

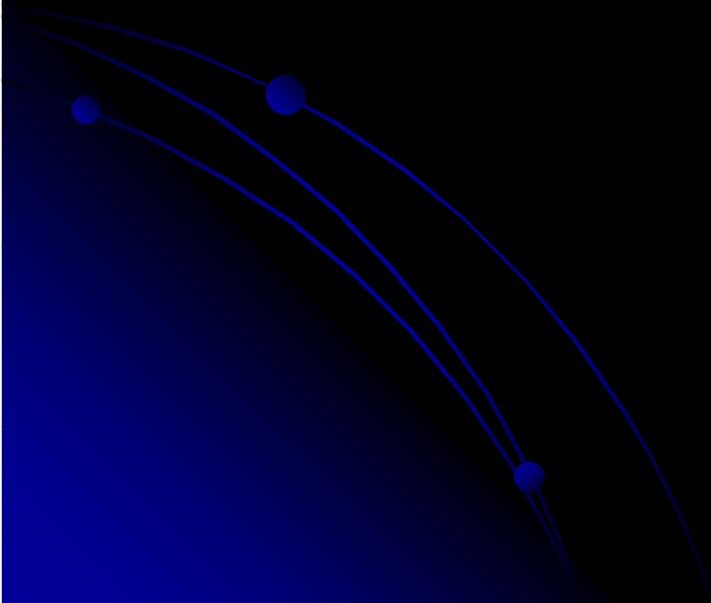


# 2008 TRICS® Good Practice Guide Clarity & Confidence

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# TRICS® Good Practice Guidance

- Principles of good practice (recap)
- Applying & auditing good practice
- Some practical examples



# Good Practice – A Definition

*The accepted range of values as well as safe and reasonable practice that result in efficient and effective use of available resources to achieve quality outcomes for the beneficiary. Accepted good practice should also reflect standards for service delivery where these exist.*

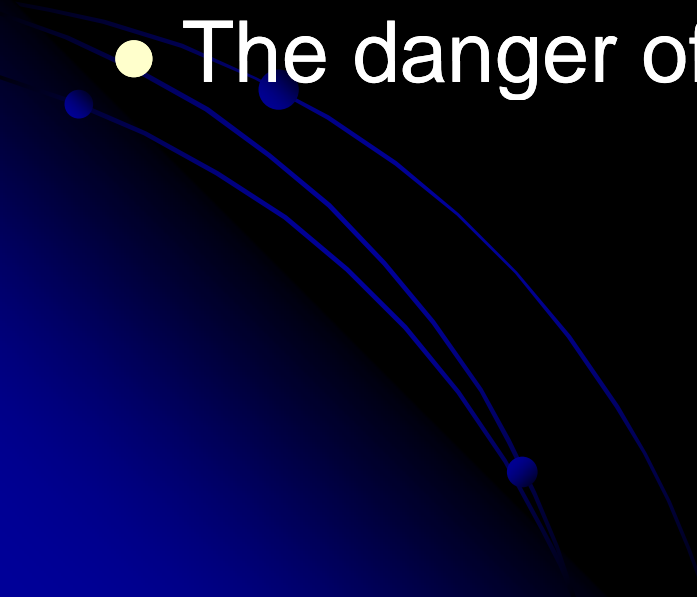
# An Alternative Definition.....

*Obtain trip rates in a professional manner, avoiding pre-determination, and allowing recipients of data to follow your footsteps.*

**NO CHEATING!!!**



# A Recap of Good Practice Principles

- Why good practice?
  - Finding a balance
  - The importance of detail
  - Avoiding potential pitfalls
  - The danger of pre-determination
- 
- Decorative graphic in the bottom-left corner consisting of three curved blue lines and three blue dots.

# Why Good Practice?



- Encourages responsibility and provision of clarity
- Allows thorough auditing of reports received
- Provides peace of mind for all parties

# Finding a Balance

- It is important to agree criteria for selection of TRICS® sites before commencement
- Decide what filtering criteria are most important
- Prepare to be flexible to obtain a representative sample
- Balance strictness of criteria against sample size

# The Importance of Detail



- TRICS® data is worthless without descriptive detail
- Detail can prove your results
- Detail can make your methods understandable

# Avoiding Potential Pitfalls



- Seasonality
- Days of the week
- Location type
- Cross-testing
- Extrapolation limitations

# The Danger of Pre-determination

- Use TRICS® to estimate potential trip generation levels
- DO NOT use TRICS® to meet your expected trip generation levels
- Pre-determination can be identified by recipients of data
- Auditors of data should always request full explanatory information on selections etc.

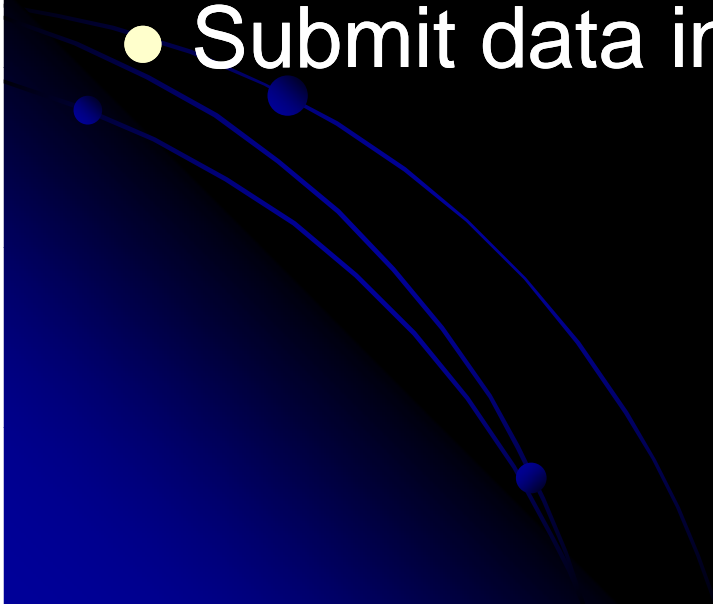
# Applying & Auditing Good Practice

- Stages of Good Practice
- Detail in presentation
- Asking the important questions



# Stages of Good Practice

- Proceed with agreed selection criteria
- Achieve balance between rigidity of selection criteria and size of data set
- Test data for robustness and reliability
- Submit data in form fit for auditing



# Detail in Presentation

- Provide clarity in data
- Allow others to follow your footsteps
- Detail factors being used outside of TRICS®
- Quote the Good Practice Guide

# Basic Detail Says a Lot!

*“30 trips per day”*

*“30 total trips (arrivals plus departures) per 100m<sup>2</sup> of GFA, per day”*





# TRICS® Output Files Provide Clarity

## Examples of Location, Petrol Filling Station and Individual Survey selections

### Main parameter selection:

Parameter: Gross floor area  
Range: 3019 to 7000 (units: sqm)

Date Range: 01/01/99 to 19/05/07

#### Selected survey days:

Saturday 9days

#### Selected survey types:

Manual count 8days  
Directional ATC Count 1days

#### Selected Locations:

Edge of Town 9

#### Selected Location Sub Categories:

Industrial Zone 2  
Commercial Zone 1  
Residential Zone 1  
Retail Zone 3  
No Sub Category 2

### Optional parameter selection:

#### Use Class:

A1 9days

### Optional parameter selection(Cont.):

#### Population within 1 mile:

1,001 to 5,000 5days  
5,001 to 10,000 1days  
15,001 to 20,000 1days  
20,001 to 25,000 2days

#### Population within 5 miles:

25,001 to 50,000 1days  
50,001 to 75,000 2days  
75,001 to 100,000 1days  
125,001 to 250,000 4days  
250,001 to 500,000 1days

#### Car ownership within 5 miles:

0.6 to 1.0 5days  
1.1 to 1.5 4days

#### Petrol filling station:

Excluded from count or no filling station 0days  
Included in the survey count 9days

#### Travel Plan:

Not Known 2days  
No 7days

### LIST OF SITES relevant to selection parameters

1	CB-01-A-05	TESCO, CARLISLE	CUMBRIA
		WARWICK ROAD	
		CARLISLE	
		Total Gross floor area: 6050 sqm	
		Survey date: SATURDAY 01/11/03	Survey Type: MANUAL
2	CH-01-A-01	SAFEWAY, CHESTER	CHESHIRE
		LIVERPOOL ROAD	
		BACHE	
		CHESTER	
		Total Gross floor area: 4544 sqm	
		Survey date: SATURDAY 14/06/03	Survey Type: MANUAL
3	DC-01-A-15	TESCO, BOURNEMOUTH	DORSET
		RIVERSIDE AVENUE	
		LITTLEDOWN	
		BOURNEMOUTH	
		Total Gross floor area: 6780 sqm	
		Survey date: SATURDAY 09/12/00	Survey Type: DIRECTIONAL
4	KC-01-A-19	SAFEWAY, GRAVESEND	KENT
		COLDHARBOUR ROAD	
		NORTHFLEET	
		GRAVESEND	
		Total Gross floor area: 5439 sqm	
		Survey date: SATURDAY 20/09/03	Survey Type: MANUAL



# TRICS® Output Files Provide Clarity

## Example of Parameter Summary display

TRIP RATE for Land Use 01 - RETAIL/A - FOOD SUPERSTORE  
 VEHICLES  
 Calculation factor: 100 sqm  
 BOLD print indicates peak (busiest) period

Time Range	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00 - 01:00	1	6780	0.664	1	6780	1.136	1	6780	1.800
01:00 - 02:00	1	6780	0.369	1	6780	0.457	1	6780	0.826
02:00 - 03:00	1	6780	0.251	1	6780	0.280	1	6780	0.531
03:00 - 04:00	1	6780	0.310	1	6780	0.354	1	6780	0.664
04:00 - 05:00	1	6780	0.118	1	6780	0.192	1	6780	0.310
05:00 - 06:00	1	6780	0.619	1	6780	0.310	1	6780	0.929
06:00 - 07:00	1	6780	1.180	1	6780	0.826	1	6780	2.006
07:00 - 08:00	9	5898	2.176	9	5898	1.313	9	5898	3.489
08:00 - 09:00	9	5898	4.604	9	5898	3.061	9	5898	7.665
09:00 - 10:00	9	5898	6.786	9	5898	5.300	9	5898	12.086
10:00 - 11:00	9	5898	8.646	9	5898	7.421	9	5898	16.067
11:00 - 12:00	9	5898	8.727	9	5898	8.693	9	5898	17.420
12:00 - 13:00	9	5898	8.602	9	5898	9.039	9	5898	17.641
13:00 - 14:00	9	5898	7.988	9	5898	8.222	9	5898	16.210
14:00 - 15:00	9	5898	8.369	9	5898	8.065	9	5898	16.434
15:00 - 16:00	9	5898	8.497	9	5898	8.438	9	5898	16.935
16:00 - 17:00	9	5898	8.288	9	5898	9.102	9	5898	17.390
17:00 - 18:00	9	5898	7.628	9	5898	8.670	9	5898	16.298
18:00 - 19:00	9	5898	5.963	9	5898	7.042	9	5898	13.005
19:00 - 20:00	9	5898	4.169	9	5898	5.226	9	5898	9.395
20:00 - 21:00	9	5898	2.785	9	5898	3.308	9	5898	6.093
21:00 - 22:00	7	5934	1.743	7	5934	2.415	7	5934	4.158
22:00 - 23:00	2	5898	0.667	2	5898	1.314	2	5898	2.001
23:00 - 24:00	1	6780	0.605	1	6780	0.560	1	6780	1.165
<b>Total Rates:</b>			99.774			100.744			200.518

### Parameter summary

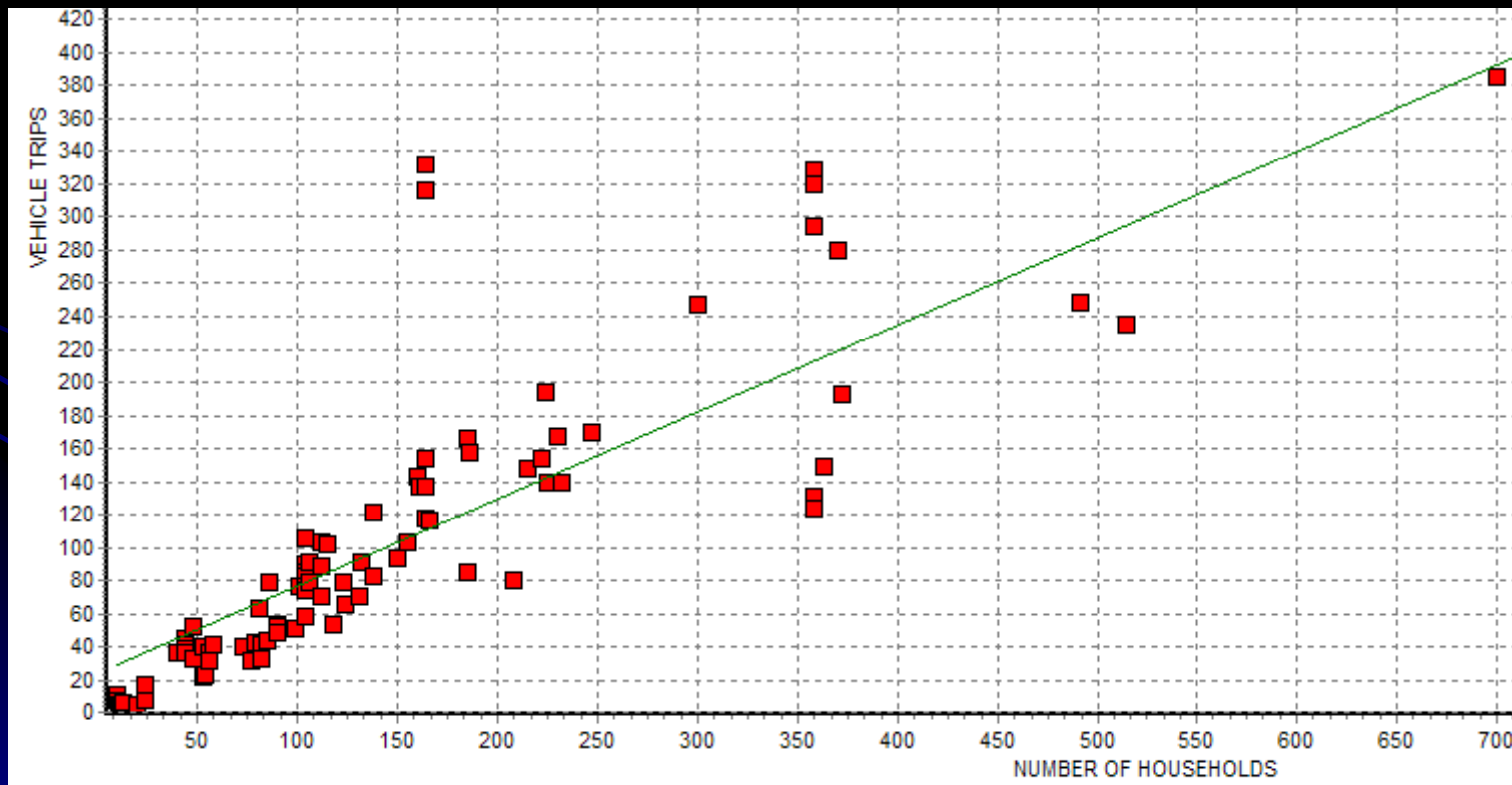
Trip rate parameter range selected: 3019 - 7000 (units: sqm)  
 Survey date date range: 01/01/99 - 19/05/07  
 Number of weekdays (Monday-Friday): 0  
 Number of Saturdays: 9  
 Number of Sundays: 0  
 Optional parameters used in selection: YES  
 Surveys manually removed from selection: 3

# Asking the Important Questions

- Can I understand the steps taken to produce this data?
- Does this data provide clarity?
- Are selection criteria acceptable?
- Does the data seem robust and reliable?
- Does the data appear compliant with Good Practice?
- Is there evidence of bad practice?

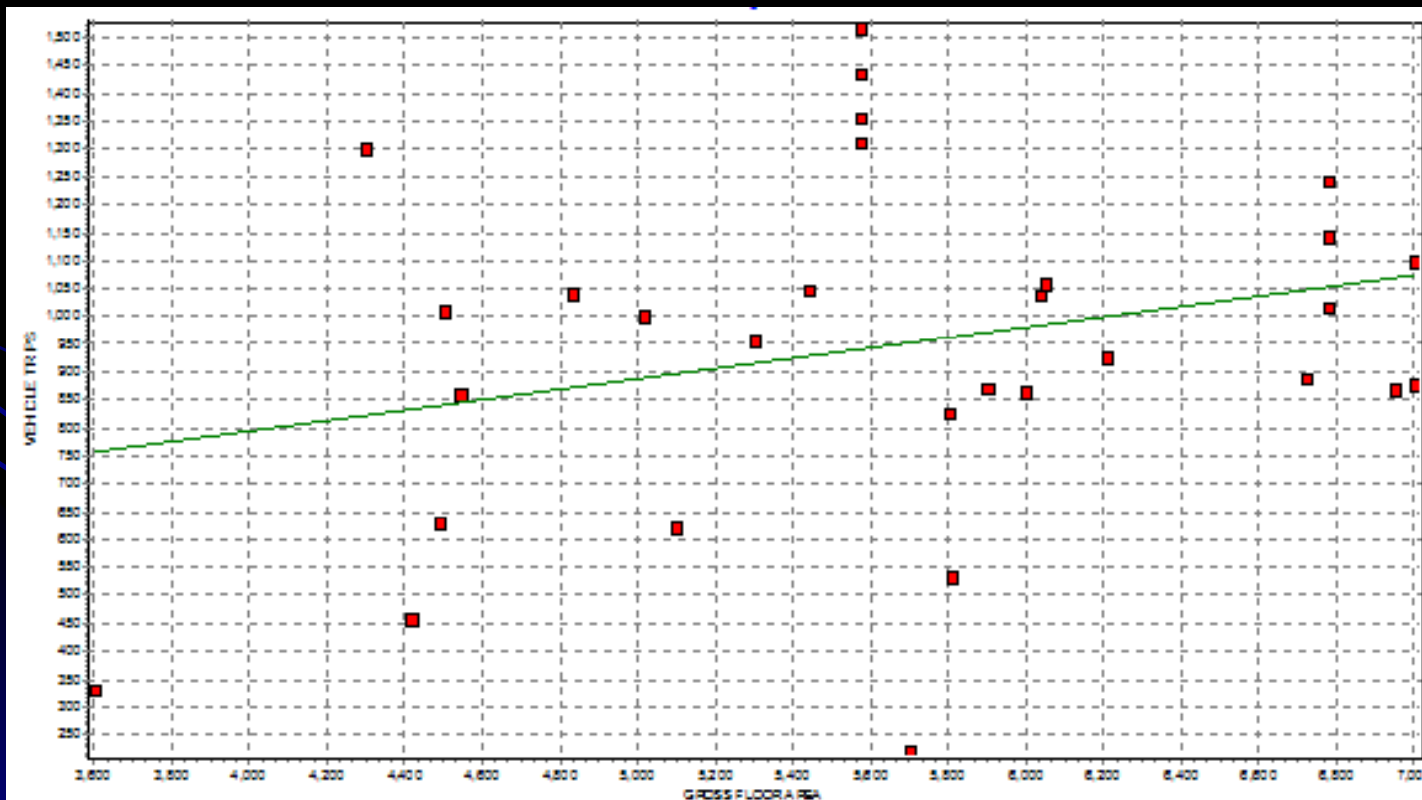
# Some Practical Examples

Error margins: Relationship between residential dwellings and trip rate



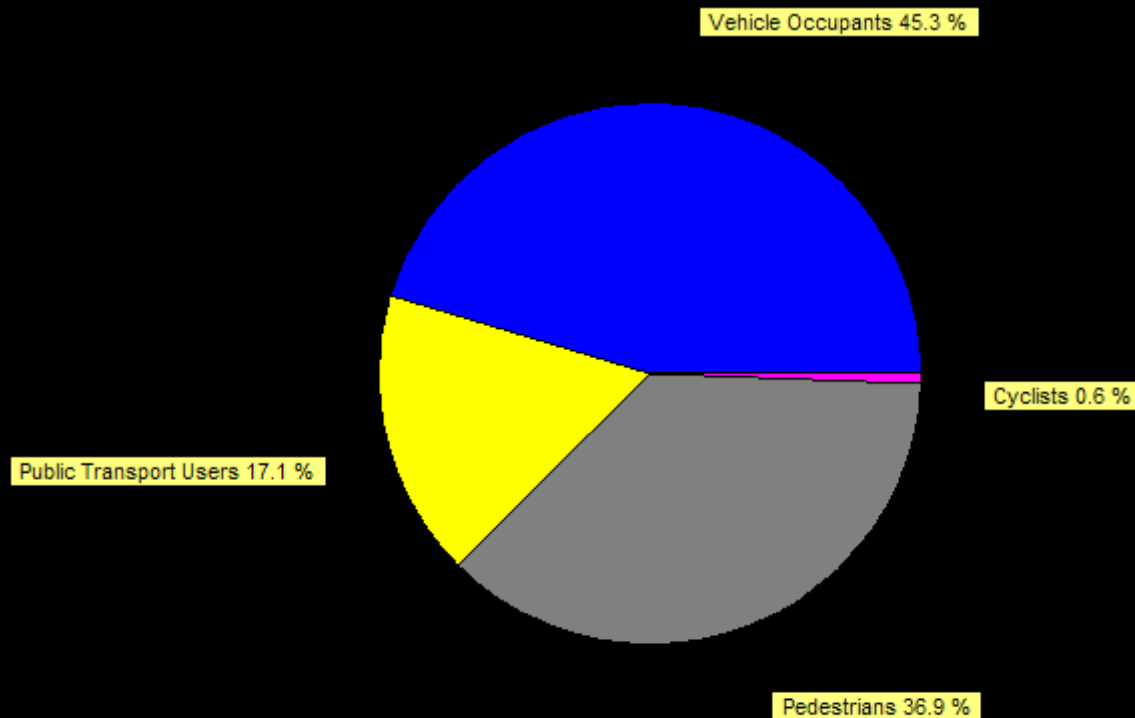
# Some Practical Examples

Error margins: Lack of relationship between Food Superstore GFA and trip rate



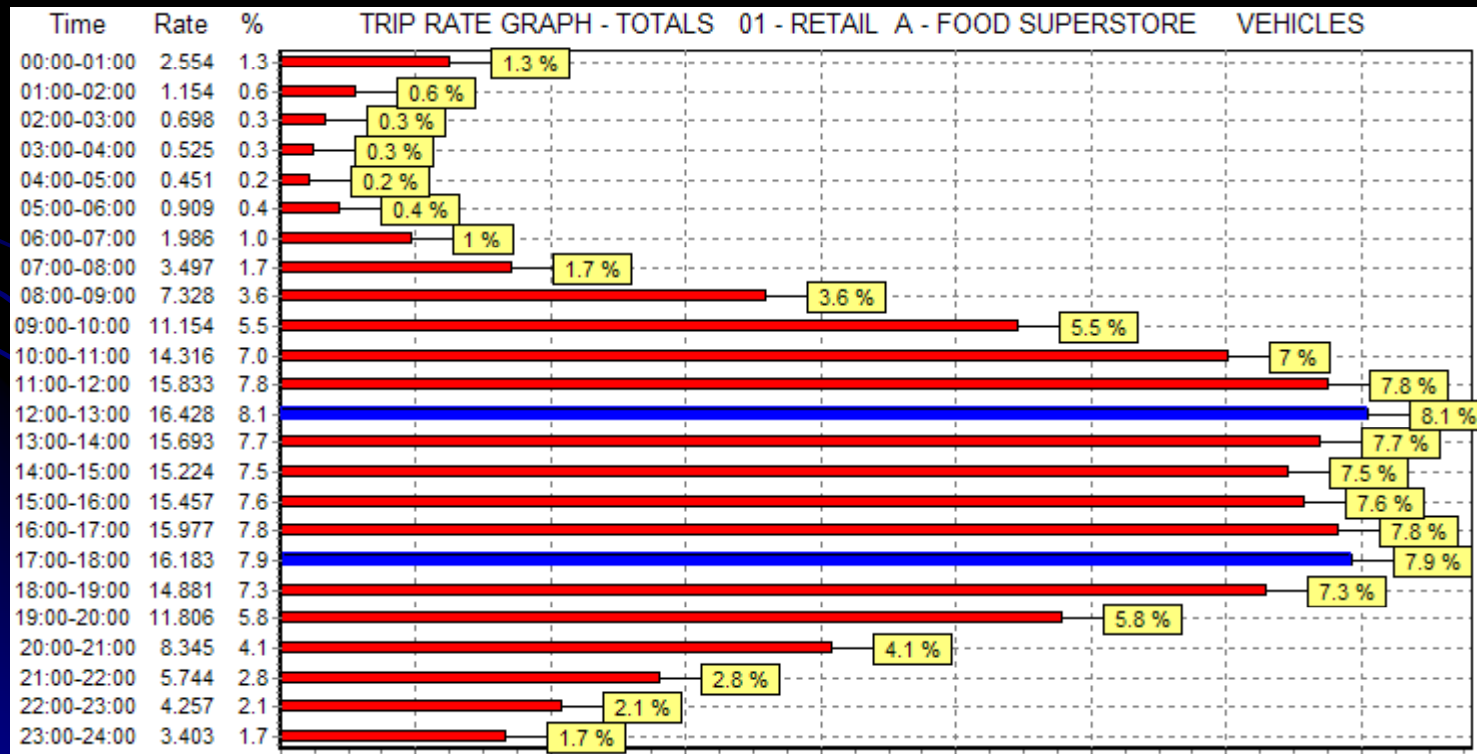
# Some Practical Examples

County Hall, Maidstone: ALL trips are recorded, not just “work” arrivals and departures.



# Some Practical Examples

Evidence of “double peaking”? Fridays and Saturdays at Food Superstores merged together.



# Some Practical Examples


The “Cross-Test”: Comparing mean and median trip rates.

VEHICLES									
TRIP RATE VALUE PER 100 SQM	ARRIVALS			DEPARTURES			TOTALS		
	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate	No. Days	Ave. GFA	Trip Rate
00:00-01:00	2	6409	0.507	2	6409	0.866	2	6409	1.373
01:00-02:00	2	6409	0.250	2	6409	0.265	2	6409	0.515
02:00-03:00	2	6409	0.172	2	6409	0.203	2	6409	0.375
03:00-04:00	2	6409	0.179	2	6409	0.187	2	6409	0.366
04:00-05:00	2	6409	0.140	2	6409	0.172	2	6409	0.312
05:00-06:00	2	6409	0.616	2	6409	0.289	2	6409	0.905
06:00-07:00	3	5883	0.952	3	5883	0.595	3	5883	1.547
07:00-08:00	11	5813	2.169	11	5813	1.245	11	5813	3.414
08:00-09:00	11	5813	4.734	11	5813	3.164	11	5813	7.898
09:00-10:00	11	5813	6.867	11	5813	5.379	11	5813	12.246
10:00-11:00	11	5813	8.649	11	5813	7.422	11	5813	16.071
11:00-12:00	11	5813	8.785	11	5813	8.654	11	5813	17.439
12:00-13:00	11	5813	8.742	11	5813	9.158	11	5813	17.900
13:00-14:00	11	5813	8.140	11	5813	8.301	11	5813	16.441
14:00-15:00	11	5813	8.480	11	5813	8.172	11	5813	16.652



# Some Practical Examples

Example shows small difference between mean and median values

VEHICLES											
							TRIP RATE				
Rank	Site Ref	Description	Area	GFA	Day	Date	Arrivals	Departures	Totals	Travel F	
1	SF-01-A-01	TESCO, NEAR IPSWICH	SUFFOLK	4300	Saturday	11/10/03	14.279	16.047	30.326		
2	KC-01-A-18	SAINSBURYS, BROADSTAIRS	KENT	4830	Saturday	08/11/03	11.201	10.373	21.574		
3**	NT-01-A-03	SAFEWAY, NOTTINGHAM	NOTTINGHAMSHIRE	5016	Saturday	09/12/00	9.689	10.287	19.976		
4	KC-01-A-19	SAFEWAY, GRAVESEND	KENT	5439	Saturday	20/09/03	9.744	9.561	19.305		
5	CH-01-A-01	SAFEWAY, CHESTER	CHESHIRE	4544	Saturday	14/06/03	9.287	9.661	18.948		
6	DC-01-A-15	TESCO, BOURNEMOUTH	DORSET	6780	Saturday	09/12/00	9.351	8.968	18.319		
7	CB-01-A-05	TESCO, CARLISLE	CUMBRIA	6050	Saturday	01/11/03	8.810	8.711	17.521		
8	KC-01-A-17	TESCO, MAIDSTONE	KENT	6038	Saturday	06/11/99	7.999	9.225	17.224		
9**	SR-01-A-01	MORRISONS, STIRLING	STIRLING	7000	Saturday	21/04/07	7.414	8.286	15.700		
10	SY-01-A-01	TESCO, BARNSELY	SOUTH YORKSHIRE	7000	Saturday	12/04/03	5.800	6.757	12.557		
11	LN-01-A-06	SAINSBURYS, LINCOLN	LINCOLNSHIRE	6950	Saturday	12/05/07	6.072	6.403	12.475		

Rank order for: **Gross floor area**  
 Calculated on: **TOTALS** Time range: **12:00-13:00**  
 Total: **11** \*\*85th Percentile = no. 3  
 \*\*15th Percentile = no. 9

**Note**  
**WARNING: Using 85th and 15th percentile highlighted trip rates in data sets of under 20 surveys is not recommended by TRICS, and may be misleading.**

Sorted by Trip Rate  
 Arrivals  
 Departures  
 Totals