

# Regional & Location Trip Rate Variation: The Final Technical Report

Owen Edwards, Assistant Manager, TRICS Consortium Limited



## Some Background

- ▶ The TRICS database has expanded over the years to include many survey filtering options
- ▶ It became necessary to write the first TRICS Good Practice Guide in 2005
- ▶ Users have always been advised to avoid filtering by Region and instead look in more detail at local characteristics



- ▶ Despite this consistent guidance users often ask the TRICS team for guidance regarding potential regional deselection
- ▶ To give TRICS users a more substantiated response it was decided to look at trip rates variation across both region and location
- ▶ Results of the new research will help revise the updated TRICS Good Practice Guide to be published in 2020

## Method of Analysis

- ▶ Both stages of the study looked at four sets of land use surveys, with results for peak hour and full survey duration trip rates
  - ▶ Food Superstore Fridays, Food Superstore Saturdays, Office Weekdays and Houses Privately Owned Weekdays
- ▶ Total vehicles trip rates desired and survey cut-off date set at 01/01/1999 to ensure maximum possible survey samples

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- ▶ Greater London, South East, South West, East Anglia, All Midlands, All North, Wales, Scotland and All Ireland regions used
  - ▶ Town Centre/Edge of Town Centre, Suburban Area and Edge of Town location types used
  - ▶ Results per 100m<sup>2</sup> GFA for Food Superstore and Office trip rates and per dwelling for Houses Privately Owned trip rates



- ▶ Percentages of variance for each region or location type compared to trip rates for all sites by land use were calculated
- ▶ Rankings showing how the groupings compared to each other across the land uses were produced
- ▶ The conclusions of the report were drawn from whether any significant patterns emerged during analysis

# Example of Results (Residential by Region)

Rank from Highest to Lowest Trip Rates	Regional Grouping	Survey Days	Total (two-way) Vehicular Trip Rates per dwelling	Variation Percentage
1 <sup>st</sup>	All Ireland	54	8.315	+16.2%
2 <sup>nd</sup>	Scotland	14	7.225	+3.6%
3 <sup>rd</sup>	All Regions	202	6.968	0.0%
4 <sup>th</sup>	Greater London	10	6.449	-8.0%
5 <sup>th</sup>	South East	27	6.120	-13.9%
6 <sup>th</sup>	East Anglia	13	5.094	-36.8%
7 <sup>th</sup>	All Midlands	28	5.075	-37.3%
8 <sup>th</sup>	South West	11	4.921	-41.6%
9 <sup>th</sup>	Wales	8	4.892	-42.4%
10 <sup>th</sup>	All North	37	4.589	-51.8%

- ▶ Survey duration vehicular trip rates variation by region (03/A Houses Privately Owned Weekdays)



## Example of Results (Residential by Location Type)

Rank from Highest to Lowest Trip Rates	Location Type	Survey Days	Total (two-way) Vehicular Trip Rates per dwelling	Variation Percentage
1 <sup>st</sup>	Edge of Town	21	7.102	+1.8%
2 <sup>nd</sup>	All Location Types	192	6.975	0.0%
3 <sup>rd</sup>	Town Centre/ Edge of Town Centre	90	5.766	-21.0%
4 <sup>th</sup>	Suburban Area	81	5.010	-39.2%

- ▶ Survey duration vehicular trip rates variation by location type (03/A Houses Privately Owned Weekdays)

## The Findings

- ▶ Regional analysis reveals no clear, consistent pattern of vehicular trip rates variation
  - ▶ No evidence suggesting certain regions ranking consistently higher or lower than others
  - ▶ A considerable number of other factors must be influencing vehicular trip rates to a significantly greater degree than region

Regional Grouping	01/A Food Superstore (Friday)	01/A Food Superstore (Saturday)	02/A Office (Weekday)	03/A Houses Privately Owned (Weekday)
All Regions	4 <sup>th</sup>	5 <sup>th</sup>	5 <sup>th</sup>	3 <sup>rd</sup>
Greater London	10 <sup>th</sup>	10 <sup>th</sup>	10 <sup>th</sup>	4 <sup>th</sup>
South East	3 <sup>rd</sup>	7 <sup>th</sup>	7 <sup>th</sup>	5 <sup>th</sup>
South West	1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	8 <sup>th</sup>
East Anglia	5 <sup>th</sup>	1 <sup>st</sup>	4 <sup>th</sup>	6 <sup>th</sup>
All Midlands	8 <sup>th</sup>	6 <sup>th</sup>	9 <sup>th</sup>	7 <sup>th</sup>
All North	6 <sup>th</sup>	4 <sup>th</sup>	2 <sup>nd</sup>	10 <sup>th</sup>
Wales	7 <sup>th</sup>	3 <sup>rd</sup>	1 <sup>st</sup>	9 <sup>th</sup>
Scotland	9 <sup>th</sup>	9 <sup>th</sup>	6 <sup>th</sup>	2 <sup>nd</sup>
All Ireland	2 <sup>nd</sup>	8 <sup>th</sup>	8 <sup>th</sup>	1 <sup>st</sup>

- ▶ Regional groupings ranked by total survey duration vehicular trip rates (all land use categories)



## The Findings

- ▶ Location type appears to show a structured and consistent variation in vehicular trip rates
- ▶ Results suggest certain location types ranking consistently higher or lower than others
- ▶ Although a large number of factors can influence trip generation, location type is certainly an important one

Location Type Grouping	01/A Food Superstore (Friday)	01/A Food Superstore (Saturday)	02/A Office (Weekday)	03/A Houses Privately Owned (Weekday)
All Location Types	3 <sup>rd</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>	2 <sup>nd</sup>
Town Centre/ Edge of Town Centre	4 <sup>th</sup>	4 <sup>th</sup>	4 <sup>th</sup>	3 <sup>rd</sup>
Suburban Area	2 <sup>nd</sup>	3 <sup>rd</sup>	1 <sup>st</sup>	4 <sup>th</sup>
Edge of Town	1 <sup>st</sup>	1 <sup>st</sup>	2 <sup>nd</sup>	1 <sup>st</sup>

- ▶ Location Type groupings ranked by total survey duration vehicular trip rates (all land use categories)

## The Findings

- ▶ The study clearly illustrates a significantly higher correlation between location type and vehicular trip rates than region
- ▶ Location type variation clearly shows a greater level of consistency and a clear, emerging pattern
- ▶ Regional variation does not show a consistent pattern but instead almost an apparent randomness of fluctuations

## Moving Forwards

- ▶ The results of this study provide the TRICS community with a far greater level of clarity
- ▶ Regional selection should not be a major consideration when applying filters in the trip rates calculation process
- ▶ The 2020 update of the TRICS Good Practice Guide will be updated to reference this report accordingly
- ▶ Download the technical report in full now at [www.trics.org](http://www.trics.org)