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# The SAS System

Obs	IRI_KEY	WEEK	SY	GE	VEND	ITEM	UNITS	DOLLARS	F	D	PR	upc_new	L1	L2	Company	L4	Brand	L9	Level	ι
1	252869	1154	0	1	11013	13050	1	7.49	NONE	0	0	011101313050	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	CITRA SOLV	CITRA SOLV	CITRA SUDS	+CRSDS CTRS LNDTG UCONC 500Z	9	1
2	252869	1155	0	1	11013	13050	2	19.78	NONE	0	0	011101313050	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	CITRA SOLV	CITRA SOLV	CITRA SUDS	+CRSDS CTRS LNDTG UCONC 500Z	9	1
3	252869	1156	0	1	11013	13050	1	9.89	NONE	0	0	011101313050	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	CITRA SOLV	CITRA SOLV	CITRA SUDS	+CRSDS CTRS LNDTG UCONC 50OZ	9	1
4	252869	1157	0	1	11013	13050	1	9.89	NONE	0	0	011101313050	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	CITRA SOLV	CITRA SOLV	CITRA SUDS	+CRSDS CTRS LNDTG UCONC 50OZ	9	1
5	252869	1158	0	1	11013	13050	3	29.67	NONE	0	0	011101313050	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	CITRA SOLV	CITRA SOLV	CITRA SUDS	+CRSDS CTRS LNDTG UCONC 50OZ	9	1
6	252869	1159	0	1	11013	13050	1	9.89	NONE	0	0	011101313050	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	CITRA SOLV	CITRA SOLV	CITRA SUDS	+CRSDS CTRS LNDTG UCONC 50OZ	9	1

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# The SAS System

Obs	IRI_KEY	WEEK	SY	GE	VEND	ITEM	UNITS	DOLLARS	F	D	PR	upc_new	L1	L2	Company	L4	Brand	L9	Le
1	643654	1120	0	1	11111	20003	1	3.99	NONE	0	0	011111120003	- LAUNDRY	POWDER LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	RINSO	+RINSO REG LNDTG UCONC PWD 68OZ	
2	643654	1121	0	1	11111	20003	1	3.99	NONE	0	0	011111120003	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	RINSO	+RINSO REG LNDTG UCONC PWD 68OZ	
3	643654	1124	0	1	11111	20003	1	3.99	NONE	0	0	011111120003	- LAUNDRY	POWDER LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	RINSO	+RINSO REG LNDTG UCONC PWD 68OZ	
4	643654	1127	0	1	11111	20003	1	3.99	NONE	0	0	011111120003	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	RINSO	+RINSO REG LNDTG UCONC PWD 68OZ	
5	643654	1130	0	1	11111	20003	1	3.99	NONE	0	0	011111120003	- LAUNDRY	POWDER LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	RINSO	+RINSO REG LNDTG UCONC PWD 68OZ	
6	643654	1132	0	1	11111	20003	1	3.99	NONE	0	0	011111120003	- LAUNDRY	POWDER LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	RINSO	+RINSO REG LNDTG UCONC PWD 68OZ	

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Top 6 Brands

## The MEANS Procedure

Analysis Variable :	DOLLAR	s
L5	N Obs	Sum
ACE	108	316.8200000
AJAX	2140	23841.66
AJAX FRESH	3088	32024.99
ALL	83938	1815212.38
ALLENS NATURALLY	23	500.0700000
ARIEL	11053	311281.99
ARM & HAMMER	12361	309291.25
ARM & HAMMER FABRICARE	225929	5159798.57
BEYOND	65	511.3500000
BI O KLEEN	66	1282.56
BLANCA NIEVES	54	180.3600000
BOLD	27051	462411.66
BORAX SUDZ	126	1398.00
BRILLASOL	234	1113.92
CHEER	157247	4162413.74
COUNTRY SAVE	453	5162.57
DREFT	40032	1032160.01
DUTCH	520	2578.16
ECOVER	409	5151.26
FAB	40858	
FOCA	5952	
FRESH BREEZE	1245	17573.90
FRESH START	11344	
GAIN	164754	
IVORY SNOW	44886	673068.19
KLEEN BRITE	223	2855.07
KLEEN BRITE BRIGHT WATER	1395	21628.90
KO LIRIO	53	461.4100000
	18	103.3200000
MAXX	108	1681.47
MOUNTAIN GREEN		13.5900000
NATURAL VALUE	19	210.9000000
OXI CLEAN	773	28548.82
OXYDOL	14597	340346.89
PALOMA	1674	30823.20
PLANET	5318	70818.46
POWER CLEAN	104	766.1100000
PRIVATE LABEL	163321	2882427.10
PUREX	59788	
PUREX ADVANCED	3560	38954.72
RINSO	6	23.9400000
ROMA	8146	303283.48
SEVENTH GENERATION	1902	17462.25
SUN	75202	1505495.50
SURF	134876	3594688.08
TIDE	691673	29340605.26
TREND	23169	318059.61
VISTA	81	2171.35
VIVA	330	6389.36
WISK	69326	1390637.51
XTRA	43206	637351.16

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# Top 6 Brands

Obs	Brand	_TYPE_	_FREQ_	Sum_Of_Sales
2	TIDE	1	691673	29340605.26
3	GAIN	1	164754	5781992.02
4	ARM & HAMMER FABRICARE	1	225929	5159798.57
5	CHEER	1	157247	4162413.74
6	SURF	1	134876	3594688.08
7	PRIVATE LABEL	1	163321	2882427.10

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Top 5 Brands

## The MEANS Procedure

Analysis Variable : DOLLARS						
L5	N Obs	Sum				
ACE	108	316.8200000				
AJAX	2140	23841.66				
AJAX FRESH	3088	32024.99				
ALL	83938	1815212.38				
ALLENS NATURALLY	23	500.0700000				
ARIEL	11053	311281.99				
ARM & HAMMER	12361	309291.25				
ARM & HAMMER FABRICARE	225929	5159798.57				
BEYOND	65	511.3500000				
BI O KLEEN	66	1282.56				
BLANCA NIEVES	54	180.3600000				
BOLD	27051	462411.66				
BORAX SUDZ	126	1398.00				
BRILLASOL	234	1113.92				
CHEER	157247	4162413.74				
COUNTRY SAVE	453	5162.57				
DREFT	40032	1032160.01				
DUTCH	520	2578.16				
FAB	409	5151.26				
	40858	1039072.10				
FOCA	5952	289908.98				
FRESH BREEZE	1245	17573.90				
FRESH START	11344	216073.38				
GAIN	164754	5781992.02				
IVORY SNOW	44886	673068.19				
KLEEN BRITE	223	2855.07				
KLEEN BRITE BRIGHT WATER	1395	21628.90				
КО	53	461.4100000				
LIRIO	18	103.3200000				
MAXX	108	1681.47				
MOUNTAIN GREEN	1	13.5900000				
NATURAL VALUE	19	210.9000000				
OXI CLEAN	773	28548.82				
OXYDOL	14597	340346.89				
PALOMA	1674	30823.20				
PLANET	5318	70818.46				
POWER CLEAN	104	766.1100000				
PRIVATE LABEL	163321	2882427.10				
PUREX	59788	1091118.23				
PUREX ADVANCED	3560	38954.72				
RINSO	6	23.9400000				
ROMA	8146	303283.48				
SEVENTH GENERATION	1902	17462.25				
SUN	75202	1505495.50				
SURF	134876	3594688.08				
TIDE	691673	29340605.26				
TREND	23169	318059.61				
VISTA	81	2171.35				
VIVA	330	6389.36				
WISK	69326	1390637.51				
XTRA	43206	637351.16				
	I	1				

SAS Output Page 6 of 67

# Top 5 Brands

Obs	Brand	_TYPE_	_FREQ_	Sum_Of_Sales
2	TIDE	1	691673	29340605.26
3	GAIN	1	164754	5781992.02
4	ARM & HAMMER FABRICARE	1	225929	5159798.57
5	CHEER	1	157247	4162413.74
6	SURF	1	134876	3594688.08

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# Top 5 Brands

Obs	Brand	_FREQ_	Sum_Of_Sales
1	TIDE	691673	29340605.26
2	GAIN	164754	5781992.02
3	ARM & HAMMER FABRICARE	225929	5159798.57
4	CHEER	157247	4162413.74
5	SURF	134876	3594688.08

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	Sum_Of_Sales
	ColPctSum
L5	
ARM & HAMMER FABRICARE	10.74
CHEER	8.66
GAIN	12.04
SURF	7.48
TIDE	61.08
All	100.00

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# Market Share of Top 5 Brands

### The FREQ Procedure

brand_final	Frequency	Percent	Cumulative Frequency	Cumulative Percent
OTHER	745965	34.98	745965	34.98
TIDE	691673	32.43	1437638	67.41
ARM&HAMMER	238290	11.17	1675928	78.58
GAIN	164754	7.72	1840682	86.30
CHEER	157247	7.37	1997929	93.68
SURF	134876	6.32	2132805	100.00

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# Market Share of Top 5 Brands

### The CONTENTS Procedure

Data Set Name	WORK.SB_AVGPPU_F_PR_D	Observations	2132805
Member Type	DATA	Variables	38
Engine	V9	Indexes	0
Created	05/05/2020 12:58:25	Observation Length	800
Last Modified	05/05/2020 12:58:25	<b>Deleted Observations</b>	0
Protection		Compressed	NO
Data Set Type		Sorted	YES
Label			
Data Representation	WINDOWS_64		
Encoding	wlatin1 Western (Windows)		

Engine/Host Dependent Information						
Data Set Page Size	65536					
Number of Data Set Pages	26331					
First Data Page	1					
Max Obs per Page	81					
Obs in First Data Page	75					
Number of Data Set Repairs	0					
ExtendObsCounter	YES					
Filename	E:\SAS Temporary Files\sxs180240\_TD110132_SMVSASCLASSC_\sb_avgppu_f_pr_d.sas7bdat					
Release Created	9.0401M4					
Host Created	X64_SR12R2					
Owner Name	CAMPUS\sxs180240					
File Size	2GB					
File Size (bytes)	1725693952					

	Alphab	etic Lis	st of V	ariables a	nd Attribu	tes
#	Variable	Туре	Len	Format	Informat	Label
28	ADDITIVES	Char	20	\$20.	\$20.	ADDITIVES
36	AvgPPU	Num	8			
17	Brand	Char	24	\$24.	\$24.	L5
27	CONCENTRATION_LEVEL	Char	20	\$20.	\$20.	CONCENTRATION LEVEL
15	Company	Char	31	\$31.	\$31.	L3
10	D	Num	8			
37	DISPLAY	Num	8			
8	DOLLARS	Num	8			
9	F	Char	8			
26	FLAVOR_SCENT	Char	18	\$18.	\$18.	FLAVOR/SCENT
25	FORM	Char	16	\$16.	\$16.	FORM
4	GE	Num	8			
1	IRI_KEY	Num	8			
6	ITEM	Num	8			
13	L1	Char	33	\$33.	\$33.	L1
14	L2	Char	24	\$24.	\$24.	L2
16	L4	Char	30	\$30.	\$30.	L4
18	L9	Char	32	\$32.	\$32.	L9
19	Level	Num	8	BEST12.		Level
24	PACKAGE	Char	20	\$20.	\$20.	PACKAGE
11	PR	Num	8			
23	PRODUCT_TYPE	Char	20	\$20.	\$20.	PRODUCT TYPE
38	PriceRed	Num	8			
3	SY	Num	8			
29	TYPE_OF_FORMULA	Char	18	\$18.	\$18.	TYPE OF FORMULA
7	UNITS	Num	8			
20	UPC	Char	17	\$17.	\$17.	UPC
5	VEND	Num	8			

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22	VOL_EQ	Num	8	BEST12.		VOL_EQ
2	WEEK	Num	8			
21	_STUBSPEC_1860RC	Char	80	\$80.	\$80.	*STUBSPEC 1860RC
30	brand_final	Char	29	\$29.	\$29.	
31	feat_coupon	Num	8			
32	feat_large	Num	8			
33	feat_medium	Num	8			
35	feat_none	Num	8			
34	feat_small	Num	8			
12	upc_new	Char	200			

Sort Inf	ormation		
Sortedby	IRI_KEY WEEK		
Validated	YES		
Character Set	ANSI		

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# Market Share of Top 5 Brands

### The MEANS Procedure

Variable	Label	N Miss	N
IRI_KEY		0	2132805
WEEK		0	2132805
SY		0	2132805
GE		0	2132805
VEND		0	2132805
ITEM		0	2132805
UNITS		0	2132805
DOLLARS		0	2132805
D		0	2132805
PR		0	2132805
Level	Level	0	2132805
VOL_EQ	VOL_EQ	0	2132805
feat_coupon		0	2132805
feat_large		0	2132805
feat_medium		0	2132805
feat_small		0	2132805
feat_none		0	2132805
AvgPPU		0	2132805
DISPLAY		0	2132805
PriceRed		0	2132805

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## Market Share of Top 5 Brands

# The PANEL Procedure Wansbeek and Kapteyn Variance Components (RanTwo)

### Dependent Variable: TotalSales\_w

Model Description					
Estimation Method	RanTwo				
Number of Cross Sections	1446				
Time Series Length	52				

Fit Statistics						
SSE	179505047.2	DFE	65940			
MSE	2722.2482	Root MSE	52.1752			
R-Square	0.1167					

Variance Component Estimates					
Variance Component for Cross Sections	4444.833				
Variance Component for Time Series	25.71782				
Variance Component for Error	2724.854				

Hausman Te	st fo	r Random	Effects
Coefficients	DF	m Value	Pr > m
7	7	28.22	0.0002

Parameter Estimates							
Variable	DF	Estimate	Standard Error	t Value	Pr >  t		
Intercept	1	116.0221	3.9990	29.01	<.0001		
AvgPrice_w	1	-851.309	71.0637	-11.98	<.0001		
AvgDisplay_w	1	181.0927	3.1019	58.38	<.0001		
AvgFeat_coupon_w	1	105.4068	4.2601	24.74	<.0001		
AvgFeat_large_w	1	88.86631	2.2919	38.77	<.0001		
AvgFeat_medium_w	1	36.19751	2.1828	16.58	<.0001		
AvgFeat_small_w	1	10.77538	3.4948	3.08	0.0020		
AvgPriceRed_w	1	-1.29866	1.1467	-1.13	0.2574		

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## Market Share of Top 5 Brands

The PANEL Procedure Fixed Two-Way Estimates

Dependent Variable: TotalSales\_w

Model Description		
Estimation Method	FixTwo	
Number of Cross Sections	1446	
Time Series Length	52	

Fit Statistics							
SSE	175600522.5	DFE	64444				
MSE	2724.8545	Root MSE	52.2001				
R-Square	0.6544						

F Test for No Fixed Effects					
Num DF	Den DF	F Value Pr >			
1496	64444	73.04	<.0001		

Parameter Estimates							
Variable	DF	Estimate	Standard Error	t Value	Pr >  t	Label	
Intercept	1	124.1473	9.7924	12.68	<.0001	Intercept	
AvgPrice_w	1	-853.417	72.4375	-11.78	<.0001		
AvgDisplay_w	1	180.392	3.1069	58.06	<.0001		
AvgFeat_coupon_w	1	105.5424	4.2679	24.73	<.0001		
AvgFeat_large_w	1	88.92109	2.2978	38.70	<.0001		
AvgFeat_medium_w	1	35.93026	2.1890	16.41	<.0001		
AvgFeat_small_w	1	10.70866	3.5023	3.06	0.0022		
AvgPriceRed_w	1	-1.44778	1.1563	-1.25	0.2105		

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Obs	IRI_KEY	ΟU	EST_ACV	Market_Name	Open	Clsd	MskdName
1	200039	GR	9.7100	BUFFALO/ROCHESTER	539	1219	Chain87
2	200171	GR	27.6910	MILWAUKEE	522	9998	Chain97
3	200197	GR	11.1400	PEORIA/SPRINGFLD.	903	9998	Chain59
4	200233	GR	7.5150	OKLAHOMA CITY	1122	1150	Chain102
5	200272	GR	13.1730	LOS ANGELES	873	9998	Chain124
6	200287	GR	7.4820	SAN FRANCISCO	795	9998	Chain94

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Obs	IRI KEY	WEEK	SY	GE	VEND	ITEM	UNITS	DOLLARS	F	D	PR	upc_new	L1	L2	Company	L4	Brand	L9
1	200039	1115	0	1	11111	48006	2	11.98	NONE			011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
2	200039	1117	0	1	11111	48006	22	87.78	A	0	1	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
3	200039	1118	0	1	11111	48006	1	5.99	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
4	200039	1119	0	1	11111	48006	2	11.98	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
5	200039	1121	0	1	11111	48006	1	5.99	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
6	200039	1122	0	1	11111	48006	1	5.99	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z
7	200039	1123	0	1	11111	48006	2	11.98	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z
8	200039	1124	0	1	11111	48006	1	5.39	NONE	0	1	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z
9	200039	1126	0	1	11111	48006	1	5.59	NONE	0	1	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z
10	200039	1127	0	1	11111	48006	2	10.78	NONE	0	1	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
11	200039	1130	0	1	11111	48006	1	6.79	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
12	200039	1140	0	1	11111	48006	4	27.16	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z
13	200039	1144	0	1	11111	48006	3	20.37	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z
14	200039	1146	0	1	11111	48006	1	6.79	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
15	200039	1148	0	1	11111	48006	1	6.79	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
16	200039	1151	0	1	11111	48006	1	6.79	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
17	200039	1152	0	1	11111	48006	1	6.79	NONE	0	0	011111148006	- LAUNDRY	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC

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																		100OZ
18	200039	1153	0	1	11111	48006	1	6.79	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z
19	200039	1154	0	1	11111	48006	1	6.79	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
20	200039	1155	0	1	11111	48006	2	11.18	В	0	1	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ

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## Market Share of Top 5 Brands The FREQ Procedure Frequency Not Missing 5279251 upc\_new Frequency Not Missing 5279251 Frequency Not Missing 5279251 L2 Frequency Not Missing 5279251 L3 Company Frequency Not Missing 5279251 Frequency Not Missing 5279251 L5 Brand Frequency Not Missing 5279251 L9 L9 Frequency Not Missing 5279251 UPC UPC Frequency Not Missing 5279251 \*STUBSPEC 1860RC \_STUBSPEC\_1860RC Frequency Not Missing 5279251 PRODUCT TYPE PRODUCT\_TYPE Frequency **Not Missing** 5279251 PACKAGE PACKAGE Frequency Not Missing 5279251 **FORM FORM** Frequency Not Missing 5279251 FLAVOR/SCENT FLAVOR\_SCENT Frequency **Not Missing** 5279251 CONCENTRATION LEVEL CONCENTRATION\_LEVEL Frequency 5279251 **Not Missing**

ADDITIVES Frequency

5279251

Not Missing

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TYPE OF FORMULA									
TYPE_OF_FORM		Frequency							
Missing		4915							
Not Missing		5274336							
	_								
OU Not Mississ	-	quency							
Not Missing	5	279251							
Market_Name	Fre	equency							
Not Missing		5279251							
MskdName	Free	quency							
Not Missing		279251							
	_								
IRI_KEY	Free	quency							
Not Missing	5	279251							
WEEK	Free	quency							
Not Missing		279251							
_									
SY		quency							
Not Missing	5	279251							
GE	Free	quency							
Not Missing	5	279251							
	_								
VEND		quency							
Not Missing	5	279251							
ITEM	Free	quency							
Not Missing	5	279251							
UNITS	Ero	nuonou/							
Not Missing		<b>quency</b> 279251							
Not imissing		273231							
DOLLARS	Free	quency							
Not Missing	5	279251							
D	Free	quency							
Not Missing		279251							
PR		quency							
Not Missing	5	279251							
Lev	/el								
Level	Free	quency							
Not Missing	5	279251							
VOL	<b>E</b> O								
VOL EQ	_	quency							
Not Missing		279251							
Trot illinoising									
EST_ACV	Free	quency							
Not Missing	5	279251							
Open	Free	quency							
Not Missing	-	279251							
Clsd		quency							
Not Missing	5	279251							

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Obs	Panelist_ID	WEEK	IRI_KEY	Panelist_Type	Combined_Pre_Tax_Income_of_HH	Family_Size	HH_RACE	Type_of_Residential_Possession	COUNTY	HH_AGE	НН
1	1109272	1114	648764	0	6	2	1	2	С	6	
2	1110403	1114	652159	0	8	2	1	2	С	6	
3	1118331	1114	234140	0	2	1	1	2	С	6	
4	1119958	1114	234140	0	4	1	1	2	С	5	
5	1122804	1114	652159	6	12	4	1	2	С	6	
6	1123836	1114	234140	0	4	2	1	1	С	4	

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# Market Share of Top 5 Brands

### The MEANS Procedure

Variable	N Miss	N
Panelist ID	0	4541
WEEK	0	4541
IRI KEY	0	4541
Panelist Type	0	4541
Combined Pre Tax Income of HH	0	4541
Family Size	0	4541
HH_RACE	0	4541
Type_of_Residential_Possession	0	4541
HH_AGE	0	4541
HH_EDU	0	4541
HH_OCC	0	4541
Age_Group_Applied_to_Male_HH	0	4541
Education_Level_Reached_by_Male	0	4541
Occupation_Code_of_Male_HH	0	4541
Male_Working_Hour_Code		4541
MALE_SMOKE	1417	3124
Age_Group_Applied_to_Female_HH	0	4541
Education_Level_Reached_by_Femal	0	4541
Occupation_Code_of_Female_HH	0	4541
Female_Working_Hour_Code	0	4541
FEM_SMOKE	383	4158
Number_of_Dogs	0	4541
Number_of_Cats	0	4541
Children_Group_Code	0	4541
Marital_Status		4541
Language	4035	506
Number_of_TVs_Used_by_HH	0	4541
Number_of_TVs_Hooked_to_Cable		4541
Year	0	4541
HISP_FLAG		4151
HISP_CAT	4469	72
HH_Head_RaceRACE2_	390	4151
HH_Head_RaceRACE3_	0	4541
Microwave_Owned_by_HH	225	4316
ZIPCODE	0	4541
FIPSCODE	_	4541
market_based_upon_zipcode		4541
IRI_Geography_Number	0	4541
EXT_FACT	0	4541

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Obs	Panelist_ID	WEEK	IRI_KEY	Combined_Pre_Tax_Income_of_HH	Family_Size	HH_RACE	Type_of_Residential_Possession	COUNTY	HH_AGE	HH_EDU	нн_осс
1	1109272	1114	648764	6	2	1	2	С	6	4	1(
2	1110403	1114	652159	8	2	1	2	С	6	7	10
3	1118331	1114	234140	2	1	1	2	С	6	5	10
4	1119958	1114	234140	4	1	1	2	С	5	4	
5	1122804	1114	652159	12	4	1	2	С	6	7	1(
6	1123836	1114	234140	4	2	1	1	С	4	4	10

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# Market Share of Top 5 Brands

### The MEANS Procedure

Variable	N Miss	N
Panelist_ID	0	4541
WEEK	0	4541
IRI_KEY	0	4541
Combined_Pre_Tax_Income_of_HH	0	4541
Family_Size	0	4541
HH_RACE	0	4541
Type_of_Residential_Possession	0	4541
HH_AGE	0	4541
HH_EDU	0	4541
HH_OCC	0	4541
Age_Group_Applied_to_Male_HH	0	4541
Education_Level_Reached_by_Male	0	4541
Occupation_Code_of_Male_HH	0	4541
Male_Working_Hour_Code	0	4541
Age_Group_Applied_to_Female_HH		4541
Education_Level_Reached_by_Femal	0	4541
Occupation_Code_of_Female_HH		4541
Female_Working_Hour_Code		4541
Number_of_Dogs	0	4541
Number_of_Cats	0	4541
Children_Group_Code		4541
Marital_Status		4541
Number_of_TVs_Used_by_HH		4541
Number_of_TVs_Hooked_to_Cable		4541
Year		4541
HH_Head_RaceRACE3_		4541
ZIPCODE	0	4541
FIPSCODE		4541
IRI_Geography_Number		4541
EXT_FACT	0	4541

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Obs	IRI_KEY	WEEK	SY	GE	VEND	ITEM	UNITS	DOLLARS	F	D	PR	upc_new	L1	L2	Company	L4	Brand	L9
1	652159	1114	0	1	37000	30804	1	3.99	NONE	0	0	013700030804	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	TIDE	+TIE REG LND UL20 PWE 330
2	213290	1114	0	1	37000	32368	1	4.59	NONE	0	0	013700032368	- LAUNDRY	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	Brand	+ISN REG LND UL20 PWI 260
3	213290	1114	0	1	37000	32370	1	2.99	NONE	0	0	013700032370	- LAUNDRY	POWDER LAUNDRY DETERGENT	&	PROCTER & GAMBLE	TIDE	+TID REG LND UL20 PWI 330
4	648764	1114	0	1	37000	32375	1	12.59	NONE	0	0	013700032375	- LAUNDRY	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	TIDE	+TIE REG LND UL20 PWE 1320
5	234140	1114	0	1	37000	33016	2	17.98	NONE	0	0	013700033016	- LAUNDRY	POWDER LAUNDRY DETERGENT	&	PROCTER & GAMBLE	CHEER	+CH REG LND UL20 PWI 1750
6	652159	1114	0	1	37000	35526	5	29.95	В	0	1	013700035526	- LAUNDRY	POWDER LAUNDRY DETERGENT	&	PROCTER & GAMBLE	TIDE	+TIC MTS LND PWE 87O
7	648764	1114	0	1	37000	35527	1	5.99	В	0	1	013700035527	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	TIDE	+TIC REG LND PWE 870
8	652159	1114	0	2	94514	230	4	11.96	NONE	0	0	0294514230	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	CHURCH & DWIGHT CO INC	CHURCH & DWIGHT CO INC	Brand	+XTI FRS LND CLS PWI 960
9	652159	1114	0	3	37000	30807	2	25.18	NONE	0	0	033700030807	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	&	PROCTER & GAMBLE	TIDE	+TIC REG LND UL20 PWE 1310
10	213290	1114	0	4	33200	6350	1	5.99	NONE	0	0	04332006350	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	CHURCH & DWIGHT CO INC	CHURCH & DWIGHT CO INC	ARM&HAMMER	+AH REG LND UCC 115.

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# Market Share of Top 5 Brands

### The FREQ Procedure

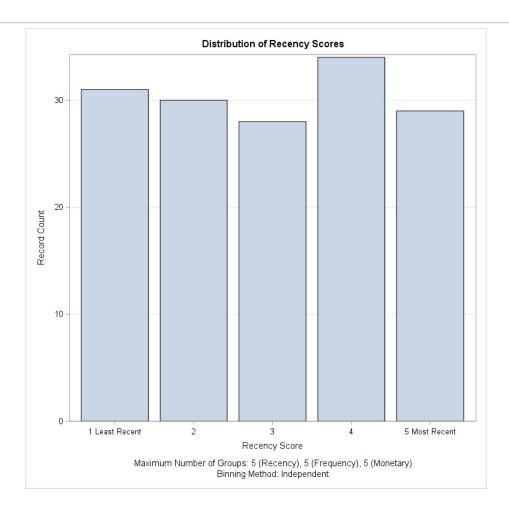
brand_final	Frequency	Percent	Cumulative Frequency	Cumulative Percent
OTHER	745965	34.98	745965	34.98
TIDE	691673	32.43	1437638	67.41
ARM&HAMMER	238290	11.17	1675928	78.58
GAIN	164754	7.72	1840682	86.30
CHEER	157247	7.37	1997929	93.68
SURF	134876	6.32	2132805	100.00

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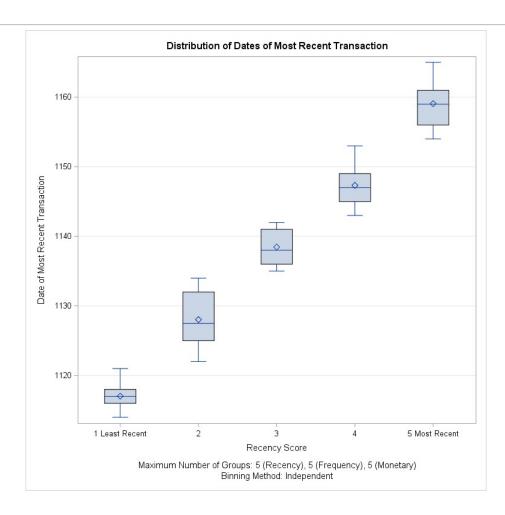
## **Summary of RFM Segments**

	Number of Customers	Percent of Customers		Median		
			Date of Most Recent Transaction	Number of Transactions	Sum of Transaction Amounts	
Total for All Customers	152	100.00	1138.5	1	20.36	
RFM Score						
555 Most Recent, Most Frequent, and Highest Amount	5	3.29	1157	4614	110530.62	
554	2	1.32	1164.5	4593.5	98482.875	
545	1	0.66	1162	4555	105531.82	
544	4	2.63	1159.5	4517	98067.635	
533	4	2.63	1161.5	1	17.205	
532	6	3.95	1159.5	1	9.47	
531	7	4.61	1156	1	3.99	
455	1	0.66	1148	4598	112454.32	
454	2	1.32	1151	4578	99571.94	
445	4	2.63	1146.5	4515.5	109910.52	
444	4	2.63	1147.5	4426	97261.11	
434	1	0.66	1149	1	40.72	
433	4	2.63	1146	1	21.14	
432	8	5.26	1146	1	11.47	
431	10	6.58	1147	1	5.99	
355	5	3.29	1137	4605	105693.77	
344	3	1.97	1141	4464	98856.43	
334	2	1.32	1139.5	1	45.81	
333	5	3.29	1136	1	20.36	
332	6	3.95	1137	1	11.98	
331	7	4.61	1141	1	5.99	
255	7	4.61	1125	4669	107317.98	
254	2	1.32	1130.5	4598.5	100835.24	
244	4	2.63	1130.5	4505.5	96643.47	
233	8	5.26	1131.5	1	23.96	
232	4	2.63	1128.5	1	11.98	
231	5	3.29	1125	1	5.99	
155	5	3.29	1118	4652	116199.37	
154	1	0.66	1119	4617	101028.19	
145	2	1.32	1116.5	4538.5	106635.64	
134	4	2.63	1118	1	40.72	
133	6	3.95	1116	1	21.92	
132	5	3.29	1116	1	11.98	
131 Least Recent, Least Frequent, and Lowest Amount	8	5.26	1117	1	5.99	

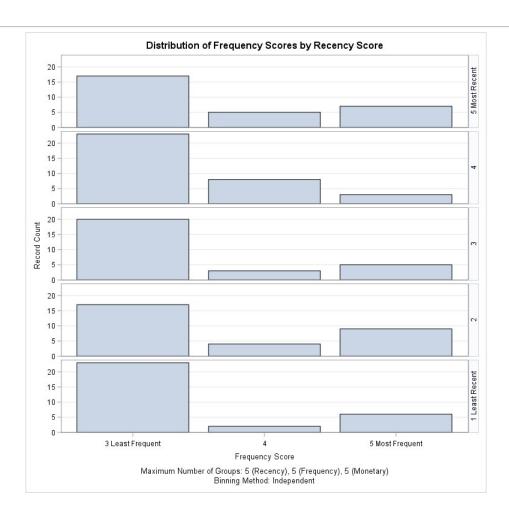
Maximum Number of Groups: 5 (Recency), 5 (Frequency), 5 (Monetary) Binning Method: Independent SAS Output Page 27 of 67



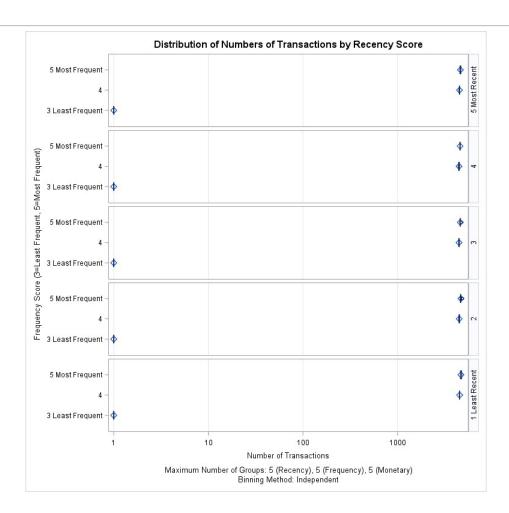
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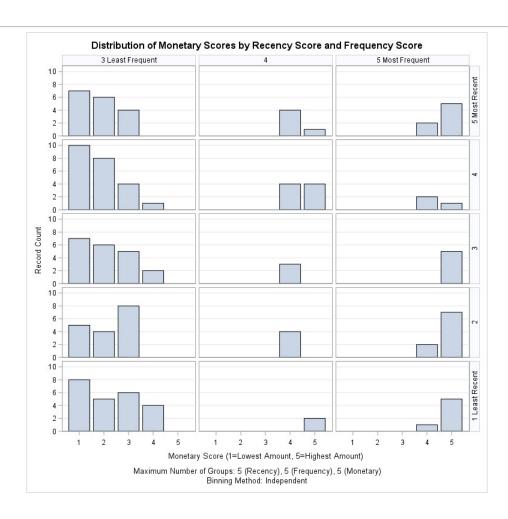
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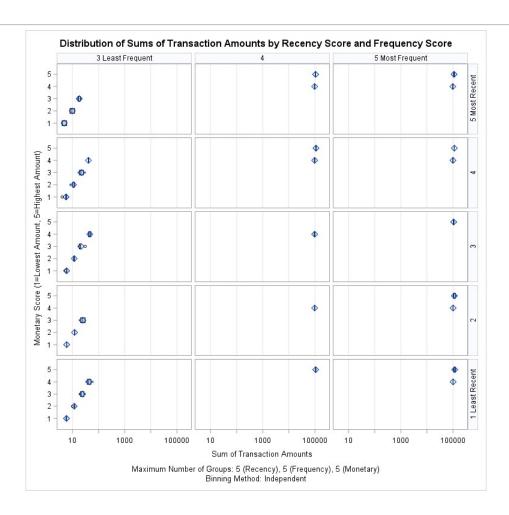
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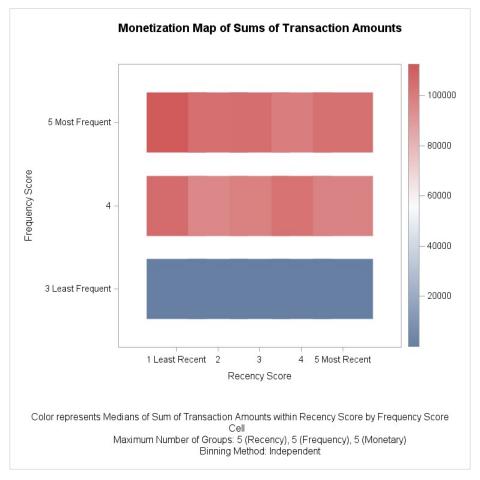


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### **Monetization Map of Sums of Transaction Amounts**



Maximum Number of Groups: 5 (Recency), 5 (Frequency), 5 (Monetary)
Binning Method: Independent

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Obs	Panelist_ID	NPurchase	MostRecentDate	TotPurchaseAmt	recency_score	frequency_score	monetary_score	rfm_score
1	1143875	1	1118	5.99	1	3	1	131
2	1144097	1	1118	11.98	1	3	2	132
3	1205286	1	1118	40.72	1	3	4	134
4	1213595	1	1148	7.98	4	3	2	432
5	1215491	1	1116	5.99	1	3	1	131
6	1216705	1	1116	11.98	1	3	2	132
7	1217505	1	1148	3.99	4	3	1	431
8	1226050	1	1120	5.99	1	3	1	131
9	1308171	1	1116	20.36	1	3	3	133
10	1311183	1	1155	16.44	5	3	3	533

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## Market Share of Top 5 Brands

# The FASTCLUS Procedure Replace=FULL Radius=0 Maxclusters=5 Maxiter=1

Initial Seeds							
Cluster	recency_score	frequency_score	monetary_score				
1	1.000000000	3.000000000	1.000000000				
2	3.000000000	3.000000000	4.000000000				
3	5.000000000	5.000000000	5.000000000				
4	5.000000000	3.000000000	1.000000000				
5	1.000000000	5.000000000	5.000000000				

Criterion Based on Final Seeds = 0.5873

Cluster Summary								
Cluster	Frequency	RMS Std Deviation	Maximum Distance from Seed to Observation	Radius Exceeded	Nearest Cluster	Distance Between Cluster Centroids		
1	35	0.6439	1.5466		2	1.8780		
2	37	0.6863	1.8897		1	1.8780		
3	28	0.5991	1.3857		2	2.5279		
4	35	0.4942	1.4647		2	2.4764		
5	17	0.4201	1.0440		2	2.5661		

Statistics for Variables							
Variable	Total STD Within STD R-Square		RSQ/(1-RSQ				
recency_score	1.41889	0.72390	0.746603	2.946372			
frequency_score	0.80464	0.31304	0.852658	5.786908			
monetary_score	1.46642	0.66070	0.802380	4.060206			
OVER-ALL	1.26637	0.59401	0.785805	3.668648			

Pseudo F Statistic = 134.82

Approximate Expected Over-All R-Squared = 0.71470

Cubic Clustering Criterion = 6.466

## WARNING: The two values above are invalid for correlated variables.

Cluster Means							
Cluster	recency_score	frequency_score	monetary_score				
1	1.657142857	3.000000000	1.600000000				
2	2.594594595	3.189189189	3.216216216				
3	4.250000000	4.535714286	4.57142857				
4	4.485714286	3.000000000	1.628571429				
5	1.529411765	4.882352941	4.823529412				

Cluster Standard Deviations							
Cluster	recency_score	frequency_score	monetary_score				
1	0.8023075962	0.0000000000	0.7745966692				
2	0.8647240876	0.3970612770	0.7123956117				
3	0.7515416255	0.5078745002	0.5039526307				
4	0.5070925528	0.000000000	0.6896595190				
5	0.5144957554	0.3321055821	0.3929526240				

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Obs	Panelist_ID	NPurchase	MostRecentDate	TotPurchaseAmt	recency_score	frequency_score	monetary_score	rfm_score	CLUSTER	DISTANCE
1	1143875	1	1118	5.99	1	3	1	131	1	0.88985
2	1144097	1	1118	11.98	1	3	2	132	1	0.76931
3	1205286	1	1118	40.72	1	3	4	134	2	1.88973
4	1213595	1	1148	7.98	4	3	2	432	4	0.61146
5	1215491	1	1116	5.99	1	3	1	131	1	0.88985
6	1216705	1	1116	11.98	1	3	2	132	1	0.76931
7	1217505	1	1148	3.99	4	3	1	431	4	0.79437
8	1226050	1	1120	5.99	1	3	1	131	1	0.88985
9	1308171	1	1116	20.36	1	3	3	133	1	1.54656
10	1311183	1	1155	16.44	5	3	3	533	4	1.46469

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# Market Share of Top 5 Brands

### The FREQ Procedure

		Cluster														
CLUSTER	Frequency	Percent	Cumulative Frequency	Cumulative Percent												
3	1145937	53.74	1145937	53.74												
5	705613	33.09	1851550	86.84												
2	280570	13.16	2132120	100.00												
1	35	0.00	2132155	100.00												
4	35	0.00	2132190	100.00												

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Obs	CLUSTER	rfm_score
1	1	131
2	1	133
3	1	132
4	1	131
5	1	132
6	1	131
7	1	132
8	1	133
9	1	133
10	1	131
11	1	133
12	1	133
13	1	132
14	1	131
15	1	132
16	1	133
17	1	131
18	1	131
19	1	131
20	1	231

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Obs	CLUSTER	rfm_score
1	2	134
2	2	134
3	2	134
4	2	134
5	2	233
6	2	233
7	2	233
8	2	244
9	2	244
10	2	244
11	2	244
12	2	244
13	2	244
14	2	244
15	2	244
16	2	244
17	2	244
18	2	244
19	2	244
20	2	244

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Obs	CLUSTER	rfm_score
1	3	355
2	3	355
3	3	355
4	3	355
5	3	355
6	3	355
7	3	355
8	3	355
9	3	355
10	3	355
11	3	355
12	3	355
13	3	355
14	3	355
15	3	355
16	3	355
17	3	355
18	3	355
19	3	355
20	3	355

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Obs	CLUSTER	rfm_score
1	4	431
2	4	431
3	4	431
4	4	432
5	4	432
6	4	432
7	4	431
8	4	432
9	4	431
10	4	432
11	4	432
12	4	431
13	4	432
14	4	432
15	4	431
16	4	431
17	4	431
18	4	431
19	4	531
20	4	531

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Obs	CLUSTER	rfm score
1	5	155
2	5	155
3	5	155
4	5	155
5	5	155
6	5	155
-		
7	5	155
8	5	155
9	5	155
10	5	155
11	5	155
12	5	155
13	5	155
14	5	155
15	5	155
16	5	155
17	5	155
18	5	155
19	5	155
20	5	155

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# Market Share of Top 5 Brands

### The MEANS Procedure

	Analysis Variable : DOLLARS														
Cluster	N Obs	N	Mean	Std Dev	Minimum	Maximum									
1	35	35	10.4160000	6.7262279	5.4800000	30.5400000									
2	280570	280570	29.8573552	48.4172194	0.1900000	11165.36									
3	1145937	1145937	28.5550550	39.6409321	0.1000000	10159.04									
4	35	35	8.8042857	4.4233247	3.9900000	21.9200000									
5	705613	705613	30.9768349	43.7792270	0.1900000	3744.54									

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# Market Share of Top 5 Brands

### The FREQ Procedure

requency			Table o	f CLUS	TER by H	H_AGE							
Percent Row Pct			HH_AGE										
Col Pct	CLUSTER(Cluster)	0	1	2	3	4	5	6	Total				
	1	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	7 0.00 20.00 0.00	7 0.00 20.00 0.00	10 0.00 28.57 0.00	11 0.00 31.43 0.00	35 0.00				
	2	0 0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	80300 3.77 28.62 17.76	39560 1.86 14.10 7.43	39344 1.85 14.02 12.08	121366 5.69 43.26 16.40	280570 13.16				
	3	0 0.00 0.00 0.00	0 0.00 0.00 0.00	41416 1.94 3.61 50.69	286848 13.45 25.03 63.43	328293 15.40 28.65 61.66	203244 9.53 17.74 62.41	286136 13.42 24.97 38.66	1145937 53.74				
	4	1 0.00 2.86 100.00	1 0.00 2.86 100.00	1 0.00 2.86 0.00	5 0.00 14.29 0.00	8 0.00 22.86 0.00	4 0.00 11.43 0.00	15 0.00 42.86 0.00	35 0.00				
	5	0 0.00 0.00 0.00	0 0.00 0.00 0.00	40290 1.89 5.71 49.31	85085 3.99 12.06 18.81	164594 7.72 23.33 30.91	83036 3.89 11.77 25.50	332608 15.60 47.14 44.94	705613 33.09				
	Total	1 0.00	1 0.00	81707 3.83	452245 21.21	532462 24.97	325638 15.27	740136 34.71	2132190 100.00				

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# Market Share of Top 5 Brands

### The FREQ Procedure

requency					Table of	CLUSTE	R by HH	_occ					
Percent Row Pct							HH_	occ					
Col Pct	CLUSTER(Cluster)	0	0 1 2 3		4	6 7		8		10	13	Total	
	1	1 0.00 2.86 100.00	10 0.00 28.57 0.00	3 0.00 8.57 0.00	1 0.00 2.86 0.00	2 0.00 5.71 0.00	1 0.00 2.86 0.00	0 0.00 0.00 0.00	2 0.00 5.71 0.00	0 0.00 0.00 0.00	10 0.00 28.57 0.00	5 0.00 14.29 0.00	35 0.00
	2	0 0.00 0.00 0.00	39558 1.86 14.10 10.80	2 0.00 0.00 0.00	1 0.00 0.00 0.00	80302 3.77 28.62 32.75	2 0.00 0.00 0.00	0.00 0.00 0.00	0 0.00 0.00 0.00	0 0.00 0.00 0.00	81366 3.82 29.00 12.36	79337 3.72 28.28 39.32	280570 13.16
	3	0 0.00 0.00 0.00	245484 11.51 21.42 67.03	82008 3.85 7.16 66.21	163406 7.66 14.26 65.52	82077 3.85 7.16 33.47	41289 1.94 3.60 99.99	81716 3.83 7.13 66.65	41439 1.94 3.62 50.70	41833 1.96 3.65 100.00	244269 11.46 21.32 37.11	122416 5.74 10.68 60.67	1145937 53.74
	4	0 0.00 0.00 0.00	6 0.00 17.14 0.00	1 0.00 2.86 0.00	3 0.00 8.57 0.00	2 0.00 5.71 0.00	1 0.00 2.86 0.00	2 0.00 5.71 0.00	1 0.00 2.86 0.00	1 0.00 2.86 0.00	13 0.00 37.14 0.00	5 0.00 14.29 0.00	35 0.00
	5	0 0.00 0.00 0.00	81168 3.81 11.50 22.16	41850 1.96 5.93 33.79	85986 4.03 12.19 34.48	82824 3.88 11.74 33.78	0 0.00 0.00 0.00	40887 1.92 5.79 33.35	40290 1.89 5.71 49.30	0 0.00 0.00 0.00	332608 15.60 47.14 50.53	0 0.00 0.00 0.00	705613 33.09
	Total	1 0.00	366226 17.18	123864 5.81	249397 11.70	245207 11.50	41293 1.94	122607 5.75	81732 3.83	41834 1.96	658266 30.87	201763 9.46	2132190 100.00

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Obs	IRI_KEY	WEEK	SY	GE	VEND	ITEM	UNITS	DOLLARS	F	D	PR	upc_new	L1	L2	Company	L4	Brand	L9 L
1	200039	1115	0	1	11111	48006	2	11.98	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
2	200039	1117	0	1	11111	48006	22	87.78	Α	0	1	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
3	200039	1118	0	1	11111	48006	1	5.99	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
4	200039	1119	0	1	11111	48006	2	11.98	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
5	200039	1121	0	1	11111	48006	1	5.99	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 100OZ
6	200039	1122	0	1	11111	48006	1	5.99	NONE	0	0	011111148006	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	UNILEVER	LEVER BROTHERS CO	SURF	+SURF SROCN LNDTG UCONC 1000Z

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Obs	IRI_KEY	WEEK	UNITS	DOLLARS	F	D	PR	upc_new	VOL_EQ
1	239590	1115	6	14.34	NONE	0	0	10000170981	2.1875
2	239590	1116	5	11.95	NONE	0	0	10000170981	2.1875
3	239590	1117	6	14.34	NONE	0	0	10000170981	2.1875
4	239590	1118	4	9.56	NONE	0	0	10000170981	2.1875
5	239590	1119	2	4.78	NONE	0	0	10000170981	2.1875
6	239590	1120	8	19.12	NONE	0	0	10000170981	2.1875

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Obs	IRI_KEY	WEEK	SY	GE	VEND	ITEM	UNITS	DOLLARS	F	D	PR	VEND_new	ITEM_new	upc_new
1	253422	1114	0	1	33200	9500	4	19.96	NONE	0	0	33200	09500	13320009500
2	253422	1114	0	1	33200	9520	3	14.97	NONE	0	0	33200	09520	13320009520
3	253422	1114	0	1	33200	9092	1	8.99	NONE	0	0	33200	09092	13320009092
4	253422	1114	0	2	33200	9510	3	14.97	NONE	0	0	33200	09510	23320009510
5	253422	1114	0	3	94514	40	12	35.88	NONE	0	0	94514	00040	39451400040

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Obs	L1	L2	Company	L4	Brand	L9	Level	UPC	SY	GE	VEND	ITEM	_STUBSPEC_1860RC	VOL_EQ	PRODUC
1	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	ALMAR ENTERPRISES	ALMAR ENTERPRISES	ALLENS NATURALLY	+ALNTL REG LNDTG CONC LIQ 32OZ	9	00-01- 00845- 00101	0	1	845	101	+ALNTL REG LNDTG CONC LIQ 32OZ 0 1 845 101 1 1 2.0000RP 00017	2	LAUNDR) DETERGE
2	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	BI-O-KLEEN INDS INC	BI-O-KLEEN INDS INC	BI O KLEEN	+BOKLN ORG LNDTG 3X LIQ 64OZ	9	07-01- 17256- 00061	7	1	17256	61	+BOKLN ORG LNDTG 3X LIQ 64OZ 7 1 17256 61 1 1 4.0000RP 00021	4	LAUNDRY DETERGE
3	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	BI-O-KLEEN INDS INC	BI-O-KLEEN INDS INC	BI O KLEEN	+BOKLN REG LNDTG LIQ 64OZ	9	07-01- 17256- 00062	7	1	17256	62	+BOKLN REG LNDTG LIQ 64OZ 7 1 17256 62 1 1 4.0000RP 00022	4	LAUNDRY DETERGE
4	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	BI-O-KLEEN INDS INC	BI-O-KLEEN INDS INC	BI O KLEEN	+BOKLN REG LNDTG 3X LIQ 32OZ	9	07-01- 17256- 00060	7	1	17256	60	+BOKLN REG LNDTG 3X LIQ 32OZ 7 1 17256 60 1 1 2.0000RP 00023	2	LAUNDR\ DETERGE
5	CATEGORY - LAUNDRY DETERGENT	LIQUID LAUNDRY DETERGENT	BI-O-KLEEN INDS INC	BI-O-KLEEN INDS INC	BI O KLEEN	+BOKLN USC LNDTG LIQ 64OZ	9	07-01- 17256- 00063	7	1	17256	63	+BOKLN USC LNDTG LIQ 64OZ 7 1 17256 63 1 1 4.0000RP 00024	4	LAUNDR\ DETERGE

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Obs	L2	VOL_EQ	upc_new
1	LIQUID LAUNDRY DETERGENT	2	10084500101
2	LIQUID LAUNDRY DETERGENT	4	11725600061
3	LIQUID LAUNDRY DETERGENT	4	11725600062
4	LIQUID LAUNDRY DETERGENT	2	11725600060
5	LIQUID LAUNDRY DETERGENT	4	11725600063

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Obs	IRI_KEY	WEEK	UNITS	DOLLARS	F	D	PR	VEND_new	ITEM_new	upc_new	L1	L2	Company	L4	Brand	L9	Level
1	239590	1115	6	14.34	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	ARIEL	+ARIEL LNDTG PWD 35OZ	9
2	239590	1116	5	11.95	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	ARIEL	+ARIEL LNDTG PWD 35OZ	9
3	239590	1117	6	14.34	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	ARIEL	+ARIEL LNDTG PWD 35OZ	9
4	239590	1118	4	9.56	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	ARIEL	+ARIEL LNDTG PWD 35OZ	9
5	239590	1119	2	4.78	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	ARIEL	+ARIEL LNDTG PWD 35OZ	9
6	239590	1120	8	19.12	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	ARIEL	+ARIEL LNDTG PWD 35OZ	9

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Obs	IRI_KEY	WEEK	UNITS	DOLLARS	F	D	PR	VEND_new	ITEM_new	upc_new	L1	L2	Company	L4	Brand	L9	Level
1	239590	1115	6	14.34	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	Brand	+ARIEL LNDTG PWD 35OZ	9
2	239590	1116	5	11.95	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	Brand	+ARIEL LNDTG PWD 35OZ	9
3	239590	1117	6	14.34	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	Brand	+ARIEL LNDTG PWD 35OZ	9
4	239590	1118	4	9.56	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	Brand	+ARIEL LNDTG PWD 35OZ	9
5	239590	1119	2	4.78	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	Brand	+ARIEL LNDTG PWD 35OZ	9
6	239590	1120	8	19.12	NONE	0	0	00001	70981	10000170981	CATEGORY - LAUNDRY DETERGENT	POWDER LAUNDRY DETERGENT	PROCTER & GAMBLE	PROCTER & GAMBLE	Brand	+ARIEL LNDTG PWD 35OZ	9

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Obs	IRI_KEY	WEEK	UNITS	DOLLARS	F	D	PR	upc_new	VOL_EQ	brand_final
1	239590	1115	6	14.34	NONE	0	0	10000170981	2.1875	OTHER
2	239590	1116	5	11.95	NONE	0	0	10000170981	2.1875	OTHER
3	239590	1117	6	14.34	NONE	0	0	10000170981	2.1875	OTHER
4	239590	1118	4	9.56	NONE	0	0	10000170981	2.1875	OTHER
5	239590	1119	2	4.78	NONE	0	0	10000170981	2.1875	OTHER
6	239590	1120	8	19.12	NONE	0	0	10000170981	2.1875	OTHER

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Obs	PANID	WEEK	UNITS	OUTLET	DOLLARS	IRI_KEY	COLUPC
1							
2							
3							
4							
5							
6							

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Obs	PANID	WEEK	UNITS	OUTLET	DOLLARS	IRI_KEY	COLUPC
1	3114199	1150	1	GR	5.55	264075	10617300100
2	3114199	1157	1	GR	5.55	264075	10617300100
3	3114199	1162	1	GR	5.55	264075	10617300100
4	1219949	1157	1	GR	6.69	213290	11111135043
5	1305375	1160	1	GR	6.69	213290	11111135043
6	1305375	1164	1	GR	5.99	213290	11111135043

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Obs	Panelist_ID	WEEK	UNITS	OUTLET	DOLLARS	IRI_KEY	COLUPC
1	3114199	1150	1	GR	5.55	264075	10617300100
2	3114199	1157	1	GR	5.55	264075	10617300100
3	3114199	1162	1	GR	5.55	264075	10617300100
4	1219949	1157	1	GR	6.69	213290	11111135043
5	1305375	1160	1	GR	6.69	213290	11111135043
6	1305375	1164	1	GR	5.99	213290	11111135043

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Obs	Panelist_ID	WEEK	UNITS	OUTLET	DOLLARS	IRI_KEY	COLUPC
1	3114199	1150	1	GR	5.55	264075	10617300100
2	3114199	1157	1	GR	5.55	264075	10617300100
3	3114199	1162	1	GR	5.55	264075	10617300100
4	1219949	1157	1	GR	6.69	213290	11111135043
5	1305375	1160	1	GR	6.69	213290	11111135043
6	1305375	1164	1	GR	5.99	213290	11111135043

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Obs	Panelist_ID	WEEK	UNITS	OUTLET	DOLLARS	IRI_KEY	COLUPC	HH_Income	Family_Size	HH_AGE
1	1100016	1142	1	GR	12.99	234140	13700080236			
2	1100016	1124	1	GR	4.59	234140	13700091828			
3	1100016	1125	1	GR	4.59	234140	13700091828			
4	1100016	1137	2	GR	9.18	652159	13700091828			
5	1100016	1131	1	GR	7.69	234140	13700091829			
6	1100016	1140	1	GR	7.69	234140	13700091829			

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Obs	Panelist_ID	WEEK	UNITS	OUTLET	DOLLARS	IRI_KEY	COLUPC	HH_Income	Family_Size	HH_AGE
1	1100016	1142	1	GR	12.99	234140	13700080236			
2	1100016	1124	1	GR	4.59	234140	13700091828			
3	1100016	1125	1	GR	4.59	234140	13700091828			
4	1100016	1137	2	GR	9.18	652159	13700091828			
5	1100016	1131	1	GR	7.69	234140	13700091829			
6	1100016	1140	1	GR	7.69	234140	13700091829			

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Obs	IRI_KEY	WEEK	UNITS	DOLLARS	F	D	PR	upc_new	VOL_EQ	brand_final	PPU	upc
1	239590	1115	6	14.34	NONE	0	0	10000170981	2.1875	OTHER	0.068286	10000170981
2	239590	1116	5	11.95	NONE	0	0	10000170981	2.1875	OTHER	0.068286	10000170981
3	239590	1117	6	14.34	NONE	0	0	10000170981	2.1875	OTHER	0.068286	10000170981
4	239590	1118	4	9.56	NONE	0	0	10000170981	2.1875	OTHER	0.068286	10000170981
5	239590	1119	2	4.78	NONE	0	0	10000170981	2.1875	OTHER	0.068286	10000170981
6	239590	1120	8	19.12	NONE	0	0	10000170981	2.1875	OTHER	0.068286	10000170981

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# Market Share of Top 5 Brands

### The CONTENTS Procedure

Data Set Name	WORK.GROC PROD	Observations	5279251
Member Type	DATA	Variables	29
Engine	V9	Indexes	0
Created	05/05/2020 13:05:09	Observation Length	712
Last Modified	05/05/2020 13:05:09	Deleted Observations	0
Protection		Compressed	NO
Data Set Type		Sorted	YES
Label			
Data Representation	WINDOWS_64		
Encoding	wlatin1 Western (Windows)		

Engine/Host Dependent Information				
Data Set Page Size	65536			
Number of Data Set Pages	58014			
First Data Page	1			
Max Obs per Page	91			
Obs in First Data Page	86			
Number of Data Set Repairs	0			
ExtendObsCounter	YES			
Filename	E:\SAS Temporary Files\sxs180240\_TD110132_SMVSASCLASSC_\groc_prod.sas7bdat			
Release Created	9.0401M4			
Host Created	X64_SR12R2			
Owner Name	CAMPUS\sxs180240			
File Size	4GB			
File Size (bytes)	3802071040			

	Alphabetic List of Variables and Attributes								
#	Variable	Туре	Len	Format	Informat	Label			
28	ADDITIVES	Char	20	\$20.	\$20.	ADDITIVES			
17	Brand	Char	24	\$24.	\$24.	L5			
27	CONCENTRATION_LEVEL	Char	20	\$20.	\$20.	CONCENTRATION LEVEL			
15	Company	Char	31	\$31.	\$31.	L3			
10	D	Num	8						
8	DOLLARS	Num	8						
9	F	Char	8						
26	FLAVOR_SCENT	Char	18	\$18.	\$18.	FLAVOR/SCENT			
25	FORM	Char	16	\$16.	\$16.	FORM			
4	GE	Num	8						
1	IRI_KEY	Num	8						
6	ITEM	Num	8						
13	L1	Char	33	\$33.	\$33.	L1			
14	L2	Char	24	\$24.	\$24.	L2			
16	L4	Char	30	\$30.	\$30.	L4			
18	L9	Char	32	\$32.	\$32.	L9			
19	Level	Num	8	BEST12.		Level			
24	PACKAGE	Char	20	\$20.	\$20.	PACKAGE			
11	PR	Num	8						
23	PRODUCT_TYPE	Char	20	\$20.	\$20.	PRODUCT TYPE			
3	SY	Num	8						
29	TYPE_OF_FORMULA	Char	18	\$18.	\$18.	TYPE OF FORMULA			
7	UNITS	Num	8						
20	UPC	Char	17	\$17.	\$17.	UPC			
5	VEND	Num	8						
22	VOL_EQ	Num	8	BEST12.		VOL_EQ			
2	WEEK	Num	8						
21	_STUBSPEC_1860RC	Char	80	\$80.	\$80.	*STUBSPEC 1860RC			

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### Market Share of Top 5 Brands

### The MEANS Procedure

Variable	Label	N	Mean	Std Dev	Minimum	Maximum
Panelist_ID		1252	2192902.91	1069787.30	1100362.00	3841874.00
WEEK		1252	1139.10	14.9602222	1114.00	1165.00
UNITS		1252	1.0263578	0.1699443	1.0000000	3.0000000
DOLLARS		1252	7.0776198	3.5564576	1.3900000	23.5800000
IRI_KEY		1252	376886.59	196468.19	213290.00	653776.00
COLUPC		1252	89403086158	785562553367	10617300100	8.8399999E12
HH_Income		1252	7.1469649	2.7938723	1.0000000	12.0000000
Family_Size		1252	2.4456869	1.1579174	1.0000000	6.0000000
HH_AGE		1252	4.7420128	1.4061843	0	6.0000000
D		1252	0.0015974	0.0565233	0	2.0000000
PR		1252	0.0638978	0.2446685	0	1.0000000
VOL_EQ	VOL_EQ	1252	5.9260559	4.5934342	1.3750000	33.0000000
PPU		1252	0.0893679	0.0354617	0.0151326	0.1803846
upc		1252	89403086158	785562553367	10617300100	8.839999E12
F_num		1252	0.0567093	0.2313787	0	1.0000000

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### Market Share of Top 5 Brands

### The LOGISTIC Procedure

Model Information					
Data Set	WORK.MERGE_FINAL				
Response Variable	brand_final				
Number of Response Levels	5				
Model	generalized logit				
Optimization Technique	Newton-Raphson				

Number of Observations Read	1252
Number of Observations Used	1252

Response Profile							
Ordered Value	Total Frequency						
1	ARM&HAMMER	261					
2	CHEER	120					
3	OTHER	243					
4	SURF	1					
5	TIDE	627					

Logits modeled use brand\_final='OTHER' as the reference category.

Model Convergence Status

Quasi-complete separation of data points detected.

Warning: The maximum likelihood estimate may not exist.

Warning: The LOGISTIC procedure continues in spite of the above warning. Results shown are based on the last maximum likelihood iteration. Validity of the model fit is questionable.

Model Fit Statistics								
Criterion Intercept Only Covariate								
AIC	3067.521	2282.580						
sc	3088.051	2426.290						
-2 Log L	3059.521	2226.580						

Testing Global Null Hypothesis: BETA=0									
Test Chi-Square DF Pr > ChiSc									
Likelihood Ratio	832.9416	24	<.0001						
Score	603.0276	24	<.0001						
Wald	371.6387	24	<.0001						

Type 3 Analysis of Effects								
Effect DF Chi-Square Pr > Cl								
HH_Income	4	19.5787	0.0006					
Family_Size	4	31.0738	<.0001					
F_num	4	7.7680	0.1005					
D	4	0.0029	1.0000					
PR	4	4.9510	0.2924					
PPU	4	327.4413	<.0001					

Analysis of Maximum Likelihood Estimates								
Parameter	brand_final	DF	Estimate	Standard Error	Wald Chi-Square	Pr > ChiSq		
Intercept	ARM&HAMMER	1	4.9476	0.5551	79.4304	<.0001		
Intercept	CHEER	1	-0.7413	0.5820	1.6224	0.2028		
Intercept	SURF	1	1.1291	4.4932	0.0631	0.8016		
Intercept	TIDE	1	-2.2045	0.4354	25.6382	<.0001		
HH_Income	ARM&HAMMER	1	0.1474	0.0397	13.8151	0.0002		

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HH_Income	CHEER	1	0.1487	0.0427	12.1427	0.0005
HH_Income	SURF	1	0.1141	0.3618	0.0995	0.7525
HH_Income	TIDE	1	0.0831	0.0305	7.4353	0.0064
Family_Size	ARM&HAMMER	1	-0.4700	0.0990	22.5374	<.0001
Family_Size	CHEER	1	-0.4044	0.1063	14.4625	0.0001
Family_Size	SURF	1	-0.3861	0.7422	0.2706	0.6029
Family_Size	TIDE	1	-0.2292	0.0692	10.9751	0.0009
F_num	ARM&HAMMER	1	1.3559	0.5763	5.5362	0.0186
F_num	CHEER	1	0.3456	0.6869	0.2531	0.6149
F_num	SURF	1	-7.2999	338.2	0.0005	0.9828
F_num	TIDE	1	1.1116	0.5291	4.4145	0.0356
D	ARM&HAMMER	1	1.4968	183.0	0.0001	0.9935
D	CHEER	1	0.0852	229.1	0.0000	0.9997
D	SURF	1	2.4812	2057.4	0.0000	0.9990
D	TIDE	1	5.0381	131.7	0.0015	0.9695
PR	ARM&HAMMER	1	-0.9297	0.4723	3.8755	0.0490
PR	CHEER	1	0.0573	0.5064	0.0128	0.9098
PR	SURF	1	-9.3058	293.5	0.0010	0.9747
PR	TIDE	1	-0.0666	0.4087	0.0265	0.8706
PPU	ARM&HAMMER	1	-74.1932	5.7978	163.7576	<.0001
PPU	CHEER	1	-0.6699	4.4981	0.0222	0.8816
PPU	SURF	1	-110.2	73.4656	2.2483	0.1338
PPU	TIDE	1	32.1155	3.3008	94.6662	<.0001

Odds Ratio Estimates				
Effect	brand_final	Point Estimate	95% Wald Confidence Limits	
HH_Income	ARM&HAMMER	1.159	1.072	1.252
HH_Income	CHEER	1.160	1.067	1.261
HH_Income	SURF	1.121	0.552	2.278
HH_Income	TIDE	1.087	1.024	1.154
Family_Size	ARM&HAMMER	0.625	0.515	0.759
Family_Size	CHEER	0.667	0.542	0.822
Family_Size	SURF	0.680	0.159	2.911
Family_Size	TIDE	0.795	0.694	0.911
F_num	ARM&HAMMER	3.880	1.254	12.005
F_num	CHEER	1.413	0.368	5.430
F_num	SURF	<0.001	<0.001	>999.999
F_num	TIDE	3.039	1.078	8.572
D	ARM&HAMMER	4.467	<0.001	>999.999
D	CHEER	1.089	<0.001	>999.999
D	SURF	11.956	<0.001	>999.999
D	TIDE	154.181	<0.001	>999.999
PR	ARM&HAMMER	0.395	0.156	0.996
PR	CHEER	1.059	0.393	2.857
PR	SURF	<0.001	<0.001	>999.999
PR	TIDE	0.936	0.420	2.084
PPU	ARM&HAMMER	<0.001	<0.001	<0.001
PPU	CHEER	0.512	<0.001	>999.999
PPU	SURF	<0.001	<0.001	>999.999
PPU	TIDE	>999.999	>999.999	>999.999