

# Lab Notebook for: beerEthnicityConsumptionBrandChoice

*Matthew Aaron Looney*

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## S1.beer\_\_2010DataCleaning - Process raw beer data

Algorithm name: S1.beer\_2010DataCleaning(save\_2010\_main\_data = 'all\_formats',  
out\_algoRunTime = T)

Algorithm run time: 33.2137923 minute(s).

## **S2.construct\_\_2010marketData - Partition the cleaned data by city**

```
Algorithm name: S2.construct_2010marketData(input_fileType = 'feather',  
                                             marketNames = c('all'),  
                                             out_algoRunTime = T)
```

Algorithm run time: 3.2091913 minute(s).

## S3.explore\_2010marketData - Explore the completeness of the data

This algorithm takes city level data and determines, by brand, if there are any weeks over a 52 week period (one year) that a brand is missing in the data. If there are missing weeks in the data it is impossible to tell if there were no sales of a particular brand during that week or if the brand was not offered for sale. All we can see is that the week is missing data. Further, this algorithm determines the completeness of the data at the chain level. The same problem occurs when evaluating missing data at the chain level. It is not possible to say why the data is missing, simply that the data is missing.

The output of the algorithm presents a data file called: D3.explore\_2010marketData.rds

This files contains information on missingness in the data by city / brand / week / chain.

Several data frames are contained in the list.

- BrandsOnly\_CompleteData\_wks: contains a list of brands with complete data over all 52 weeks.
- explore\_Data\_Complete\_wks: contains the raw data.frame for the brands with complete data over all 52 weeks.
- Brands\_CompleteData\_wksANDChains: contains a list of brands with complete data over all 52 weeks and complete data over all chains in the city. The number of chains is variable depending on the city.
- explore\_Data\_Complete\_wksANDChains: contains the raw data.frame for the brands with complete data over all 52 weeks and chains with complete data over all chains.
- explore\_Data: contains the complete raw data.frame used to obtain the above filtered results.

Algorithm name: S3.explore\_2010marketData(out\_algoRunTime = T)

Algorithm run time: 3.0931297 minute(s).

## S4.allBrands\_2010analysis -

```
Algorithm name: S4.allBrands_2010analysis(brands= c("CHICAGO",  
                                                    "DALLAS, TX",  
                                                    "LOS ANGELES",  
                                                    "SPOKANE",  
                                                    "SYRACUSE",  
                                                    "HOUSTON"),  
                                           out_algoRunTime = T  
                                           )
```

Algorithm run time: 0.0076146 minute(s).

S5.aggregate\_allBrands\_2010 -

City Data:

## CHICAGO

```
Algorithm name: S5.aggregate_allBrands_2010(Market = 'CHICAGO',  
                                             figurePlot = T,  
                                             screenPlot = F,  
                                             saveData = T,  
                                             out_algoRunTime = T)
```

Algorithm run time: 0.9425799 minute(s).

prcntBrandRep\_units: 76.1677326%.

prcntBrandRep\_dol: 79.7331841%.

prcntBrandRep\_gal: 83.8276386%.

prcntFirmRep\_units: 93.2128207%.

prcntFirmRep\_dol: 93.6344766%.

prcntFirmRep\_gal: 96.1166734%.

prcntConglomerateRep\_units: 93.4637987%.

prcntConglomerateRep\_dol: 93.8386745%.

prcntConglomerateRep\_gal: 96.2340386%.

Table 1: Aggregate Conglomerate Data for CHICAGO

	Conglomerates	UNITS	DOLLARS	total_gal
1	SABMILLER	1341061	12858494.13	1919373.805
2	ANHEUSER-BUSCH INBEV	703186	6592746.34	929321.930
3	CONSTELLATION BRANDS INC	320397	3689692.35	332339.297
4	HEINEKEN USA INC	223202	2317296.07	204782.828
5	S & P COMPANY	95268	767591.99	131722.266
6	DIAGEO	90385	800058.38	60240.594
8	BOSTON BEER CO	74781	794918.76	66500.641
9	MARK ANTHONY BRANDS INC	73022	719802.50	51868.125
11	SIERRA NEVADA BREWING CO	17230	188197.02	13167.656
20	E & J GALLO WNRV	2670	21262.27	1499.062

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 2: Aggregate Firm Data for CHICAGO

	Firms	UNITS	DOLLARS	total_gal
1	MILLERCOORS	1211060	11517961.02	1805195.477
2	ANHEUSER-BUSCH INBEV	666259	6273777.01	890461.148
3	CROWN IMPORTS	320397	3689692.35	332339.297
4	HEINEKEN USA INC	223202	2317296.07	204782.828
5	TENTH & BLAKE BEER CO	130001	1340533.11	114178.328



6	PABST BREWING CO	95268	767591.99	131722.266
7	DIAGEO GUINNESS USA	82487	737496.75	55714.953
9	BOSTON BEER CO	74781	794918.76	66500.641
10	MARK ANTHONY BRANDS INC	73022	719802.50	51868.125
11	MICHELOB BREWING CO	36927	318969.33	38860.781
13	SIERRA NEVADA BREWING CO	17230	188197.02	13167.656
23	E & J GALLO WNRV	2670	21262.27	1499.062

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 3: Aggregate Brand Data for CHICAGO

	Brands	UNITS	DOLLARS	total_gal
1	MILLER LITE	513772	5563091.56	840811.6875
2	BUD LIGHT	214515	2269587.47	338383.8125
3	CORONA EXTRA	167318	1930201.41	176218.2656
4	COORS LIGHT	133061	1492072.15	226284.3750
5	MILLER GENUINE DRAFT	132885	1260618.66	183935.3750
6	BUDWEISER	126866	1154621.76	168268.1250
7	MILLER HIGH LIFE	115827	1013147.98	198003.5625
8	HEINEKEN	107693	1172537.88	99689.8594
9	MODELO ESPECIAL	79514	898638.77	81288.7500
10	MILLER GENUINE DRAFT LIGHT 64	65706	708916.38	106581.9375
11	ICEHOUSE	58526	385122.27	71708.3125
12	BUSCH LIGHT	52330	557267.29	116339.8125
13	CORONA LIGHT	45439	515927.62	46569.9375
14	BUSCH	44881	373276.49	75306.1875
16	BLUE MOON BELGIAN WHITE ALE	35520	364205.64	29579.7500
18	STELLA ARTOIS LAGER	31406	367912.87	26216.1016
21	BUD LIGHT LIME	27644	260709.77	24785.8594
22	PABST BLUE RIBBON	26540	253936.60	48990.5625
23	GUINNESS DRAUGHT	25835	249137.71	18565.9062
24	TECATE	25571	248155.13	29058.8125
25	SAMUEL ADAMS SEASONAL	25401	266005.13	22169.1719
26	BECKS	25206	256068.80	22508.4375
27	HEINEKEN PREMIUM LIGHT LAGER	22964	272217.95	22651.8828
28	MICHELOB ULTRA	22643	194070.37	24943.8750
30	SAMUEL ADAMS BOSTON LAGER	21899	231142.51	19720.4062
35	FOSTERS LAGER	18848	65355.29	5778.2266
40	ODOULS	14893	96729.46	12209.6250
41	MIKES HARD LEMONADE	14618	144903.91	10632.1250
44	SIERRA NEVADA PALE ALE	12767	140917.46	10002.2812
45	ROLLING ROCK EXTRA PALE	12027	114186.01	12163.8750
48	RED STRIPE	11791	88735.21	6543.3516
49	NEWCASTLE BROWN ALE	11416	124317.39	9319.4609
50	BLUE MOON SEASONAL COLLECTION	11083	110675.70	8778.3750
57	GUINNESS EXTRA STOUT	9967	73609.97	5361.7969
58	NEGRA MODELO	9886	108652.49	8704.8750

59	MILLER CHILL	9631	75513.07	8915.6250
60	MIKES HARD CRANBERRY LEMONADE	8858	86867.06	6257.6797
61	COORS	8758	99598.51	15621.7500
62	NATURAL ICE	8375	58195.68	11723.0625
70	KEYSTONE LIGHT	6739	85668.46	18833.2500
71	BUD LIGHT GOLDEN WHEAT	6513	60730.89	5654.2500
74	MIKES HARD SEASONAL	6204	54444.63	3879.8047
75	SMIRNOFF ICE	6177	52095.94	3936.7109
78	MIKES HARD LIGHT LEMONADE	5676	54972.06	3882.3359
84	SMIRNOFF ICE PARTY PACK	5495	67279.16	5752.5781
86	SAINT PAULI GIRL	5103	56195.11	5158.5000
89	GEORGE KILLIANS IRISH RED LAG	4854	49350.13	4457.6250
94	ODOULS AMBER	4712	22462.29	2650.5000
99	BACARDI SILVER MOJITO	4414	31121.06	2482.8750
102	LANDSHARK LAGER	4039	35863.90	2977.8750
103	SHOCK TOP BELGIAN WHITE ALE	4018	29929.89	2450.3438
113	SMIRNOFF ICE RASPBERRY BURST	3219	24231.18	1684.9453
118	SMIRNOFF ICE GREEN APPLE BITE	2583	19221.26	1352.0391
121	DOS EQUIS XX AMBAR LAGER	2361	28237.74	2511.5625
131	MICHELOB AMBER BOCK	2025	19924.78	2036.2500
133	NATURAL LIGHT	1993	22733.25	5027.0625
144	MICHELOB ULTRA AMBER	1679	13861.68	1812.9375
149	MIKES HARD MANGO PUNCH	1510	12176.94	790.3906
154	MICHELOB ULTRA LIME CACTUS	1366	7969.91	768.3750
163	MICHELOB ULTR POMEGRANAT RSPB	1183	6954.70	665.4375
171	MOLSON CANADIAN	1027	8695.54	1036.1250
177	HORNSBYS AMBER DRAFT	939	7490.31	528.1875
198	MILWAUKEES BEST	622	5570.19	1170.5625
201	WILD BLUE	583	4426.37	327.9375

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

## DALLAS, TX

```
Algorithm name: S5.aggregate_allBrands_2010(Market = 'DALLAS, TX',  
                                             figurePlot = T,  
                                             screenPlot = F,  
                                             saveData = T,  
                                             out_algoRunTime = T)
```

Algorithm run time: 0.8903018 minute(s).

prcntBrandRep\_units: 77.3324622%.

prcntBrandRep\_dol: 82.2188882%.

prcntBrandRep\_gal: 84.7795074%.

prcntFirmRep\_units: 91.2448634%.

prcntFirmRep\_dol: 92.4068525%.

prcntFirmRep\_gal: 94.2156599%.

prcntConglomerateRep\_units: 91.611992%.

prcntConglomerateRep\_dol: 92.6923266%.

prcntConglomerateRep\_gal: 94.4031074%.

Table 4: Aggregate Conglomerate Data for DALLAS, TX

	Conglomerates	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	688219	6790446.22	732432.953
2	SABMILLER	590613	6474931.16	717953.281
3	HEINEKEN USA INC	111980	1159499.73	92121.086
4	CONSTELLATION BRANDS INC	109039	1169835.79	91547.211
6	DIAGEO	50060	374340.07	24842.922
7	BOSTON BEER CO	24117	234265.39	17253.688
8	MARK ANTHONY BRANDS INC	18967	161480.19	9855.641
9	S & P COMPANY	16844	124785.47	15563.188
11	SIERRA NEVADA BREWING CO	7983	75761.25	5438.156
19	E & J GALLO WNRV	3167	24954.52	1781.438

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 5: Aggregate Firm Data for DALLAS, TX

	Firms	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	628160	6119184.40	672328.453
2	MILLERCOORS	563441	6235040.50	700044.406
3	HEINEKEN USA INC	111980	1159499.73	92121.086
4	CROWN IMPORTS	109039	1169835.79	91547.211
6	MICHELOB BREWING CO	60059	671261.82	60104.500

7	DIAGEO GUINNESS USA	43564	323245.22	21449.938
8	TENTH & BLAKE BEER CO	27172	239890.66	17908.875
9	BOSTON BEER CO	24117	234265.39	17253.688
10	MARK ANTHONY BRANDS INC	18967	161480.19	9855.641
11	PABST BREWING CO	16844	124785.47	15563.188
13	SIERRA NEVADA BREWING CO	7983	75761.25	5438.156
21	E & J GALLO WNRV	3167	24954.52	1781.438

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 6: Aggregate Brand Data for DALLAS, TX

	Brands	UNITS	DOLLARS	total_gal
1	BUD LIGHT	230647	3021591.69	328123.2969
2	MILLER LITE	168370	2250876.03	244095.2500
3	COORS LIGHT	156719	2060687.09	223288.6406
4	NATURAL LIGHT	145116	698813.33	101012.2500
5	BUDWEISER	74386	919542.14	99608.0938
6	KEYSTONE LIGHT	62288	648020.41	85787.3125
7	CORONA EXTRA	57793	661677.78	50638.8828
9	MICHELOB ULTRA	40841	513799.36	46778.6875
10	HEINEKEN	40471	435514.52	33137.1250
11	MILLER HIGH LIFE	36562	273401.65	34161.8750
14	BUD LIGHT LIME	25411	262896.80	22486.3281
15	MODELO ESPECIAL	20950	200882.42	17446.5938
16	FOSTERS LAGER	18721	50955.69	4456.1953
17	CORONA LIGHT	16460	193162.17	14916.1875
18	COORS	16383	229961.43	25076.5625
19	BUSCH	16334	158208.29	20229.3750
20	TECATE	15874	141072.98	13134.2500
21	MILLER GENUINE DRAFT LIGHT 64	15614	187587.72	19626.2500
22	BLUE MOON BELGIAN WHITE ALE	14008	127876.45	9937.8438
25	MILLER GENUINE DRAFT	11251	132785.29	13909.8750
27	GUINNESS EXTRA STOUT	9492	52869.28	3407.2188
28	SMIRNOFF ICE	9440	65500.84	4489.6641
31	BUSCH LIGHT	8534	125843.40	16472.4375
33	MILWAUKEES BEST	8253	37597.96	5415.8125
34	SAMUEL ADAMS SEASONAL	8227	77807.61	5782.2188
35	STELLA ARTOIS LAGER	7881	65523.04	4004.6094
37	ODOULS	7336	50993.29	4897.6875
38	SAMUEL ADAMS BOSTON LAGER	7090	72688.79	5604.7969
39	MILLER CHILL	7047	49278.32	4994.4375
40	HEINEKEN PREMIUM LIGHT LAGER	6806	83025.99	6205.5234
41	GUINNESS DRAUGHT	6659	55585.96	3405.6953
44	NEGRA MODELO	6050	46833.28	3396.8438
45	BECKS	5789	57791.53	4397.3438
47	MICHELOB ULTRA LIME CACTUS	5616	38365.78	3170.2500
49	DOS EQUIS XX AMBAR LAGER	5506	54953.18	4402.3125

52	BLUE MOON SEASONAL COLLECTION	5228	45797.12	3488.6250
56	SIERRA NEVADA PALE ALE	4898	50276.72	3702.9375
58	ROLLING ROCK EXTRA PALE	4613	44441.66	3704.0625
59	MIKES HARD LEMONADE	4370	36444.97	2280.5781
60	RED STRIPE	4353	39085.90	2799.1562
62	BACARDI SILVER MOJITO	4100	29990.16	2325.9375
65	NEWCASTLE BROWN ALE	3945	39495.27	2727.3750
69	NATURAL ICE	3607	9132.19	1318.6875
70	LANDSHARK LAGER	3580	31177.73	2155.9688
74	BUD LIGHT GOLDEN WHEAT	3304	28691.01	2390.7188
77	SAINT PAULI GIRL	3119	28776.96	2356.6875
79	GEORGE KILLIANS IRISH RED LAG	3030	21832.42	1750.9688
80	MIKES HARD CRANBERRY LEMONADE	3022	25348.00	1578.3281
81	SMIRNOFF ICE GREEN APPLE BITE	2846	22728.31	1485.7656
84	MICHELOB ULTRA AMBER	2602	25102.31	2190.3750
87	MIKES HARD LIGHT LEMONADE	2225	18622.04	1163.3359
90	MICHELOB ULTR POMEGRANAT RSPB	2150	14673.36	1209.3750
96	MIKES HARD SEASONAL	1916	16117.31	999.4062
102	ODOULS AMBER	1736	10077.84	976.5000
104	SHOCK TOP BELGIAN WHITE ALE	1686	12269.64	934.7812
107	HORNSBYS AMBER DRAFT	1568	12321.92	882.0000
123	MOLSON CANADIAN	1137	7925.91	633.0000
128	ICEHOUSE	1092	6254.66	757.6875
139	MICHELOB AMBER BOCK	947	6236.92	532.6875
140	PABST BLUE RIBBON	897	7262.43	873.3750
161	SMIRNOFF ICE RASPBERRY BURST	703	5561.53	366.2266
164	MIKES HARD MANGO PUNCH	689	6149.46	360.6484
178	WILD BLUE	578	3859.88	268.4062
190	SMIRNOFF ICE PARTY PACK	460	6113.00	481.5625

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

## LOS ANGELES

Algorithm name: S5.aggregate\_allBrands\_2010(Market = 'LOS ANGELES',  
figurePlot = T,  
screenPlot = F,  
saveData = T,  
out\_algoRunTime = T)

Algorithm run time: 1.0483849 minute(s).

prcntBrandRep\_units: 77.0727747%.

prcntBrandRep\_dol: 84.7507023%.

prcntBrandRep\_gal: 87.9963238%.

prcntFirmRep\_units: 93.7981803%.

prcntFirmRep\_dol: 95.0556918%.

prcntFirmRep\_gal: 96.6291576%.

prcntConglomerateRep\_units: 93.9920792%.

prcntConglomerateRep\_dol: 95.211931%.

prcntConglomerateRep\_gal: 96.7226944%.

Table 7: Aggregate Conglomerate Data for LOS ANGELES

	Conglomerates	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	2312404	21939373.3	2799738.984
2	SABMILLER	1812508	15887443.3	2036640.008
3	CONSTELLATION BRANDS INC	856901	10765375.0	957208.625
4	HEINEKEN USA INC	746544	8697290.7	877301.711
5	DIAGEO	182734	1596629.3	112464.406
6	S & P COMPANY	96285	578212.1	82226.703
7	BOSTON BEER CO	92534	1101914.4	86895.062
9	MARK ANTHONY BRANDS INC	60275	548868.4	37774.922
12	SIERRA NEVADA BREWING CO	46971	559050.5	39619.531
16	E & J GALLO WNRV	17492	120239.9	9837.375

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 8: Aggregate Firm Data for LOS ANGELES

	Firms	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	2214862	20839170.9	2690161.172
2	MILLERCOORS	1701184	14659981.6	1947801.477
3	CROWN IMPORTS	856901	10765375.0	957208.625
4	HEINEKEN USA INC	746544	8697290.7	877301.711
5	DIAGEO GUINNESS USA	169893	1495227.0	105656.578

6	TENTH & BLAKE BEER CO	111324	1227461.7	88838.531
7	MICHELOB BREWING CO	97542	1100202.4	109577.812
8	PABST BREWING CO	96285	578212.1	82226.703
9	BOSTON BEER CO	92534	1101914.4	86895.062
11	MARK ANTHONY BRANDS INC	60275	548868.4	37774.922
13	SIERRA NEVADA BREWING CO	46971	559050.5	39619.531
18	E & J GALLO WNRV	17492	120239.9	9837.375

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 9: Aggregate Brand Data for LOS ANGELES

	Brands	UNITS	DOLLARS	total_gal
1	BUD LIGHT	933273	11044113.32	1488125.8438
2	COORS LIGHT	531178	6862469.26	915918.0625
3	CORONA EXTRA	490471	6638813.26	592693.0781
4	BUDWEISER	399984	3984387.71	527571.3125
5	MILLER HIGH LIFE	314480	958931.97	131884.5000
6	TECATE	235428	2520045.03	335289.4375
7	HEINEKEN	213422	2615650.28	227537.1953
8	MILLER LITE	211346	2583771.07	340688.9375
10	MODELO ESPECIAL	164422	1560729.10	144407.4375
11	MILLER GENUINE DRAFT	121677	1362894.86	173424.7500
13	NATURAL LIGHT	107991	1162147.56	206199.7500
14	FOSTERS LAGER	105524	260504.90	24028.6172
15	NEWCASTLE BROWN ALE	103674	1201986.85	96043.0938
18	CORONA LIGHT	73293	973378.07	80844.9375
19	BLUE MOON BELGIAN WHITE ALE	70158	776619.40	57618.1250
21	BUD LIGHT LIME	65087	640553.00	59940.7500
22	STELLA ARTOIS LAGER	64439	793741.68	54995.8516
23	MICHELOB ULTRA	62634	756570.22	81132.2812
24	KEYSTONE LIGHT	58782	694769.59	125996.2500
26	COORS	58329	665554.60	91456.1250
29	PABST BLUE RIBBON	46375	353214.17	50669.1875
30	NATURAL ICE	43407	474134.08	81592.3125
31	HEINEKEN PREMIUM LIGHT LAGER	36777	485565.31	41433.3594
33	SMIRNOFF ICE	35864	262449.92	19023.3125
34	BUSCH	35405	72611.99	10613.4375
35	GUINNESS DRAUGHT	34665	356564.05	23279.6094
38	ODOULS	33550	258847.85	25107.2812
39	BECKS	33409	401124.92	35138.8438
40	SIERRA NEVADA PALE ALE	31443	385096.93	27818.7500
41	SAMUEL ADAMS SEASONAL	30795	362257.81	28514.9219
42	SAMUEL ADAMS BOSTON LAGER	30604	356609.60	28636.9688
43	RED STRIPE	29814	248391.60	18080.8516
44	MILLER GENUINE DRAFT LIGHT 64	28742	389838.87	46699.9688
48	NEGRA MODELO	22930	255060.01	19454.4375
50	BLUE MOON SEASONAL COLLECTION	18976	223289.94	15912.0000

52	ROLLING ROCK EXTRA PALE	17992	188437.00	17301.1875
54	SMIRNOFF ICE PARTY PACK	15652	205986.90	16385.6875
55	SHOCK TOP BELGIAN WHITE ALE	15596	150618.44	11324.7188
58	DOS EQUIS XX AMBAR LAGER	15316	186171.93	16175.2500
59	BUD LIGHT GOLDEN WHEAT	14729	149588.96	13220.2500
60	ICEHOUSE	14312	22330.54	2683.5000
61	SMIRNOFF ICE GREEN APPLE BITE	13861	91766.49	6168.2734
63	GUINNESS EXTRA STOUT	12665	101338.41	6372.1094
66	SAINT PAULI GIRL	12231	109166.82	10301.6250
67	MIKES HARD LEMONADE	11916	121208.03	8425.7734
80	GEORGE KILLIANS IRISH RED LAG	8653	61160.79	4867.3125
84	SMIRNOFF ICE RASPBERRY BURST	8311	65694.02	4350.2891
92	ODOULS AMBER	6201	37480.50	3488.0625
97	HORNSBYS AMBER DRAFT	5875	40276.98	3302.8125
101	MILWAUKEES BEST	5754	86107.48	15879.3750
102	MILLER CHILL	5662	52744.74	5300.4375
104	LANDSHARK LAGER	5495	49040.46	3534.1875
105	MICHELOB AMBER BOCK	5456	63777.22	5563.6875
107	MIKES HARD SEASONAL	5388	48953.93	3267.8203
112	MIKES HARD CRANBERRY LEMONADE	4832	40218.30	2525.7500
134	BACARDI SILVER MOJITO	3671	31979.47	2062.1250
137	MICHELOB ULTRA AMBER	3448	40523.82	3794.0625
148	MIKES HARD LIGHT LEMONADE	2345	18694.98	1227.4609
150	MOLSON CANADIAN	2208	27934.24	2476.7812
151	WILD BLUE	2184	18492.02	1228.5000
155	MICHELOB ULTRA LIME CACTUS	2037	14164.51	1145.8125
164	MIKES HARD MANGO PUNCH	1821	15009.59	953.1797
188	BUSCH LIGHT	1199	16722.41	2918.4375
196	MICHELOB ULTR POMEGRANAT RSPB	1005	6578.16	565.3125

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64



## SPOKANE

Algorithm name: S5.aggregate\_allBrands\_2010(Market = 'SPOKANE',  
figurePlot = T,  
screenPlot = F,  
saveData = T,  
out\_algoRunTime = T)

Algorithm run time: 0.9348817 minute(s).

prcntBrandRep\_units: 61.4910462%.

prcntBrandRep\_dol: 69.8887363%.

prcntBrandRep\_gal: 74.1680487%.

prcntFirmRep\_units: 87.7848472%.

prcntFirmRep\_dol: 88.4135588%.

prcntFirmRep\_gal: 91.6843602%.

prcntConglomerateRep\_units: 88.0464805%.

prcntConglomerateRep\_dol: 88.6471378%.

prcntConglomerateRep\_gal: 91.839752%.

Table 10: Aggregate Conglomerate Data for SPOKANE

	Conglomerates	UNITS	DOLLARS	total_gal
1	SABMILLER	252638	2134996.27	254195.242
2	ANHEUSER-BUSCH INBEV	247673	2088300.31	238447.078
3	MARK ANTHONY BRANDS INC	38477	231367.55	15948.688
4	CONSTELLATION BRANDS INC	32097	316484.39	24500.867
6	HEINEKEN USA INC	16490	146844.11	11006.008
7	S & P COMPANY	14886	134935.24	18382.562
9	DIAGEO	14580	109754.52	7457.234
11	BOSTON BEER CO	8029	69134.00	5575.094
14	SIERRA NEVADA BREWING CO	5561	47965.64	3624.945
16	E & J GALLO WNRV	3921	29133.54	2200.406

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 11: Aggregate Firm Data for SPOKANE

	Firms	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	236675	1987447.14	229331.016
2	MILLERCOORS	236271	1984178.06	242001.023
3	MARK ANTHONY BRANDS INC	38477	231367.55	15948.688
4	CROWN IMPORTS	32097	316484.39	24500.867
6	HEINEKEN USA INC	16490	146844.11	11006.008

7	TENTH & BLAKE BEER CO	16367	150818.21	12194.219
8	PABST BREWING CO	14886	134935.24	18382.562
10	DIAGEO GUINNESS USA	12695	95765.90	6473.617
11	MICHELOB BREWING CO	10998	100853.17	9116.062
13	BOSTON BEER CO	8029	69134.00	5575.094
16	SIERRA NEVADA BREWING CO	5561	47965.64	3624.945
18	E & J GALLO WNRV	3921	29133.54	2200.406

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 12: Aggregate Brand Data for SPOKANE

	Brands	UNITS	DOLLARS	total_gal
1	COORS LIGHT	56013	641680.70	72566.0938
2	BUD LIGHT	48851	531569.08	60305.3438
3	BUDWEISER	30483	276267.60	31425.7500
4	KEYSTONE LIGHT	27751	298988.57	44466.0000
8	MILLER HIGH LIFE	17076	125104.85	17866.1250
9	CORONA EXTRA	16807	176937.78	13516.0391
10	BUSCH LIGHT	14232	153372.77	23105.2500
11	MILLER LITE	13690	181572.94	20699.0000
12	ICEHOUSE	13522	63803.33	9336.1875
13	BUD LIGHT LIME	13469	121681.87	10321.2500
14	PABST BLUE RIBBON	12913	111374.31	15368.8750
15	BUSCH	12486	109394.57	16257.9375
16	NATURAL ICE	10601	79109.33	12360.1875
17	BLUE MOON BELGIAN WHITE ALE	10288	95753.14	7789.2344
18	NATURAL LIGHT	10101	103825.01	16290.9375
20	MILLER GENUINE DRAFT	8219	96520.74	10687.3125
21	HEINEKEN	7870	75921.29	5530.3359
22	ROLLING ROCK EXTRA PALE	7622	62192.01	6918.9375
23	MIKES HARD CRANBERRY LEMONADE	7131	25698.61	1792.5625
26	MIKES HARD LEMONADE	6846	33523.13	2334.5625
27	MICHELOB ULTRA	5736	58955.02	5577.2812
29	CORONA LIGHT	5238	65326.02	5056.5000
30	FOSTERS LAGER	5091	12825.84	1093.3203
31	SAINT PAULI GIRL	5067	28581.98	2495.0625
33	COORS	4900	75205.94	8811.0938
39	BLUE MOON SEASONAL COLLECTION	4237	40303.64	3298.5000
42	NEWCASTLE BROWN ALE	3769	24089.98	1535.8125
44	MILLER GENUINE DRAFT LIGHT 64	3701	43277.48	4734.5625
45	BECKS	3685	14124.87	1075.6875
48	GUINNESS DRAUGHT	3405	31504.50	1975.5469
50	SIERRA NEVADA PALE ALE	3387	31707.80	2396.7188
55	SAMUEL ADAMS SEASONAL	3161	28832.40	2335.4062
60	STELLA ARTOIS LAGER	2992	27464.10	1632.4531
62	ODOULS	2796	19019.73	2224.1250
63	MIKES HARD SEASONAL	2763	22548.93	1512.4531

64	SAMUEL ADAMS BOSTON LAGER	2639	26265.56	2150.0312
70	MILLER CHILL	2408	20568.51	1874.3438
75	GEORGE KILLIANS IRISH RED LAG	2123	12242.60	1193.2500
76	SMIRNOFF ICE RASPBERRY BURST	2087	15663.50	1088.4766
81	DOS EQUIS XX AMBAR LAGER	1927	15904.56	1251.8438
86	ODOULS AMBER	1803	8899.88	1000.1250
87	MOLSON CANADIAN	1758	19262.50	1955.8125
88	GUINNESS EXTRA STOUT	1751	6097.45	367.7500
92	SHOCK TOP BELGIAN WHITE ALE	1716	14129.92	1075.5000
95	MODELO ESPECIAL	1597	10171.29	799.1250
99	MIKES HARD LIGHT LEMONADE	1545	11943.32	803.4609
100	TECATE	1544	13789.44	1366.6875
105	HORNSBYS AMBER DRAFT	1421	10560.62	797.9062
108	SMIRNOFF ICE GREEN APPLE BITE	1278	9146.59	630.8906
109	MICHELOB ULTRA LIME CACTUS	1228	7798.13	684.6562
111	MIKES HARD MANGO PUNCH	1197	9338.94	614.3047
112	HEINEKEN PREMIUM LIGHT LAGER	1060	13532.24	1041.0156
113	BUD LIGHT GOLDEN WHEAT	1041	10091.92	846.0938
115	BACARDI SILVER MOJITO	977	7688.42	544.8750
116	LANDSHARK LAGER	885	7032.15	498.9375
121	WILD BLUE	787	4062.83	279.5625
122	NEGRA MODELO	783	7343.64	524.8125
127	MICHELOB ULTRA AMBER	741	8279.85	806.0625
129	SMIRNOFF ICE PARTY PACK	720	9868.30	753.7500
143	RED STRIPE	513	3299.79	228.8594
144	SMIRNOFF ICE	506	3781.58	263.1094
163	MICHELOB AMBER BOCK	371	2548.27	207.7500
164	MICHELOB ULTR POMEGRANAT RSPB	366	2330.24	205.8750
167	MILWAUKEES BEST	356	5807.18	930.3750

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

## SYRACUSE

Algorithm name: S5.aggregate\_allBrands\_2010(Market = 'SYRACUSE',  
figurePlot = T,  
screenPlot = F,  
saveData = T,  
out\_algoRunTime = T)

Algorithm run time: 0.9855262 minute(s).

prcntBrandRep\_units: 52.0235862%.

prcntBrandRep\_dol: 55.7704034%.

prcntBrandRep\_gal: 58.1498739%.

prcntFirmRep\_units: 67.1302783%.

prcntFirmRep\_dol: 68.986812%.

prcntFirmRep\_gal: 70.6510174%.

prcntConglomerateRep\_units: 68.0730855%.

prcntConglomerateRep\_dol: 69.803742%.

prcntConglomerateRep\_gal: 71.1297963%.

Table 13: Aggregate Conglomerate Data for SYRACUSE

	Conglomerates	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	338744	3884870.89	474189.648
2	SABMILLER	277912	2904041.43	379706.828
4	BOSTON BEER CO	66040	692274.52	50581.914
6	DIAGEO	56705	567253.32	36822.219
7	HEINEKEN USA INC	45554	552771.66	41563.078
8	S & P COMPANY	36986	372602.39	61162.000
9	CONSTELLATION BRANDS INC	33738	429447.57	32530.453
11	MARK ANTHONY BRANDS INC	27266	274463.22	17694.070
12	SIERRA NEVADA BREWING CO	10507	112255.15	7659.445
44	E & J GALLO WNRV	560	4609.34	315.000

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 14: Aggregate Firm Data for SYRACUSE

	Firms	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	270949	3034364.29	376401.273
2	MILLERCOORS	256796	2666600.19	362881.086
4	MICHELOB BREWING CO	67795	850506.60	97788.375
5	BOSTON BEER CO	66040	692274.52	50581.914
7	HEINEKEN USA INC	45554	552771.66	41563.078

8	DIAGEO GUINNESS USA	44323	452624.87	29403.078
9	PABST BREWING CO	36986	372602.39	61162.000
10	CROWN IMPORTS	33738	429447.57	32530.453
12	MARK ANTHONY BRANDS INC	27266	274463.22	17694.070
13	TENTH & BLAKE BEER CO	21116	237441.24	16825.742
15	SIERRA NEVADA BREWING CO	10507	112255.15	7659.445
48	E & J GALLO WNRY	560	4609.34	315.000

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 15: Aggregate Brand Data for SYRACUSE

	Brands	UNITS	DOLLARS	total_gal
1	BUD LIGHT	96830	1243364.94	160695.5156
3	COORS LIGHT	81795	1043462.94	134755.0781
5	BUDWEISER	55324	590187.39	74987.7344
6	MICHELOB ULTRA	42767	597750.82	72457.3125
7	KEYSTONE LIGHT	29856	284593.82	49503.5625
8	MILLER LITE	25736	341540.75	43613.8750
10	BUD LIGHT LIME	22043	239342.61	21250.6094
12	HEINEKEN	21610	261264.17	19587.8516
13	MOLSON CANADIAN	20218	204751.06	25389.1875
14	CORONA EXTRA	19489	247840.63	18734.3906
16	BUSCH	18246	181409.38	31123.5000
18	SAMUEL ADAMS SEASONAL	16728	195356.66	14121.5625
19	BUSCH LIGHT	14439	160666.48	27402.1875
22	PABST BLUE RIBBON	12991	129009.71	21201.9375
23	CORONA LIGHT	12430	162460.79	12432.7500
24	GUINNESS DRAUGHT	11805	134443.10	8455.0234
25	BLUE MOON BELGIAN WHITE ALE	11504	131967.54	9503.3594
26	MILLER HIGH LIFE	11384	91800.76	14903.2500
28	HEINEKEN PREMIUM LIGHT LAGER	9945	132135.49	9942.9141
30	SAMUEL ADAMS BOSTON LAGER	9744	115843.60	8392.7188
35	MILLER GENUINE DRAFT LIGHT 64	8248	104513.19	12785.8125
40	SMIRNOFF ICE	6993	69465.28	4635.1094
41	NATURAL ICE	6730	42114.98	7247.0625
43	MILWAUKEES BEST	6172	46675.37	8093.0625
45	SIERRA NEVADA PALE ALE	5859	69733.53	4861.6875
46	STELLA ARTOIS LAGER	5501	65567.46	4268.4297
47	FOSTERS LAGER	5381	20462.04	1842.0781
48	MIKES HARD LEMONADE	5309	55887.82	3632.1328
50	BECKS	4888	52609.91	3868.1250
52	ROLLING ROCK EXTRA PALE	4788	58027.38	7792.8750
58	BLUE MOON SEASONAL COLLECTION	4391	47945.62	3401.4375
61	MICHELOB ULTR POMEGRANAT RSPB	4228	28299.79	2378.2500
62	NEWCASTLE BROWN ALE	4176	53350.12	3782.1250
63	SMIRNOFF ICE RASPBERRY BURST	4035	30362.11	1921.9297
64	GEORGE KILLIANS IRISH RED LAG	4015	43140.78	3557.2500

66	SHOCK TOP BELGIAN WHITE ALE	3965	39345.13	2958.1875
68	ICEHOUSE	3893	17182.43	2921.8125
70	ODOULS	3672	27937.49	2737.1250
72	SMIRNOFF ICE PARTY PACK	3593	54428.57	3761.4219
73	COORS	3545	53222.67	7093.6875
74	MIKES HARD SEASONAL	3521	32364.86	2050.3047
78	MICHELOB ULTRA LIME CACTUS	3057	21090.59	1809.0000
80	BUD LIGHT GOLDEN WHEAT	2994	29987.95	2605.3438
86	MIKES HARD CRANBERRY LEMONADE	2711	23005.99	1428.4609
87	LANDSHARK LAGER	2658	31181.32	2232.0000
89	NATURAL LIGHT	2588	23089.52	3804.9375
96	RED STRIPE	2363	19662.36	1259.3438
97	MICHELOB ULTRA AMBER	2288	23299.45	2390.6250
98	WILD BLUE	2241	19206.63	1260.5625
101	GUINNESS EXTRA STOUT	2201	18151.12	1056.0312
105	MIKES HARD LIGHT LEMONADE	2049	17311.11	1072.5234
122	ODOULS AMBER	1452	8597.25	816.7500
127	MILLER CHILL	1359	14109.88	1193.6250
140	BACARDI SILVER MOJITO	1169	9556.76	657.5625
144	MICHELOB AMBER BOCK	1110	11847.65	1116.5625
152	DOS EQUIS XX AMBAR LAGER	1053	11654.27	928.6875
175	SMIRNOFF ICE GREEN APPLE BITE	689	5807.21	360.6484
177	MILLER GENUINE DRAFT	683	9531.71	1170.0000
192	SAINT PAULI GIRL	592	6959.42	494.4375
197	MIKES HARD MANGO PUNCH	576	5034.74	301.5000
220	MODELO ESPECIAL	442	4944.26	364.8750
223	HORNSBYS AMBER DRAFT	435	3591.39	244.6875
248	TECATE	369	2303.61	207.5625
250	NEGRA MODELO	366	3732.66	268.3125

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

## HOUSTON

Algorithm name: S5.aggregate\_allBrands\_2010(Market = 'HOUSTON',  
figurePlot = T,  
screenPlot = F,  
saveData = T,  
out\_algoRunTime = T)

Algorithm run time: 0.9421285 minute(s).

prcntBrandRep\_units: 77.1096518%.

prcntBrandRep\_dol: 83.1338586%.

prcntBrandRep\_gal: 85.769397%.

prcntFirmRep\_units: 91.9714731%.

prcntFirmRep\_dol: 93.2620405%.

prcntFirmRep\_gal: 95.5398533%.

prcntConglomerateRep\_units: 92.2991856%.

prcntConglomerateRep\_dol: 93.5279309%.

prcntConglomerateRep\_gal: 95.6970994%.

Table 16: Aggregate Conglomerate Data for HOUSTON

	Conglomerates	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	1203951	11563540.03	1445351.578
2	SABMILLER	528232	5263842.34	667612.188
3	CONSTELLATION BRANDS INC	212643	2299642.24	192718.898
4	HEINEKEN USA INC	159243	1479595.50	123757.617
6	DIAGEO	64955	450060.20	30067.453
7	S & P COMPANY	40467	282425.55	38605.500
9	BOSTON BEER CO	23532	201035.68	14680.203
10	MARK ANTHONY BRANDS INC	12924	105319.96	6655.398
12	SIERRA NEVADA BREWING CO	8352	68307.67	4800.227
18	E & J GALLO WNRV	2537	19637.58	1426.594

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 17: Aggregate Firm Data for HOUSTON

	Firms	UNITS	DOLLARS	total_gal
1	ANHEUSER-BUSCH INBEV	1153408	11058321.57	1399022.156
2	MILLERCOORS	504198	5071027.85	653251.336
3	CROWN IMPORTS	212643	2299642.24	192718.898
4	HEINEKEN USA INC	159243	1479595.50	123757.617
6	DIAGEO GUINNESS USA	56942	388274.34	25917.352

7	MICHELOB BREWING CO	50543	505218.46	46329.422
8	PABST BREWING CO	40467	282425.55	38605.500
9	TENTH & BLAKE BEER CO	24034	192814.49	14360.852
11	BOSTON BEER CO	23532	201035.68	14680.203
12	MARK ANTHONY BRANDS INC	12924	105319.96	6655.398
14	SIERRA NEVADA BREWING CO	8352	68307.67	4800.227
21	E & J GALLO WNRV	2537	19637.58	1426.594

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

Table 18: Aggregate Brand Data for HOUSTON

	Brands	UNITS	DOLLARS	total_gal
1	BUD LIGHT	568615	6648269.71	819202.4531
2	MILLER LITE	207002	2535238.08	307115.1250
3	BUDWEISER	142821	1474614.48	179448.2500
4	CORONA EXTRA	121224	1449821.76	117866.2188
5	BUSCH	112271	739349.96	121427.6250
6	COORS LIGHT	85751	1037365.06	124484.8125
7	BUSCH LIGHT	65564	486107.15	80540.0625
8	HEINEKEN	62623	619662.29	48044.9453
9	MILLER HIGH LIFE	57934	387574.56	60986.3750
10	MODELO ESPECIAL	54627	476442.66	45364.7812
12	NATURAL LIGHT	40125	345811.34	57958.1250
14	BUD LIGHT LIME	34793	314803.01	27856.8750
15	MICHELOB ULTRA	33970	380596.86	35672.9531
17	KEYSTONE LIGHT	29738	291550.47	48397.3125
19	TECATE	24321	198085.83	20860.0625
20	CORONA LIGHT	18749	214596.78	17055.8438
24	ICEHOUSE	13928	37801.04	5670.5000
26	SMIRNOFF ICE	13202	81316.83	5606.2422
27	MILLER GENUINE DRAFT LIGHT 64	12700	137852.08	15750.9375
30	BLUE MOON BELGIAN WHITE ALE	10355	88926.64	6883.6406
31	GUINNESS EXTRA STOUT	9948	59131.20	3823.5156
32	ODOULS	9206	50642.47	5211.5625
36	NEGRA MODELO	8565	82465.52	6562.2188
38	MILLER GENUINE DRAFT	8117	84012.20	9575.2500
41	BECKS	7770	41032.64	3097.7812
42	FOSTERS LAGER	7615	24995.63	1878.3672
43	HEINEKEN PREMIUM LIGHT LAGER	7443	84939.45	6487.0859
44	GUINNESS DRAUGHT	7332	58156.21	3598.5078
45	MILWAUKEES BEST	7238	62988.73	10644.5625
49	SAMUEL ADAMS SEASONAL	6529	59510.10	4410.3750
50	STELLA ARTOIS LAGER	6356	56153.87	3369.2422
52	SMIRNOFF ICE GREEN APPLE BITE	5932	39686.33	2703.9219
54	COORS	5644	66443.43	7796.8125
55	SAMUEL ADAMS BOSTON LAGER	5628	53283.88	4148.8594
65	RED STRIPE	4619	31545.60	2125.1172



67	BLUE MOON SEASONAL COLLECTION	4469	34021.33	2588.6250
68	SIERRA NEVADA PALE ALE	4451	38543.97	2802.1875
72	NEWCASTLE BROWN ALE	3889	34884.04	2444.8672
74	MICHELOB ULTRA LIME CACTUS	3690	24520.94	2057.3438
75	ROLLING ROCK EXTRA PALE	3688	33206.83	2748.9375
76	DOS EQUIS XX AMBAR LAGER	3656	34722.02	2812.9688
77	LANDSHARK LAGER	3578	29592.16	2230.7812
78	BACARDI SILVER MOJITO	3514	25376.27	1977.7500
80	MIKES HARD LEMONADE	3140	25487.81	1635.3281
85	BUD LIGHT GOLDEN WHEAT	2904	23349.07	1973.8125
86	NATURAL ICE	2857	12256.69	2149.8750
89	ODOULS AMBER	2555	13942.34	1437.1875
94	MICHELOB ULTRA AMBER	2422	21924.67	1976.4375
96	PABST BLUE RIBBON	2293	14091.26	1949.8125
97	MILLER CHILL	2268	17399.37	1610.1562
98	SAINT PAULI GIRL	2253	17236.80	1321.4062
100	SHOCK TOP BELGIAN WHITE ALE	2068	14104.92	1069.5000
101	MIKES HARD SEASONAL	2032	16700.83	1063.6250
106	MICHELOB ULTR POMEGRANAT RSPB	1791	11327.37	959.6250
115	MIKES HARD LIGHT LEMONADE	1601	13223.94	838.0234
127	GEORGE KILLIANS IRISH RED LAG	1257	9111.63	630.6562
145	MICHELOB AMBER BOCK	1038	6224.73	541.6875
147	MOLSON CANADIAN	1035	6910.90	582.1875
149	SMIRNOFF ICE RASPBERRY BURST	1020	7784.49	533.9062
151	HORNSBYS AMBER DRAFT	991	7689.98	556.9688
156	MIKES HARD CRANBERRY LEMONADE	961	7920.20	503.0234
169	WILD BLUE	806	5464.54	356.3438
190	MIKES HARD MANGO PUNCH	600	5080.09	314.0625
252	SMIRNOFF ICE PARTY PACK	350	5227.42	366.4062

*Note:*

Number of Conglomerates: 10

Number of firms: 12

Number of Brands: 64

**Plots:**

CHICAGO

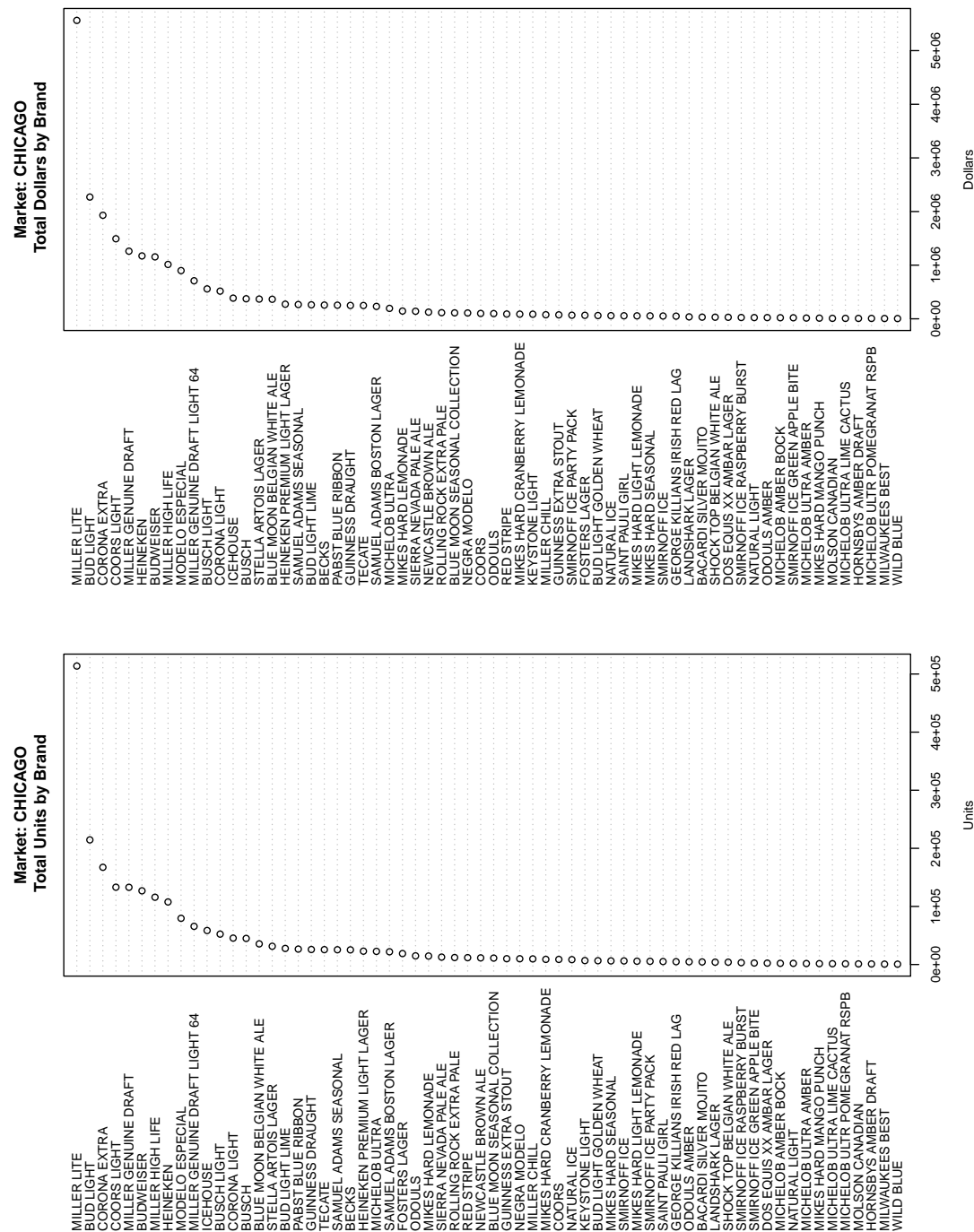


Figure 1: Plot of Aggregate Data for CHICAGO

DALLAS, TX

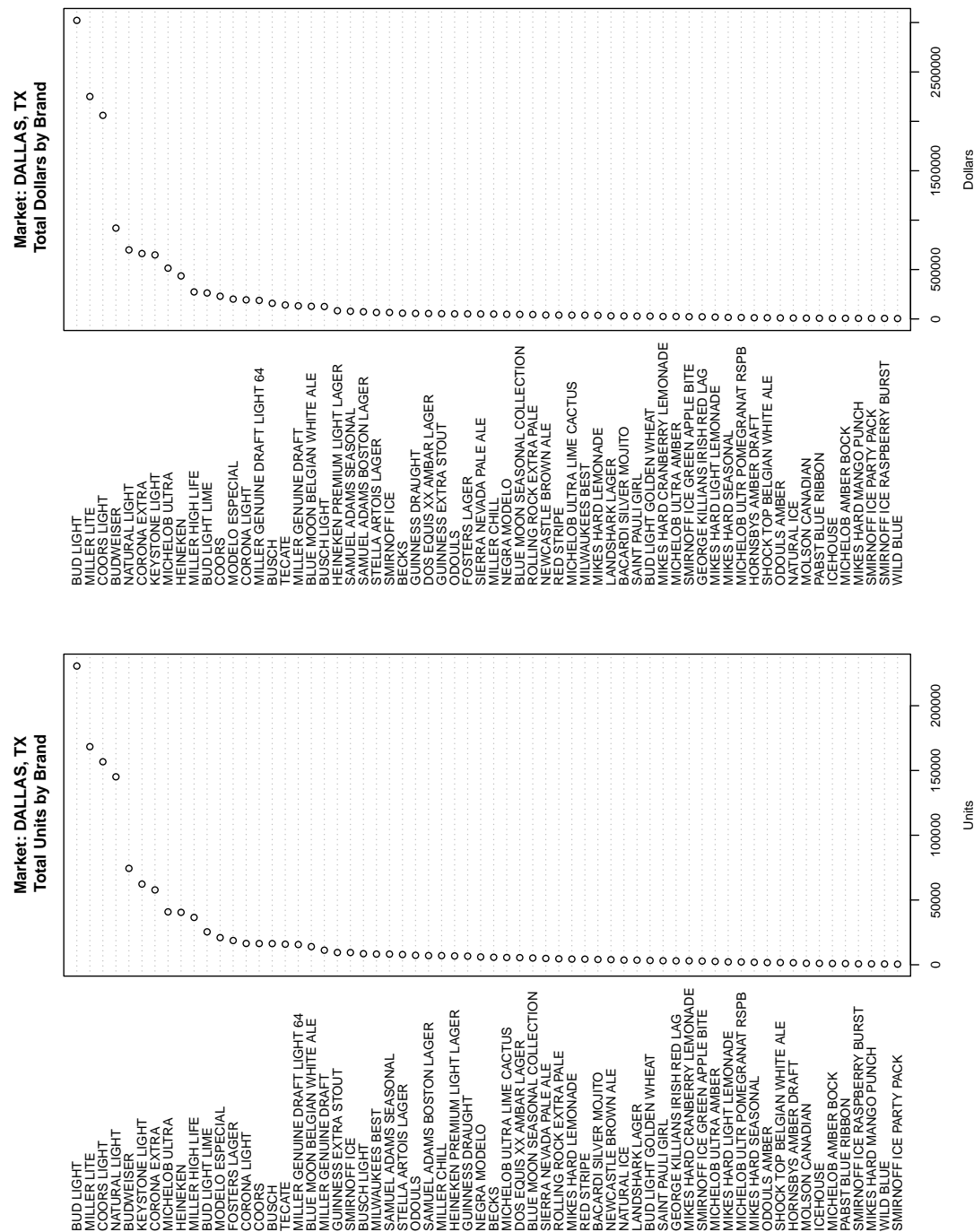


Figure 2: Plot of Aggregate Data for DALLAS, TX

LOS ANGELES

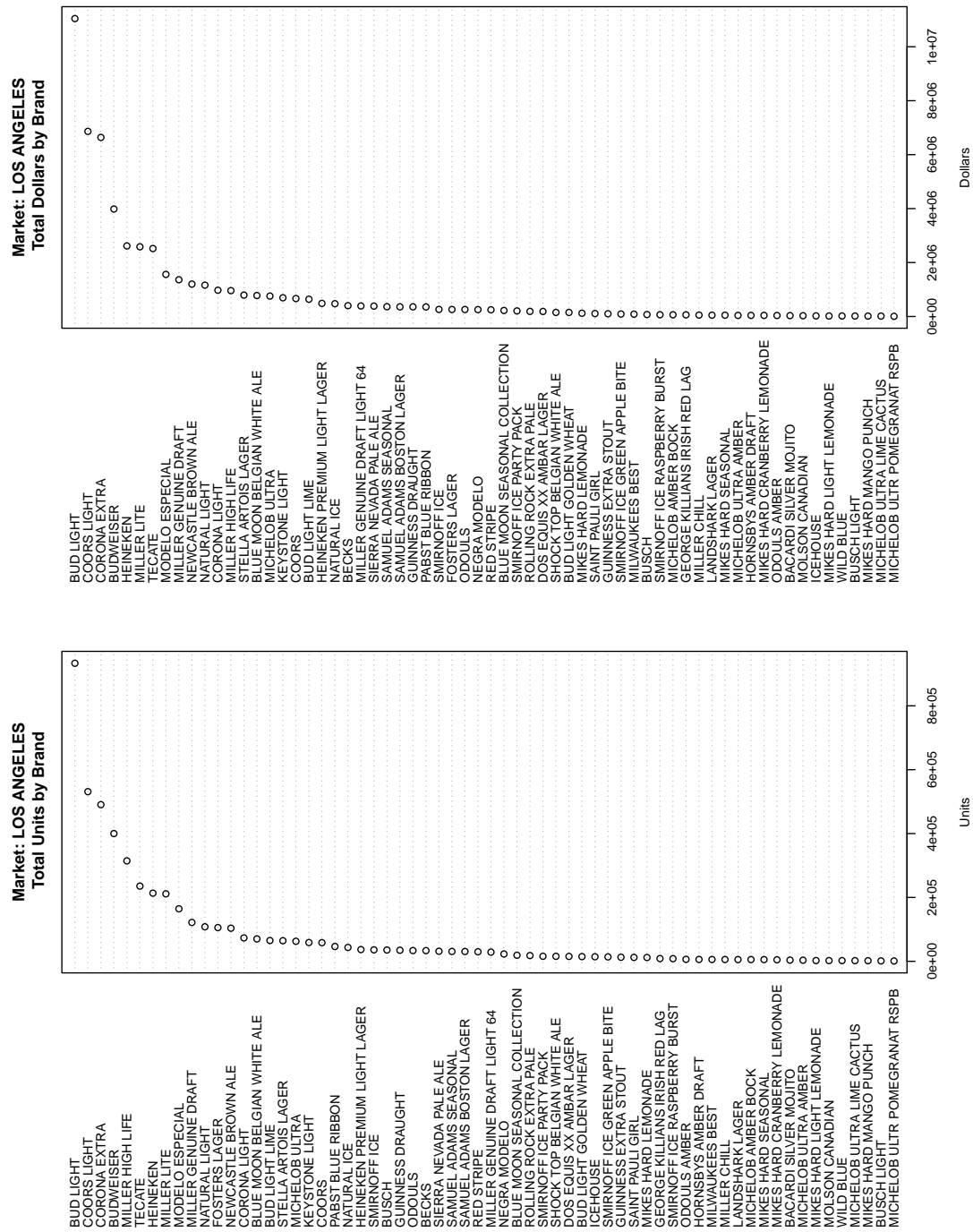


Figure 3: Plot of Aggregate Data for LOS ANGELES

SPOKANE

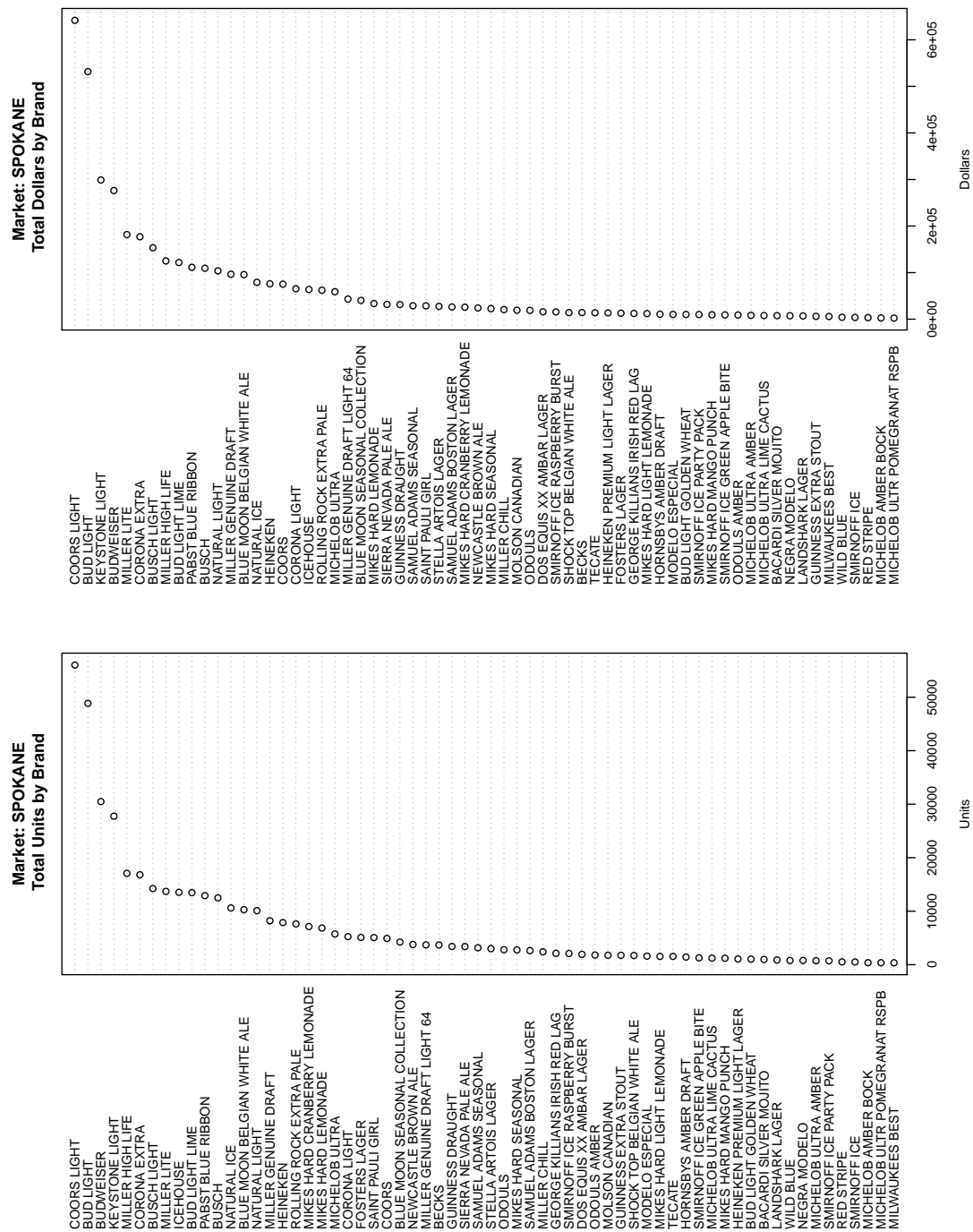


Figure 4: Plot of Aggregate Data for SPOKANE

SYRACUSE

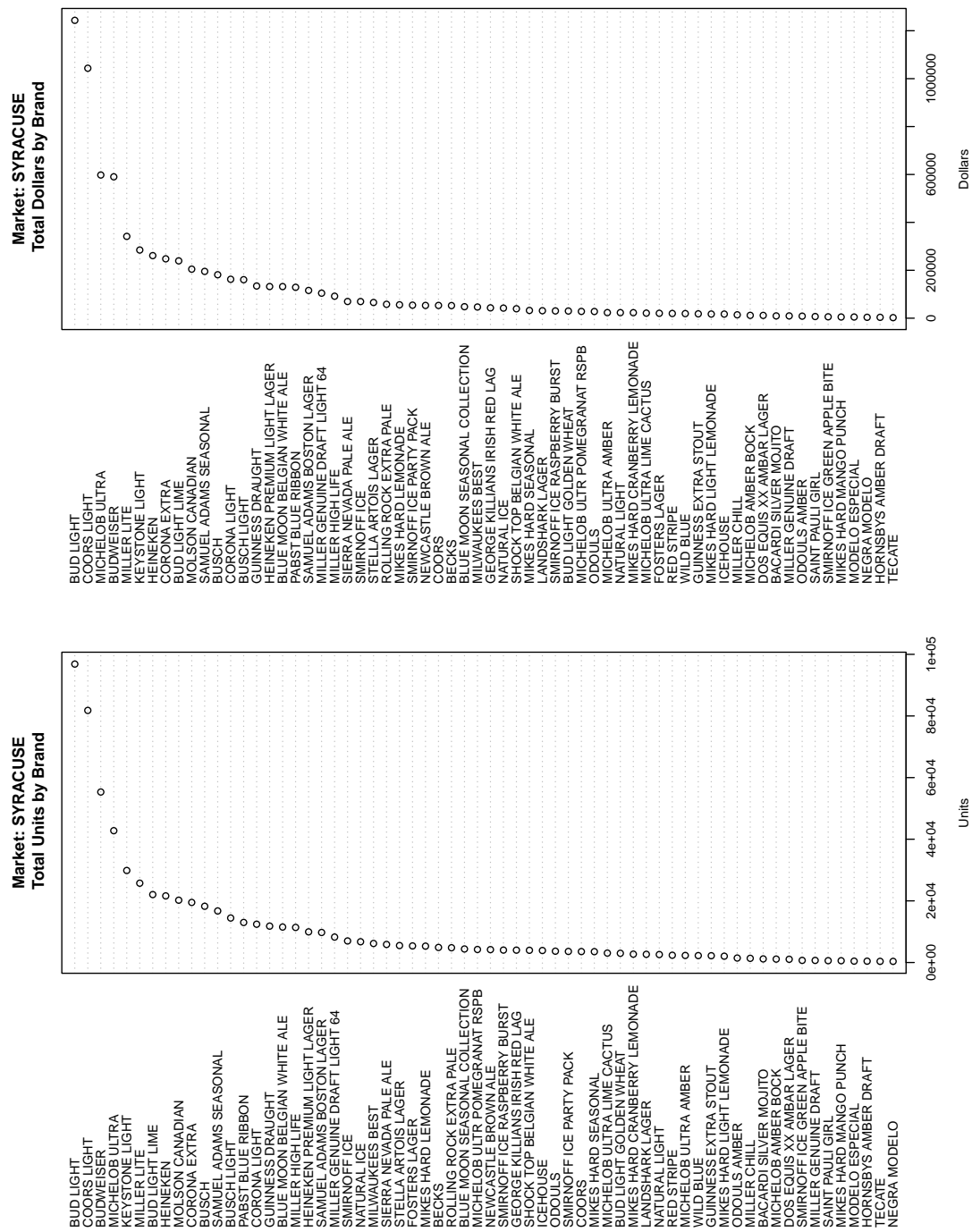


Figure 5: Plot of Aggregate Data for SYRACUSE

## HOUSTON

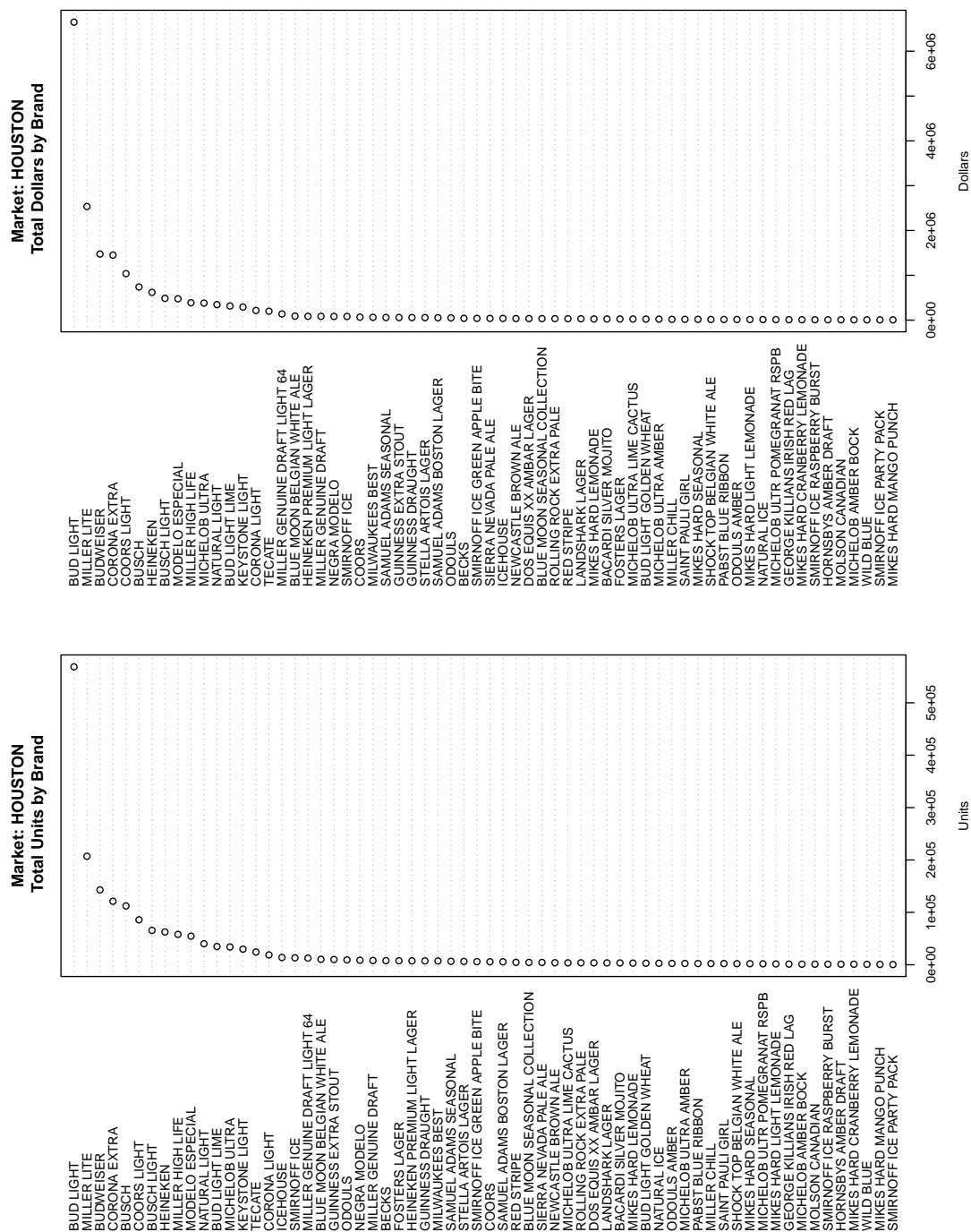


Figure 6: Plot of Aggregate Data for HOUSTON



## S6.hierarchyTree - Data Trees

```
Algorithm name: S6.hierarchyTree(Market = NULL,  
                                saveMarketHierarchy = F,  
                                saveAllBrandHierarchy = T,  
                                out_algoRunTime = T )
```

Algorithm run time: 46.782476 minute(s).

### City Data:

#### CHICAGO

```
Algorithm name: S6.hierarchyTree(Market = 'CHICAGO',  
                                saveMarketHierarchy = T,  
                                saveAllBrandHierarchy = F,  
                                out_algoRunTime = T )
```

Algorithm run time: 1.680428 minute(s).

```
##                                levelName  
## 1 Conglomerate  
## 2 |--SABMILLER  
## 3 |   |--MILLERCOORS  
## 4 |   |   |--MILLER GENUINE DRAFT  
## 5 |   |   |--MILLER LITE  
## 6 |   |   |--MILLER GENUINE DRAFT LIGHT 64  
## 7 |   |   |--MILLER HIGH LIFE  
## 8 |   |   |--COORS LIGHT  
## 9 |   |   |--ICEHOUSE  
## 10 |   |   |--MILLER CHILL  
## 11 |   |   |--KEYSTONE LIGHT  
## 12 |   |   |--MILWAUKEES BEST  
## 13 |   |   |--GEORGE KILLIANS IRISH RED LAG  
## 14 |   |   |--FOSTERS LAGER  
## 15 |   |   |--COORS  
## 16 |   |   °--MOLSON CANADIAN  
## 17 |   °--TENTH & BLAKE BEER CO  
## 18 |       |--BLUE MOON BELGIAN WHITE ALE  
## 19 |       °--BLUE MOON SEASONAL COLLECTION  
## 20 |--HEINEKEN USA INC  
## 21 |   °--HEINEKEN USA INC  
## 22 |       |--HEINEKEN  
## 23 |       |--TECATE  
## 24 |       |--NEWCASTLE BROWN ALE  
## 25 |       |--HEINEKEN PREMIUM LIGHT LAGER  
## 26 |       °--DOS EQUIS XX AMBAR LAGER  
## 27 |--ANHEUSER-BUSCH INBEV  
## 28 |   |--ANHEUSER-BUSCH INBEV  
## 29 |   |   |--BUD LIGHT  
## 30 |   |   |--BUD LIGHT LIME
```

```

## 31 | | |--BUDWEISER
## 32 | | |--BUSCH LIGHT
## 33 | | |--STELLA ARTOIS LAGER
## 34 | | |--BUSCH
## 35 | | |--ROLLING ROCK EXTRA PALE
## 36 | | |--BECKS
## 37 | | |--NATURAL LIGHT
## 38 | | |--NATURAL ICE
## 39 | | |--BACARDI SILVER MOJITO
## 40 | | |--ODOULS
## 41 | | |--BUD LIGHT GOLDEN WHEAT
## 42 | | |--LANDSHARK LAGER
## 43 | | |--ODOULS AMBER
## 44 | | |  °--WILD BLUE
## 45 | |  °--MICHELOB BREWING CO
## 46 | | |--MICHELOB ULTRA
## 47 | | |--MICHELOB AMBER BOCK
## 48 | | |--SHOCK TOP BELGIAN WHITE ALE
## 49 | | |--MICHELOB ULTRA LIME CACTUS
## 50 | | |--MICHELOB ULTR POMEGRANAT RSPB
## 51 | | |  °--MICHELOB ULTRA AMBER
## 52 |--MARK ANTHONY BRANDS INC
## 53 | |  °--MARK ANTHONY BRANDS INC
## 54 | | |--MIKES HARD CRANBERRY LEMONADE
## 55 | | |--MIKES HARD LEMONADE
## 56 | | |--MIKES HARD LIGHT LEMONADE
## 57 | | |--MIKES HARD MANGO PUNCH
## 58 | | |  °--MIKES HARD SEASONAL
## 59 |--BOSTON BEER CO
## 60 | |  °--BOSTON BEER CO
## 61 | | |--SAMUEL ADAMS BOSTON LAGER
## 62 | | |  °--SAMUEL ADAMS SEASONAL
## 63 |--CONSTELLATION BRANDS INC
## 64 | |  °--CROWN IMPORTS
## 65 | | |--CORONA EXTRA
## 66 | | |--CORONA LIGHT
## 67 | | |--MODELO ESPECIAL
## 68 | | |--NEGRA MODELO
## 69 | | |  °--SAINT PAULI GIRL
## 70 |--SIERRA NEVADA BREWING CO
## 71 | |  °--SIERRA NEVADA BREWING CO
## 72 | | |  °--SIERRA NEVADA PALE ALE
## 73 |--DIAGEO
## 74 | |  °--DIAGEO GUINNESS USA
## 75 | | |--SMIRNOFF ICE PARTY PACK
## 76 | | |--SMIRNOFF ICE
## 77 | | |--SMIRNOFF ICE GREEN APPLE BITE
## 78 | | |--SMIRNOFF ICE RASPBERRY BURST
## 79 | | |--GUINNESS DRAUGHT
## 80 | | |--GUINNESS EXTRA STOUT
## 81 | | |  °--RED STRIPE

```

```

## 82 |--S & P COMPANY
## 83 |   °--PABST BREWING CO
## 84 |       °--PABST BLUE RIBBON
## 85 | °--E & J GALLO WNRV
## 86 |       °--E & J GALLO WNRV
## 87 |           °--HORNSBYS AMBER DRAFT

```

## DALLAS, TX

```

Algorithm name: S6.hierarchyTree(Market = 'DALLAS, TX',
                                saveMarketHierarchy = T,
                                saveAllBrandHierarchy = F,
                                out_algoRunTime = T )

```

Algorithm run time: 1.7051688 minute(s).

```

##                                     levelName
## 1 Conglomerate
## 2 |--ANHEUSER-BUSCH INBEV
## 3 |   |--ANHEUSER-BUSCH INBEV
## 4 |     |--BUD LIGHT
## 5 |     |--BUD LIGHT LIME
## 6 |     |--BUDWEISER
## 7 |     |--NATURAL LIGHT
## 8 |     |--BUD LIGHT GOLDEN WHEAT
## 9 |     |--BUSCH
## 10 |    |--BUSCH LIGHT
## 11 |    |--BACARDI SILVER MOJITO
## 12 |    |--LANDSHARK LAGER
## 13 |    |--ODOULS
## 14 |    |--STELLA ARTOIS LAGER
## 15 |    |--NATURAL ICE
## 16 |    |--ROLLING ROCK EXTRA PALE
## 17 |    |--WILD BLUE
## 18 |    |--BECKS
## 19 |      °--ODOULS AMBER
## 20 |    °--MICHELOB BREWING CO
## 21 |      |--MICHELOB ULTRA
## 22 |      |--MICHELOB ULTRA LIME CACTUS
## 23 |      |--SHOCK TOP BELGIAN WHITE ALE
## 24 |      |--MICHELOB ULTRA AMBER
## 25 |      |--MICHELOB AMBER BOCK
## 26 |      °--MICHELOB ULTR POMEGRANAT RSPB
## 27 |--BOSTON BEER CO
## 28 |   °--BOSTON BEER CO
## 29 |     |--SAMUEL ADAMS BOSTON LAGER
## 30 |     °--SAMUEL ADAMS SEASONAL
## 31 |--DIAGEO
## 32 |   °--DIAGEO GUINNESS USA
## 33 |     |--SMIRNOFF ICE
## 34 |     |--GUINNESS DRAUGHT

```

```

## 35 |      |--SMIRNOFF ICE GREEN APPLE BITE
## 36 |      |--GUINNESS EXTRA STOUT
## 37 |      |--RED STRIPE
## 38 |      |--SMIRNOFF ICE RASPBERRY BURST
## 39 |      °--SMIRNOFF ICE PARTY PACK
## 40 |--MARK ANTHONY BRANDS INC
## 41 |      °--MARK ANTHONY BRANDS INC
## 42 |      |--MIKES HARD LEMONADE
## 43 |      |--MIKES HARD SEASONAL
## 44 |      |--MIKES HARD CRANBERRY LEMONADE
## 45 |      |--MIKES HARD MANGO PUNCH
## 46 |      °--MIKES HARD LIGHT LEMONADE
## 47 |--SABMILLER
## 48 |      |--MILLERCOORS
## 49 |      |--COORS LIGHT
## 50 |      |--MILLER HIGH LIFE
## 51 |      |--MILLER LITE
## 52 |      |--MILLER GENUINE DRAFT LIGHT 64
## 53 |      |--KEYSTONE LIGHT
## 54 |      |--MILWAUKEES BEST
## 55 |      |--COORS
## 56 |      |--ICEHOUSE
## 57 |      |--MILLER CHILL
## 58 |      |--MILLER GENUINE DRAFT
## 59 |      |--FOSTERS LAGER
## 60 |      |--GEORGE KILLIANS IRISH RED LAG
## 61 |      °--MOLSON CANADIAN
## 62 |      °--TENTH & BLAKE BEER CO
## 63 |      |--BLUE MOON BELGIAN WHITE ALE
## 64 |      °--BLUE MOON SEASONAL COLLECTION
## 65 |--CONSTELLATION BRANDS INC
## 66 |      °--CROWN IMPORTS
## 67 |      |--CORONA EXTRA
## 68 |      |--CORONA LIGHT
## 69 |      |--MODELO ESPECIAL
## 70 |      |--NEGRA MODELO
## 71 |      °--SAINT PAULI GIRL
## 72 |--HEINEKEN USA INC
## 73 |      °--HEINEKEN USA INC
## 74 |      |--HEINEKEN
## 75 |      |--HEINEKEN PREMIUM LIGHT LAGER
## 76 |      |--TECATE
## 77 |      |--NEWCASTLE BROWN ALE
## 78 |      °--DOS EQUIS XX AMBAR LAGER
## 79 |--SIERRA NEVADA BREWING CO
## 80 |      °--SIERRA NEVADA BREWING CO
## 81 |      °--SIERRA NEVADA PALE ALE
## 82 |--E & J GALLO WNRV
## 83 |      °--E & J GALLO WNRV
## 84 |      °--HORNSBYS AMBER DRAFT
## 85 |      °--S & P COMPANY

```

```
## 86      °--PABST BREWING CO
## 87      °--PABST BLUE RIBBON
```

## LOS ANGELES

```
Algorithm name: S6.hierarchyTree(Market = 'LOS ANGELES',
                                saveMarketHierarchy = T,
                                saveAllBrandHierarchy = F,
                                out_algoRunTime = T )
```

Algorithm run time: 3.7478154 minute(s).

```
##                                     levelName
## 1 Conglomerate
## 2 |--ANHEUSER-BUSCH INBEV
## 3 |   |--ANHEUSER-BUSCH INBEV
## 4 |     |--BUD LIGHT
## 5 |     |--BUDWEISER
## 6 |     |--NATURAL ICE
## 7 |     |--NATURAL LIGHT
## 8 |     |--ROLLING ROCK EXTRA PALE
## 9 |     |--STELLA ARTOIS LAGER
## 10 |    |--BUD LIGHT GOLDEN WHEAT
## 11 |    |--BUD LIGHT LIME
## 12 |    |--BECKS
## 13 |    |--ODOULS
## 14 |    |--BUSCH
## 15 |    |--BUSCH LIGHT
## 16 |    |--LANDSHARK LAGER
## 17 |    |--ODOULS AMBER
## 18 |    |--BACARDI SILVER MOJITO
## 19 |      °--WILD BLUE
## 20 |    °--MICHELOB BREWING CO
## 21 |      |--MICHELOB ULTRA
## 22 |      |--MICHELOB ULTRA AMBER
## 23 |      |--MICHELOB AMBER BOCK
## 24 |      |--SHOCK TOP BELGIAN WHITE ALE
## 25 |      |--MICHELOB ULTRA LIME CACTUS
## 26 |        °--MICHELOB ULTR POMEGRANAT RSPB
## 27 |--S & P COMPANY
## 28 |   °--PABST BREWING CO
## 29 |     °--PABST BLUE RIBBON
## 30 |--SABMILLER
## 31 |   |--MILLERCOORS
## 32 |     |--COORS LIGHT
## 33 |     |--KEYSTONE LIGHT
## 34 |     |--MILLER GENUINE DRAFT
## 35 |     |--MILLER GENUINE DRAFT LIGHT 64
## 36 |     |--MILLER HIGH LIFE
## 37 |     |--MILLER LITE
## 38 |     |--MILWAUKEES BEST
```

```

## 39 | | |--FOSTERS LAGER
## 40 | | |--COORS
## 41 | | |--ICEHOUSE
## 42 | | |--MOLSON CANADIAN
## 43 | | |--MILLER CHILL
## 44 | | °--GEORGE KILLIANS IRISH RED LAG
## 45 | °--TENTH & BLAKE BEER CO
## 46 | |--BLUE MOON BELGIAN WHITE ALE
## 47 | °--BLUE MOON SEASONAL COLLECTION
## 48 |--CONSTELLATION BRANDS INC
## 49 | °--CROWN IMPORTS
## 50 | |--CORONA EXTRA
## 51 | |--CORONA LIGHT
## 52 | |--MODELO ESPECIAL
## 53 | |--SAINT PAULI GIRL
## 54 | °--NEGRA MODELO
## 55 |--DIAGEO
## 56 | °--DIAGEO GUINNESS USA
## 57 | |--RED STRIPE
## 58 | |--SMIRNOFF ICE
## 59 | |--GUINNESS DRAUGHT
## 60 | |--SMIRNOFF ICE PARTY PACK
## 61 | |--SMIRNOFF ICE GREEN APPLE BITE
## 62 | |--SMIRNOFF ICE RASPBERRY BURST
## 63 | °--GUINNESS EXTRA STOUT
## 64 |--HEINEKEN USA INC
## 65 | °--HEINEKEN USA INC
## 66 | |--DOS EQUIS XX AMBAR LAGER
## 67 | |--HEINEKEN
## 68 | |--HEINEKEN PREMIUM LIGHT LAGER
## 69 | |--NEWCASTLE BROWN ALE
## 70 | °--TECATE
## 71 |--BOSTON BEER CO
## 72 | °--BOSTON BEER CO
## 73 | |--SAMUEL ADAMS BOSTON LAGER
## 74 | °--SAMUEL ADAMS SEASONAL
## 75 |--SIERRA NEVADA BREWING CO
## 76 | °--SIERRA NEVADA BREWING CO
## 77 | °--SIERRA NEVADA PALE ALE
## 78 |--MARK ANTHONY BRANDS INC
## 79 | °--MARK ANTHONY BRANDS INC
## 80 | |--MIKES HARD LEMONADE
## 81 | |--MIKES HARD CRANBERRY LEMONADE
## 82 | |--MIKES HARD LIGHT LEMONADE
## 83 | |--MIKES HARD MANGO PUNCH
## 84 | °--MIKES HARD SEASONAL
## 85 °--E & J GALLO WNRV
## 86 °--E & J GALLO WNRV
## 87 °--HORNSBYS AMBER DRAFT

```

## SPOKANE

```
Algorithm name: S6.hierarchyTree(Market = 'SPOKANE',  
                                saveMarketHierarchy = T,  
                                saveAllBrandHierarchy = F,  
                                out_algoRunTime = T )
```

Algorithm run time: 1.1898625 minute(s).

```
##                                     levelName  
## 1 Conglomerate  
## 2 |--ANHEUSER-BUSCH INBEV  
## 3 | |--ANHEUSER-BUSCH INBEV  
## 4 | | |--BUD LIGHT  
## 5 | | |--BUDWEISER  
## 6 | | |--BUD LIGHT LIME  
## 7 | | |--BUSCH  
## 8 | | |--NATURAL LIGHT  
## 9 | | |--BUSCH LIGHT  
## 10 | | |--BACARDI SILVER MOJITO  
## 11 | | |--BUD LIGHT GOLDEN WHEAT  
## 12 | | |--NATURAL ICE  
## 13 | | |--ODOULS  
## 14 | | |--ODOULS AMBER  
## 15 | | |--ROLLING ROCK EXTRA PALE  
## 16 | | |--WILD BLUE  
## 17 | | |--BECKS  
## 18 | | |--STELLA ARTOIS LAGER  
## 19 | | | °--LANDSHARK LAGER  
## 20 | | °--MICHELOB BREWING CO  
## 21 | | |--MICHELOB ULTRA  
## 22 | | |--MICHELOB ULTRA AMBER  
## 23 | | |--MICHELOB ULTRA LIME CACTUS  
## 24 | | |--SHOCK TOP BELGIAN WHITE ALE  
## 25 | | |--MICHELOB AMBER BOCK  
## 26 | | | °--MICHELOB ULTR POMEGRANAT RSPB  
## 27 |--SABMILLER  
## 28 | |--MILLERCOORS  
## 29 | | |--COORS LIGHT  
## 30 | | |--ICEHOUSE  
## 31 | | |--KEYSTONE LIGHT  
## 32 | | |--MILLER HIGH LIFE  
## 33 | | |--MILLER GENUINE DRAFT LIGHT 64  
## 34 | | |--MILLER LITE  
## 35 | | |--MILLER GENUINE DRAFT  
## 36 | | |--COORS  
## 37 | | |--GEORGE KILLIANS IRISH RED LAG  
## 38 | | |--MILLER CHILL  
## 39 | | |--FOSTERS LAGER  
## 40 | | |--MOLSON CANADIAN  
## 41 | | | °--MILWAUKEES BEST  
## 42 | | °--TENTH & BLAKE BEER CO
```

```

## 43 |      |--BLUE MOON BELGIAN WHITE ALE
## 44 |      °--BLUE MOON SEASONAL COLLECTION
## 45 |--CONSTELLATION BRANDS INC
## 46 |      °--CROWN IMPORTS
## 47 |      |--CORONA EXTRA
## 48 |      |--CORONA LIGHT
## 49 |      |--SAINT PAULI GIRL
## 50 |      |--MODELO ESPECIAL
## 51 |      °--NEGRA MODELO
## 52 |--HEINEKEN USA INC
## 53 |      °--HEINEKEN USA INC
## 54 |      |--HEINEKEN
## 55 |      |--NEWCASTLE BROWN ALE
## 56 |      |--DOS EQUIS XX AMBAR LAGER
## 57 |      |--TECATE
## 58 |      °--HEINEKEN PREMIUM LIGHT LAGER
## 59 |--MARK ANTHONY BRANDS INC
## 60 |      °--MARK ANTHONY BRANDS INC
## 61 |      |--MIKES HARD LEMONADE
## 62 |      |--MIKES HARD CRANBERRY LEMONADE
## 63 |      |--MIKES HARD MANGO PUNCH
## 64 |      |--MIKES HARD SEASONAL
## 65 |      °--MIKES HARD LIGHT LEMONADE
## 66 |--S & P COMPANY
## 67 |      °--PABST BREWING CO
## 68 |      °--PABST BLUE RIBBON
## 69 |--BOSTON BEER CO
## 70 |      °--BOSTON BEER CO
## 71 |      |--SAMUEL ADAMS SEASONAL
## 72 |      °--SAMUEL ADAMS BOSTON LAGER
## 73 |--DIAGEO
## 74 |      °--DIAGEO GUINNESS USA
## 75 |      |--SMIRNOFF ICE
## 76 |      |--SMIRNOFF ICE GREEN APPLE BITE
## 77 |      |--SMIRNOFF ICE PARTY PACK
## 78 |      |--SMIRNOFF ICE RASPBERRY BURST
## 79 |      |--GUINNESS DRAUGHT
## 80 |      |--RED STRIPE
## 81 |      °--GUINNESS EXTRA STOUT
## 82 |--E & J GALLO WNRV
## 83 |      °--E & J GALLO WNRV
## 84 |      °--HORNSBYS AMBER DRAFT
## 85 °--SIERRA NEVADA BREWING CO
## 86 |      °--SIERRA NEVADA BREWING CO
## 87 |      °--SIERRA NEVADA PALE ALE

```

## SYRACUSE

```

Algorithm name: S6.hierarchyTree(Market = 'SYRACUSE',
                                saveMarketHierarchy = T,

```



```

saveAllBrandHierarchy = F,
out_algoRunTime = T )

```

Algorithm run time: 1.3298788 minute(s).

```

##                                     levelName
## 1  Conglomerate
## 2  |--ANHEUSER-BUSCH INBEV
## 3  |  |--ANHEUSER-BUSCH INBEV
## 4  |  |  |--BUD LIGHT
## 5  |  |  |--BUDWEISER
## 6  |  |  |--BUSCH
## 7  |  |  |--BUSCH LIGHT
## 8  |  |  |--NATURAL ICE
## 9  |  |  |--NATURAL LIGHT
## 10 |  |  |--ROLLING ROCK EXTRA PALE
## 11 |  |  |--BUD LIGHT GOLDEN WHEAT
## 12 |  |  |--BUD LIGHT LIME
## 13 |  |  |--BECKS
## 14 |  |  |--STELLA ARTOIS LAGER
## 15 |  |  |--LANDSHARK LAGER
## 16 |  |  |--ODOULS
## 17 |  |  |--WILD BLUE
## 18 |  |  |--BACARDI SILVER MOJITO
## 19 |  |  °--ODOULS AMBER
## 20 |  °--MICHELOB BREWING CO
## 21 |  |  |--MICHELOB ULTRA
## 22 |  |  |--SHOCK TOP BELGIAN WHITE ALE
## 23 |  |  |--MICHELOB ULTR POMEGRANAT RSPB
## 24 |  |  |--MICHELOB ULTRA LIME CACTUS
## 25 |  |  |--MICHELOB AMBER BOCK
## 26 |  |  °--MICHELOB ULTRA AMBER
## 27 |--DIAGEO
## 28 |  °--DIAGEO GUINNESS USA
## 29 |  |  |--SMIRNOFF ICE
## 30 |  |  |--SMIRNOFF ICE PARTY PACK
## 31 |  |  |--SMIRNOFF ICE RASPBERRY BURST
## 32 |  |  |--GUINNESS DRAUGHT
## 33 |  |  |--SMIRNOFF ICE GREEN APPLE BITE
## 34 |  |  |--GUINNESS EXTRA STOUT
## 35 |  |  °--RED STRIPE
## 36 |--SABMILLER
## 37 |  |--MILLERCOORS
## 38 |  |  |--COORS
## 39 |  |  |--COORS LIGHT
## 40 |  |  |--GEORGE KILLIANS IRISH RED LAG
## 41 |  |  |--ICEHOUSE
## 42 |  |  |--KEYSTONE LIGHT
## 43 |  |  |--MILLER GENUINE DRAFT
## 44 |  |  |--MILLER GENUINE DRAFT LIGHT 64
## 45 |  |  |--MILLER HIGH LIFE
## 46 |  |  |--MILLER LITE

```

```

## 47 | | | --MILWAUKEES BEST
## 48 | | | --FOSTERS LAGER
## 49 | | | --MOLSON CANADIAN
## 50 | | | °--MILLER CHILL
## 51 | | °--TENTH & BLAKE BEER CO
## 52 | | | --BLUE MOON BELGIAN WHITE ALE
## 53 | | | °--BLUE MOON SEASONAL COLLECTION
## 54 | --CONSTELLATION BRANDS INC
## 55 | | °--CROWN IMPORTS
## 56 | | | --CORONA EXTRA
## 57 | | | --CORONA LIGHT
## 58 | | | --SAINT PAULI GIRL
## 59 | | | --MODELO ESPECIAL
## 60 | | | °--NEGRA MODELO
## 61 | --HEINEKEN USA INC
## 62 | | °--HEINEKEN USA INC
## 63 | | | --HEINEKEN
## 64 | | | --HEINEKEN PREMIUM LIGHT LAGER
## 65 | | | --NEWCASTLE BROWN ALE
## 66 | | | --DOS EQUIS XX AMBAR LAGER
## 67 | | | °--TECATE
## 68 | --BOSTON BEER CO
## 69 | | °--BOSTON BEER CO
## 70 | | | --SAMUEL ADAMS BOSTON LAGER
## 71 | | | °--SAMUEL ADAMS SEASONAL
## 72 | --MARK ANTHONY BRANDS INC
## 73 | | °--MARK ANTHONY BRANDS INC
## 74 | | | --MIKES HARD LEMONADE
## 75 | | | --MIKES HARD CRANBERRY LEMONADE
## 76 | | | --MIKES HARD LIGHT LEMONADE
## 77 | | | --MIKES HARD MANGO PUNCH
## 78 | | | °--MIKES HARD SEASONAL
## 79 | --S & P COMPANY
## 80 | | °--PABST BREWING CO
## 81 | | | °--PABST BLUE RIBBON
## 82 | --SIERRA NEVADA BREWING CO
## 83 | | °--SIERRA NEVADA BREWING CO
## 84 | | | °--SIERRA NEVADA PALE ALE
## 85 | °--E & J GALLO WNRV
## 86 | | °--E & J GALLO WNRV
## 87 | | | °--HORNSBYS AMBER DRAFT

```

## HOUSTON

```

Algorithm name: S6.hierarchyTree(Market = 'HOUSTON',
                                saveMarketHierarchy = T,
                                saveAllBrandHierarchy = F,
                                out_algoRunTime = T )

```

Algorithm run time: 1.6886817 minute(s).

##	levelName
## 1	Conglomerate
## 2	--SABMILLER
## 3	--MILLERCOORS
## 4	--MILLER HIGH LIFE
## 5	--MILLER LITE
## 6	--COORS LIGHT
## 7	--KEYSTONE LIGHT
## 8	--MILLER GENUINE DRAFT LIGHT 64
## 9	--ICEHOUSE
## 10	--MILLER CHILL
## 11	--MILWAUKEES BEST
## 12	--COORS
## 13	--MILLER GENUINE DRAFT
## 14	--FOSTERS LAGER
## 15	--MOLSON CANADIAN
## 16	°--GEORGE KILLIANS IRISH RED LAG
## 17	°--TENTH & BLAKE BEER CO
## 18	--BLUE MOON BELGIAN WHITE ALE
## 19	°--BLUE MOON SEASONAL COLLECTION
## 20	--HEINEKEN USA INC
## 21	°--HEINEKEN USA INC
## 22	--HEINEKEN
## 23	--TECATE
## 24	--HEINEKEN PREMIUM LIGHT LAGER
## 25	--DOS EQUIS XX AMBAR LAGER
## 26	°--NEWCASTLE BROWN ALE
## 27	--ANHEUSER-BUSCH INBEV
## 28	--ANHEUSER-BUSCH INBEV
## 29	--BUSCH
## 30	--BUSCH LIGHT
## 31	--NATURAL LIGHT
## 32	--BUD LIGHT
## 33	--BUD LIGHT LIME
## 34	--BUDWEISER
## 35	--BUD LIGHT GOLDEN WHEAT
## 36	--BACARDI SILVER MOJITO
## 37	--NATURAL ICE
## 38	--ODOULS
## 39	--STELLA ARTOIS LAGER
## 40	--ODOULS AMBER
## 41	--BECKS
## 42	--ROLLING ROCK EXTRA PALE
## 43	--LANDSHARK LAGER
## 44	°--WILD BLUE
## 45	°--MICHELOB BREWING CO
## 46	--MICHELOB ULTRA
## 47	--MICHELOB ULTRA LIME CACTUS
## 48	--MICHELOB ULTR POMEGRANAT RSPB
## 49	--MICHELOB AMBER BOCK
## 50	--MICHELOB ULTRA AMBER

```

## 51 |      °--SHOCK TOP BELGIAN WHITE ALE
## 52 |--CONSTELLATION BRANDS INC
## 53 |      °--CROWN IMPORTS
## 54 |      |--CORONA EXTRA
## 55 |      |--MODELO ESPECIAL
## 56 |      |--CORONA LIGHT
## 57 |      |--NEGRA MODELO
## 58 |      °--SAINT PAULI GIRL
## 59 |--DIAGEO
## 60 |      °--DIAGEO GUINNESS USA
## 61 |      |--SMIRNOFF ICE
## 62 |      |--SMIRNOFF ICE GREEN APPLE BITE
## 63 |      |--RED STRIPE
## 64 |      |--GUINNESS DRAUGHT
## 65 |      |--GUINNESS EXTRA STOUT
## 66 |      |--SMIRNOFF ICE PARTY PACK
## 67 |      °--SMIRNOFF ICE RASPBERRY BURST
## 68 |--MARK ANTHONY BRANDS INC
## 69 |      °--MARK ANTHONY BRANDS INC
## 70 |      |--MIKES HARD LEMONADE
## 71 |      |--MIKES HARD SEASONAL
## 72 |      |--MIKES HARD CRANBERRY LEMONADE
## 73 |      |--MIKES HARD LIGHT LEMONADE
## 74 |      °--MIKES HARD MANGO PUNCH
## 75 |--SIERRA NEVADA BREWING CO
## 76 |      °--SIERRA NEVADA BREWING CO
## 77 |      °--SIERRA NEVADA PALE ALE
## 78 |--S & P COMPANY
## 79 |      °--PABST BREWING CO
## 80 |      °--PABST BLUE RIBBON
## 81 |--BOSTON BEER CO
## 82 |      °--BOSTON BEER CO
## 83 |      |--SAMUEL ADAMS SEASONAL
## 84 |      °--SAMUEL ADAMS BOSTON LAGER
## 85 |      °--E & J GALLO WNRV
## 86 |      °--E & J GALLO WNRV
## 87 |      °--HORNSBYS AMBER DRAFT

```

Algorithm run time: 1.1266505 minute(s).

```
## NULL

##
## Call:
## lm(formula = model.lm.Brands, data = D8.2010_aggregate_data.CHICAGO[[1]])
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -1.65482 -0.19631 -0.01887  0.18836  1.84684
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## p2_Wmean          -0.30690     0.02188  -14.029 < 2e-16 ***
## BACARDI_SILVER_MOJITO -6.21749     0.28022  -22.188 < 2e-16 ***
## BECKS              -3.76037     0.29374  -12.802 < 2e-16 ***
## BLUE_MOON_BELGIAN_WHITE_ALE -3.23837     0.31142  -10.399 < 2e-16 ***
## BUD_LIGHT          -2.53803     0.19035  -13.334 < 2e-16 ***
## BUD_LIGHT_GOLDEN_WHEAT -5.83607     0.25136  -23.218 < 2e-16 ***
## BUD_LIGHT_LIME      -4.36238     0.25125  -17.363 < 2e-16 ***
## BUDWEISER          -3.21514     0.19069  -16.861 < 2e-16 ***
## BUSCH              -4.82622     0.13514  -35.711 < 2e-16 ***
## BUSCH_LIGHT        -4.48843     0.12899  -34.798 < 2e-16 ***
## COORS              -6.06854     0.15946  -38.057 < 2e-16 ***
## COORS_LIGHT        -3.01542     0.18540  -16.265 < 2e-16 ***
## CORONA_EXTRA       -1.91737     0.28197   -6.800 1.30e-11 ***
## CORONA_LIGHT       -3.44007     0.27035  -12.725 < 2e-16 ***
## DOS_EQUIS_XX_AMBAR_LAGER -6.45168     0.26402  -24.437 < 2e-16 ***
## FOSTERS_LAGER      -5.60455     0.25898  -21.641 < 2e-16 ***
## GEORGE_KILLIANS_IRISH_RED_LAG -5.92622     0.25882  -22.897 < 2e-16 ***
## GUINNESS_DRAUGHT   -3.62321     0.32416  -11.177 < 2e-16 ***
## GUINNESS_EXTRA_STOUT -4.68405     0.33113  -14.146 < 2e-16 ***
## HEINEKEN           -2.21588     0.29964   -7.395 1.91e-13 ***
## HEINEKEN_PREMIUM_LIGHT_LAGER -3.69606     0.29895  -12.363 < 2e-16 ***
## HORNSBYS_AMBER_DRAFT -7.25863     0.31471  -23.064 < 2e-16 ***
## ICEHOUSE           -4.69343     0.14696  -31.938 < 2e-16 ***
## KEYSTONE_LIGHT     -6.57278     0.11317  -58.080 < 2e-16 ***
## LANDSHARK_LAGER    -6.01356     0.28214  -21.314 < 2e-16 ***
## MICHELOB_AMBER_BOCK -7.15801     0.22531  -31.770 < 2e-16 ***
## MICHELOB_ULTR_POMEGRANAT_RSPB -8.20712     0.23441  -35.012 < 2e-16 ***
## MICHELOB_ULTRA      -5.06570     0.19470  -26.017 < 2e-16 ***
## MICHELOB_ULTRA_AMBER -7.91336     0.18084  -43.760 < 2e-16 ***
## MICHELOB_ULTRA_LIME_CACTUS -8.05325     0.23320  -34.533 < 2e-16 ***
## MILLER_CHILL       -5.89379     0.22032  -26.751 < 2e-16 ***
## MILLER_GENUINE_DRAFT -3.18495     0.18752  -16.985 < 2e-16 ***
## MILLER_GENUINE_DRAFT_LIGHT_64 -3.85221     0.17871  -21.555 < 2e-16 ***
## MILLER_HIGH_LIFE    -3.57089     0.15478  -23.070 < 2e-16 ***
## MILLER_LITE         -1.48442     0.20002   -7.421 1.57e-13 ***
## MILWAUKEES_BEST     -9.28880     0.12104  -76.741 < 2e-16 ***
## MODELO_ESPECIAL     -2.76744     0.27598  -10.028 < 2e-16 ***
## MOLSON_CANADIAN     -8.24768     0.19890  -41.467 < 2e-16 ***
```

```

## NATURAL_ICE                -6.75547      0.13174 -51.279 < 2e-16 ***
## NATURAL_LIGHT              -7.92366      0.11072 -71.562 < 2e-16 ***
## NEGRA_MODELO                -4.63588      0.29954 -15.476 < 2e-16 ***
## NEWCASTLE_BROWN_ALE        -4.20882      0.32348 -13.011 < 2e-16 ***
## ODOULS                     -5.94991      0.18318 -32.482 < 2e-16 ***
## ODOULS_AMBER               -7.36155      0.19154 -38.434 < 2e-16 ***
## RED_STRIPE                 -4.75290      0.31354 -15.159 < 2e-16 ***
## SAINT_PAULI_GIRL           -5.84488      0.25237 -23.160 < 2e-16 ***
## SMIRNOFF_ICE               -5.38342      0.30707 -17.532 < 2e-16 ***
## SMIRNOFF_ICE_GREEN_APPLE_BITE -6.24584      0.32061 -19.481 < 2e-16 ***
## SMIRNOFF_ICE_RASPBERRY_BURST -6.01700      0.32420 -18.560 < 2e-16 ***
## TECATE                     -4.69202      0.21139 -22.196 < 2e-16 ***
## WILD_BLUE                  -8.02705      0.29986 -26.769 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3381 on 2549 degrees of freedom
## Multiple R-squared:  0.9985, Adjusted R-squared:  0.9985
## F-statistic: 3.348e+04 on 51 and 2549 DF, p-value: < 2.2e-16

##
## Call:
## lm(formula = log(share) - log(outshr) ~ 0 + p2_Wmean + ABV +
##      prct_PR + Calories_oz + Carbs_oz + USA + Mexico, data = D8.2010_aggregate_data.CHICAGO[[1]])
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -5.6622 -1.2165  0.0199  1.1572  4.6356
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## p2_Wmean    -0.42385     0.01314  -32.246 < 2e-16 ***
## ABV         -0.43394     0.05165   -8.401 < 2e-16 ***
## prct_PR       3.21404     0.15548  20.672 < 2e-16 ***
## Calories_oz  -0.17033     0.03152   -5.403 7.14e-08 ***
## Carbs_oz      0.62685     0.13084    4.791 1.75e-06 ***
## USA          -2.24107     0.07869  -28.481 < 2e-16 ***
## Mexico       -0.37875     0.12384   -3.058 0.00225 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.794 on 2593 degrees of freedom
## Multiple R-squared:  0.9573, Adjusted R-squared:  0.9572
## F-statistic: 8307 on 7 and 2593 DF, p-value: < 2.2e-16

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at
fas.harvard.edu % Date and time: Mon, Aug 20, 2018 - 21:03:53

```

Table 19: Summary Statistics: CHICAGO

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
total_gallons	2,600	1,173.360	2,665.697	1.125	51.188	1,246.031	33,446.060
p1_mean	2,600	10.295	3.088	4.320	8.022	13.117	16.210
p2_Wmean	2,600	10.454	3.098	4.327	8.221	13.316	16.314
prct_PR	2,600	0.283	0.231	0.000	0.061	0.453	1.000
share	2,600	0.001	0.002	0.00000	0.00005	0.001	0.030
p2_Wmean_non_pr	2,600	10.687	3.147	0.000	8.477	13.549	17.326
outshr	2,600	0.947	0.013	0.894	0.941	0.957	0.963
ABV	2,600	4.500	1.118	0	4.2	5	8
Calories_oz	2,600	11.383	3.347	5	8.5	12.5	20
Carbs_oz	2,600	1.004	0.710	0	0.5	1.2	3

Algorithm run time: 1.0549613 minute(s).

```
## NULL
```

```
##
```

```
## Call:
```

```
## lm(formula = model.lm.Brands, data = D8.2010_aggregate_data.DALLASTX[[1]])
```

```
##
```

```
## Residuals:
```

```
##      Min      1Q   Median      3Q      Max
## -1.71924 -0.16851  0.00239  0.17564  2.37211
```

```
##
```

```
## Coefficients:
```

```
##              Estimate Std. Error t value Pr(>|t|)
## p2_Wmean          -0.096055   0.009066  -10.60  <2e-16 ***
## BACARDI_SILVER_MOJITO      -8.195708   0.126376  -64.85  <2e-16 ***
## BECKS                  -7.474368   0.129580  -57.68  <2e-16 ***
## BLUE_MOON_BELGIAN_WHITE_ALE -6.624251   0.134017  -49.43  <2e-16 ***
## BUD_LIGHT              -3.480477   0.101900  -34.16  <2e-16 ***
## BUD_LIGHT_GOLDEN_WHEAT     -8.290667   0.119517  -69.37  <2e-16 ***
## BUD_LIGHT_LIME          -6.009260   0.117847  -50.99  <2e-16 ***
## BUDWEISER              -4.680685   0.100454  -46.59  <2e-16 ***
## BUSCH                  -6.439874   0.086290  -74.63  <2e-16 ***
## BUSCH_LIGHT            -6.661263   0.085599  -77.82  <2e-16 ***
## COORS                  -6.076161   0.098998  -61.38  <2e-16 ***
## COORS_LIGHT            -3.835600   0.104053  -36.86  <2e-16 ***
## CORONA_EXTRA           -4.955803   0.138883  -35.68  <2e-16 ***
## CORONA_LIGHT           -6.291180   0.130058  -48.37  <2e-16 ***
## DOS_EQUIS_XX_AMBAR_LAGER  -7.546253   0.126242  -59.78  <2e-16 ***
## FOSTERS_LAGER          -7.589084   0.117370  -64.66  <2e-16 ***
## GEORGE_KILLIANS_IRISH_RED_LAG -8.480264   0.123659  -68.58  <2e-16 ***
## GUINNESS_DRAUGHT        -7.461228   0.159413  -46.80  <2e-16 ***
## GUINNESS_EXTRA_STOUT     -7.481834   0.153704  -48.68  <2e-16 ***
## HEINEKEN               -5.382628   0.136378  -39.47  <2e-16 ***
## HEINEKEN_PREMIUM_LIGHT_LAGER -7.093940   0.134721  -52.66  <2e-16 ***
## HORNSBYS_AMBER_DRAFT     -9.054146   0.134742  -67.20  <2e-16 ***
```

```

## ICEHOUSE -9.763887 0.086880 -112.38 <2e-16 ***
## KEYSTONE_LIGHT -4.993239 0.087748 -56.90 <2e-16 ***
## LANDSHARK_LAGER -8.130068 0.139705 -58.19 <2e-16 ***
## MICHELOB_AMBER_BOCK -9.769397 0.117370 -83.24 <2e-16 ***
## MICHELOB_ULTR_POMEGRANAT_RSPB -8.946312 0.120366 -74.33 <2e-16 ***
## MICHELOB_ULTRA -5.309074 0.112323 -47.27 <2e-16 ***
## MICHELOB_ULTRA_AMBER -8.349850 0.115629 -72.21 <2e-16 ***
## MICHELOB_ULTRA_LIME_CACTUS -7.928338 0.121036 -65.50 <2e-16 ***
## MILLER_CHILL -7.765241 0.107723 -72.08 <2e-16 ***
## MILLER_GENUINE_DRAFT -6.648980 0.101072 -65.78 <2e-16 ***
## MILLER_GENUINE_DRAFT_LIGHT_64 -6.315806 0.101216 -62.40 <2e-16 ***
## MILLER_HIGH_LIFE -5.874304 0.090239 -65.10 <2e-16 ***
## MILLER_LITE -3.756304 0.103270 -36.37 <2e-16 ***
## MILWAUKEES_BEST -7.851340 0.081127 -96.78 <2e-16 ***
## MODELO_ESPECIAL -6.207893 0.121540 -51.08 <2e-16 ***
## MOLSON_CANADIAN -9.543903 0.123431 -77.32 <2e-16 ***
## NATURAL_ICE -9.299987 0.080509 -115.52 <2e-16 ***
## NATURAL_LIGHT -4.903899 0.082059 -59.76 <2e-16 ***
## NEGRA_MODELO -7.668594 0.135934 -56.41 <2e-16 ***
## NEWCASTLE_BROWN_ALE -7.698933 0.152290 -50.55 <2e-16 ***
## ODOULS -7.632625 0.105924 -72.06 <2e-16 ***
## ODOULS_AMBER -9.285525 0.103510 -89.71 <2e-16 ***
## RED_STRIPE -7.856512 0.137695 -57.06 <2e-16 ***
## SAINT_PAULI_GIRL -8.160562 0.128313 -63.60 <2e-16 ***
## SMIRNOFF_ICE -7.333270 0.142292 -51.54 <2e-16 ***
## SMIRNOFF_ICE_GREEN_APPLE_BITE -8.407337 0.146106 -57.54 <2e-16 ***
## SMIRNOFF_ICE_RASPBERRY_BURST -10.003076 0.145343 -68.82 <2e-16 ***
## TECATE -6.604225 0.112043 -58.94 <2e-16 ***
## WILD_BLUE -10.212158 0.139679 -73.11 <2e-16 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.313 on 2549 degrees of freedom
## Multiple R-squared: 0.9987, Adjusted R-squared: 0.9987
## F-statistic: 3.816e+04 on 51 and 2549 DF, p-value: < 2.2e-16
##
## Call:
## lm(formula = log(share) ~ 0 + p2_Wmean + ABV +
## prct_PR + Calories_oz + Carbs_oz + USA + Mexico, data = D8.2010_aggregate_data.DALLASTX[[1]])
##
## Residuals:
## Min 1Q Median 3Q Max
## -4.3787 -1.1324 -0.1813 1.0345 11.1334
##
## Coefficients:
## Estimate Std. Error t value Pr(>|t|)
## p2_Wmean -0.46629 0.01141 -40.867 < 2e-16 ***
## ABV -0.34642 0.04571 -7.578 4.85e-14 ***
## prct_PR 1.61022 0.16359 9.843 < 2e-16 ***
## Calories_oz -0.05906 0.02804 -2.106 0.0353 *

```



```
## Carbs_oz      -0.11636      0.11371   -1.023    0.3063
## USA          -1.10083      0.06766  -16.270   < 2e-16 ***
## Mexico       0.19618      0.11081    1.770    0.0768 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.596 on 2593 degrees of freedom
## Multiple R-squared:  0.9654, Adjusted R-squared:  0.9653
## F-statistic: 1.033e+04 on 7 and 2593 DF,  p-value: < 2.2e-16

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at
fas.harvard.edu % Date and time: Mon, Aug 20, 2018 - 21:03:54
```

Table 20: Summary Statistics: DALLAS, TX

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
total_gallons	2,600	576.782	1,275.951	1	36.6	409.8	10,210
p1_mean	2,600	11.952	2.479	6.620	10.053	13.986	20.058
p2_Wmean	2,600	12.071	2.565	6.777	10.179	14.119	39.955
prct_PR	2,600	0.230	0.203	0.000	0.056	0.344	0.903
share	2,600	0.001	0.002	0.00000	0.0001	0.001	0.018
p2_Wmean_non_pr	2,600	12.267	2.679	7.089	10.310	14.445	48.294
outshr	2,600	0.949	0.009	0.919	0.943	0.955	0.968
ABV	2,600	4.500	1.118	0	4.2	5	8
Calories_oz	2,600	11.383	3.347	5	8.5	12.5	20
Carbs_oz	2,600	1.004	0.710	0	0.5	1.2	3

Algorithm run time: 1.1032689 minute(s).

```
## NULL

##
## Call:
## lm(formula = model.lm.Brands, data = D8.2010_aggregate_data.LOSANGELES[[1]])
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -3.8781 -0.1526  0.0059  0.1635  1.5976
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## p2_Wmean          -0.40711     0.01190  -34.199 < 2e-16 ***
## BACARDI_SILVER_MOJITO -4.00395     0.19420  -20.618 < 2e-16 ***
## BECKS              -2.30245     0.16070  -14.328 < 2e-16 ***
## BLUE_MOON_BELGIAN_WHITE_ALE -0.62632     0.19462   -3.218 0.00131 **
## BUD_LIGHT           0.27836     0.12836    2.169 0.03021 *
## BUD_LIGHT_GOLDEN_WHEAT -3.71454     0.15008  -24.750 < 2e-16 ***
## BUD_LIGHT_LIME      -2.12371     0.15137  -14.030 < 2e-16 ***
## BUDWEISER          -0.79971     0.12711   -6.292 3.69e-10 ***
## BUSCH              -5.39700     0.10902  -49.503 < 2e-16 ***
## BUSCH_LIGHT        -7.92431     0.09927  -79.827 < 2e-16 ***
## COORS              -2.97580     0.11574  -25.712 < 2e-16 ***
## COORS_LIGHT        -0.10419     0.13120   -0.794 0.42718
## CORONA_EXTRA        1.20592     0.18125    6.653 3.50e-11 ***
## CORONA_LIGHT       -1.33400     0.16539   -8.066 1.11e-15 ***
## DOS_EQUIS_XX_AMBAR_LAGER -3.27495     0.15655  -20.919 < 2e-16 ***
## FOSTERS_LAGER      -3.31914     0.14268  -23.263 < 2e-16 ***
## GEORGE_KILLIANS_IRISH_RED_LAG -4.23149     0.16370  -25.848 < 2e-16 ***
## GUINNESS_DRAUGHT   -1.35102     0.20260   -6.669 3.16e-11 ***
## GUINNESS_EXTRA_STOUT -2.39933     0.20815  -11.527 < 2e-16 ***
## HEINEKEN           0.31335     0.18291    1.713 0.08681 .
## HEINEKEN_PREMIUM_LIGHT_LAGER -1.87055     0.16964  -11.027 < 2e-16 ***
## HORNSBYS_AMBER_DRAFT -4.92179     0.15337  -32.092 < 2e-16 ***
## ICEHOUSE           -6.51522     0.11575  -56.288 < 2e-16 ***
## KEYSTONE_LIGHT     -3.58659     0.09190  -39.026 < 2e-16 ***
## LANDSHARK_LAGER    -4.06245     0.17653  -23.013 < 2e-16 ***
## MICHELOB_AMBER_BOCK -4.48829     0.15179  -29.570 < 2e-16 ***
## MICHELOB_ULTR_POMEGRANAT_RSPB -7.04618     0.14769  -47.708 < 2e-16 ***
## MICHELOB_ULTRA     -2.36710     0.13571  -17.443 < 2e-16 ***
## MICHELOB_ULTRA_AMBER -5.35737     0.13863  -38.644 < 2e-16 ***
## MICHELOB_ULTRA_LIME_CACTUS -5.85719     0.15906  -36.824 < 2e-16 ***
## MILLER_CHILL       -5.27525     0.13283  -39.714 < 2e-16 ***
## MILLER_GENUINE_DRAFT -1.92508     0.12692  -15.168 < 2e-16 ***
## MILLER_GENUINE_DRAFT_LIGHT_64 -3.24612     0.12675  -25.611 < 2e-16 ***
## MILLER_HIGH_LIFE   -2.89852     0.10815  -26.800 < 2e-16 ***
## MILLER_LITE        -1.24879     0.12693   -9.838 < 2e-16 ***
## MILWAUKEES_BEST    -6.07909     0.08168  -74.424 < 2e-16 ***
## MODELO_ESPECIAL    -1.14718     0.15384   -7.457 1.21e-13 ***
## MOLSON_CANADIAN     -5.56918     0.14490  -38.434 < 2e-16 ***
```

```

## NATURAL_ICE                -3.96291    0.09315 -42.542 < 2e-16 ***
## NATURAL_LIGHT              -3.00992    0.09382 -32.081 < 2e-16 ***
## NEGRA_MODELO                -2.54954    0.17041 -14.961 < 2e-16 ***
## NEWCASTLE_BROWN_ALE        0.30056    0.20645   1.456 0.14555
## ODOULS                     -3.56522    0.13493 -26.422 < 2e-16 ***
## ODOULS_AMBER               -5.34851    0.14071 -38.011 < 2e-16 ***
## RED_STRIPE                 -2.14689    0.18395 -11.671 < 2e-16 ***
## SAINT_PAULI_GIRL           -3.79479    0.15448 -24.565 < 2e-16 ***
## SMIRNOFF_ICE               -2.11686    0.18430 -11.486 < 2e-16 ***
## SMIRNOFF_ICE_GREEN_APPLE_BITE -3.06362    0.18879 -16.228 < 2e-16 ***
## SMIRNOFF_ICE_RASPBERRY_BURST -3.38030    0.18979 -17.811 < 2e-16 ***
## TECATE                     -1.34915    0.12488 -10.803 < 2e-16 ***
## WILD_BLUE                  -4.73019    0.18702 -25.293 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3462 on 2549 degrees of freedom
## Multiple R-squared:  0.9982, Adjusted R-squared:  0.9982
## F-statistic: 2.843e+04 on 51 and 2549 DF, p-value: < 2.2e-16

##
## Call:
## lm(formula = log(share) - log(outshr) ~ 0 + p2_Wmean + ABV +
##      prct_PR + Calories_oz + Carbs_oz + USA + Mexico, data = D8.2010_aggregate_data.LOSANGELES[[1])
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -7.604 -1.387 -0.155   1.057   4.331
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## p2_Wmean    -0.45268    0.01337 -33.868 < 2e-16 ***
## ABV         -0.23073    0.05400  -4.273 2.00e-05 ***
## prct_PR      1.64610    0.14677  11.216 < 2e-16 ***
## Calories_oz -0.12270    0.03262  -3.762 0.000172 ***
## Carbs_oz     0.58194    0.13329   4.366 1.32e-05 ***
## USA         -2.00100    0.08067 -24.805 < 2e-16 ***
## Mexico       0.40067    0.12839   3.121 0.001824 **
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.886 on 2593 degrees of freedom
## Multiple R-squared:  0.947, Adjusted R-squared:  0.9469
## F-statistic: 6622 on 7 and 2593 DF, p-value: < 2.2e-16

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at
fas.harvard.edu % Date and time: Mon, Aug 20, 2018 - 21:03:54

```

Table 21: Summary Statistics: LOS ANGELES

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
total_gallons	2,600	2,360.239	5,127.875	0.188	87.742	1,972.734	39,504.330
p1_mean	2,600	11.576	2.916	5.244	9.490	13.970	17.945
p2_Wmean	2,600	11.824	2.939	5.278	9.873	14.228	18.122
prct_PR	2,600	0.385	0.256	0.000	0.165	0.570	1.000
share	2,600	0.002	0.004	0.00000	0.0001	0.001	0.029
p2_Wmean_non_pr	2,600	12.212	3.250	0.000	10.431	14.850	19.166
outshr	2,600	0.914	0.015	0.868	0.907	0.925	0.936
ABV	2,600	4.500	1.118	0	4.2	5	8
Calories_oz	2,600	11.383	3.347	5	8.5	12.5	20
Carbs_oz	2,600	1.004	0.710	0	0.5	1.2	3

Algorithm run time: 1.036046 minute(s).

## NULL

##

## Call:

## lm(formula = model.lm.Brands, data = D8.2010\_aggregate\_data.SPOKANE[[1]])

##

## Residuals:

##	Min	1Q	Median	3Q	Max
##	-2.12773	-0.21844	-0.00299	0.23446	1.50375

##

## Coefficients:

##	Estimate	Std. Error	t value	Pr(> t )
## p2_Wmean	-0.27690	0.01304	-21.235	< 2e-16 ***
## BACARDI_SILVER_MOJITO	-4.92316	0.19540	-25.195	< 2e-16 ***
## BECKS	-4.35874	0.18459	-23.613	< 2e-16 ***
## BLUE_MOON_BELGIAN_WHITE_ALE	-2.01289	0.20058	-10.035	< 2e-16 ***
## BUD_LIGHT	-1.35888	0.13813	-9.838	< 2e-16 ***
## BUD_LIGHT_GOLDEN_WHEAT	-5.01903	0.16797	-29.881	< 2e-16 ***
## BUD_LIGHT_LIME	-2.58778	0.16549	-15.637	< 2e-16 ***
## BUDWEISER	-2.00085	0.13808	-14.491	< 2e-16 ***
## BUSCH	-3.28960	0.11143	-29.522	< 2e-16 ***
## BUSCH_LIGHT	-2.95208	0.11091	-26.616	< 2e-16 ***
## COORS	-3.44173	0.13155	-26.163	< 2e-16 ***
## COORS_LIGHT	-1.08296	0.14216	-7.618	3.61e-14 ***
## CORONA_EXTRA	-1.48881	0.20143	-7.391	1.96e-13 ***
## CORONA_LIGHT	-2.79544	0.18825	-14.850	< 2e-16 ***
## DOS_EQUIS_XX_AMBAR_LAGER	-4.38407	0.17880	-24.520	< 2e-16 ***
## FOSTERS_LAGER	-4.78084	0.16413	-29.129	< 2e-16 ***
## GEORGE_KILLIANS_IRISH_RED_LAG	-5.13432	0.14580	-35.215	< 2e-16 ***
## GUINNESS_DRAUGHT	-2.97939	0.22436	-13.280	< 2e-16 ***
## GUINNESS_EXTRA_STOUT	-4.42643	0.23431	-18.891	< 2e-16 ***
## HEINEKEN	-2.30647	0.20335	-11.343	< 2e-16 ***
## HEINEKEN_PREMIUM_LIGHT_LAGER	-4.44972	0.18704	-23.790	< 2e-16 ***
## HORNSBYS_AMBER_DRAFT	-4.71627	0.18131	-26.012	< 2e-16 ***

```

## ICEHOUSE -3.67632 0.11842 -31.045 < 2e-16 ***
## KEYSTONE_LIGHT -2.16947 0.11637 -18.643 < 2e-16 ***
## LANDSHARK_LAGER -4.98769 0.19564 -25.494 < 2e-16 ***
## MICHELOB_AMBER_BOCK -6.34028 0.17505 -36.220 < 2e-16 ***
## MICHELOB_ULTR_POMEGRANAT_RSPB -6.71756 0.15842 -42.403 < 2e-16 ***
## MICHELOB_ULTRA -3.40156 0.15379 -22.118 < 2e-16 ***
## MICHELOB_ULTRA_AMBER -5.59494 0.14789 -37.832 < 2e-16 ***
## MICHELOB_ULTRA_LIME_CACTUS -5.51858 0.16064 -34.353 < 2e-16 ***
## MILLER_CHILL -4.52239 0.15823 -28.580 < 2e-16 ***
## MILLER_GENUINE_DRAFT -3.14769 0.13616 -23.118 < 2e-16 ***
## MILLER_GENUINE_DRAFT_LIGHT_64 -3.98157 0.13562 -29.359 < 2e-16 ***
## MILLER_HIGH_LIFE -3.03512 0.11820 -25.679 < 2e-16 ***
## MILLER_LITE -2.45190 0.13758 -17.821 < 2e-16 ***
## MILWAUKEES_BEST -6.58279 0.09997 -65.847 < 2e-16 ***
## MODELO_ESPECIAL -5.00711 0.17175 -29.153 < 2e-16 ***
## MOLSON_CANADIAN -4.68940 0.14233 -32.947 < 2e-16 ***
## NATURAL_ICE -3.81896 0.10110 -37.774 < 2e-16 ***
## NATURAL_LIGHT -3.52888 0.10166 -34.714 < 2e-16 ***
## NEGRA_MODELO -4.92939 0.19380 -25.435 < 2e-16 ***
## NEWCASTLE_BROWN_ALE -3.02918 0.22815 -13.277 < 2e-16 ***
## ODOULS -4.91777 0.12725 -38.646 < 2e-16 ***
## ODOULS_AMBER -5.68903 0.12896 -44.114 < 2e-16 ***
## RED_STRIPE -5.66696 0.20100 -28.194 < 2e-16 ***
## SAINT_PAULI_GIRL -3.96381 0.16458 -24.085 < 2e-16 ***
## SMIRNOFF_ICE -5.58466 0.19666 -28.397 < 2e-16 ***
## SMIRNOFF_ICE_GREEN_APPLE_BITE -4.57491 0.20014 -22.858 < 2e-16 ***
## SMIRNOFF_ICE_RASPBERRY_BURST -4.08287 0.19726 -20.698 < 2e-16 ***
## TECATE -4.92871 0.15178 -32.473 < 2e-16 ***
## WILD_BLUE -5.46150 0.19712 -27.706 < 2e-16 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3884 on 2549 degrees of freedom
## Multiple R-squared: 0.9974, Adjusted R-squared: 0.9973
## F-statistic: 1.886e+04 on 51 and 2549 DF, p-value: < 2.2e-16
##
## Call:
## lm(formula = log(share) ~ log(outshr) ~ 0 + p2_Wmean + ABV +
## prct_PR + Calories_oz + Carbs_oz + USA + Mexico, data = D8.2010_aggregate_data.SPOKANE[[1]])
##
## Residuals:
## Min 1Q Median 3Q Max
## -4.7624 -1.1619 -0.0908 0.9481 3.4868
##
## Coefficients:
## Estimate Std. Error t value Pr(>|t|)
## p2_Wmean -0.43966 0.01077 -40.821 < 2e-16 ***
## ABV -0.13617 0.04342 -3.136 0.00173 **
## prct_PR -0.12670 0.10665 -1.188 0.23493
## Calories_oz -0.05848 0.02632 -2.222 0.02637 *

```

```
## Carbs_oz      -0.12142      0.10773   -1.127   0.25982
## USA          -0.89185      0.06685  -13.342   < 2e-16 ***
## Mexico       -0.24474      0.10645   -2.299   0.02157 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.507 on 2593 degrees of freedom
## Multiple R-squared:  0.9595, Adjusted R-squared:  0.9594
## F-statistic: 8781 on 7 and 2593 DF,  p-value: < 2.2e-16

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at
fas.harvard.edu % Date and time: Mon, Aug 20, 2018 - 21:03:54
```

Table 22: Summary Statistics: SPOKANE

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
total_gallons	2,600	164.035	293.934	0.562	13.500	187.688	2,563.125
p1_mean	2,600	11.581	2.919	5.508	9.349	13.979	18.560
p2_Wmean	2,600	11.690	2.921	5.513	9.486	14.202	18.560
pctc_PR	2,600	0.321	0.286	0.000	0.032	0.512	1.000
share	2,600	0.002	0.004	0.00001	0.0002	0.003	0.035
p2_Wmean_non_pr	2,600	11.587	3.606	0.000	9.620	14.309	18.997
outshr	2,600	0.889	0.021	0.826	0.872	0.906	0.917
ABV	2,600	4.500	1.118	0	4.2	5	8
Calories_oz	2,600	11.383	3.347	5	8.5	12.5	20
Carbs_oz	2,600	1.004	0.710	0	0.5	1.2	3

Algorithm run time: 1.0481325 minute(s).

```
## NULL

##
## Call:
## lm(formula = model.lm.Brands, data = D8.2010_aggregate_data.SYRACUSE[[1]])
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -2.93983 -0.32598 -0.03504  0.31254  1.85383
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## p2_Wmean          -0.2870     0.0241  -11.909 < 2e-16 ***
## BACARDI_SILVER_MOJITO -3.6894     0.3606  -10.231 < 2e-16 ***
## BECKS              -1.8884     0.3509   -5.381 8.08e-08 ***
## BLUE_MOON_BELGIAN_WHITE_ALE -0.9415     0.3568   -2.639 0.008372 **
## BUD_LIGHT           0.3308     0.2294    1.442 0.149464
## BUD_LIGHT_GOLDEN_WHEAT -2.9992     0.2984  -10.052 < 2e-16 ***
## BUD_LIGHT_LIME      -0.9701     0.2932   -3.308 0.000952 ***
## BUDWEISER          -0.4025     0.2304   -1.747 0.080752 .
## BUSCH              -2.0981     0.1662  -12.624 < 2e-16 ***
## BUSCH_LIGHT        -2.2167     0.1673  -13.247 < 2e-16 ***
## COORS              -3.0690     0.2087  -14.704 < 2e-16 ***
## COORS_LIGHT         0.2071     0.2346    0.883 0.377389
## CORONA_EXTRA        -0.1989     0.3659   -0.544 0.586644
## CORONA_LIGHT        -0.9233     0.3429   -2.693 0.007134 **
## DOS_EQUIS_XX_AMBAR_LAGER -3.7756     0.3187  -11.848 < 2e-16 ***
## FOSTERS_LAGER       -3.3975     0.2894  -11.741 < 2e-16 ***
## GEORGE_KILLIANS_IRISH_RED_LAG -2.5165     0.3116   -8.075 1.03e-15 ***
## GUINNESS_DRAUGHT    -0.4827     0.4097   -1.178 0.238837
## GUINNESS_EXTRA_STOUT -2.2976     0.4293   -5.352 9.49e-08 ***
## HEINEKEN            -0.2802     0.3515   -0.797 0.425421
## HEINEKEN_PREMIUM_LIGHT_LAGER -1.0746     0.3436   -3.128 0.001783 **
## HORNSBYS_AMBER_DRAFT -4.6206     0.3653  -12.649 < 2e-16 ***
## ICEHOUSE            -4.5924     0.1579  -29.081 < 2e-16 ***
## KEYSTONE_LIGHT     -1.6822     0.1625  -10.353 < 2e-16 ***
## LANDSHARK_LAGER    -2.4757     0.3605   -6.867 8.18e-12 ***
## MICHELOB_AMBER_BOCK -4.1280     0.2754  -14.989 < 2e-16 ***
## MICHELOB_ULTR_POMEGRANAT_RSPB -3.0376     0.3001  -10.122 < 2e-16 ***
## MICHELOB_ULTRA      -0.3316     0.2392   -1.386 0.165729
## MICHELOB_ULTRA_AMBER -3.5229     0.2581  -13.649 < 2e-16 ***
## MICHELOB_ULTRA_LIME_CACTUS -3.4069     0.2975  -11.450 < 2e-16 ***
## MILLER_CHILL       -3.6986     0.3034  -12.190 < 2e-16 ***
## MILLER_GENUINE_DRAFT -4.6680     0.2263  -20.632 < 2e-16 ***
## MILLER_GENUINE_DRAFT_LIGHT_64 -2.1866     0.2287   -9.562 < 2e-16 ***
## MILLER_HIGH_LIFE   -2.7609     0.1714  -16.108 < 2e-16 ***
## MILLER_LITE        -1.0033     0.2266   -4.427 9.95e-06 ***
## MILWAUKEES_BEST    -3.5184     0.1604  -21.933 < 2e-16 ***
## MODELO_ESPECIAL    -4.5402     0.3451  -13.157 < 2e-16 ***
## MOLSON_CANADIAN     -1.5838     0.2242   -7.064 2.08e-12 ***
```

```

## NATURAL_ICE          -3.5711      0.1657 -21.553 < 2e-16 ***
## NATURAL_LIGHT       -4.2101      0.1662 -25.334 < 2e-16 ***
## NEGRA_MODELO        -4.7316      0.3496 -13.536 < 2e-16 ***
## NEWCASTLE_BROWN_ALE -1.7400      0.3684  -4.724 2.44e-06 ***
## ODOULS              -3.3597      0.2606 -12.891 < 2e-16 ***
## ODOULS_AMBER        -4.5145      0.2644 -17.076 < 2e-16 ***
## RED_STRIPE          -2.4704      0.3985  -6.200 6.57e-10 ***
## SAINT_PAULI_GIRL    -3.9793      0.3548 -11.216 < 2e-16 ***
## SMIRNOFF_ICE        -1.4306      0.3752  -3.813 0.000140 ***
## SMIRNOFF_ICE_GREEN_APPLE_BITE -3.8079      0.3985  -9.557 < 2e-16 ***
## SMIRNOFF_ICE_RASPBERRY_BURST -2.1541      0.3899  -5.525 3.62e-08 ***
## TECATE              -5.8055      0.2817 -20.612 < 2e-16 ***
## WILD_BLUE          -2.6286      0.3820  -6.882 7.42e-12 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.5216 on 2549 degrees of freedom
## Multiple R-squared:  0.993, Adjusted R-squared:  0.9929
## F-statistic: 7109 on 51 and 2549 DF, p-value: < 2.2e-16

##
## Call:
## lm(formula = log(share) - log(outshr) ~ 0 + p2_Wmean + ABV +
##      prct_PR + Calories_oz + Carbs_oz + USA + Mexico, data = D8.2010_aggregate_data.SYRACUSE[[1]])
##
## Residuals:
##      Min       1Q   Median       3Q      Max
## -4.6326 -1.1150 -0.2251  0.9744  4.7069
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## p2_Wmean    -0.27870     0.00940 -29.649 < 2e-16 ***
## ABV          0.05006     0.04344   1.153 0.249221
## prct_PR      1.15329     0.14691   7.850 6.03e-15 ***
## Calories_oz -0.22543     0.02620  -8.603 < 2e-16 ***
## Carbs_oz     0.38402     0.10804   3.554 0.000386 ***
## USA         -1.00446     0.06484 -15.491 < 2e-16 ***
## Mexico      -1.79318     0.10601 -16.916 < 2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.514 on 2593 degrees of freedom
## Multiple R-squared:  0.9402, Adjusted R-squared:  0.94
## F-statistic: 5823 on 7 and 2593 DF, p-value: < 2.2e-16

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at
fas.harvard.edu % Date and time: Mon, Aug 20, 2018 - 21:03:54

```



Table 23: Summary Statistics: SYRACUSE

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
total_gallons	2,600	164.035	293.934	0.562	13.500	187.688	2,563.125
p1_mean	2,600	11.581	2.919	5.508	9.349	13.979	18.560
p2_Wmean	2,600	11.690	2.921	5.513	9.486	14.202	18.560
prct_PR	2,600	0.321	0.286	0.000	0.032	0.512	1.000
share	2,600	0.002	0.004	0.00001	0.0002	0.003	0.035
p2_Wmean_non_pr	2,600	11.587	3.606	0.000	9.620	14.309	18.997
outshr	2,600	0.889	0.021	0.826	0.872	0.906	0.917
ABV	2,600	4.500	1.118	0	4.2	5	8
Calories_oz	2,600	11.383	3.347	5	8.5	12.5	20
Carbs_oz	2,600	1.004	0.710	0	0.5	1.2	3

Algorithm run time: 1.0454894 minute(s).

## NULL

##

## Call:

## lm(formula = model.lm.Brands, data = D8.2010\_aggregate\_data.HOUSTON[[1]])

##

## Residuals:

##	Min	1Q	Median	3Q	Max
##	-1.45115	-0.13336	0.00024	0.15059	1.53816

##

## Coefficients:

##	Estimate	Std. Error	t value	Pr(> t )
## p2_Wmean	-0.100803	0.009428	-10.69	<2e-16 ***
## BACARDI_SILVER_MOJITO	-8.871292	0.126216	-70.29	<2e-16 ***
## BECKS	-8.345187	0.130335	-64.03	<2e-16 ***
## BLUE_MOON_BELGIAN_WHITE_ALE	-7.546519	0.131222	-57.51	<2e-16 ***
## BUD_LIGHT	-3.156686	0.095671	-32.99	<2e-16 ***
## BUD_LIGHT_GOLDEN_WHEAT	-8.999466	0.118085	-76.21	<2e-16 ***
## BUD_LIGHT_LIME	-6.327921	0.115861	-54.62	<2e-16 ***
## BUDWEISER	-4.688439	0.094093	-49.83	<2e-16 ***
## BUSCH	-5.298855	0.074960	-70.69	<2e-16 ***
## BUSCH_LIGHT	-5.725345	0.073677	-77.71	<2e-16 ***
## COORS	-7.829386	0.093945	-83.34	<2e-16 ***
## COORS_LIGHT	-5.060276	0.094166	-53.74	<2e-16 ***
## CORONA_EXTRA	-4.645813	0.136785	-33.96	<2e-16 ***
## CORONA_LIGHT	-6.672010	0.129371	-51.57	<2e-16 ***
## DOS_EQUIS_XX_AMBAR_LAGER	-8.508348	0.127390	-66.79	<2e-16 ***
## FOSTERS_LAGER	-8.826860	0.131119	-67.32	<2e-16 ***
## GEORGE_KILLIANS_IRISH_RED_LAG	-9.833626	0.142101	-69.20	<2e-16 ***
## GUINNESS_DRAUGHT	-7.871823	0.162827	-48.34	<2e-16 ***
## GUINNESS_EXTRA_STOUT	-7.888903	0.153764	-51.30	<2e-16 ***
## HEINEKEN	-5.557518	0.135006	-41.16	<2e-16 ***
## HEINEKEN_PREMIUM_LIGHT_LAGER	-7.580918	0.134325	-56.44	<2e-16 ***
## HORNSBYS_AMBER_DRAFT	-10.030451	0.134759	-74.43	<2e-16 ***

```

## ICEHOUSE -8.301229 0.081113 -102.34 <2e-16 ***
## KEYSTONE_LIGHT -6.271330 0.071050 -88.27 <2e-16 ***
## LANDSHARK_LAGER -8.657262 0.134229 -64.50 <2e-16 ***
## MICHELOB_AMBER_BOCK -10.285874 0.114645 -89.72 <2e-16 ***
## MICHELOB_ULTR_POMEGRANAT_RSPB -9.666988 0.118880 -81.32 <2e-16 ***
## MICHELOB_ULTRA -6.114756 0.110978 -55.10 <2e-16 ***
## MICHELOB_ULTRA_AMBER -8.997391 0.112462 -80.00 <2e-16 ***
## MICHELOB_ULTRA_LIME_CACTUS -8.894476 0.119928 -74.17 <2e-16 ***
## MILLER_CHILL -9.278184 0.110454 -84.00 <2e-16 ***
## MILLER_GENUINE_DRAFT -7.614111 0.094862 -80.27 <2e-16 ***
## MILLER_GENUINE_DRAFT_LIGHT_64 -7.117425 0.094800 -75.08 <2e-16 ***
## MILLER_HIGH_LIFE -5.975963 0.075863 -78.77 <2e-16 ***
## MILLER_LITE -4.134510 0.096016 -43.06 <2e-16 ***
## MILWAUKEES_BEST -7.811398 0.069218 -112.85 <2e-16 ***
## MODELO_ESPECIAL -5.838656 0.115594 -50.51 <2e-16 ***
## MOLSON_CANADIAN -10.185862 0.117699 -86.54 <2e-16 ***
## NATURAL_ICE -9.457991 0.066952 -141.26 <2e-16 ***
## NATURAL_LIGHT -6.085011 0.071357 -85.28 <2e-16 ***
## NEGRA_MODELO -7.610514 0.130956 -58.12 <2e-16 ***
## NEWCASTLE_BROWN_ALE -8.353764 0.152164 -54.90 <2e-16 ***
## ODOULS -8.185791 0.097933 -83.58 <2e-16 ***
## ODOULS_AMBER -9.484275 0.097549 -97.23 <2e-16 ***
## RED_STRIPE -8.551734 0.147218 -58.09 <2e-16 ***
## SAINT_PAULI_GIRL -9.190367 0.131342 -69.97 <2e-16 ***
## SMIRNOFF_ICE -7.636050 0.141632 -53.91 <2e-16 ***
## SMIRNOFF_ICE_GREEN_APPLE_BITE -8.338878 0.144713 -57.62 <2e-16 ***
## SMIRNOFF_ICE_RASPBERRY_BURST -10.041175 0.143442 -70.00 <2e-16 ***
## TECATE -6.758971 0.102871 -65.70 <2e-16 ***
## WILD_BLUE -10.322599 0.149457 -69.07 <2e-16 ***
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.2453 on 2549 degrees of freedom
## Multiple R-squared: 0.9993, Adjusted R-squared: 0.9993
## F-statistic: 6.949e+04 on 51 and 2549 DF, p-value: < 2.2e-16
##
## Call:
## lm(formula = log(share) - log(outshr) ~ 0 + p2_Wmean + ABV +
## prct_PR + Calories_oz + Carbs_oz + USA + Mexico, data = D8.2010_aggregate_data.HOUSTON[[1]])
##
## Residuals:
## Min 1Q Median 3Q Max
## -4.5039 -1.0957 -0.2361 0.9843 7.7754
##
## Coefficients:
## Estimate Std. Error t value Pr(>|t|)
## p2_Wmean -0.55773 0.01080 -51.620 < 2e-16 ***
## ABV -0.18005 0.04570 -3.940 8.37e-05 ***
## prct_PR 2.61497 0.16180 16.161 < 2e-16 ***
## Calories_oz -0.13495 0.02720 -4.962 7.44e-07 ***

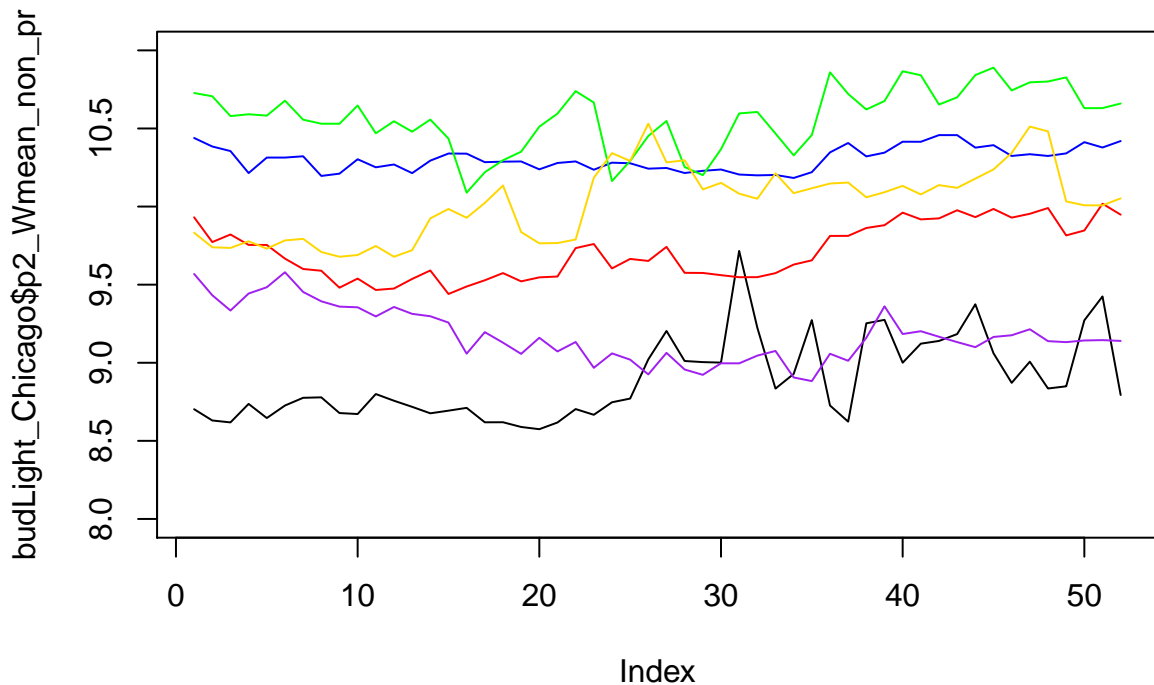
```

```
## Carbs_oz      0.51939      0.11168      4.651 3.47e-06 ***
## USA          -1.57711      0.06830 -23.090 < 2e-16 ***
## Mexico       -0.03445      0.11326     -0.304      0.761
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.58 on 2593 degrees of freedom
## Multiple R-squared:  0.9697, Adjusted R-squared:  0.9696
## F-statistic: 1.184e+04 on 7 and 2593 DF,  p-value: < 2.2e-16

% Table created by stargazer v.5.2.2 by Marek Hlavac, Harvard University. E-mail: hlavac at
fas.harvard.edu % Date and time: Mon, Aug 20, 2018 - 21:03:54
```

Table 24: Summary Statistics: HOUSTON

Statistic	N	Mean	St. Dev.	Min	Pctl(25)	Pctl(75)	Max
total_gallons	2,600	164.035	293.934	0.562	13.500	187.688	2,563.125
p1_mean	2,600	11.581	2.919	5.508	9.349	13.979	18.560
p2_Wmean	2,600	11.690	2.921	5.513	9.486	14.202	18.560
prct_PR	2,600	0.321	0.286	0.000	0.032	0.512	1.000
share	2,600	0.002	0.004	0.00001	0.0002	0.003	0.035
p2_Wmean_non_pr	2,600	11.587	3.606	0.000	9.620	14.309	18.997
outshr	2,600	0.889	0.021	0.826	0.872	0.906	0.917
ABV	2,600	4.500	1.118	0	4.2	5	8
Calories_oz	2,600	11.383	3.347	5	8.5	12.5	20
Carbs_oz	2,600	1.004	0.710	0	0.5	1.2	3



##

```
## Call:
## ivreg(formula = model.iv_lm.Brands, data = beerLA.data)
##
## Residuals:
##      Min        1Q    Median        3Q        Max
## -3.84741 -0.15353  0.00581  0.16553  1.59355
##
## Coefficients:
##                                Estimate Std. Error t value Pr(>|t|)
## p2_Wmean                    -0.42076    0.09733   -4.323 1.60e-05 ***
## BACARDI_SILVER_MOJITO       -3.78814    1.53931   -2.461 0.013923 *
## BECKS                       -2.12657    1.25487   -1.695 0.090263 .
## BLUE_MOON_BELGIAN_WHITE_ALE -0.41002    1.54287   -0.266 0.790451
## BUD_LIGHT                   0.41489    0.97456    0.426 0.670348
## BUD_LIGHT_GOLDEN_WHEAT      -3.55146    1.16365   -3.052 0.002297 **
## BUD_LIGHT_LIME              -1.95908    1.17472   -1.668 0.095500 .
## BUDWEISER                   -0.66473    0.96352   -0.690 0.490319
## BUSCH                       -5.28474    0.80180   -6.591 5.29e-11 ***
## BUSCH_LIGHT                 -7.82466    0.71207  -10.989 < 2e-16 ***
## COORS                       -2.85503    0.86242   -3.310 0.000944 ***
## COORS_LIGHT                 0.03584    0.99952    0.036 0.971398
## CORONA_EXTRA                1.40636    1.42990    0.984 0.325433
## CORONA_LIGHT                -1.15248    1.29498   -0.890 0.373569
## DOS_EQUIS_XX_AMBAR_LAGER    -3.10406    1.21934   -2.546 0.010965 *
## FOSTERS_LAGER               -3.16505    1.09964   -2.878 0.004032 **
## GEORGE_KILLIANS_IRISH_RED_LAG -4.05200    1.28058   -3.164 0.001573 **
## GUINNESS_DRAUGHT            -1.12529    1.61006   -0.699 0.484672
## GUINNESS_EXTRA_STOUT        -2.16704    1.65678   -1.308 0.190997
## HEINEKEN                    0.51578    1.44397    0.357 0.720976
## HEINEKEN_PREMIUM_LIGHT_LAGER -1.68395    1.33121   -1.265 0.205994
## HORNSBYS_AMBER_DRAFT        -4.75474    1.19195   -3.989 6.82e-05 ***
## ICEHOUSE                    -6.39443    0.86251   -7.414 1.66e-13 ***
## KEYSTONE_LIGHT              -3.49671    0.64258   -5.442 5.78e-08 ***
## LANDSHARK_LAGER             -3.86763    1.38982   -2.783 0.005428 **
## MICHELOB_AMBER_BOCK         -4.32315    1.17834   -3.669 0.000249 ***
## MICHELOB_ULTR_POMEGRANAT_RSPB -6.88600    1.14304   -6.024 1.94e-09 ***
## MICHELOB_ULTRA              -2.22153    1.03899   -2.138 0.032598 *
## MICHELOB_ULTRA_AMBER        -5.20822    1.06449   -4.893 1.06e-06 ***
## MICHELOB_ULTRA_LIME_CACTUS  -5.68328    1.24083   -4.580 4.87e-06 ***
## MILLER_CHILL                -5.13321    1.01381   -5.063 4.42e-07 ***
## MILLER_GENUINE_DRAFT        -1.79034    0.96183   -1.861 0.062805 .
## MILLER_GENUINE_DRAFT_LIGHT_64 -3.11158    0.96034   -3.240 0.001210 **
## MILLER_HIGH_LIFE            -2.78738    0.79388   -3.511 0.000454 ***
## MILLER_LITE                 -1.11402    0.96199   -1.158 0.246954
## MILWAUKEES_BEST             -6.00330    0.54248  -11.066 < 2e-16 ***
## MODELO_ESPECIAL             -0.97956    1.19601   -0.819 0.412851
## MOLSON_CANADIAN             -5.41238    1.11891   -4.837 1.40e-06 ***
## NATURAL_ICE                 -3.87136    0.65449   -5.915 3.76e-09 ***
## NATURAL_LIGHT               -2.91747    0.66085   -4.415 1.05e-05 ***
## NEGRA_MODELO                -2.36202    1.33776   -1.766 0.077573 .
## NEWCASTLE_BROWN_ALE        0.53083    1.64242    0.323 0.746570
```

```

## ODOULS -3.42060 1.03219 -3.314 0.000933 ***
## ODOULS_AMBER -5.19682 1.08254 -4.801 1.67e-06 ***
## RED_STRIPE -1.94323 1.45277 -1.338 0.181146
## SAINT_PAULI_GIRL -3.62639 1.20153 -3.018 0.002568 **
## SMIRNOFF_ICE -1.91280 1.45567 -1.314 0.188954
## SMIRNOFF_ICE_GREEN_APPLE_BITE -2.85423 1.49367 -1.911 0.056132 .
## SMIRNOFF_ICE_RASPBERRY_BURST -3.16972 1.50213 -2.110 0.034942 *
## TECATE -1.21694 0.94387 -1.289 0.197410
## WILD_BLUE -4.52289 1.47870 -3.059 0.002246 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 0.3463 on 2549 degrees of freedom
## Multiple R-Squared: 0.9982, Adjusted R-squared: 0.9982
## Wald test: 2.839e+04 on 51 and 2549 DF, p-value: < 2.2e-16

##
## Call:
## ivreg(formula = model.iv_lm.Brands, data = beerLA.data)
##
## Residuals:
## Min 1Q Median 3Q Max
## -7.3984 -1.2658 -0.1227 1.0638 4.3786
##
## Coefficients:
## Estimate Std. Error t value Pr(>|t|)
## p2_Wmean -0.53769 0.01444 -37.242 < 2e-16 ***
## prct_PR 2.01185 0.14959 13.449 < 2e-16 ***
## ABV -0.17580 0.05452 -3.225 0.00128 **
## Calories_oz -0.06801 0.03304 -2.058 0.03965 *
## Carbs_oz 0.58397 0.13432 4.347 1.43e-05 ***
## USA -2.05382 0.08136 -25.243 < 2e-16 ***
## Mexico 0.41395 0.12939 3.199 0.00140 **
## ---
## Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.9 on 2593 degrees of freedom
## Multiple R-Squared: 0.9462, Adjusted R-squared: 0.9461
## Wald test: 6557 on 7 and 2593 DF, p-value: < 2.2e-16

```