



FOOD SUPERSTORES & DISCOUNT FOOD STORES: A TRIP GENERATION COMPARISON

NICK RABBETS, MANAGING DIRECTOR, TRICS CONSORTIUM LIMITED



Food Superstores & Discount Food Stores



- Both Food Superstores and Discount Food Stores are very popular land use types amongst TRICS users.
- Food Superstores include Tesco, Asda, Sainsbury's etc (main superstores and not convenience stores).
- Lidl and Aldi are typical Discount Food Stores.
- This is the first time a comparative analysis has been undertaken.
- Question: What are the trip generation differences, and have they changed over time?





The Technical Analysis



- Separate vehicular (Total Vehicles) and multi-modal (Total People) analyses undertaken.
- Edge of Town, Suburban Area and Neighbourhood Centre (excluding villages) location types included.
- Unlimited range of GFA used.
- Calculations by GFA split between weekdays (Mon-Fri) and Saturdays.
- Survey dates split between 2005-2011 and 2012-2019 (total of 2005+ also calculated).



The Technical Analysis



- Peak hour trip rates calculated along with trip rates for 0800-2000 period (for all datasets).
- All trip rates calculated were two-way totals per 100m² GFA.
- Percentage of change over time (comparing 2005-2011 and 2012-2019) analysed for all sets of calculations.
- For multi-modal calculations modal splits shown for each dataset.
- Non-vehicular mode shift also analysed for multi-modal calculations.



Consideration for Petrol Filling Stations



We were aware that we needed to include food superstores with and without a PFS in the datasets to ensure a decent survey sample, but we kept a record of the number of sites including a PFS in the analysis results (which will also be provided in the technical note). Discount food stores do not include a PFS.

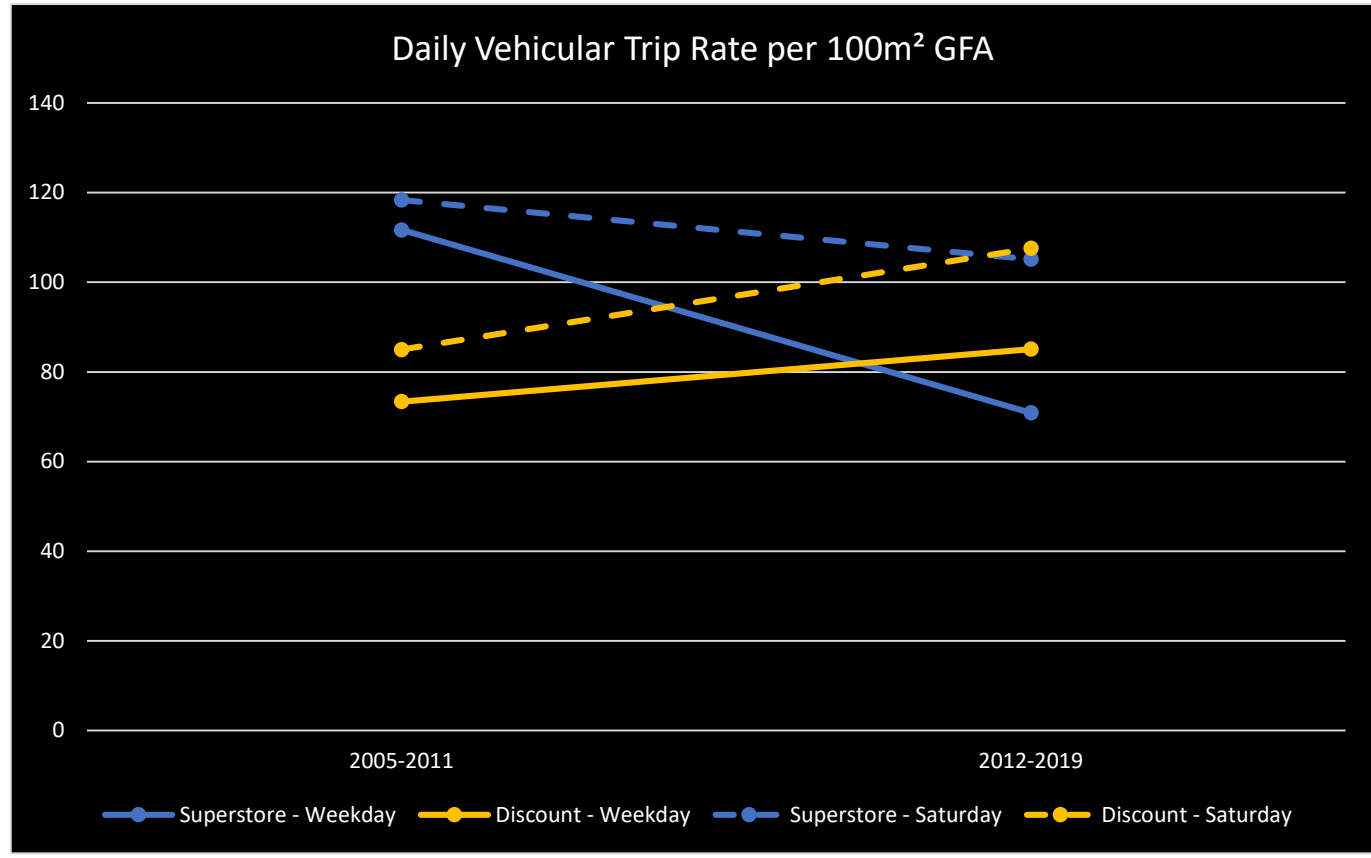


Results: Total Vehicles Trip Rates

Land use type and date range	Total Surveys	Mon-Thu	Friday	Saturday	Edge of Town	Suburban Area	Neighb. Centre	PFS Included	Average GFA (m2)	Total Peak Period	Total Peak Trip Rate	% Change Over Time	0800-2000 Trip Rate	% Change Over Time
01/A (Food Superstores)														
All Food Superstores (Weekday) 2005+	28	7	21		13	11	4	12	7341	1200-1300	8.49		86.38	
Food Superstores (Weekday) 2005-2011	14	4	10		7	6	1	5	6402	1700-1800	11.11		111.69	
Food Superstores (Weekday) 2012-2019	15	3	12		7	5	3	8	8051	1200-1300	6.96	-37.36	70.89	-36.53
All Food Superstores (Saturday) 2005+	43			43	23	19	1	25	6715	1100-1200	11.34		111.42	
Food Superstores (Saturday) 2005-2011	29			29	14	15		16	6181	1100-1200	12.12		118.37	
Food Superstores (Saturday) 2012-2019	17			17	10	6	1	10	7564	1200-1300	11.03	-8.95	105.14	-11.18
01/C (Discount Food Stores)														
All Discount Food (Weekday) 2005+	18	16	2		8	4	6		1656	1300-1400	8.22		81.50	
Discount Food (Weekday) 2005-2011	7	7			3	3	1		1362	1100-1200	8.24		73.39	
Discount Food (Weekday) 2012-2019	12	10	2		6	1	5		1800	1300-1400	8.50	3.17	85.08	15.93
All Discount Food (Saturday) 2005+	10			10	4	4	2		1971	1100-1200	12.04		105.23	
Discount Food (Saturday) 2005-2011	2			2	1	1			1075	1500-1600	10.70		85.00	
Discount Food (Saturday) 2012-2019	8			8	3	3	2		2195	1200-1300	12.40	15.94	107.58	26.56



Results: Total Vehicles Trip Rates





Results: Total People Trip Rates

Land use type and date range	Total Surveys	Mon-Thu	Friday	Saturday	Edge of Town	Suburban Area	Neighb. Centre	PFS Included	Average GFA (m2)	Total Peak Period	Total Peak Trip Rate	% Change Over Time	0800-2000 Trip Rate	% Change Over Time	Vehicle Occ. (%)	Peds (%)	PT Users (%)	Cyclists (%)	Non Vehicular Modes (%)	Non Vehicular Mode Change (%)
01/A (Food Superstores)																				
All Food Superstores (Weekday) 2005+	23	7	16		11	9	3	10	7434	1200-1300	13.97		140.40		85.2	11.7	2.5	0.6	14.8	
Food Superstores (Weekday) 2005-2011	14	4	10		7	6	1	5	6402	1200-1300	17.69		174.39		90.7	8.2	0.6	0.5	9.3	
Food Superstores (Weekday) 2012-2019	10	3	7		5	3	2	6	8621	1500-1600	11.04	-37.59	111.19	-36.24	77.0	17.1	5.1	0.8	23.0	13.7
All Food Superstores (Saturday) 2005+	39			39	19	19	1	23	6492	1200-1300	20.95		203.40		89.6	8.1	1.7	0.6	10.4	
Food Superstores (Saturday) 2005-2011	29			29	14	15		16	6181	1600-1700	21.69		210.98		89.4	8.3	1.7	0.6	10.6	
Food Superstores (Saturday) 2012-2019	13			13	6	6	1	8	7155	1200-1300	21.33	-1.64	197.77	-6.26	89.7	7.9	1.9	0.5	10.3	-0.3
01/C (Discount Food Stores)																				
All Discount Food (Weekday) 2005+	16	14	2		8	3	5		1736	1500-1600	15.56		149.53		75.3	21.6	2.1	1.0	24.7	
Discount Food (Weekday) 2005-2011	6	6			3	2	1		1367	1500-1600	15.02		124.58		77.0	20.5	1.8	0.7	23.0	
Discount Food (Weekday) 2012-2019	11	9	2		6	1	4		1900	1500-1600	15.52	3.29	157.30	26.26	75.4	21.5	2.1	1.1	24.7	1.7
All Discount Food (Saturday) 2005+	10			10	4	4	2		1971	1200-1300	25.35		226.37		79.2	18.8	1.2	0.9	20.9	
Discount Food (Saturday) 2005-2011	2			2	1	1			1075	1500-1600	23.72		176.13		75.7	22.0	2.0	0.4	24.4	
Discount Food (Saturday) 2012-2019	8			8	3	3	2		2195	1200-1300	26.08	9.93	232.11	31.79	80.9	17.2	1.1	0.9	19.2	-5.2



Results: Total People Trip Rates





Initial Observations

- There is a significant reduction in trip rates over time for food superstores across the analysis.
- There is a significant increase in trip rates over time for discount food stores across the analysis.
- The reduction in food superstore trips is much bigger on weekdays than on Saturdays.





Initial Observations

- For discount food stores the increase is higher on Saturdays for total vehicle trips, but on weekdays the increase is similar for total vehicles and total people.
- Food superstores show a 13.7% shift towards non-vehicular modes on weekdays, but no evidence of this on Saturdays.
- Discount food stores show no evidence of mode shift towards non-vehicular modes.





Important Caveats!



- Please proceed with CAUTION!
- Survey samples were lower for discount food stores than for food superstores (the range of survey samples for the whole analysis was between 2 and 39 sites).
- This was a basic and uncomplicated analysis, designed to give only a first impression of trip rate comparisons over a restricted time period.
- We are not providing suggestions as to WHY the data is the way it is. That is another discussion.
- But..... We can start the conversation.



Potential Topics of Discussion

- Has the introduction and growth in home deliveries been partly responsible for the reduction in food superstore trip rates?
- Have discount food stores become more “mainstream” in that they are attracting a wider demographic?
- What should we consider with regards to some of the food superstores analysed including a PFS within their developments?
- Are food superstore shoppers moving more towards non-car modes for “smaller” visits, whilst driving to their “weekly shop”?
- Do you have any other potential explanations for these initial results?
- Should we undertake another analysis in 5 years time to add another time period to what we have already done? What further change would you predict, and why?



Technical Note to be Published in 2020

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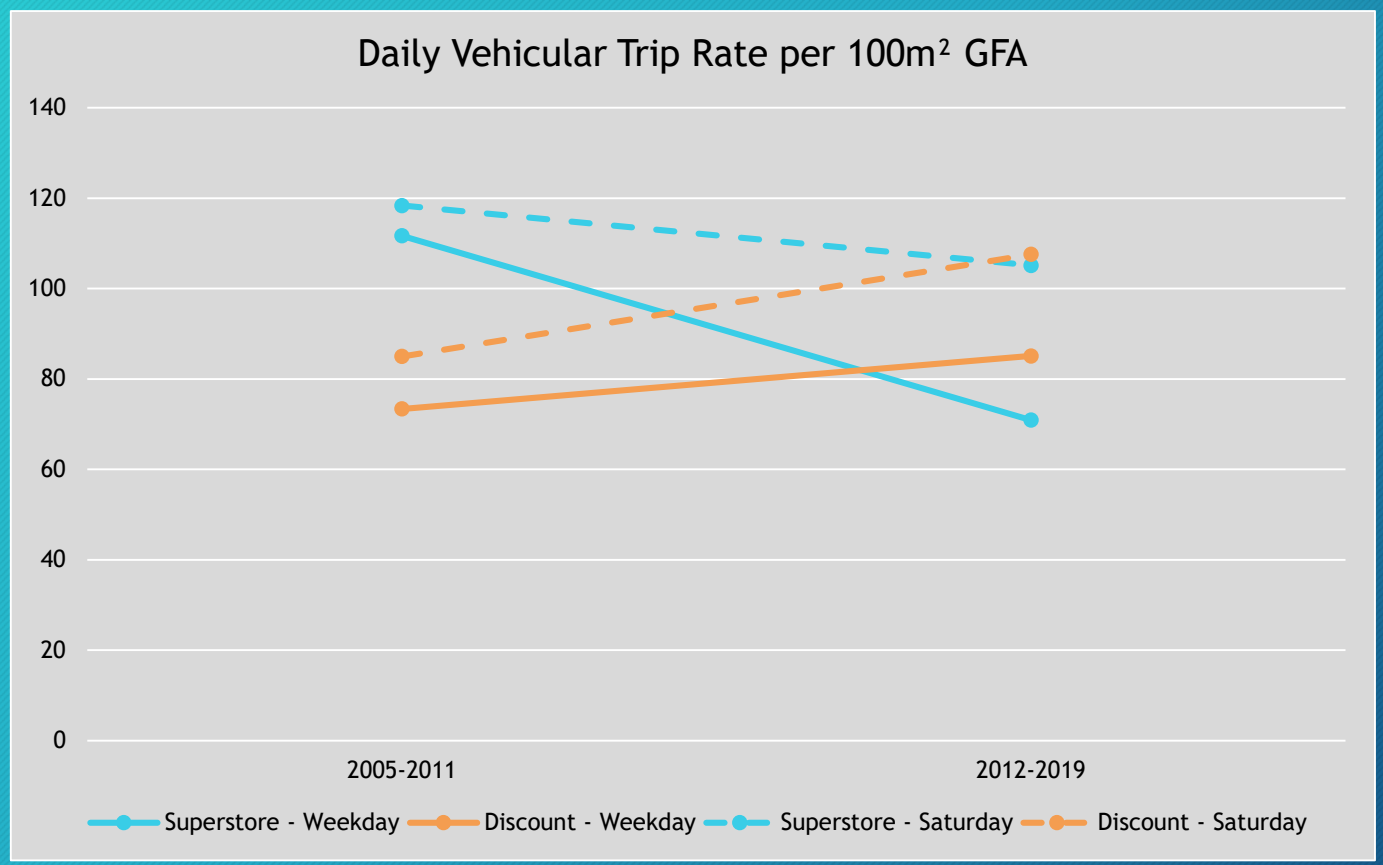


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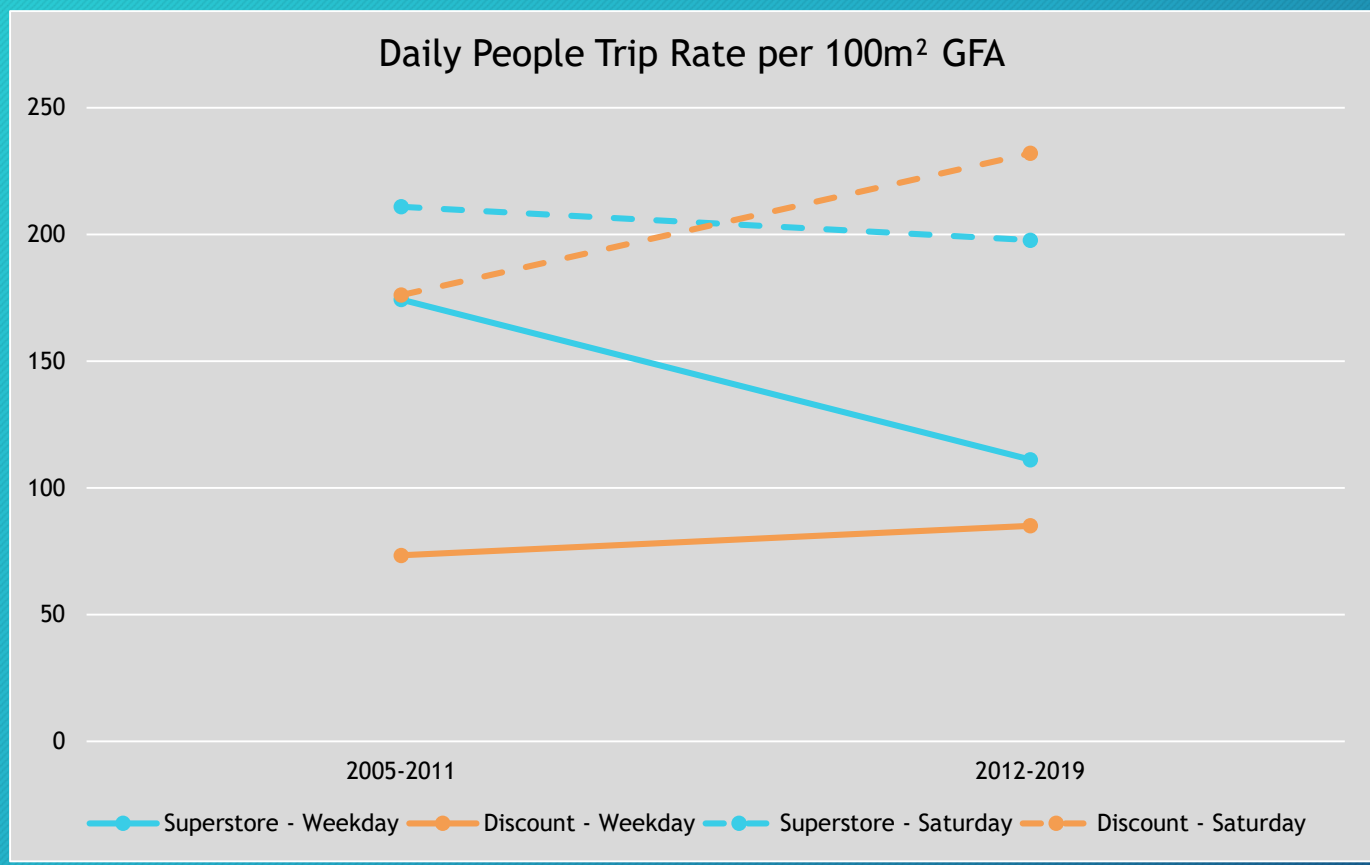


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