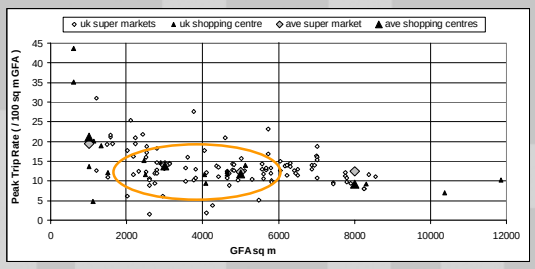
3. Approach

- Collaborative analysis (by three consultancies) of 8 Land use categories.
- The analysis was based on the peak hour trips and parking generation rates.
- Analysis assessed the linkages between the UK and NZ trips and parking rates using different variables.
- The analysis looked at a comparison of mean values derived from each database.
- Ensured that comparisons between like-for-like activities were occurring.

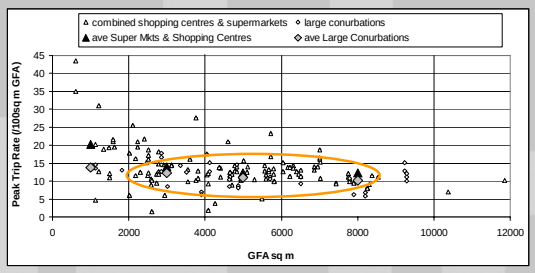
Land Use Definitions

NZ LAND USE	NZ SUB LAND USE	UK SUB LAND USE	UK LAND USE
Assembly	Cinema	A - Multiplex Cinemas	07 - Leisure
Commercial	Office (Park)	B - Business Park	02 -Employment
Education	Pre-school	D - Nursery	04 - Education
Industry	Manufacture	C - Industrial Unit	02 -Employment
	Warehouse	F - Warehousing Commercial	02 -Employment
Medical	Centre	E - Clinics	05 - Health
		G - GP Surgeries	
Recreation	Sports Fields	L - Football (5-a-side)	07 - Leisure
	Golf Courses	Golf Courses	09 - Golf Courses
Residential	Dwelling	A - Houses Privately Owned	03 - Residential
		B - Houses for Rent	
	Hotel	A - Hotel	06 - Hotel, Food & Drink
Retail	Superstore	A - Food Superstore	01 - Retail
	Shopping Centre - Local Shops	I - Shopping Centre	
		J - Retail Park - excluding Food	
	Service station	A - Petrol Filling Stations	13 - Petrol Filling Stations
	Restaurant-Bar	B - Restaurants	06 - Hotel, Food & Drink
	Fast Food	D - Fast Food - Drive Through	06 - Hotel, Food & Drink

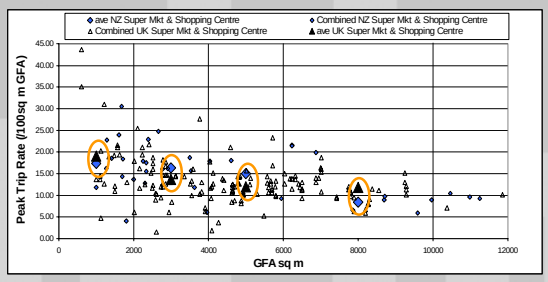
4. UK Supermarkets and Shopping Centers



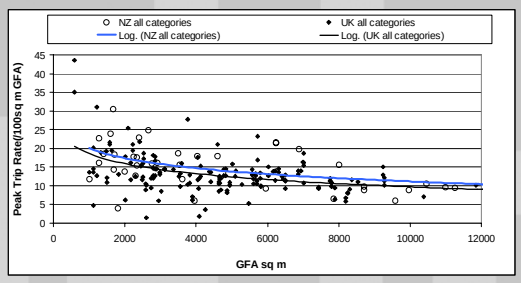
4.Relationship between UK sites and large conurbation sites



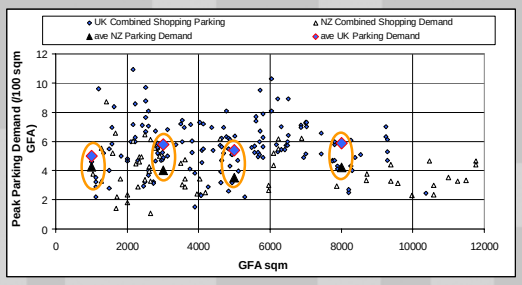
4. UK and NZ Vehicle Trip Generation Rates for Retail



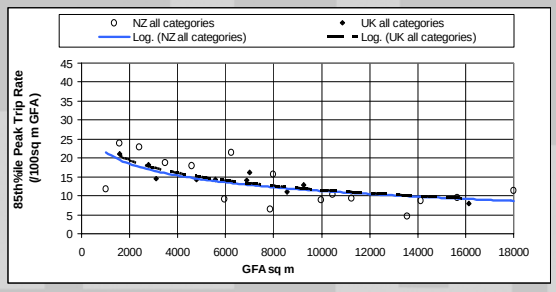
4. Trends across UK and NZ Retail trips data



4. UK and NZ Parking Rates



4. 85th%ile Trip Rates for UK and NZ Retailing



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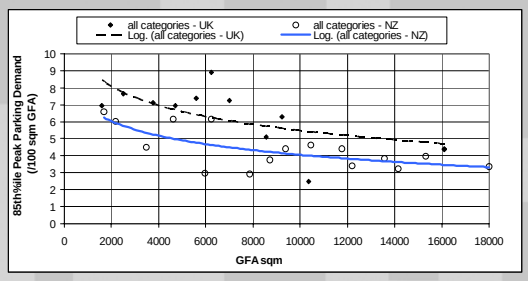
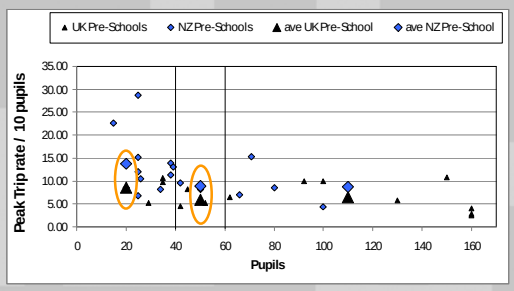
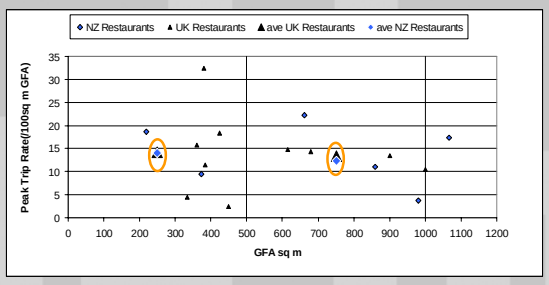


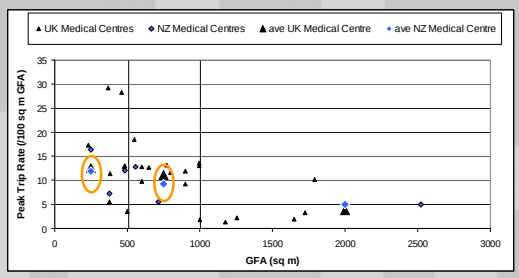
4. Peak Trip Rates for Pre-School Activity



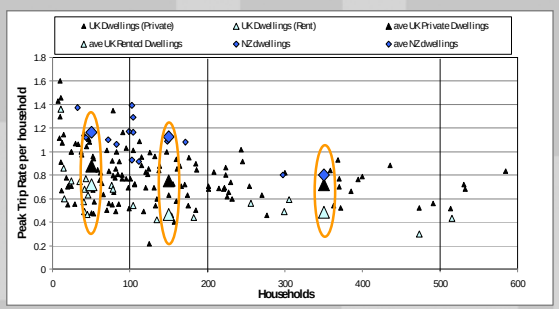
4. Peak Trip Rates for Restaurant Activity



4. Peak Trip Rates for Medical Centre Activity



4. Peak Trip Rates for Urban Residential Activity



5. Conclusions

1) Comparison and analysis shows that the average, and the 85th percentile, trip generation and parking demand rates are consistent and similar for retail activities.

2) There are also similar and consistent trip making patterns for restaurants, pre-schools, medical centres and residential activities.

3) Future sharing and exchange of basic data between UK and NZ is possible.

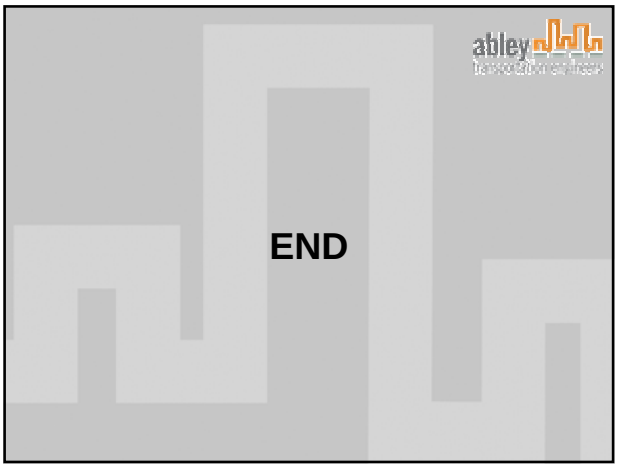
4) GFA appears to be a strong parameter for predicting trips and parking for many land use activities.

5) Where similar trips and parking rate trends were not established, this was in the main attributed to lack of NZ data and definitional issues.

6) Where similarities exist, transportation professionals can use UK data to broaden and support their judgements about land use trip generation and parking levels.

7) Where similarities exist, TRICS can assist NZ transport professionals in 'filling in' missing data such as: Modal split/ Parking accumulations/daily trip generation profiles/Plot Ratios.

8) Where NZ land uses are well represented, similar trends with their UK counterparts exist. This may suggest that trip generation and parking rates associated with NZ land uses that are poorly represented may be informed by equivalent UK data.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