

Lab Notebook for: beerEthnicityConsumptionBrandChoice

Matthew Aaron Looney

7/31/2018

Contents

S1.beer__2010DataCleaning - Process raw beer data	2
S2.construct__2010marketData - Partition the cleaned data by city	3
S3.explore__2010marketData - Explore the completeness of the data	4
S4.allBrands__2010analysis -	5
S5.aggregate__allBrands__2010 -	6
CHICAGO	6
DALLAS, TX	8
LOS ANGELES	10
SPOKANE	12
SYRACUSE	14
HOUSTON	16

S1.beer__2010DataCleaning - Process raw beer data

Algorithm name: S1.beer_2010DataCleaning(save_2010_main_data = 'all_formats',
out_algoRunTime = T)

Algorithm run time: 33.5850069 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: 3.2742476 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: 3.1856187 minute(s).

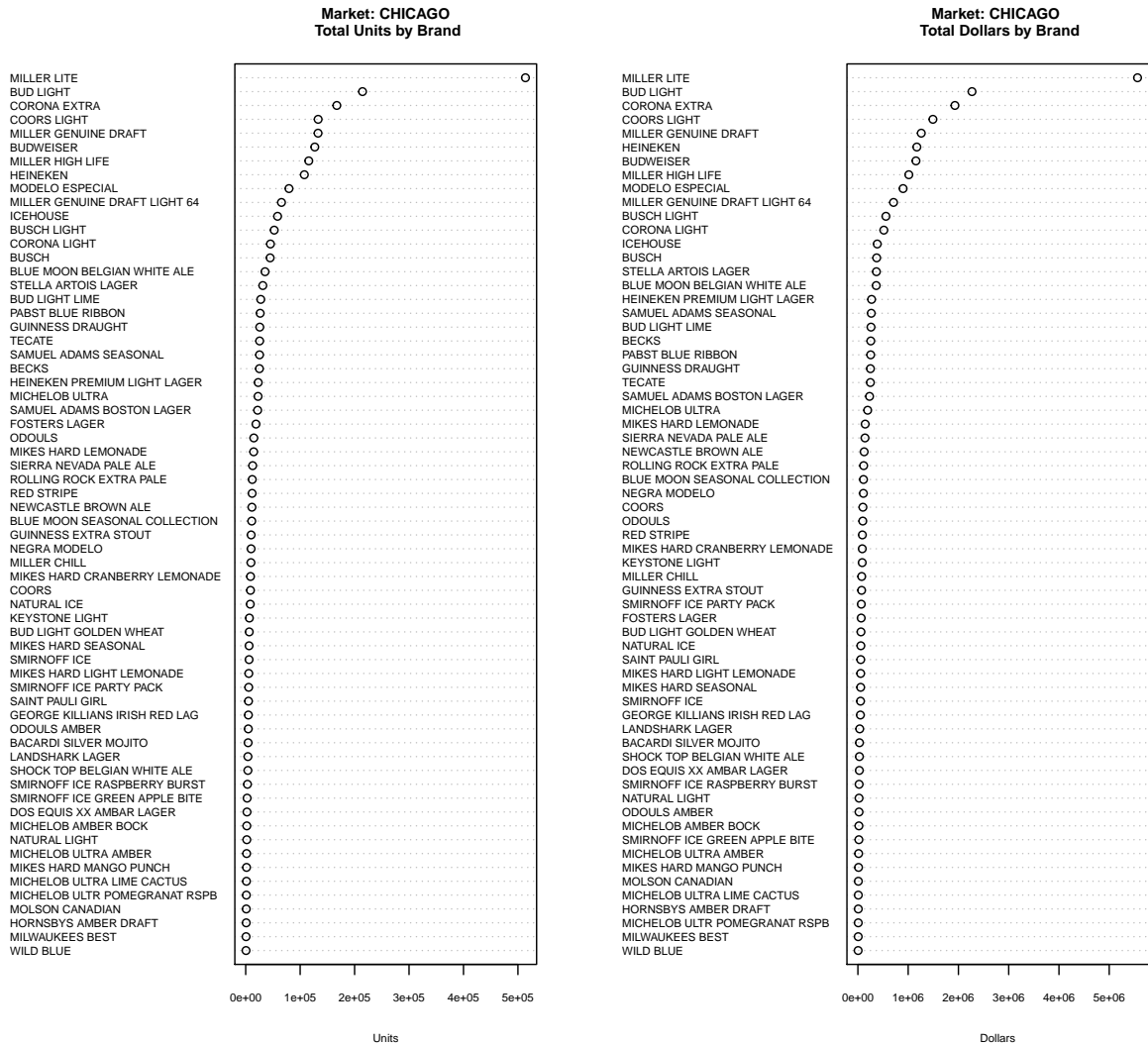
S4.allBrands_2010analysis -

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

Algorithm run time: 0.0078693 minute(s).

S5.aggregate_allBrands_2010 -

CHICAGO



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

Algorithm run time: 0.9122704 minute(s).

prentBrandRep_units: 76.1677326%.

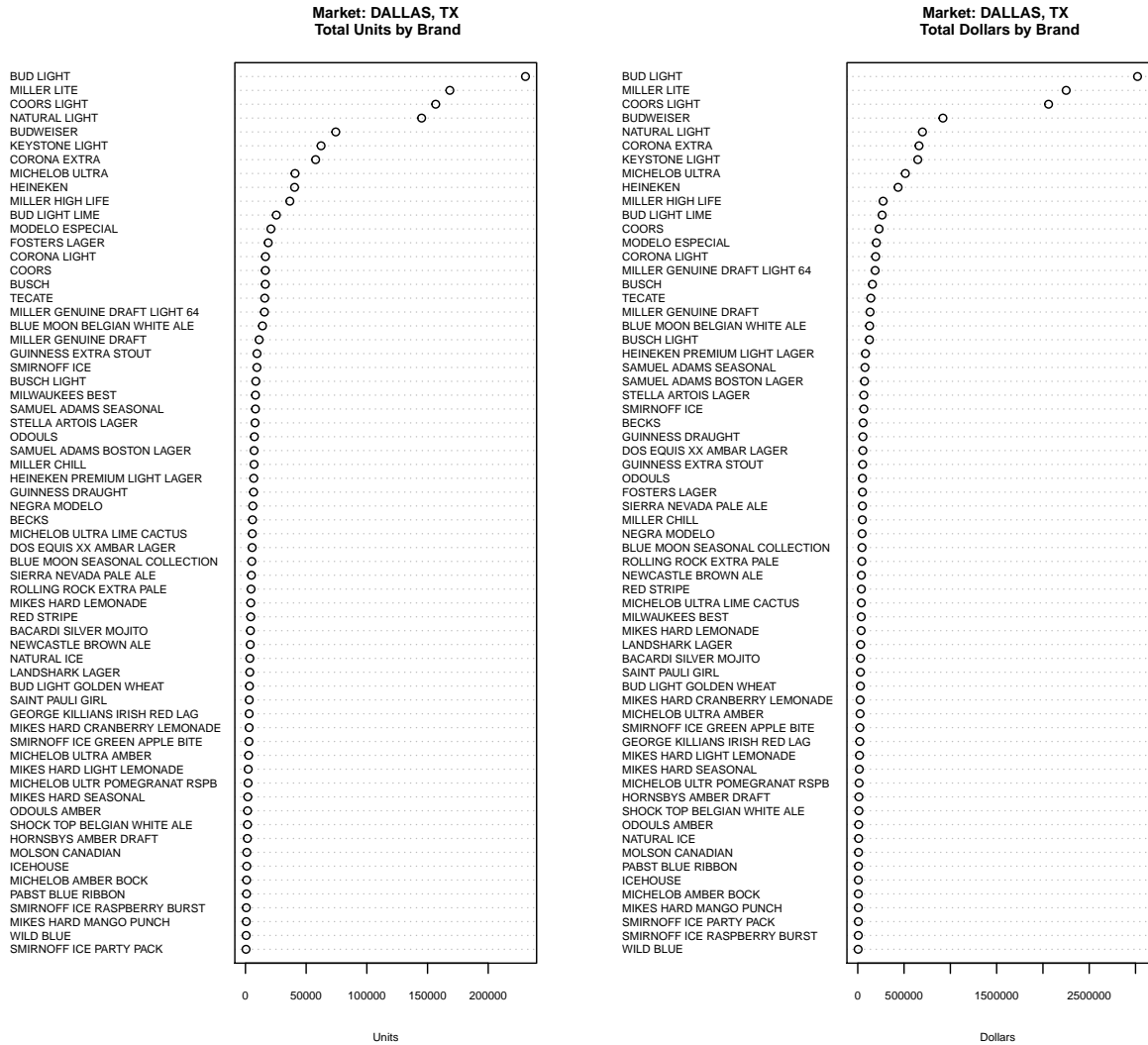
prentBrandRep_dol: 79.7331841%.

prentBrandRep_gal: 83.8276386%.

Table 1: Aggregate Data for CHICAGO

	Units	Dollars	Total Gallons
MILLER LITE	513,772	5,563,092.000	840,811.700
BUD LIGHT	214,515	2,269,587.000	338,383.800
CORONA EXTRA	167,318	1,930,201.000	176,218.300
COORS LIGHT	133,061	1,492,072.000	226,284.400
MILLER GENUINE DRAFT	132,885	1,260,619.000	183,935.400
BUDWEISER	126,866	1,154,622.000	168,268.100
MILLER HIGH LIFE	115,827	1,013,148.000	198,003.600
HEINEKEN	107,693	1,172,538.000	99,689.860
MODELO ESPECIAL	79,514	898,638.800	81,288.750
MILLER GENUINE DRAFT LIGHT 64	65,706	708,916.400	106,581.900
ICEHOUSE	58,526	385,122.300	71,708.310
BUSCH LIGHT	52,330	557,267.300	116,339.800
CORONA LIGHT	45,439	515,927.600	46,569.940
BUSCH	44,881	373,276.500	75,306.190
BLUE MOON BELGIAN WHITE ALE	35,520	364,205.600	29,579.750
STELLA ARTOIS LAGER	31,406	367,912.900	26,216.100
BUD LIGHT LIME	27,644	260,709.800	24,785.860
PABST BLUE RIBBON	26,540	253,936.600	48,990.560
GUINNESS DRAUGHT	25,835	249,137.700	18,565.910
TECATE	25,571	248,155.100	29,058.810
SAMUEL ADAMS SEASONAL	25,401	266,005.100	22,169.170
BECKS	25,206	256,068.800	22,508.440
HEINEKEN PREMIUM LIGHT LAGER	22,964	272,218.000	22,651.880
MICHELOB ULTRA	22,643	194,070.400	24,943.880
SAMUEL ADAMS BOSTON LAGER	21,899	231,142.500	19,720.410
FOSTERS LAGER	18,848	65,355.290	5,778.227
ODOULS	14,893	96,729.460	12,209.620
MIKES HARD LEMONADE	14,618	144,903.900	10,632.120
SIERRA NEVADA PALE ALE	12,767	140,917.500	10,002.280
ROLLING ROCK EXTRA PALE	12,027	114,186.000	12,163.880
RED STRIPE	11,791	88,735.210	6,543.352
NEWCASTLE BROWN ALE	11,416	124,317.400	9,319.461
BLUE MOON SEASONAL COLLECTION	11,083	110,675.700	8,778.375
GUINNESS EXTRA STOUT	9,967	73,609.970	5,361.797
NEGRA MODELO	9,886	108,652.500	8,704.875
MILLER CHILL	9,631	75,513.070	8,915.625
MIKES HARD CRANBERRY LEMONADE	8,858	86,867.060	6,257.680
COORS	8,758	99,598.510	15,621.750
NATURAL ICE	8,375	58,195.680	11,723.060
KEYSTONE LIGHT	6,739	85,668.460	18,833.250
BUD LIGHT GOLDEN WHEAT	6,513	60,730.890	5,654.250
MIKES HARD SEASONAL	6,204	54,444.630	3,879.805
SMIRNOFF ICE	6,177	52,095.940	3,936.711
MIKES HARD LIGHT LEMONADE	5,676	54,972.060	3,882.336
SMIRNOFF ICE PARTY PACK	5,495	67,279.160	5,752.578
SAINT PAULI GIRL	5,103	56,195.110	5,158.500
GEORGE KILLIANS IRISH RED LAG	4,854	49,350.130	4,457.625
ODOULS AMBER	4,712	22,462.290	2,650.500
BACARDI SILVER MOJITO	4,414	31,121.060	2,482.875
LANDSHARK LAGER	4,039	35,863.900	2,977.875
SHOCK TOP BELGIAN WHITE ALE	4,018	29,929.890	2,450.344
SMIRNOFF ICE RASPBERRY BURST	3,219	24,231.180	1,684.945
SMIRNOFF ICE GREEN APPLE BITE	2,583	19,221.260	1,352.039
DOS EQUIS XX AMBAR LAGER	2,361	28,237.740	2,511.562
MICHELOB AMBER BOCK	2,025	19,924.780	2,036.250
NATURAL LIGHT	1,993	22,733.250	5,027.062
MICHELOB ULTRA AMBER	1,679	13,861.680	1,812.938
MIKES HARD MANGO PUNCH	1,510	12,176.940	790.391
MICHELOB ULTRA LIME CACTUS	1,366	7,969.910	768.375
MICHELOB ULTR POMEGRANAT RSPB	1,183	6,954.700	665.438
MOLSON CANADIAN	1,027	8,695.540	1,036.125
HORNSBYS AMBER DRAFT	939	7,490.310	528.188
MILWAUKES BEST	622	5,570.190	1,170.562
WILD BLUE	583	4,426.370	327.938

DALLAS, TX



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

Algorithm run time: 0.8711164 minute(s).

prcntBrandRep_units: 77.3324622%.

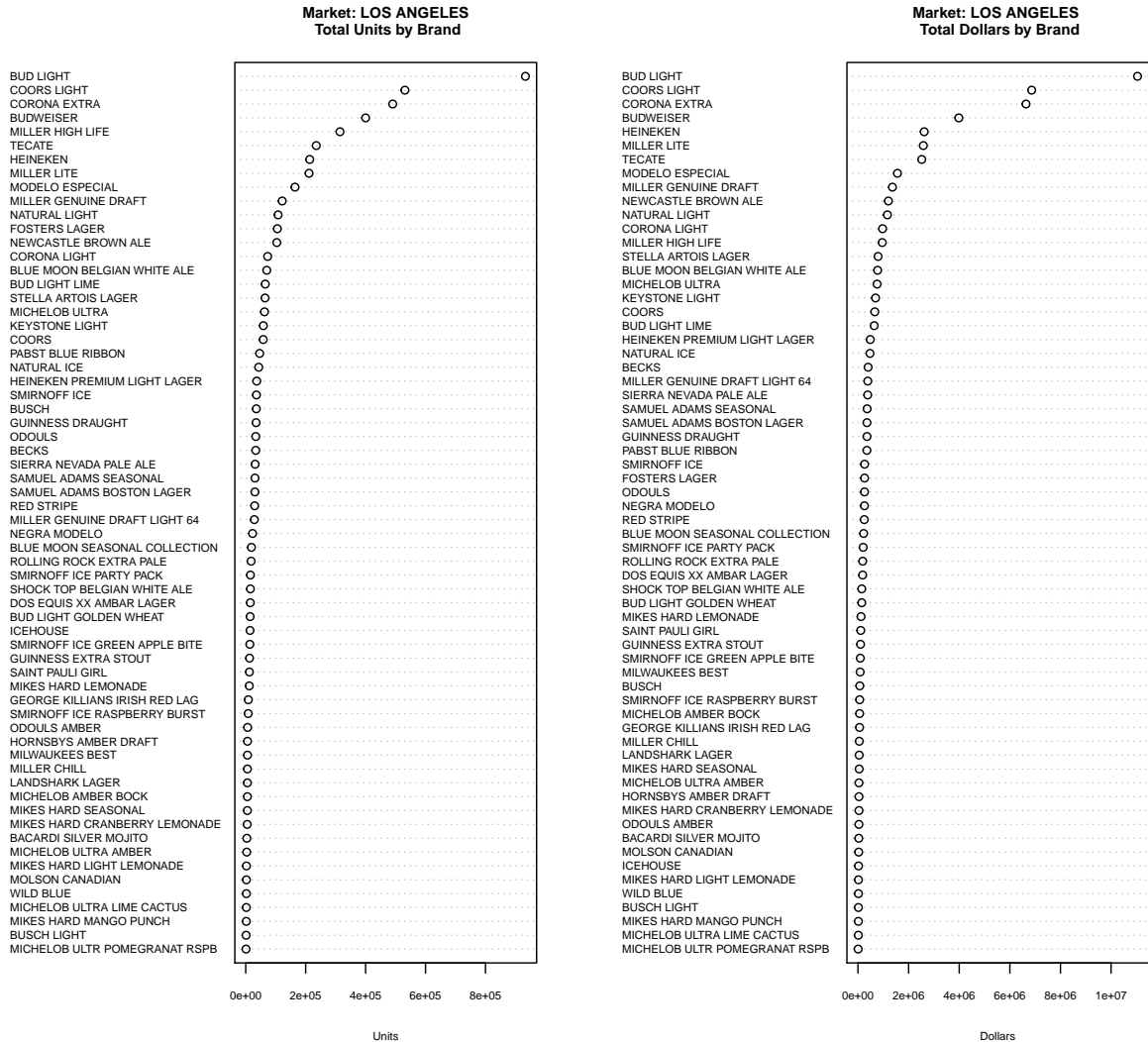
prcntBrandRep_dol: 82.2188882%.

prcntBrandRep_gal: 84.7795074%.

Table 2: Aggregate Data for DALLAS, TX

	Units	Dollars	Total Gallons
BUD LIGHT	230,647	3,021,592.000	328,123.300
MILLER LITE	168,370	2,250,876.000	244,095.200
COORS LIGHT	156,719	2,060,687.000	223,288.600
NATURAL LIGHT	145,116	698,813.300	101,012.200
BUDWEISER	74,386	919,542.100	99,608.090
KEYSTONE LIGHT	62,288	648,020.400	85,787.310
CORONA EXTRA	57,793	661,677.800	50,638.880
MICHELOB ULTRA	40,841	513,799.400	46,778.690
HEINEKEN	40,471	435,514.500	33,137.120
MILLER HIGH LIFE	36,562	273,401.700	34,161.880
BUD LIGHT LIME	25,411	262,896.800	22,486.330
MODELO ESPECIAL	20,950	200,882.400	17,446.590
FOSTERS LAGER	18,721	50,955.690	4,456.195
CORONA LIGHT	16,460	193,162.200	14,916.190
COORS	16,383	229,961.400	25,076.560
BUSCH	16,334	158,208.300	20,229.380
TECATE	15,874	141,073.000	13,134.250
MILLER GENUINE DRAFT LIGHT 64	15,614	187,587.700	19,626.250
BLUE MOON BELGIAN WHITE ALE	14,008	127,876.400	9,937.844
MILLER GENUINE DRAFT	11,251	132,785.300	13,909.880
GUINNESS EXTRA STOUT	9,492	52,869.280	3,407.219
SMIRNOFF ICE	9,440	65,500.840	4,489.664
BUSCH LIGHT	8,534	125,843.400	16,472.440
MILWAUKEES BEST	8,253	37,597.960	5,415.812
SAMUEL ADAMS SEASONAL	8,227	77,807.610	5,782.219
STELLA ARTOIS LAGER	7,881	65,523.040	4,004.609
ODOULS	7,336	50,993.290	4,897.688
SAMUEL ADAMS BOSTON LAGER	7,090	72,688.790	5,604.797
MILLER CHILL	7,047	49,278.320	4,994.438
HEINEKEN PREMIUM LIGHT LAGER	6,806	83,025.990	6,205.523
GUINNESS DRAUGHT	6,659	55,585.960	3,405.695
NEGRA MODELO	6,050	46,833.280	3,396.844
BECKS	5,789	57,791.530	4,397.344
MICHELOB ULTRA LIME CACTUS	5,616	38,365.780	3,170.250
DOS EQUIS XX AMBAR LAGER	5,506	54,953.180	4,402.312
BLUE MOON SEASONAL COLLECTION	5,228	45,797.120	3,488.625
SIERRA NEVADA PALE ALE	4,898	50,276.720	3,702.938
ROLLING ROCK EXTRA PALE	4,613	44,441.660	3,704.062
MIKES HARD LEMONADE	4,370	36,444.970	2,280.578
RED STRIPE	4,353	39,085.900	2,799.156
BACARDI SILVER MOJITO	4,100	29,990.160	2,325.938
NEWCASTLE BROWN ALE	3,945	39,495.270	2,727.375
NATURAL ICE	3,607	9,132.190	1,318.688
LANDSHARK LAGER	3,580	31,177.730	2,155.969
BUD LIGHT GOLDEN WHEAT	3,304	28,691.010	2,390.719
SAINT PAULI GIRL	3,119	28,776.960	2,356.688
GEORGE KILLIANS IRISH RED LAG	3,030	21,832.420	1,750.969
MIKES HARD CRANBERRY LEMONADE	3,022	25,348	1,578.328
SMIRNOFF ICE GREEN APPLE BITE	2,846	22,728.310	1,485.766
MICHELOB ULTRA AMBER	2,602	25,102.310	2,190.375
MIKES HARD LIGHT LEMONADE	2,225	18,622.040	1,163.336
MICHELOB ULTR POMEGRANAT RSPB	2,150	14,673.360	1,209.375
MIKES HARD SEASONAL	1,916	16,117.310	999.406
ODOULS AMBER	1,736	10,077.840	976.500
SHOCK TOP BELGIAN WHITE ALE	1,686	12,269.640	934.781
HORNSBY'S AMBER DRAFT	1,568	12,321.920	882
MOLSON CANADIAN	1,137	7,925.910	633
ICEHOUSE	1,092	6,254.660	757.688
MICHELOB AMBER BOCK	947	6,236.920	532.688
PABST BLUE RIBBON	897	7,262.430	873.375
SMIRNOFF ICE RASPBERRY BURST	703	5,561.530	366.227
MIKES HARD MANGO PUNCH	689	6,149.460	360.648
WILD BLUE	578	3,859.880	268.406
SMIRNOFF ICE PARTY PACK	460	6,113	481.562

LOS ANGELES



Algorithm name: S5.aggregate_allBrands_2010(Market = 'LOS ANGELES',
figurePlot = T,
screenPlot = T,
saveData = T,
out_algoRunTime = T)

Algorithm run time: 0.9552258 minute(s).

prentBrandRep_units: 77.0727747%.

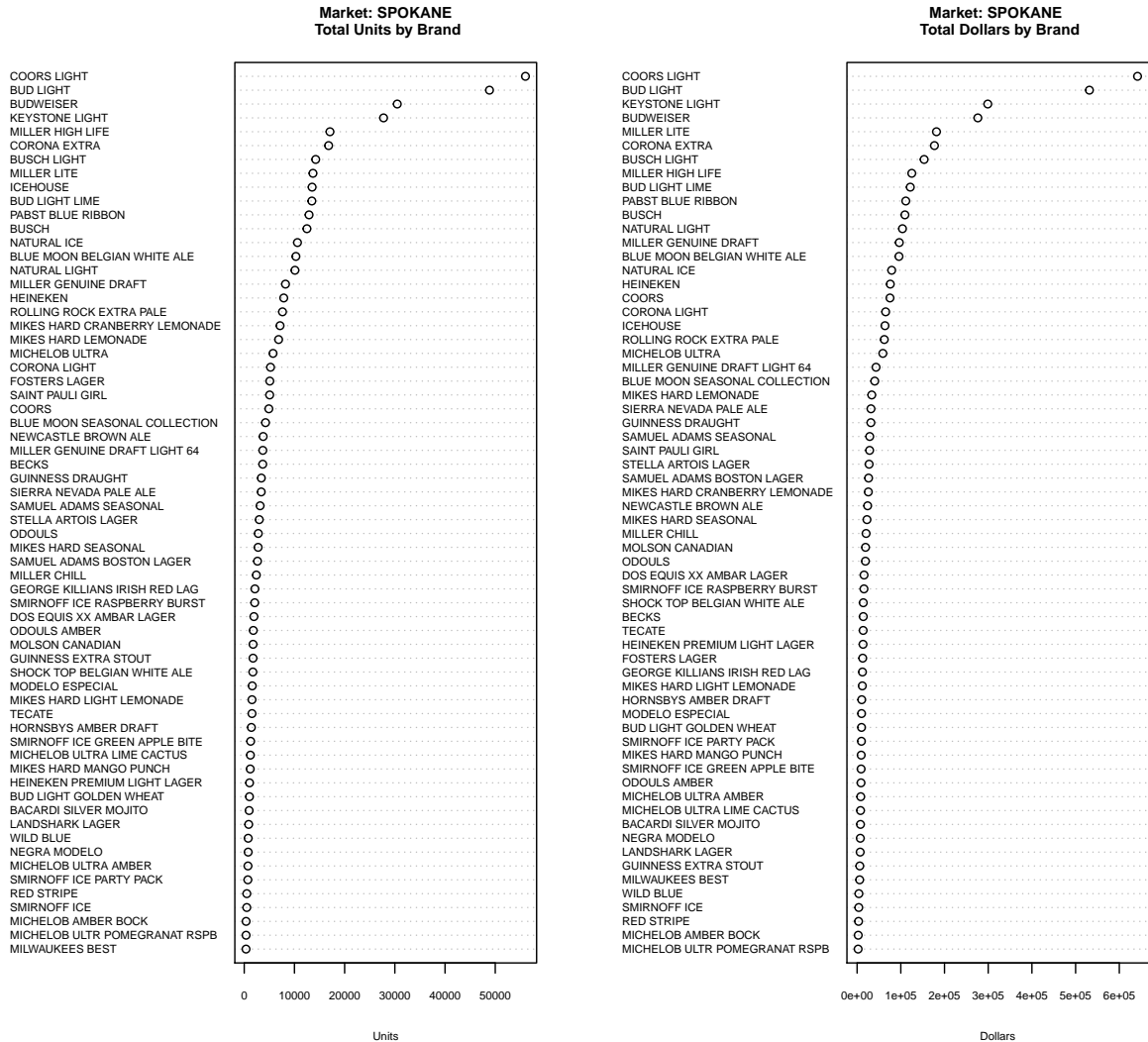
prentBrandRep_dol: 84.7507023%.

prentBrandRep_gal: 87.9963238%.

Table 3: Aggregate Data for LOS ANGELES

	Units	Dollars	Total Gallons
BUD LIGHT	933,273	11,044,113.000	1,488,126.000
COORS LIGHT	531,178	6,862,469.000	915,918.100
CORONA EXTRA	490,471	6,638,813.000	592,693.100
BUDWEISER	399,984	3,984,388.000	527,571.300
MILLER HIGH LIFE	314,480	958,932.000	131,884.500
TECATE	235,428	2,520,045.000	335,289.400
HEINEKEN	213,422	2,615,650.000	227,537.200
MILLER LITE	211,346	2,583,771.000	340,688.900
MODELO ESPECIAL	164,422	1,560,729.000	144,407.400
MILLER GENUINE DRAFT	121,677	1,362,895.000	173,424.800
NATURAL LIGHT	107,991	1,162,148.000	206,199.800
FOSTERS LAGER	105,524	260,504.900	24,028.620
NEWCASTLE BROWN ALE	103,674	1,201,987.000	96,043.090
CORONA LIGHT	73,293	973,378.100	80,844.940
BLUE MOON BELGIAN WHITE ALE	70,158	776,619.400	57,618.120
BUD LIGHT LIME	65,087	640,553	59,940.750
STELLA ARTOIS LAGER	64,439	793,741.700	54,995.850
MICHELOB ULTRA	62,634	756,570.200	81,132.280
KEYSTONE LIGHT	58,782	694,769.600	125,996.200
COORS	58,329	665,554.600	91,456.120
PABST BLUE RIBBON	46,375	353,214.200	50,669.190
NATURAL ICE	43,407	474,134.100	81,592.310
HEINEKEN PREMIUM LIGHT LAGER	36,777	485,565.300	41,433.360
SMIRNOFF ICE	35,864	262,449.900	19,023.310
BUSCH	35,405	72,611.990	10,613.440
GUINNESS DRAUGHT	34,665	356,564.000	23,279.610
ODOULS	33,550	258,847.900	25,107.280
BECKS	33,409	401,124.900	35,138.840
SIERRA NEVADA PALE ALE	31,443	385,096.900	27,818.750
SAMUEL ADAMS SEASONAL	30,795	362,257.800	28,514.920
SAMUEL ADAMS BOSTON LAGER	30,604	356,609.600	28,636.970
RED STRIPE	29,814	248,391.600	18,080.850
MILLER GENUINE DRAFT LIGHT 64	28,742	389,838.900	46,699.970
NEGRA MODELO	22,930	255,060.000	19,454.440
BLUE MOON SEASONAL COLLECTION	18,976	223,289.900	15,912
ROLLING ROCK EXTRA PALE	17,992	188,437	17,301.190
SMIRNOFF ICE PARTY PACK	15,652	205,986.900	16,385.690
SHOCK TOP BELGIAN WHITE ALE	15,596	150,618.400	11,324.720
DOS EQUIS XX AMBAR LAGER	15,316	186,171.900	16,175.250
BUD LIGHT GOLDEN WHEAT	14,729	149,589.000	13,220.250
ICEHOUSE	14,312	22,330.540	2,683.500
SMIRNOFF ICE GREEN APPLE BITE	13,861	91,766.490	6,168.273
GUINNESS EXTRA STOUT	12,665	101,338.400	6,372.109
SAINT PAULI GIRL	12,231	109,166.800	10,301.620
MIKES HARD LEMONADE	11,916	121,208.000	8,425.773
GEORGE KILLIANS IRISH RED LAG	8,653	61,160.790	4,867.312
SMIRNOFF ICE RASPBERRY BURST	8,311	65,694.020	4,350.289
ODOULS AMBER	6,201	37,480.500	3,488.062
HORNSBYS AMBER DRAFT	5,875	40,276.980	3,302.812
MILWAUKEES BEST	5,754	86,107.480	15,879.380
MILLER CHILL	5,662	52,744.740	5,300.438
LANDSHARK LAGER	5,495	49,040.460	3,534.188
MICHELOB AMBER BOCK	5,456	63,777.220	5,563.688
MIKES HARD SEASONAL	5,388	48,953.930	3,267.820
MIKES HARD CRANBERRY LEMONADE	4,832	40,218.300	2,525.750
BACARDI SILVER MOJITO	3,671	31,979.470	2,062.125
MICHELOB ULTRA AMBER	3,448	40,523.820	3,794.062
MIKES HARD LIGHT LEMONADE	2,345	18,694.980	1,227.461
MOLSON CANADIAN	2,208	27,934.240	2,476.781
WILD BLUE	2,184	18,492.020	1,228.500
MICHELOB ULTRA LIME CACTUS	2,037	14,164.510	1,145.812
MIKES HARD MANGO PUNCH	1,821	15,009.590	953.180
BUSCH LIGHT	1,199	16,722.410	2,918.438
MICHELOB ULTR POMEGRANAT RSPB	1,005	6,578.160	565.312

SPOKANE



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

Algorithm run time: 0.882471 minute(s).

prcntBrandRep_units: 61.4910462%.

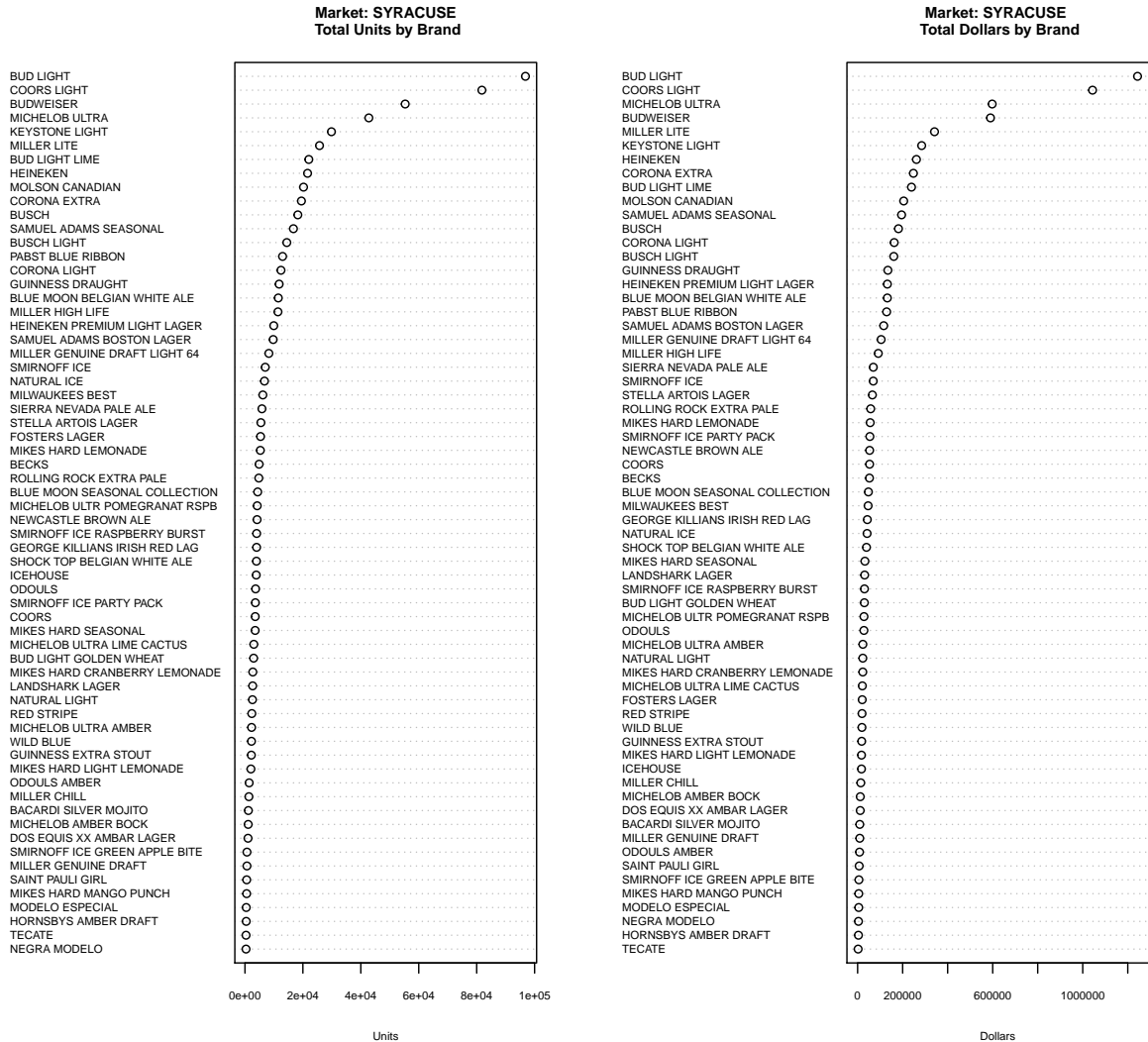
prcntBrandRep_dol: 69.8887363%.

prcntBrandRep_gal: 74.1680487%.

Table 4: Aggregate Data for SPOKANE

	Units	Dollars	Total Gallons
COORS LIGHT	56,013	641,680.700	72,566.090
BUD LIGHT	48,851	531,569.100	60,305.340
BUDWEISER	30,483	276,267.600	31,425.750
KEYSTONE LIGHT	27,751	298,988.600	44,466
MILLER HIGH LIFE	17,076	125,104.900	17,866.120
CORONA EXTRA	16,807	176,937.800	13,516.040
BUSCH LIGHT	14,232	153,372.800	23,105.250
MILLER LITE	13,690	181,572.900	20,699
ICEHOUSE	13,522	63,803.330	9,336.188
BUD LIGHT LIME	13,469	121,681.900	10,321.250
PABST BLUE RIBBON	12,913	111,374.300	15,368.880
BUSCH	12,486	109,394.600	16,257.940
NATURAL ICE	10,601	79,109.330	12,360.190
BLUE MOON BELGIAN WHITE ALE	10,288	95,753.140	7,789.234
NATURAL LIGHT	10,101	103,825.000	16,290.940
MILLER GENUINE DRAFT	8,219	96,520.740	10,687.310
HEINEKEN	7,870	75,921.290	5,530.336
ROLLING ROCK EXTRA PALE	7,622	62,192.010	6,918.938
MIKES HARD CRANBERRY LEMONADE	7,131	25,698.610	1,792.562
MIKES HARD LEMONADE	6,846	33,523.130	2,334.562
MICHELOB ULTRA	5,736	58,955.020	5,577.281
CORONA LIGHT	5,238	65,326.020	5,056.500
FOSTERS LAGER	5,091	12,825.840	1,093.320
SAINT PAULI GIRL	5,067	28,581.980	2,495.062
COORS	4,900	75,205.940	8,811.094
BLUE MOON SEASONAL COLLECTION	4,237	40,303.640	3,298.500
NEWCASTLE BROWN ALE	3,769	24,089.980	1,535.812
MILLER GENUINE DRAFT LIGHT 64	3,701	43,277.480	4,734.562
BECKS	3,685	14,124.870	1,075.688
GUINNESS DRAUGHT	3,405	31,504.500	1,975.547
SIERRA NEVADA PALE ALE	3,387	31,707.800	2,396.719
SAMUEL ADAMS SEASONAL	3,161	28,832.400	2,335.406
STELLA ARTOIS LAGER	2,992	27,464.100	1,632.453
ODOULS	2,796	19,019.730	2,224.125
MIKES HARD SEASONAL	2,763	22,548.930	1,512.453
SAMUEL ADAMS BOSTON LAGER	2,639	26,265.560	2,150.031
MILLER CHILL	2,408	20,568.510	1,874.344
GEORGE KILLIANS IRISH RED LAG	2,123	12,242.600	1,193.250
SMIRNOFF ICE RASPBERRY BURST	2,087	15,663.500	1,088.477
DOS EQUIS XX AMBAR LAGER	1,927	15,904.560	1,251.844
ODOULS AMBER	1,803	8,899.880	1,000.125
MOLSON CANADIAN	1,758	19,262.500	1,955.812
GUINNESS EXTRA STOUT	1,751	6,097.450	367.750
SHOCK TOP BELGIAN WHITE ALE	1,716	14,129.920	1,075.500
MODELO ESPECIAL	1,597	10,171.290	799.125
MIKES HARD LIGHT LEMONADE	1,545	11,943.320	803.461
TECATE	1,544	13,789.440	1,366.688
HORNSBYS AMBER DRAFT	1,421	10,560.620	797.906
SMIRNOFF ICE GREEN APPLE BITE	1,278	9,146.590	630.891
MICHELOB ULTRA LIME CACTUS	1,228	7,798.130	684.656
MIKES HARD MANGO PUNCH	1,197	9,338.940	614.305
HEINEKEN PREMIUM LIGHT LAGER	1,060	13,532.240	1,041.016
BUD LIGHT GOLDEN WHEAT	1,041	10,091.920	846.094
BACARDI SILVER MOJITO	977	7,688.420	544.875
LANDSHARK LAGER	885	7,032.150	498.938
WILD BLUE	787	4,062.830	279.562
NEGRA MODELO	783	7,343.640	524.812
MICHELOB ULTRA AMBER	741	8,279.850	806.062
SMIRNOFF ICE PARTY PACK	720	9,868.300	753.750
RED STRIPE	513	3,299.790	228.859
SMIRNOFF ICE	506	3,781.580	263.109
MICHELOB AMBER BOCK	371	2,548.270	207.750
MICHELOB ULTR POMEGRANAT RSPB	366	2,330.240	205.875
MILWAUKEES BEST	356	5,807.180	930.375

SYRACUSE



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

Algorithm run time: 0.8963648 minute(s).

prentBrandRep_units: 52.0235862%.

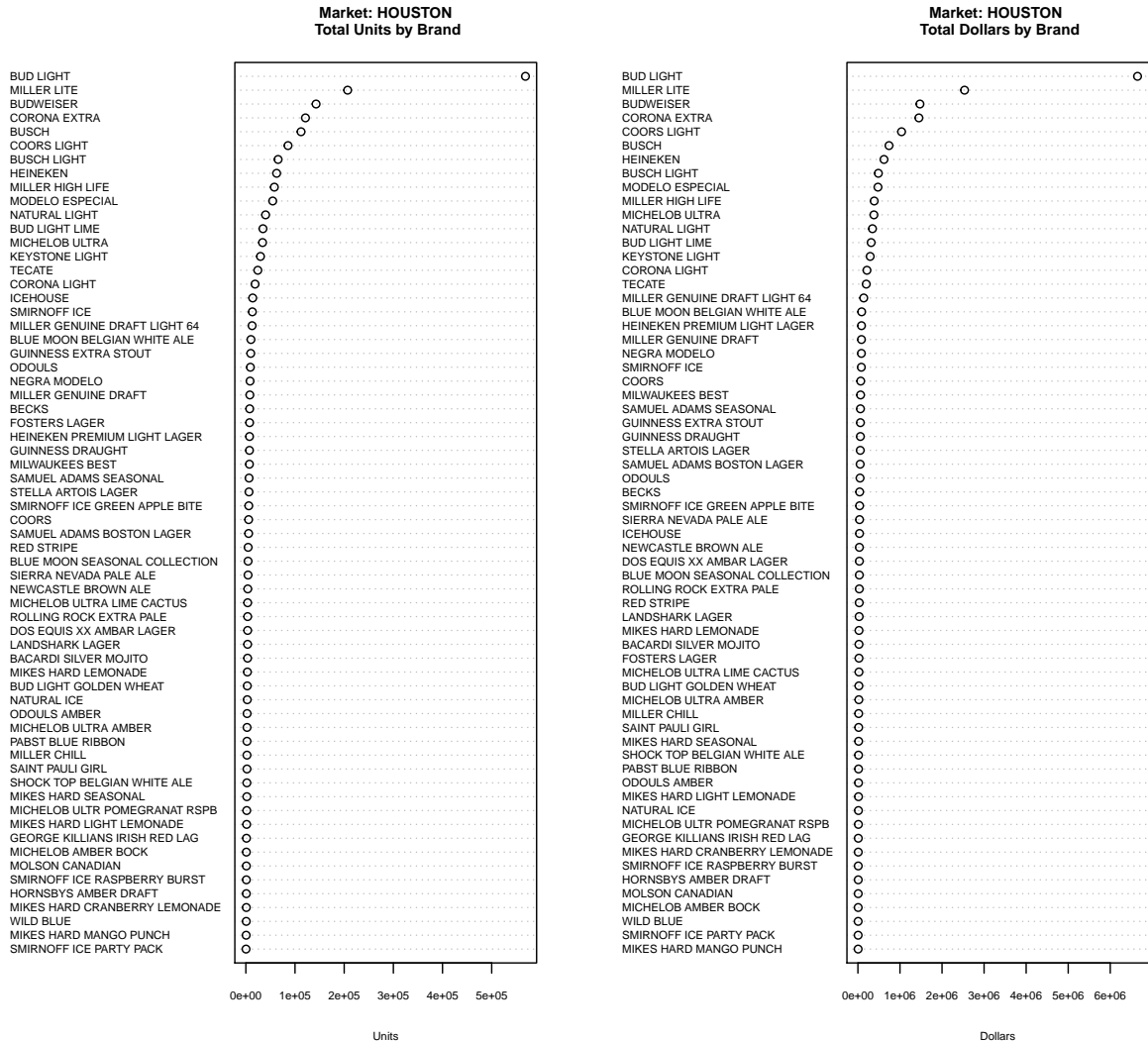
prentBrandRep_dol: 55.7704034%.

prentBrandRep_gal: 58.1498739%.

Table 5: Aggregate Data for SYRACUSE

	Units	Dollars	Total Gallons
BUD LIGHT	96,830	1,243,365.000	160,695.500
COORS LIGHT	81,795	1,043,463.000	134,755.100
BUDWEISER	55,324	590,187.400	74,987.730
MICHELOB ULTRA	42,767	597,750.800	72,457.310
KEYSTONE LIGHT	29,856	284,593.800	49,503.560
MILLER LITE	25,736	341,540.800	43,613.880
BUD LIGHT LIME	22,043	239,342.600	21,250.610
HEINEKEN	21,610	261,264.200	19,587.850
MOLSON CANADIAN	20,218	204,751.100	25,389.190
CORONA EXTRA	19,489	247,840.600	18,734.390
BUSCH	18,246	181,409.400	31,123.500
SAMUEL ADAMS SEASONAL	16,728	195,356.700	14,121.560
BUSCH LIGHT	14,439	160,666.500	27,402.190
PABST BLUE RIBBON	12,991	129,009.700	21,201.940
CORONA LIGHT	12,430	162,460.800	12,432.750
GUINNESS DRAUGHT	11,805	134,443.100	8,455.023
BLUE MOON BELGIAN WHITE ALE	11,504	131,967.500	9,503.359
MILLER HIGH LIFE	11,384	91,800.760	14,903.250
HEINEKEN PREMIUM LIGHT LAGER	9,945	132,135.500	9,942.914
SAMUEL ADAMS BOSTON LAGER	9,744	115,843.600	8,392.719
MILLER GENUINE DRAFT LIGHT 64	8,248	104,513.200	12,785.810
SMIRNOFF ICE	6,993	69,465.280	4,635.109
NATURAL ICE	6,730	42,114.980	7,247.062
MILWAUKEES BEST	6,172	46,675.370	8,093.062
SIERRA NEVADA PALE ALE	5,859	69,733.530	4,861.688
STELLA ARTOIS LAGER	5,501	65,567.460	4,268.430
FOSTERS LAGER	5,381	20,462.040	1,842.078
MIKES HARD LEMONADE	5,309	55,887.820	3,632.133
BECKS	4,888	52,609.910	3,868.125
ROLLING ROCK EXTRA PALE	4,788	58,027.380	7,792.875
BLUE MOON SEASONAL COLLECTION	4,391	47,945.620	3,401.438
MICHELOB ULTR POMEGRANAT RSPB	4,228	28,299.790	2,378.250
NEWCASTLE BROWN ALE	4,176	53,350.120	3,782.125
SMIRNOFF ICE RASPBERRY BURST	4,035	30,362.110	1,921.930
GEORGE KILLIANS IRISH RED LAG	4,015	43,140.780	3,557.250
SHOCK TOP BELGIAN WHITE ALE	3,965	39,345.130	2,958.188
ICEHOUSE	3,893	17,182.430	2,921.812
ODOULS	3,672	27,937.490	2,737.125
SMIRNOFF ICE PARTY PACK	3,593	54,428.570	3,761.422
COORS	3,545	53,222.670	7,093.688
MIKES HARD SEASONAL	3,521	32,364.860	2,050.305
MICHELOB ULTRA LIME CACTUS	3,057	21,090.590	1,809
BUD LIGHT GOLDEN WHEAT	2,994	29,987.950	2,605.344
MIKES HARD CRANBERRY LEMONADE	2,711	23,005.990	1,428.461
LANDSHARK LAGER	2,658	31,181.320	2,232
NATURAL LIGHT	2,588	23,089.520	3,804.938
RED STRIPE	2,363	19,662.360	1,259.344
MICHELOB ULTRA AMBER	2,288	23,299.450	2,390.625
WILD BLUE	2,241	19,206.630	1,260.562
GUINNESS EXTRA STOUT	2,201	18,151.120	1,056.031
MIKES HARD LIGHT LEMONADE	2,049	17,311.110	1,072.523
ODOULS AMBER	1,452	8,597.250	816.750
MILLER CHILL	1,359	14,109.880	1,193.625
BACARDI SILVER MOJITO	1,169	9,556.760	657.562
MICHELOB AMBER BOCK	1,110	11,847.650	1,116.562
DOS EQUIS XX AMBAR LAGER	1,053	11,654.270	928.688
SMIRNOFF ICE GREEN APPLE BITE	689	5,807.210	360.648
MILLER GENUINE DRAFT	683	9,531.710	1,170
SAINT PAULI GIRL	592	6,959.420	494.438
MIKES HARD MANGO PUNCH	576	5,034.740	301.500
MODELO ESPECIAL	442	4,944.260	364.875
HORNSBYS AMBER DRAFT	435	3,591.390	244.688
TECATE	369	2,303.610	207.562
NEGRA MODELO	366	3,732.660	268.312

HOUSTON



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

Algorithm run time: 0.8921142 minute(s).

prcntBrandRep_units: 77.1096518%.

prcntBrandRep_dol: 83.1338586%.

prcntBrandRep_gal: 85.769397%.

Table 6: Aggregate Data for Houston

	Units	Dollars	Total Gallons
BUD LIGHT	568,615	6,648,270.000	819,202.500
MILLER LITE	207,002	2,535,238.000	307,115.100
BUDWEISER	142,821	1,474,614.000	179,448.200
CORONA EXTRA	121,224	1,449,822.000	117,866.200
BUSCH	112,271	739,350.000	121,427.600
COORS LIGHT	85,751	1,037,365.000	124,484.800
BUSCH LIGHT	65,564	486,107.200	80,540.060
HEINEKEN	62,623	619,662.300	48,044.940
MILLER HIGH LIFE	57,934	387,574.600	60,986.380
MODELO ESPECIAL	54,627	476,442.700	45,364.780
NATURAL LIGHT	40,125	345,811.300	57,958.120
BUD LIGHT LIME	34,793	314,803.000	27,856.880
MICHELOB ULTRA	33,970	380,596.900	35,672.950
KEYSTONE LIGHT	29,738	291,550.500	48,397.310
TECATE	24,321	198,085.800	20,860.060
CORONA LIGHT	18,749	214,596.800	17,055.840
ICEHOUSE	13,928	37,801.040	5,670.500
SMIRNOFF ICE	13,202	81,316.830	5,606.242
MILLER GENUINE DRAFT LIGHT 64	12,700	137,852.100	15,750.940
BLUE MOON BELGIAN WHITE ALE	10,355	88,926.640	6,883.641
GUINNESS EXTRA STOUT	9,948	59,131.200	3,823.516
ODOULS	9,206	50,642.470	5,211.562
NEGRA MODELO	8,565	82,465.520	6,562.219
MILLER GENUINE DRAFT	8,117	84,012.200	9,575.250
BECKS	7,770	41,032.640	3,097.781
FOSTERS LAGER	7,615	24,995.630	1,878.367
HEINEKEN PREMIUM LIGHT LAGER	7,443	84,939.450	6,487.086
GUINNESS DRAUGHT	7,332	58,156.210	3,598.508
MILWAUKEES BEST	7,238	62,988.730	10,644.560
SAMUEL ADAMS SEASONAL	6,529	59,510.100	4,410.375
STELLA ARTOIS LAGER	6,356	56,153.870	3,369.242
SMIRNOFF ICE GREEN APPLE BITE	5,932	39,686.330	2,703.922
COORS	5,644	66,443.430	7,796.812
SAMUEL ADAMS BOSTON LAGER	5,628	53,283.880	4,148.859
RED STRIPE	4,619	31,545.600	2,125.117
BLUE MOON SEASONAL COLLECTION	4,469	34,021.330	2,588.625
SIERRA NEVADA PALE ALE	4,451	38,543.970	2,802.188
NEWCASTLE BROWN ALE	3,889	34,884.040	2,444.867
MICHELOB ULTRA LIME CACTUS	3,690	24,520.940	2,057.344
ROLLING ROCK EXTRA PALE	3,688	33,206.830	2,748.938
DOS EQUIS XX AMBAR LAGER	3,656	34,722.020	2,812.969
LANDSHARK LAGER	3,578	29,592.160	2,230.781
BACARDI SILVER MOJITO	3,514	25,376.270	1,977.750
MIKES HARD LEMONADE	3,140	25,487.810	1,635.328
BUD LIGHT GOLDEN WHEAT	2,904	23,349.070	1,973.812
NATURAL ICE	2,857	12,256.690	2,149.875
ODOULS AMBER	2,555	13,942.340	1,437.188
MICHELOB ULTRA AMBER	2,422	21,924.670	1,976.438
PABST BLUE RIBBON	2,293	14,091.260	1,949.812
MILLER CHILL	2,268	17,399.370	1,610.156
SAINT PAULI GIRL	2,253	17,236.800	1,321.406
SHOCK TOP BELGIAN WHITE ALE	2,068	14,104.920	1,069.500
MIKES HARD SEASONAL	2,032	16,700.830	1,063.625
MICHELOB ULTR POMEGRANAT RSPB	1,791	11,327.370	959.625
MIKES HARD LIGHT LEMONADE	1,601	13,223.940	838.023
GEORGE KILLIANS IRISH RED LAG	1,257	9,111.630	630.656
MICHELOB AMBER BOCK	1,038	6,224.730	541.688
MOLSON CANADIAN	1,035	6,910.900	582.188
SMIRNOFF ICE RASPBERRY BURST	1,020	7,784.490	533.906
HORNSBYS AMBER DRAFT	991	7,689.980	556.969
MIKES HARD CRANBERRY LEMONADE	961	7,920.200	503.023
WILD BLUE	806	5,464.540	356.344
MIKES HARD MANGO PUNCH	600	5,080.090	314.062
SMIRNOFF ICE PARTY PACK	350	5,227.420	366.406