

Residential Trip Rate Research – New Findings

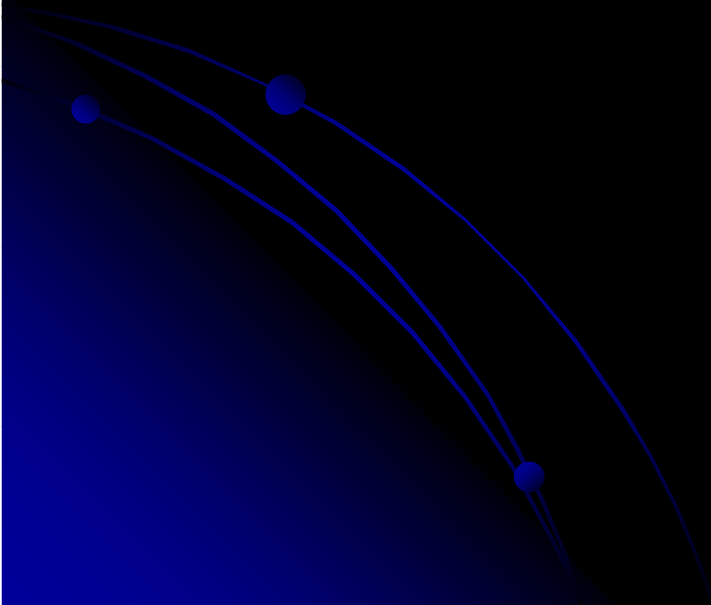
An analysis of the influence of
location on residential trip rates

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Decorative graphic element in the bottom left corner consisting of three curved blue lines of varying thickness, each ending in a small blue dot. The lines curve from the bottom left towards the center of the slide.

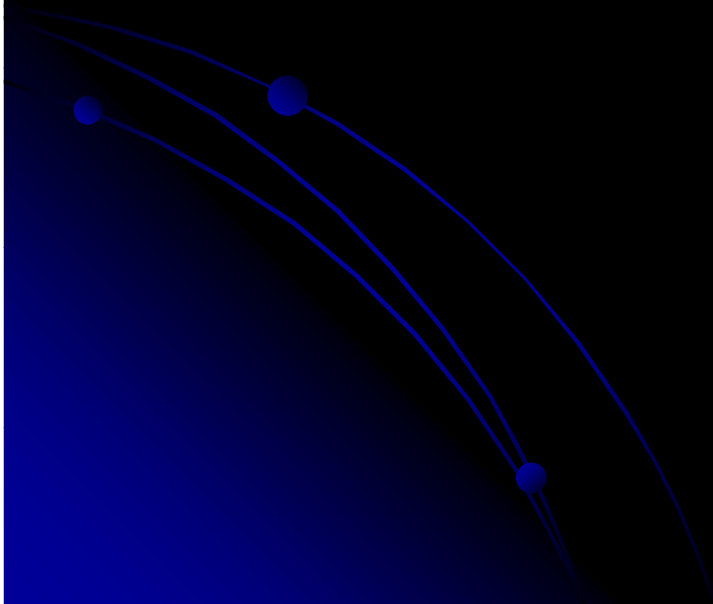
Background to this research



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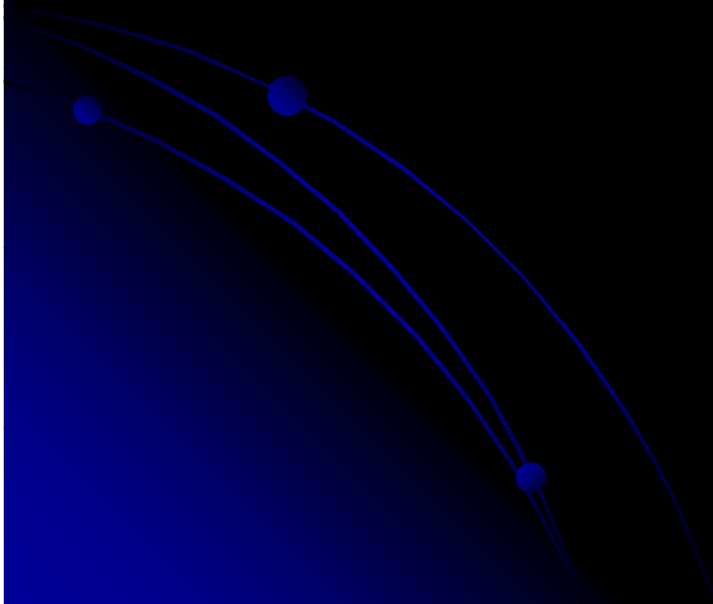
- Policy directs residential development to “sustainable” locations
- Policy directs development to previously developed land
- Pressure to develop free standing brownfield locations with no or few facilities, and to do so as “sustainable” sites, including in transport terms

A review of related research



Growing levels of travel

- Counter urbanisation
- A dramatic increase in the volume of travel
- Increase in the number of journeys
- Increase in journey lengths



Socio-economic and land use factors

- There is a clear link between socio-economic factors and land use patterns
- It is these socio-economic factors that often influence residential location choice – being responsible for around half of the variation: land use accounts for only a third

Socio-economic factors

- Household income is crucial factor
- Car ownership
- Higher income corresponds to greater trip frequency, and greater distances travelled
- Higher income influences location, with higher income households tending to be located further from the urban centre
- Social class

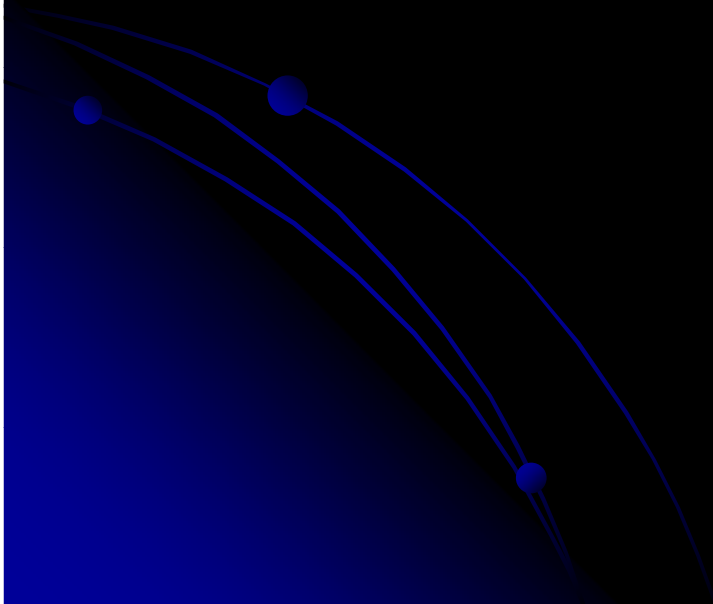
Land use factors

- Mixed use development
- Settlement size
- Density of development
- Local facilities
- Local employment opportunities
- Proximity to rail station
- Access to bus services
- Car parking provision

Conclusions from review of published sources

- Support for hypothesis that free standing and more remote locations are likely to result in more and longer car borne trips
- Socio-economic factors are important as well as land use factors
- There is potential for change over time

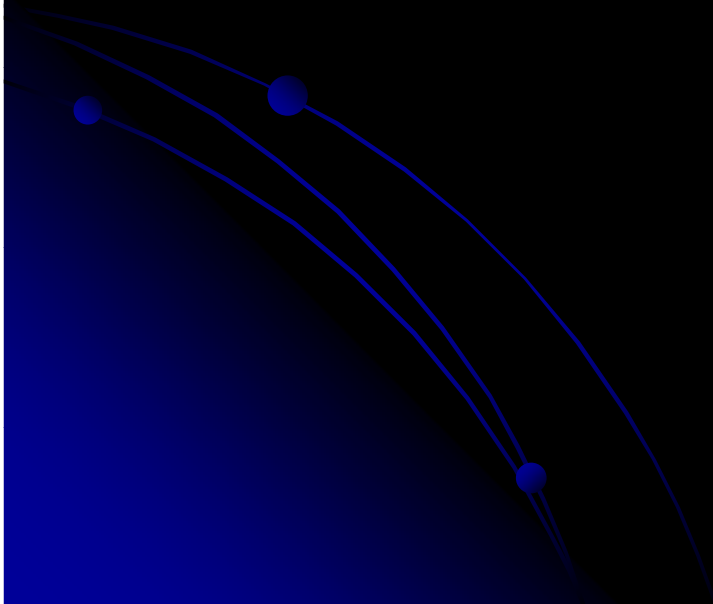
Evidence from TRICS®



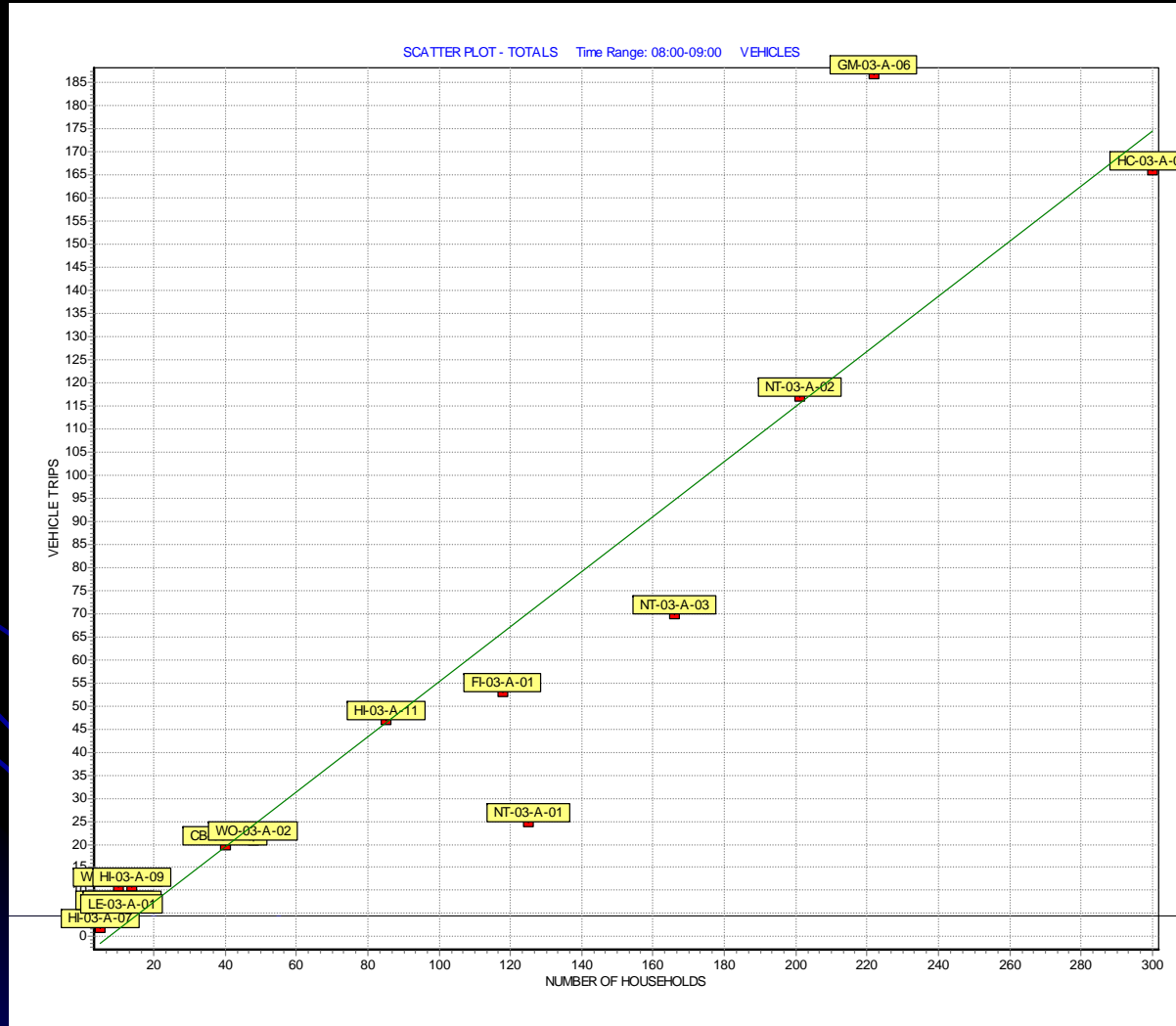
Evidence from TRICS®

- What can TRICS® tell us about trip rates from residential developments in “free standing” locations?
- The evidence from other sources tells us there are many factors that influence trip making behaviour
- This points to the need for sufficient sample size of sites within TRICS® to allow for the influence of other variables

TRICS® scatter plots



Scatter plots – selecting for *free standing* locations



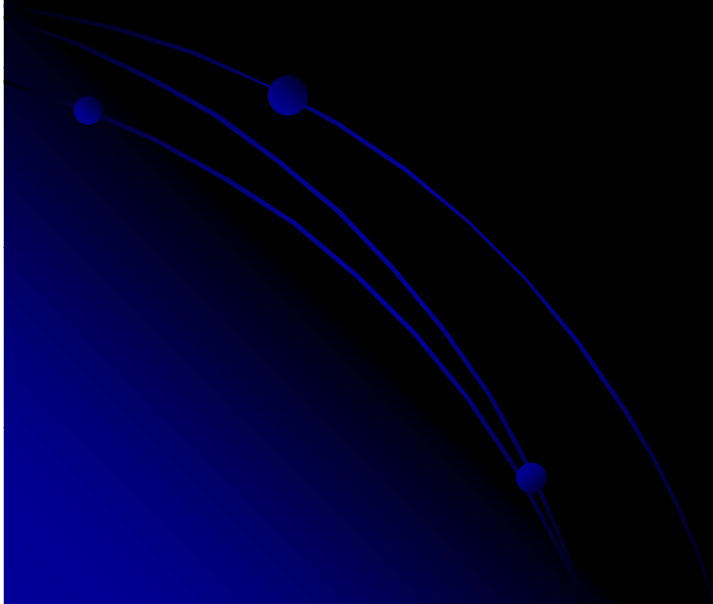
Scatter plots - summary

Residential trip rates from scatter plots

All sites		Selected free standing sites	
Housing Type	Trip Rate	Housing Type	Trip Rate
Houses Privately Owned	0.5	Houses Privately Owned	0.58
Mixed Private	0.55	Mixed Private	0.55
Mixed Private / Non Private	0.28	Mixed Private / Non Private	0.45
Mixed Private / Non Private adjusted	0.49	Mixed Private / Non Private	0.45



TRICS® - trip rate analysis



Median trip rates – morning peak

Median trip rates in the morning peak with *free standing* selection

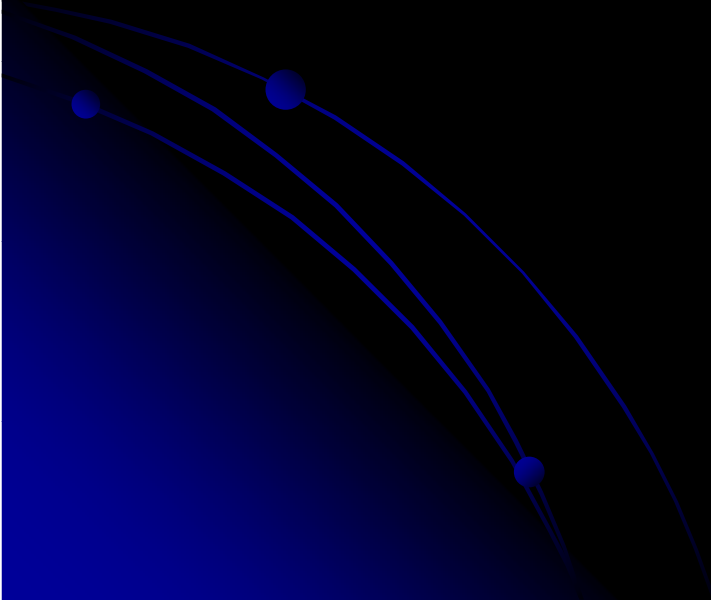
Housing Type	Suburban area	Edge of town	Free standing
Houses Privately Owned	0.57	(0.471)	0.527
Mixed Private	0.54	(0.605)	0.533
Mixed Private / Non Private	0.329	-	0.432

Median trip rates – evening peak

Median trip rates in the evening peak with *free standing* selection

Housing Type	Suburban area	Edge of town	Free standing
Houses Privately Owned	0.52	(0.487)	0.764
Mixed Private	0.41	(0.643)	0.567
Mixed Private / Non Private	0.334	-	0.651

Conclusions



Conclusions - general

- Location is not the only factor in influencing trip making behaviour
- Socio-economic and other land use factors have an influence
- The location of a site with respect to other land uses and transport services is important

Conclusions from the TRICS® analysis

- The analysis is not definitive
- There is some evidence of increased trip rates from residential sites that are *free standing*
- There is particular evidence that evening peak trip rates from *free standing* sites are higher than those from the database of sites as a whole