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OJ DEMAND ESTIMATES BY REGION

BY

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OJ Demand Estimates By Region

Summary:

OJ gallons sales for the last 52 weeks (week ending 10/30/99) are down 3.1%, compared to the previous 52 week period, due to higher OJ prices. Based on demand estimates of this study, U.S. OJ gallons sales would have been 1.6% higher than the previous 52 week sales volume, if OJ prices had not increased. Estimates of OJ demand, by region, indicate that the growth in OJ gallon sales in some cities, prices constant, is as high as 9%. These demand growth estimates, with prices constant, reflect the aggregate impact of advertising, population, income and other non-price variables. Advertising is expected to be an important factor underlying the growth rate estimates of this study, based on previous research. This report also examines per capita gallon sales by city and the impact of income on OJ demand.

Note:

After this research was largely complete, data on OJ advertising was received. These data were incorporated into the demand analysis (OJ gallons were regressed on advertising, OJ and GJ prices and a time trend). The results support the initial analysis that follows. At the end of this report, specific results on advertising are presented.

Products, Regions and Time Period:

The OJ demand for three product forms---NFC, RECON and FCOJ---and 52 regions (50 cities, remaining U.S. and total U.S.) was studied. ACNielsen data for the last 124 weeks (week ending 6/21/97 through week ending 10/30/99) were used.

Demand Relationships:

Gallon sales for each product form was modeled as a function of prices and a time trend, by region. Income was not included in this analysis as a time series on this variable by region was not available. However, in a separate analysis of OJ demand by region but not over time, the impact of income on demand was examined. Also, data on income over time for the entire U.S. was related to OJ demand.

Prices:

The prices of NFC-OJ, RECON-OJ and FCOJ, along with the price of GJ, were included in the model.

Population and Income Approximated by Time:

Population and income were not included in the analysis of the regional and weekly data as observations on these variables were not available---population and income were available by city, but not by week. To the extent population and income tended to smoothly increase over this period by region, as in the case for the entire U.S., the trend variable included in the model would be expected to capture the effects of these variables.

Advertising:

The trend variable was also assumed to capture the impact of advertising. Advertising has both present and lagged effects, and separating these effects from the time trend over such a relatively short period as studied is problematic.

Seasonality:

Seasonality was accounted for by 52 differencing the data---comparing a week in one year with the same week in the previous year.

Formal Demand Relationship:

Weekly demand for some city, for some product form can be written as

$$(1) \quad \log(q) = \beta_0 + \beta_1(\text{time}) + \beta_2 \log(\text{NFC Price}) + \beta_3 \log(\text{RECON Price}) \\ + \beta_4 \log(\overset{\text{FCOJ}}{\text{RECON Price}}) + \beta_5 \log(\text{GJ Price})$$

or, in 52 differences,

$$(2) \quad \text{dlog}(q) = \beta^*_1 + \beta_2 \text{dlog}(\text{NFC Price}) + \beta_3 \text{dlog}(\text{RECON Price}) \\ + \beta_4 \text{dlog}(\overset{\text{FCOJ}}{\text{RECON Price}}) + \beta_5 \text{dlog}(\text{GJ Price})$$

where q is gallon sales; $\beta^*_1 = \beta_1 \times 52$; β_2 through β_5 are price elasticities.; and $\text{dlog } z = \log(z_t) - \log(z_{t-52})$ for general variable z , where the subscript t stands for time (week). The term $\text{dlog } z$ is a measure of the percentage change in variable z , with z standing for q and the four price variables. Hence, the price elasticities β_2 through β_5 indicate the percentage change in demand for a one percent change in the price in question. Likewise, the parameter β^*_1 is the underlying annual growth rate, indicating the percentage change in demand over time when all prices are constant. A main objective of this is to estimate the growth rate.

Regression Results:

156 equations were estimated---52 regions (50 cities, the remaining U.S. and the aggregate U.S.)

times three product forms (NFC, RECON and FCOJ). Most of the R-squares were in the .40 to .70 range with the highest being .91 and the lowest being .16. Five coefficients (NFC, RECON, FCOJ and GJ price coefficients and the trend coefficient) were estimated per equation for a total of 780 coefficient estimates. About 60 percent of these coefficient estimates were statistically different than zero at the 10 % level of significance. All own-price coefficients were statistically significant.

Demand Growth (Prices Constant) Versus Actual Changes in Demand (Price Up):

Exhibit 1a shows actual percentage changes in demand and estimates of the growth in demand with prices constant, by city, ranked by the actual percentage change in demand. The estimated demand growth rates reflect the effects of advertising, population, income and other variables not captured by the price variables of the model. Exhibit 1b is the same as 1a except the ranking is now by the estimated demand growth rate. Note that for each region the actual percentage change in OJ demand (NFC+RECON+FCOJ) is lower than the estimated demand growth rate. This result occurred because prices were up, stifling demand. The price increases are shown in Exhibits 2a and 2b. Estimated own-price elasticities are also shown in these exhibits.

Price Elasticity Estimates:

The estimates of equation (1), which underlie the results in Exhibits 1a and 1b are shown in Exhibits 3 through 5. These exhibits again show the growth rates and own-price elasticities. Additionally, these exhibits show the cross-price elasticities. Note that all the own-price elasticities are negative (the law of demand---as price goes up quantity demanded goes down) and most cross- prices elasticities are positive, indicating substitution between OJ product forms, as well as GJ (as the substitute price goes up the demand for the product in question goes up).

Price Substitution Effects:

For example, for NFC demand in Albany, the price elasticities for the NFC, RECON and FCOJ prices were -1.16, .32 and .39, respectively; the corresponding percentage changes in prices for NFC, RECON and FCOJ were 8.8%, 5.8% and 7.1% (Exhibits 1b or 2b). Hence the predicted percentage change in NFC demand in Albany due to these price changes would be $-1.16 \times 8.8\% + .32 \times 5.8\% + .39 \times 7.1\% = -\%5.6$.

Demand for the U.S.:

It should be noted that the demand results for the total U.S. are generally like the results for the different cities---elasticities are roughly similar and higher prices have stifled demand whether one focuses on the cities or the total U.S. results.

Per Capita Gallon Sales:

Per capita gallon sales for the different product categories, by city are shown in Exhibits 6a and 6b. Exhibit 6a (6b) ranks the cities by per capita total OJ gallons sales (per capita NFC-OJ gallons sales).

Per Capita OJ Sales Related to Prices and Income:

Table 6c and 6d show per capita data by four regions---Northeast, South, Midwest and West. These data show that per capita NFC gallon sales are highest in the Northeast because, in part, NFC prices are lowest and per capita income is highest there. In contrast, per capita FCOJ gallon sales are highest in the West because, in part, FCOJ prices are lowest and per capita income is lowest there. Per capita NFC, RECON and FCOJ demand relationships, estimated from the city data in Table 6c, are shown in Table 7. These data show that per capita income had a positive, significant effect on NFC demand, a negative, significant effect on FCOJ, and an insignificant effect on RECON demand.

Income:

The results in Table 7 are based on city data for the last 52 week period (51 observations: an

observation on each of the 50 cities and an observation on the remaining U.S.). The impact of income on OJ demand was also analyzed using data for the last decade for the U.S. by week. The results for this analysis are shown in Exhibit 8 and 9. Exhibit 8 shows real per capita income changes for the total U.S.; while Exhibit 9 shows income elasticity estimates for U.S. OJ demand, and impacts of income on demand. These tables indicate that income has been increasing in recent years which has positively affected NFC demand but negatively affected FCOJ demand; the impact on RECON is negative but relatively small and statistically insignificant. These results support ACNielsen panel data showing a positive relationship between different household income levels and corresponding OJ consumption levels.

Income Impact Implied From Panel Data:

It should be noted that implied impacts of income (or any other variable) on OJ demand, based on the panel data, may be in error. These impacts are based on mean OJ volumes for different income categories. Such means may not reveal the true relationship between income and OJ volume sales.

For example, assume the following data by age and income.

Age Group	Number of Households			OJ Volume Sales		
	Low	High	Total	Low	High	Avg
Young	90	10	100	10.0	9.0	9.9
Old	10	90	100	20.0	18.0	18.2
Total/Avg	100	100	200	11.0	17.1	

These data show that on (weighted) average OJ volume sales increase with income which is just the opposite of the actual income effect which varies with age. The increase in average OJ sales by

income group is due to the increase in OJ sales due to age and the distribution of households across the age-income groups, i.e., in this example, age is driving sales, not income. Such confounding of effects may occur with other partitions of the data with respect to other demographic variables.

Advertising Results:

After this research was largely complete, data on OJ advertising was received. These data were incorporated into the demand analysis. OJ gallons were regressed on advertising, OJ and GJ prices and a time trend, by city, by OJ product form. For many of the cities and product forms, the regression results did not support the expected positive relationship between OJ gallon sales and advertising---for these regressions, no relationship or a negative relationship between sales and advertising was estimated. See Table 10 which summarizes the gallon sales and advertising data, and estimated advertising elasticities.

However, the percentage change in advertising (for the most recent 52 week for which advertising data were available), by city, was positively correlated with the estimated demand growth rates (reported above), by product form (Table 11). That is, these results support the conjecture that the previously discussed demand growth are in part due to advertising.

Exhibit 1a. Gallon OJ Sales in Retail Chains Doing \$2 Million Plus Business, By Product Form, By City, Ranked By Actual % Change in Total OJ Sales.

	-----52 Weeks Ending 10/30/99-----				-----Act. % Chg. from Previous 52 Week Period-----				-----Est. % Demand Growth, Prices Constant-----			
	NFC	RECON	FCOJ	TOT. (a)	NFC	RECON	FCOJ	TOT. (a)	TOT. (a)	NFC	RECON	FCOJ
	-----1000 Gallons-----											
RICHMOND/NORFO	3923	4170	1596	9688	30.2	-8.5	-7.6	4.2	5.8	18.9	-1.3	-8.0
ALBANY	3772	2122	7102	7102	16.5	-3.5	-14.5	3.7	6.5	18.6	-3.7	-13.4
COLUMBUS	1683	4600	1107	7390	10.4	5	-10.4	3.5	6.0	18.2	4.4	-5.8
NEW YORK	52027	12295	2856	67178	5.9	-5.9	-16.2	2.4	4.8	11.8	-20.0	-13.1
PHILADELPHIA	18269	9416	2934	30619	5.2	4.1	-18.9	2.0	5.1	13.5	-5.1	-14.0
CHARLOTTE	2975	3158	804	6937	39.7	-16.4	-10.2	2.0	6.6	25.8	-7.4	-9.8
MIAMI	10177	10690	903	21770	4.7	0	-12	1.5	6.4	15.0	-0.2	-13.3
LOUISVILLE	1366	4520	826	6712	11	1.5	-13.4	1.1	4.8	25.7	0.7	-6.9
SYRACUSE	2632	2567	2005	7204	14.8	-3.3	-9.7	0.5	6.0	19.3	3.0	-7.8
SAN ANTONIO	1838	4245	1916	7998	20.9	-1	-11.4	0.4	3.4	14.9	3.2	-7.5
ATLANTA	4803	9159	1268	15229	17.5	-4.3	-16.5	0.3	5.5	22.6	-1.3	-10.9
MINNEAPOLIS	2635	4645	4444	11724	20.2	-3.9	-5.9	-0.2	6.6	23.5	7.1	-4.0
ORLANDO	3388	5170	601	9159	1.9	0.4	-16.5	-0.4	4.3	7.1	5.1	-19.4
CINCINNATI	2861	5697	1981	10359	15.1	-3.1	-10.4	-0.6	4.9	17.9	2.5	-5.7
RALEIGH/DURHAM	4291	5488	1353	11133	34.3	-14.6	-14.8	-0.7	5.4	25.1	-5.6	-12.0
CHICAGO	10056	15537	4023	29617	22.2	-9.8	-8.2	-0.7	9.2	23.2	2.4	-0.0
DENVER	3338	3227	5347	11912	1.5	4.7	-5.5	-1.0	2.8	9.7	5.5	-3.2
GRAND RAPIDS	1468	3650	1699	6818	13.9	-2.8	-8.3	-1.2	7.5	28.2	6.5	-8.1
BOSTON	19577	9829	3644	33049	3	-5.3	-16.1	-2.0	1.4	11.9	-12.8	-16.2
BALTIMORE	5048	3704	1762	10535	3	0.1	-17.5	-2.1	4.6	16.5	-3.4	-12.7
WASHINGTON D.C	9477	7384	4009	20869	7.4	-6.9	-12.7	-2.2	4.1	19.1	-6.5	-11.6
NASHVILLE	1509	4357	819	6685	7.2	-2.3	-15.7	-2.2	0.7	9.7	0.5	-14.9
HOUSTON	3422	7689	2617	13728	18.1	-6.5	-11.2	-2.4	2.8	18.5	1.9	-15.3
TAMPA	6499	7780	1083	15362	2.5	-4.8	-12.1	-2.4	1.4	12.7	-5.0	-20.4
MEMPHIS	920	3526	942	5388	15.4	-1.8	-17.7	-2.6	4.2	18.3	2.4	-3.0
SACRAMENTO	1817	2973	2151	6941	21.8	-7.8	-11.1	-2.7	6.1	22.5	5.0	-6.2
SAN FRANCISCO	6941	7599	4805	19444	14	-9.1	-12.8	-3.1	3.2	12.3	5.6	-13.4
U.S.	287432	341890	152331	781654	9.3	-6.8	-13.9	-3.1	1.6	12.2	-1.7	-11.2
SAN DIEGO	1986	2839	1485	6110	8.4	-4.4	-14.1	-3.3	3.8	12.5	4.3	-8.9
SALT LAKE CITY	1607	2380	4853	8841	15.3	5.1	-11.9	-3.5	8.0	36.0	-3.3	4.3
MILWAUKEE	1584	2842	2267	6692	16.6	-7.9	-9.9	-3.9	4.8	21.6	6.7	-9.1
INDIANAPOLIS	1427	5630	1711	8767	13.1	-3.8	-15.2	-3.9	6.7	19.0	7.6	-6.7
BIRMINGHAM	1753	5362	877	7993	3	-4.8	-16	-4.5	-2.1	7.1	-2.7	-17.1
ST. LOUIS	2286	4950	1893	9129	10	-8.2	-14.2	-4.5	6.2	18.0	4.1	-0.2
OKLAHOMA CITY	884	2977	2154	6025	12.8	-1.1	-14.3	-4.6	3.7	28.8	6.6	-10.6
DETROIT	5500	8883	3793	18177	4.2	-5.2	-13.9	-4.6	6.4	21.2	5.8	-13.7
CLEVELAND	5221	4929	2919	13068	23	-18	-15.5	-4.7	9.0	22.0	0.7	-0.2
DALLAS	3136	6229	3262	12627	11.8	-4.5	-18.2	-5.2	2.0	15.8	2.6	-12.6
LITTLE ROCK	507	2181	1161	3849	8.6	0.9	-19	-5.3	5.1	17.0	7.6	-4.7
PITTSBURGH	4955	5089	2492	12535	47.2	-25	-21.4	-5.9	7.8	31.9	-8.7	-6.5
KANSAS	904	2607	2135	5648	15.8	-3.3	-15.8	-6.1	8.6	30.9	10.0	-2.6
PHOENIX	3434	4156	3682	11271	21.4	-16.6	-12.2	-6.1	2.9	22.2	-0.3	-11.6
HARTFORD/NEWH	6744	3628	912	11284	-2.1	-10	-17.8	-6.2	6.2	19.7	-13.2	-16.0
BUFFALO/ROCHES	3923	3125	3419	10467	2.4	-8.8	-11.5	-4.6	0.4	-3.1	4.9	-5.3
LOS ANGELES	9375	15443	6343	31161	4.1	-9.4	-13.4	-6.6	0.4	7.2	-7.0	-0.9
REMAINING U.S.	35422	74769	35446	145637	7.2	-8.7	-15.1	-7.1	-1.2	13.0	-3.0	-11.6
PORTLAND	2300	2236	4429	8965	18.6	-10.2	-15.2	-7.1	6.5	28.7	0.2	-0.9
NEW ORLEANS/MO	2645	6292	1397	10334	13.5	-11.1	-19.4	-7.3	6.1	23.5	2.1	-9.1
OMAHA	482	2288	1188	3957	34.6	-11.3	-11	-7.4	5.2	30.3	10.6	-15.2
JACKSONVILLE	1867	2790	353	5009	5	-13.4	-17.6	-7.7	7.0	17.1	3.5	-18.2
DES MOINES	548	2318	732	3598	9.7	-11.6	-10.9	-8.8	3.7	13.3	5.8	-10.1
SEATTLE	2401	2951	4610	9963	12.1	-1.4	-22.6	-10.2	1.2	23.2	-0.7	-9.0

(a) Total OJ is NFC-OJ + RECON-OJ + FCOJ; excludes CSSOJ and aseptic OJ.
 (b) Calculated as a weighted average of NFC, RECON and FCOJ with gallon sales used as weights.

Exhibit 2a. Oil Price in Retail Chains Doing \$2 Million Plus Business & Price Elasticities, By Product Form, By City

	-----52 Weeks Ending 10/30/99-----		-----Price\$/Gallon-----		-----Percentage Change-----		-----OWN DEMAND PRICE ELASTICITY-----		
	NFC	RECON	FCOJ	NFC	RECON	FCOJ	NFC	RECON	FCOJ
RICHMOND/NORFO	5.13	3.88	3.29	6.9	12.6	7.7	-1.37	-1.03	-1.49
ALBANY	4.57	3.26	2.91	8.8	5.8	7.1	-1.16	-1.71	-1.33
COLUMBUS	5.51	3.28	3.26	9.9	5.6	8.5	-1.71	-1.41	-1.84
NEW YORK	4.99	3.62	3.77	12.1	8.5	7	-0.99	-1.65	-1.73
PHILADELPHIA	4.88	3.53	3.51	10.9	3.8	6.4	-1.00	-1.74	-1.68
CHARLOTTE	4.58	3.66	3.27	3.6	13.8	8.8	-1.71	-1.46	-0.89
MIAMI	5.32	2.98	3.24	12.9	12.2	12.6	-1.54	-0.82	-0.80
LOUISVILLE	5.05	3.03	3.28	10.7	6.1	11.7	-1.75	-1.45	-1.16
SYRACUSE	5.07	3.76	3.16	8.2	9.2	5.1	-1.33	-1.13	-1.78
SAN ANTONIO	4.89	3.89	2.75	3.9	5.9	6.8	-1.06	-1.49	-0.95
ATLANTA	5.25	3.16	3.25	5.2	10.5	10.8	-1.69	-1.12	-1.19
MINNEAPOLIS	5.02	3.76	2.81	6.9	9.6	8.6	-1.97	-1.38	-1.22
ORLANDO	5.03	3.10	3.36	16.2	14.1	18.1	-1.25	-1.43	-0.42
CINCINNATI	5.14	3.37	2.98	7.2	10.8	6.6	-1.51	-1.03	-1.10
RALEIGH/DURHAM	4.76	3.59	3.25	4.2	13.9	9.8	-1.30	-1.09	-0.84
CHICAGO	5.25	3.87	3.48	8.9	16.3	9.5	-1.53	-1.65	-1.58
DENVER	6.00	5.14	3.00	7.7	7.8	10.3	-1.93	-1.36	-0.84
GRAND RAPIDS	5.53	3.48	3.21	8.9	7.1	3.6	-2.43	-1.50	-1.88
BOSTON	5.06	3.32	2.94	12.1	7.3	11	-1.85	-1.55	-0.40
WASHINGTON D.C	5.49	4.06	3.41	10.6	11.8	0.8	-1.38	-1.55	-2.37
NASHVILLE	5.25	3.36	3.31	3.31	12.9	5.6	-1.61	-1.37	-2.11
HOUSTON	5.33	4.02	3.13	9.3	8.9	8	-1.28	-0.68	-1.06
TAMPA	5.15	3.21	3.17	14.7	15.1	7.8	-1.61	-1.29	-1.44
MEMPHIS	5.21	3.34	3.33	4.3	7.7	12.4	-1.63	-1.33	-0.58
SACRAMENTO	5.89	5.04	3.42	11.3	15.9	13.2	-1.36	-1.27	-1.62
SAN FRANCISCO	6.30	5.56	3.35	9.6	18.3	12.7	-1.50	-0.55	-0.80
U.S.	5.24	3.86	3.18	10.2	11.2	10.2	-1.36	-1.11	-1.14
SAN DIEGO	6.37	5.39	3.96	9.7	11.8	10.7	-1.38	-1.48	-1.07
SALT LAKE CITY	5.52	4.61	2.74	9.1	-0.2	12.9	-2.58	-1.47	-1.70
MILWAUKEE	5.02	4.15	2.94	8.6	12.2	8.4	-2.23	-1.71	-1.81
INDIANAPOLIS	5.74	3.68	3.34	5.4	12.2	10	-1.53	-1.15	-1.65
BIRMINGHAM	5.35	3.38	3.66	10.9	8.1	18.2	-1.57	-1.23	-0.67
ST. LOUIS	5.57	3.70	3.30	11.2	9.8	10.9	-2.40	-1.64	-2.24
OKLAHOMA CITY	5.54	4.26	3.07	9.7	9.8	11.3	-2.12	-1.26	-1.91
DETROIT	5.61	3.99	3.35	10.8	11.5	5.7	-2.36	-1.46	-1.90
CLEVELAND	5.00	4.18	3.21	1.2	12.4	11.6	-1.64	-1.80	-1.82
DALLAS	5.36	4.36	3.28	11.5	10.4	16.1	-1.01	-1.04	-1.28
LITTLE ROCK	5.16	3.64	3.13	9.5	12.9	16.6	-1.79	-1.11	-1.29
PITTSBURGH	4.52	3.67	3.13	-0.6	13.7	15.6	-1.59	-1.57	-1.63
KANSAS	5.66	4.09	2.99	9.1	13.4	15.5	-2.43	-1.29	-1.59
PHOENIX	5.80	4.78	3.00	10.3	13	6.5	-1.72	-1.69	-1.44
HARTFORD/NEW H	4.96	3.41	3.16	17	9.5	7	-1.93	-1.47	-2.04
BUFFALO/ROCHES	5.25	4.46	3.14	17	19	12.5	-1.75	-2.01	-1.98
LOS ANGELES	6.37	5.25	3.97	4.8	12.1	12.2	-1.51	-1.34	-1.10
REMAINING U.S.	5.22	3.77	3.14	9.8	11.5	10.7	-1.63	-1.02	-0.96
PORTLAND	5.74	5.20	2.53	8.5	10.2	9.5	-1.39	-1.47	-1.34
NEW ORLEANS/MO	5.45	3.79	3.55	7.3	11.6	10.5	-0.83	-0.98	-1.11
OMAHA	5.55	3.36	2.70	19	15.8	5.6	-2.48	-1.52	-1.65
JACKSONVILLE	5.02	3.10	3.34	14.1	15.8	16.3	-1.16	-1.10	-0.54
DES MOINES	5.57	3.39	3.11	10.1	23.5	10.5	-1.42	-0.92	-1.26
SEATTLE	5.95	5.39	3.01	16.5	12.4	17.3	-1.15	-0.82	-1.38

Exhibit 1b. Gallon OJ Sales in Retail Chains Doing \$2 Million Plus Business, By Product Form, By City, Ranked By Est. Growth in Total OJ Sales.

	-----52 Weeks Ending 10/30/09-----		-----Act. % Chg. from Previous 52 Week Period-----		-----Est. % Demand Growth, Prices Constant-----		RECON	NFC	RECON	FCOJ	TOT. (a)	TOT. (a), (b)	NFC	RECON	FCOJ
	NFC	RECON	FCOJ	TOT. (a)	NFC	RECON									
	-----1000 Gallons-----														
CHICAGO	10056	15537	4023	29617	22.2	-9.8	-8.2	-0.7	9.2	23.2	2.4	-0.0			
CLEVELAND	5221	4929	2919	13068	23	-18	-15.5	-4.7	9.0	22.0	0.7	-0.2			
KANSAS	904	2607	2135	5646	15.8	-3.3	-15.8	-6.1	8.6	30.9	10.0	-2.6			
SALT LAKE CITY	1607	2380	4853	8841	15.3	5.1	-11.9	-3.5	8.0	36.0	-3.3	4.3			
PITTSBURGH	4955	5089	2492	12535	47.2	-2.5	-21.4	-8.7	7.8	31.9	-8.7	-6.5			
GRAND RAPIDS	1468	3650	1699	6818	13.9	-2.8	-8.3	-1.2	7.5	28.2	6.5	-8.1			
JACKSONVILLE	1867	2790	353	5009	5	-13.4	-17.6	-7.7	7.0	17.1	3.5	-18.2			
INDIANAPOLIS	1427	5630	1711	8767	13.1	-3.8	-15.2	-3.9	6.7	19.0	7.6	-8.7			
MINNEAPOLIS	2635	4645	4444	11724	20.2	-3.9	-5.9	-0.9	6.6	23.5	7.1	-4.0			
CHARLOTTE	2975	3158	804	8937	39.7	-16.4	-10.2	2.0	6.6	25.8	-7.4	-9.8			
ALBANY	3772	2122	1207	7102	16.5	-3.5	-14.5	3.7	6.5	18.8	-3.7	-13.4			
PORTLAND	2300	2236	4429	8965	16.6	-10.2	-15.2	-7.1	6.5	26.7	0.2	-0.9			
DETROIT	5500	8883	3793	18177	4.2	-5.2	-13.9	-4.8	6.4	21.2	5.8	-13.7			
MIAMI	10177	10880	903	21770	4.7	0	-12	1.5	6.4	15.0	-0.2	-13.3			
HARTFORD/NEWH	6744	3628	912	11284	-2.1	-10	-17.8	-6.2	8.2	19.7	-13.2	-16.0			
ST. LOUIS	2286	4950	1893	9129	10	-6.2	-14.2	-4.5	6.2	16.0	4.1	-0.2			
SACRAMENTO	1817	2973	2151	6941	21.8	-7.8	-11.1	-2.7	6.1	22.5	5.0	-6.2			
NEW ORLEANS/MO	2645	6292	1397	10334	13.5	-11.1	-19.4	-7.3	6.1	23.5	2.1	-9.1			
COLUMBUS	1683	4600	1107	7390	10.4	5	-10.4	3.5	6.0	18.2	4.4	-5.8			
SYRACUSE	2632	2567	2005	7204	14.8	-3.3	-9.7	3.0	6.0	19.3	3.0	-7.8			
RICHMOND/NORFO	3923	4170	1596	9688	30.2	-6.5	-7.6	4.2	5.8	18.9	-1.3	-8.0			
ATLANTA	4803	9159	1288	15229	17.5	-4.3	-16.5	0.3	5.5	22.8	-1.3	-10.9			
RALEIGH/DURHAM	4291	5488	1353	11133	34.3	-14.6	-14.8	-0.7	5.4	25.1	-5.6	-12.0			
OMAHA	482	2288	1188	3957	34.6	-11.3	-11	-7.4	5.2	30.3	10.6	-15.2			
PHILADELPHIA	18289	9416	2934	30619	5.2	4.1	-18.9	2.0	5.1	13.5	-5.1	-14.0			
LITTLE ROCK	507	2181	1161	3849	8.6	0.9	-19	-5.3	5.1	17.0	7.6	-4.7			
CINCINNATI	2681	5697	1981	10359	15.1	-3.1	-10.4	-0.6	4.9	17.9	2.5	-5.7			
MILWAUKEE	1584	2842	2267	6692	16.6	-7.9	-9.9	-3.9	4.8	21.6	6.7	-9.1			
LOUISVILLE	1366	4520	826	6712	11	1.5	-13.4	1.1	4.8	25.7	0.7	-8.9			
NEW YORK	52027	12295	2656	67178	5.9	-5.9	-16.2	2.4	4.8	11.6	-20.0	-13.1			
BALTIMORE	5048	3704	1782	10535	3	0.1	-17.5	-2.1	4.6	16.5	-3.4	-12.7			
ORLANDO	3388	5170	601	9159	1.9	0.4	-16.5	-0.4	4.3	7.1	5.1	-19.4			
MEMPHIS	920	3528	942	5388	15.4	-1.6	-17.7	-2.6	4.2	18.3	2.4	-3.0			
WASHINGTON D.C	9477	7384	4009	20869	7.4	-6.9	-12.7	-2.2	4.1	19.1	-6.5	-11.6			
SAN DIEGO	1986	2639	1485	6110	8.4	-4.4	-14.1	-3.3	3.8	12.5	4.3	-8.9			
OKLAHOMA CITY	894	2977	2154	6025	12.8	-1.1	-14.3	-4.6	3.7	28.8	6.6	-10.6			
DES MOINES	548	2318	732	3598	9.7	-11.6	-10.9	-8.8	3.7	13.3	5.8	-10.1			
SAN ANTONIO	1838	4245	1916	7998	20.9	-1	-11.4	0.4	3.4	14.9	3.2	-7.5			
SAN FRANCISCO	6941	7599	4905	19444	14	-9.1	-12.6	-3.1	3.2	12.3	5.6	-13.4			
PHOENIX	3434	4156	3682	11271	21.4	-16.6	-12.2	-6.1	2.9	22.2	-0.3	-11.6			
DENVER	3338	3227	5347	11912	1.5	4.7	-5.5	-1.0	2.8	9.7	5.5	-3.2			
HOUSTON	3422	7689	2617	13728	18.1	-6.5	-11.2	-2.4	2.8	18.5	1.9	-15.3			
BUFFALO/ROCHES	3923	3125	3419	10467	2.4	-9.8	-11.5	-6.2	2.7	7.5	7.2	-7.0			
DALLAS	3136	6229	3262	12627	11.8	-4.5	-18.2	-5.2	2.0	15.8	2.6	-12.6			
U.S.	287432	341890	152331	781654	9.3	-6.8	-13.9	-3.1	1.6	12.2	-1.7	-11.2			
BOSTON	19577	9829	3644	33049	3	-5.3	-16.1	-2.0	1.4	11.9	-12.8	-16.2			
TAMPA	6499	7780	1083	15362	2.5	-4.8	-12.1	-2.4	1.4	12.7	-5.0	-20.4			
SEATTLE	2401	2951	4610	9963	12.1	-1.4	-22.6	-10.2	1.2	23.2	-0.7	-9.0			
NASHVILLE	1509	4357	819	6685	7.2	-2.3	-15.7	-2.2	0.7	9.7	0.5	-14.9			
LOS ANGELES	9375	15443	6343	31161	4.1	-9.4	-13.4	-5.6	0.4	-3.1	4.9	-5.3			
REMAINING U.S.	35422	74769	35446	145637	7.2	-8.7	-15.1	-7.1	-1.2	13.0	-3.0	-11.6			
BIRMINGHAM	1753	5362	877	7993	3	-4.6	-16	-4.5	-2.1	7.1	-2.7	-17.1			

(a) Total OJ is NFC-OJ + RECON-OJ + FCOJ; excludes CSSOJ and aseptic OJ.
 (b) Calculated as a weighted average of NFC, RECON and FCOJ with gallon sales used as weights.

Exhibit 2b. OJ Price in Retail Chains Doing \$2 Million Plus Business & Price Elasticities, By Product Form, By City
 Price:\$/Gallon

	-----52 Weeks Ending 10/30/99-----		-----Percentage Change-----		-----OWN DEMAND PRICE ELASTICITY-----	
	NFC	FCOJ	NFC	RECON	NFC	FCOJ
CHICAGO	5.25	3.87	8.9	16.3	9.5	-1.65
CLEVELAND	5.00	4.18	1.2	12.4	11.6	-1.82
KANSAS	5.66	4.09	9.1	13.4	15.5	-1.29
SALT LAKE CITY	5.52	4.61	2.74	-0.2	12.9	-1.70
PITTSBURGH	4.52	3.67	3.13	13.7	15.6	-1.57
GRAND RAPIDS	5.53	3.48	3.21	7.1	3.6	-1.86
JACKSONVILLE	5.74	3.10	3.34	15.8	16.3	-1.10
INDIANAPOLIS	5.02	3.68	3.34	12.2	10	-1.65
MINNEAPOLIS	5.02	3.76	2.81	9.6	8.6	-1.22
CHARLOTTE	4.58	3.66	3.27	13.8	8.8	-1.48
ALBANY	4.57	3.26	2.91	5.8	7.1	-1.71
PORTLAND	5.74	5.20	2.53	10.2	9.5	-1.34
DETROIT	5.61	3.99	3.35	11.5	5.7	-1.90
MIAMI	5.32	2.98	3.24	12.2	12.6	-0.80
HARTFORD/NEW H	4.96	3.41	3.16	9.5	7	-2.04
ST. LOUIS	5.57	3.70	3.30	9.8	10.9	-2.24
SACRAMENTO	5.89	5.04	3.42	15.9	13.2	-1.19
NEW ORLEANS/MO	5.45	3.79	3.55	11.6	10.5	-1.11
COLUMBUS	5.51	3.28	3.26	5.6	8.5	-1.84
SYRACUSE	5.07	3.76	3.16	9.2	5.1	-1.78
RICHMOND/NORFO	5.13	3.88	3.29	12.6	7.7	-1.49
ATLANTA	5.25	3.16	3.25	10.5	10.8	-1.19
RALEIGH/DURHAM	4.76	3.59	3.25	13.9	9.8	-0.84
OMAHA	5.55	3.36	2.70	19	5.6	-1.52
PHILADELPHIA	4.88	3.53	3.51	10.9	6.4	-1.68
LITTLE ROCK	5.16	3.64	3.13	12.9	16.6	-1.29
CINCINNATI	5.14	3.37	2.98	10.8	6.6	-1.10
MILWAUKEE	5.02	4.15	2.94	12.2	8.4	-1.81
LOUISVILLE	5.05	3.03	3.28	6.1	11.7	-1.16
NEW YORK	4.99	3.62	3.77	8.5	7	-1.73
BALTIMORE	5.49	4.06	3.41	11.8	0.8	-2.37
ORLANDO	5.03	3.10	3.36	16.2	18.1	-0.42
MEMPHIS	5.21	3.34	4.3	7.7	12.4	-1.62
WASHINGTON D.C	5.60	4.11	3.31	12.9	5.6	-2.11
SAN DIEGO	6.37	5.39	3.96	11.8	10.7	-1.07
OKLAHOMA CITY	5.54	4.26	3.07	9.8	11.3	-1.91
DES MOINES	5.57	3.39	3.11	23.5	10.5	-1.26
SAN ANTONIO	4.89	3.89	2.75	5.9	6.8	-0.95
SAN FRANCISCO	6.30	5.56	3.35	18.3	12.7	-0.80
PHOENIX	5.80	4.78	3.00	13	6.5	-1.44
DENVER	6.00	5.14	3.00	7.8	10.3	-0.84
HOUSTON	5.33	4.02	3.13	8.7	6.5	-1.44
BUFFALO/ROCHES	5.25	4.46	3.14	19	12.5	-1.98
DALLAS	5.36	4.36	3.28	10.4	16.1	-1.28
U.S.	5.24	3.86	3.18	11.2	10.2	-1.14
BOSTON	5.06	3.32	2.94	7.3	11	-0.40
TAMPA	5.15	3.21	3.17	15.1	7.8	-0.58
SEATTLE	5.95	5.39	3.01	12.4	17.3	-1.38
NASHVILLE	5.25	3.36	3.31	8.9	8	-1.06
LOS ANGELES	6.37	5.25	3.97	12.1	12.2	-1.10
REMAINING U.S.	5.22	3.77	3.14	11.5	10.7	-0.96
BIRMINGHAM	5.35	3.38	3.68	8.1	18.2	-0.67

Exhibit 3. Estimated NFC-OJ Demand Elasticities and Growth Rates (a).

CITY	NFC DEMAND				
	ANNUAL GROWTH RATE	Price Elasticity			
		NFC Price	RECON Price	FCOJ Price	GJ Price
ALBANY	0.19	-1.16	0.32	0.39	-0.25
ATLANTA	0.23	-1.69	0.13	-0.15	0.24
BALTIMORE	0.17	-1.38	0.27	0.51	-0.27
BIRMINGHAM	0.07	-1.57	0.41	0.36	0.90
BOSTON	0.12	-1.85	0.41	0.83	0.21
BUFFALO/ROCHES	0.07	-1.75	1.01	0.18	-0.15
CHARLOTTE	0.26	-1.71	0.71	-0.08	0.45
CHICAGO	0.23	-1.53	0.46	0.23	-0.05
CINCINNATI	0.18	-1.51	0.52	0.05	0.19
CLEVELAND	0.22	-1.64	0.26	-0.04	-0.36
COLUMBUS	0.18	-1.71	0.31	0.21	0.28
DALLAS	0.16	-1.01	0.16	0.25	0.06
DENVER	0.10	-1.93	0.78	-0.04	0.11
DES MOINES	0.13	-1.42	0.42	-0.23	0.90
DETROIT	0.21	-2.36	0.26	0.48	0.10
GRAND RAPIDS	0.28	-2.43	0.26	0.31	-0.06
HARTFORD/NEW H	0.20	-1.93	0.25	0.77	-0.08
HOUSTON	0.19	-1.61	0.41	0.16	0.66
INDIANAPOLIS	0.19	-1.53	0.00	-0.16	0.80
JACKSONVILLE	0.17	-1.16	0.36	-0.20	0.03
KANSAS	0.31	-2.43	0.18	-0.03	1.20
LITTLE ROCK	0.17	-1.79	0.55	0.02	0.19
LOS ANGELES	-0.03	-1.51	0.51	-0.09	0.91
LOUISVILLE	0.26	-1.75	0.28	0.02	-0.07
MEMPHIS	0.18	-1.63	0.04	0.13	0.19
MIAMI	0.15	-1.54	0.28	-0.26	0.61
MILWAUKEE	0.22	-2.23	0.70	0.35	0.00
MINNEAPOLIS	0.23	-1.97	0.43	0.27	0.27
NASHVILLE	0.10	-1.28	0.31	0.09	-0.29
NEW ORLEANS/MO	0.23	-0.83	-0.32	-0.18	0.04
NEW YORK	0.12	-0.99	0.33	0.22	-0.04
OKLAHOMA CITY	0.29	-2.12	0.27	0.03	0.20
OMAHA	0.30	-2.48	0.61	-0.04	1.00
ORLANDO	0.07	-1.25	0.51	0.29	0.11
PHILADELPHIA	0.14	-1.00	0.33	-0.09	0.03
PHOENIX	0.22	-1.72	0.39	0.03	0.81
PITTSBURGH	0.32	-1.59	0.29	0.06	0.14
PORTLAND	0.27	-1.39	0.16	0.06	0.14
RALEIGH/DURHAM	0.25	-1.30	0.65	0.05	0.18
RICHMOND/NORFO	0.19	-1.37	1.12	0.11	0.44
SACRAMENTO	0.23	-1.36	0.33	0.40	-0.05
ST. LOUIS	0.16	-2.40	0.88	0.62	0.53
SALT LAKE CITY	0.36	-2.58	-0.04	0.07	0.14
SAN ANTONIO	0.15	-1.06	0.51	0.25	0.60
SAN DIEGO	0.13	-1.38	0.61	-0.14	0.27
SAN FRANCISCO	0.12	-1.50	0.61	0.08	0.37
SEATTLE	0.23	-1.15	0.00	-0.01	0.65
SYRACUSE	0.19	-1.33	0.23	0.14	-0.55
TAMPA	0.13	-1.39	0.36	0.15	0.28
WASHINGTON D.C	0.19	-1.61	0.27	0.26	-0.13
REMAINING U.S.	0.13	-1.63	0.54	0.38	-0.08
WT. AVG. (by gallons)	0.15	-1.46	0.40	0.22	0.11
U.S. (by regression)	0.12	-1.36	0.63	0.25	0.09

(a) Estimated Annual % Change in NFC Gallons= Annual Growth Rate + % Change in NFC Price x NFC Price Elast
+ % Change in RECON Price x RECON Price Elasticity+ % Change in FCOJ Price x FCOJ Price Elasticity
+ % Change in GJ Price x GJ Price Elasticity.

Exhibit 4. Estimated RECON-OJ Demand Elasticities and Growth Rates (a).

CITY	RECON DEMAND				
	ANNUAL GROWTH RATE	Price Elasticity			
		NFC Price	RECON Price	FCOJ Price	GJ Price
ALBANY	-0.04	0.88	-1.71	0.13	-0.28
ATLANTA	-0.01	0.33	-1.12	0.30	0.18
BALTIMORE	-0.03	1.46	-1.55	-0.20	0.28
BIRMINGHAM	-0.03	0.66	-1.23	-0.02	0.41
BOSTON	-0.13	0.94	-1.55	0.58	0.16
BUFFALO/ROCHES	0.07	0.75	-2.01	0.33	0.19
CHARLOTTE	-0.07	0.32	-1.46	0.69	0.31
CHICAGO	0.02	0.86	-1.65	0.35	-0.19
CINCINNATI	0.02	0.66	-1.03	-0.05	-0.01
CLEVELAND	0.01	0.35	-1.80	0.00	-0.03
COLUMBUS	0.04	0.53	-1.41	0.15	0.01
DALLAS	0.03	0.38	-1.04	0.15	-0.22
DENVER	0.05	0.95	-1.36	0.03	0.17
DES MOINES	0.06	0.27	-0.92	-0.07	0.19
DETROIT	0.06	0.60	-1.46	-0.15	0.12
GRAND RAPIDS	0.06	0.21	-1.50	-0.11	0.41
HARTFORD/NEW H	-0.13	1.61	-1.47	-0.22	-0.54
HOUSTON	0.02	0.18	-1.29	0.12	0.03
INDIANAPOLIS	0.08	0.44	-1.15	-0.00	-0.34
JACKSONVILLE	0.03	0.55	-1.10	-0.62	0.01
KANSAS	0.10	0.30	-1.29	0.10	-0.16
LITTLE ROCK	0.08	0.27	-1.11	0.27	-0.09
LOS ANGELES	0.05	0.57	-1.34	-0.01	-0.19
LOUISVILLE	0.01	0.65	-1.45	0.19	0.03
MEMPHIS	0.02	0.53	-1.33	0.18	-0.07
MIAMI	-0.00	0.25	-0.82	0.03	0.47
MILWAUKEE	0.07	0.71	-1.71	0.21	-0.20
MINNEAPOLIS	0.07	0.54	-1.38	-0.19	0.26
NASHVILLE	0.01	0.14	-0.68	0.18	0.08
NEW ORLEANS/MO	0.02	1.03	-0.98	-0.30	-0.92
NEW YORK	-0.20	2.15	-1.65	0.29	-0.26
OKLAHOMA CITY	0.07	0.13	-1.26	0.28	-0.07
OMAHA	0.11	0.55	-1.65	0.31	-0.20
ORLANDO	0.05	0.87	-1.43	-0.01	0.09
PHILADELPHIA	-0.05	1.18	-1.74	0.57	-0.20
PHOENIX	-0.00	0.94	-1.69	0.15	-0.75
PITTSBURGH	-0.09	0.39	-1.57	0.12	0.08
PORTLAND	0.00	0.66	-1.47	-0.07	-0.25
RALEIGH/DURHAM	-0.06	0.68	-1.09	0.04	0.23
RICHMOND/NORFO	-0.01	1.04	-1.03	-0.28	-0.25
SACRAMENTO	0.05	0.41	-1.27	0.12	-0.28
ST. LOUIS	0.04	0.78	-1.64	-0.04	-0.44
SALT LAKE CITY	-0.03	1.05	-1.47	-0.12	-0.06
SAN ANTONIO	0.03	0.19	-1.49	0.36	0.31
SAN DIEGO	0.04	0.44	-1.48	0.17	0.35
SAN FRANCISCO	0.06	0.38	-0.55	-0.50	-0.42
SEATTLE	-0.01	0.30	-0.82	0.08	0.22
SYRACUSE	0.03	0.37	-1.13	0.17	0.37
TAMPA	-0.05	1.05	-0.85	-0.18	-0.27
WASHINGTON D.C	-0.07	1.16	-1.37	-0.08	0.48
REMAINING U.S.	-0.03	0.26	-1.02	0.43	-0.22
WT. AVG. (by gallons)	-0.01	0.61	-1.26	0.16	-0.08
U.S. (by regression)	-0.02	0.74	-1.11	0.11	-0.22

(a) Estimated Annual % Change in RECON Gallons= Annual Growth Rate + % Change in NFC Price x NFC Price Elasticity + % Change in RECON Price x RECON Price Elasticity+ % Change in FCOJ Price x FCOJ Price Elasticity + % Change in GJ Price x GJ Price Elasticity.

Exhibit 5. Estimated FCOJ Demand Elasticities and Growth Rates (a).

CITY	FCOJ DEMAND				
	ANNUAL GROWTH RATE	Price Elasticity			
		NFC Price	RECON Price	FCOJ Price	GJ Price
ALBANY	-0.13	0.55	0.13	-1.33	-0.32
ATLANTA	-0.11	0.32	0.17	-1.19	0.10
BALTIMORE	-0.13	-0.22	-0.25	-2.37	0.16
BIRMINGHAM	-0.17	0.61	0.43	-0.67	0.54
BOSTON	-0.16	-0.09	0.22	-0.40	0.27
BUFFALO/ROCHES	-0.07	0.41	0.49	-1.98	-0.03
CHARLOTTE	-0.10	0.26	0.50	-0.89	-0.26
CHICAGO	-0.00	0.32	0.15	-1.58	-0.10
CINCINNATI	-0.06	-0.13	0.44	-1.10	-0.30
CLEVELAND	-0.00	0.39	0.14	-1.82	-0.32
COLUMBUS	-0.06	0.44	0.30	-1.84	0.47
DALLAS	-0.13	0.31	0.71	-1.28	-0.04
DENVER	-0.03	0.23	0.13	-0.84	0.31
DES MOINES	-0.10	0.56	0.41	-1.26	-0.81
DETROIT	-0.14	0.34	0.47	-1.90	0.04
GRAND RAPIDS	-0.08	0.26	0.27	-1.88	0.26
HARTFORD/NEW H	-0.16	0.45	0.10	-2.04	-0.12
HOUSTON	-0.15	0.13	0.65	-1.44	0.45
INDIANAPOLIS	-0.07	-0.02	0.12	-1.65	0.99
JACKSONVILLE	-0.18	0.25	0.16	-0.54	0.01
KANSAS	-0.03	0.21	0.81	-1.59	-0.83
LITTLE ROCK	-0.05	0.22	0.21	-1.29	-0.26
LOS ANGELES	-0.05	0.49	0.01	-1.10	0.04
LOUISVILLE	-0.07	0.31	0.14	-1.16	0.06
MEMPHIS	-0.03	0.39	0.08	-1.62	-0.03
MIAMI	-0.13	0.05	-0.02	-0.80	0.71
MILWAUKEE	-0.09	0.84	0.70	-1.81	-0.50
MINNEAPOLIS	-0.04	0.26	0.23	-1.22	0.55
NASHVILLE	-0.15	0.25	0.88	-1.06	-0.41
NEW ORLEANS/MO	-0.09	0.12	-0.06	-1.11	-0.23
NEW YORK	-0.13	0.48	0.10	-1.73	0.11
OKLAHOMA CITY	-0.11	0.62	1.03	-1.91	0.05
OMAHA	-0.15	0.43	0.40	-1.52	0.00
ORLANDO	-0.19	0.28	0.24	-0.42	-0.01
PHILADELPHIA	-0.14	0.20	-0.04	-1.68	0.39
PHOENIX	-0.12	0.12	0.23	-1.44	0.29
PITTSBURGH	-0.07	0.16	0.32	-1.63	0.24
PORTLAND	-0.01	-0.09	-0.57	-1.34	0.67
RALEIGH/DURHAM	-0.12	0.05	0.49	-0.84	-0.46
RICHMOND/NORFO	-0.08	0.34	0.65	-1.49	0.15
SACRAMENTO	-0.06	0.07	0.34	-1.19	0.19
ST. LOUIS	-0.00	0.77	0.00	-2.24	-0.77
SALT LAKE CITY	0.04	0.32	-0.12	-1.70	-0.15
SAN ANTONIO	-0.07	0.22	0.13	-0.95	0.05
SAN DIEGO	-0.09	0.29	-0.16	-1.07	0.41
SAN FRANCISCO	-0.13	-0.09	0.33	-0.80	0.41
SEATTLE	-0.09	-0.10	0.31	-1.38	0.32
SYRACUSE	-0.08	0.48	0.23	-1.78	-0.30
TAMPA	-0.20	0.50	0.27	-0.58	0.02
WASHINGTON D.C	-0.12	0.12	0.62	-2.11	-0.05
REMAINING U.S.	-0.12	0.13	0.42	-0.96	-0.05
WT. AVG. (by gallons)	-0.09	0.21	0.29	-1.30	0.06
U.S. (by regression)	-0.11	0.48	0.22	-1.14	0.05

(a) Estimated Annual % Change in RECON Gallons= Annual Growth Rate + % Change in NFC Price x NFC Price Elasticity + % Change in RECON Price x RECON Price Elasticity+ % Change in FCOJ Price x FCOJ Price Elasticity + % Change in GJ Price x GJ Price Elasticity.

Table 6a. Per Capita OJ Gallons Sales, By Product Form, By City, Ranked by Total Per Capita OJ Sales.

	Gallon Sales (000)				Per Capita Gallon Sales				Est. Annual OJ Vol. Growth TOT. (a)	Average Price of OJ (b) \$/Ga.
	52 Weeks Ending 10/30/99		1998		52 Weeks Ending 10/30/99		1998			
	NFC	RECON	FCOJ	TOT. (a)	Population Millions	NFC	RECON	FCOJ	TOT. (a)	
BOSTON	19577	9829	3644	33049	7,443	2.63	1.32	0.49	4.44	1.4
MIAMI	10177	10690	903	21770	5,250	1.94	2.04	0.17	4.15	6.4
BALTIMORE	5048	3704	1782	10535	2,691	1.68	1.38	0.66	3.91	4.6
ALBANY	3772	2122	1207	7102	1,838	2.06	1.18	0.86	3.87	6.5
HARTFORD/NEW H	6744	3628	912	11284	2,990	2.26	1.21	0.30	3.77	6.2
BUFFALO/ROCHES	3923	3125	3419	10467	2,776	1.41	1.13	1.23	3.77	2.7
PHILADELPHIA	18269	9416	2934	30619	8,284	2.20	1.14	0.35	3.69	5.1
DES MOINES	548	2318	732	3598	8,979	0.56	2.37	0.75	3.87	3.7
NEW YORK	52027	12295	2856	67178	18,507	2.81	0.66	0.15	3.63	4.8
SYRACUSE	2632	2567	2005	7204	2,003	1.31	1.28	1.00	3.60	6.0
CHICAGO	10056	15537	4023	29617	8,333	1.21	1.66	0.48	3.55	9.2
TAMPA	6499	7780	1083	15362	4,369	1.49	1.78	0.25	3.52	1.4
WASHINGTON D.C	9477	7384	4009	20869	6,062	1.56	1.22	0.66	3.44	4.1
CINCINNATI	2681	5697	1981	10359	3,090	0.87	1.84	0.64	3.35	4.9
ORLANDO	3388	5170	601	9159	2,762	1.23	1.87	0.22	3.32	4.3
DENVER	3338	3227	5347	11912	3,592	0.93	0.90	1.49	3.32	2.8
PITTSBURGH	4955	5089	2492	12535	3,943	1.28	1.29	0.63	3.18	7.8
MINNEAPOLIS	2635	4645	4444	11724	3,806	0.69	1.22	1.17	3.08	6.8
CHARLOTTE	2975	3158	804	6937	2,253	1.32	1.40	0.36	3.08	6.8
ATLANTA	4803	9159	1268	15229	4,959	0.97	1.85	0.28	3.07	5.5
COLUMBUS	1683	4800	1107	7390	2,441	0.89	1.88	0.45	3.03	6.0
RALEIGH/DURHAM	4291	5486	1353	11133	3,665	1.16	1.49	0.37	3.02	5.4
OMAHA	482	2288	1188	3957	1,332	0.36	1.72	0.89	3.27	5.2
MILWAUKEE	1564	2842	2267	6692	2,277	0.70	1.25	1.00	2.94	4.8
U.S.	287432	341880	152331	781654	270,825	1.08	1.26	0.56	2.89	1.6
JACKSONVILLE	1867	2790	353	5009	1,736	1.08	1.61	0.20	2.88	7.0
INDIANAPOLIS	1427	5630	1711	8767	3,047	0.87	1.85	0.56	2.88	6.7
DETROIT	5500	8883	3793	18177	6,337	0.87	1.40	0.60	2.87	6.4
ST. LOUIS	2286	4950	1893	9129	3,198	0.72	1.55	0.59	2.86	6.2
RICHMOND/NORFO	3923	4170	1596	9888	3,398	1.15	1.23	0.47	2.85	5.8
LOUISVILLE	1366	4520	826	6712	2,358	0.58	1.92	0.35	2.85	4.8
SAN FRANCISCO	6941	7599	4905	19444	6,901	1.01	1.10	0.71	2.82	3.2
HOUSTON	3422	7689	2617	13728	4,874	0.70	1.58	0.54	2.82	2.8
SALT LAKE CITY	1607	2380	4853	8841	3,213	0.50	1.04	1.51	2.75	8.0
CLEVELAND	5221	4929	2919	13068	4,758	1.10	1.04	0.61	2.75	9.0
PORTLAND	2300	2236	4429	8965	3,276	0.70	0.68	1.35	2.74	6.5
NASHVILLE	1509	4357	819	6885	2,459	0.61	1.77	0.33	2.72	0.7
GRAND RAPIDS	1468	3650	1699	6818	2,620	0.56	1.39	0.65	2.60	7.5
BIRMINGHAM	1753	5362	877	7993	3,076	0.57	1.74	0.29	2.60	-2.1
NEW ORLEANS/MO	2645	6292	1397	10334	3,989	0.66	1.58	0.35	2.59	6.1
SAN ANTONIO	1838	4245	1916	7998	3,218	0.57	1.32	0.60	2.49	3.4
SEATTLE	2401	2951	4610	9963	4,071	0.59	0.72	1.13	2.45	1.2
REMAINING U.S.	35422	74769	35446	145637	61,233	0.58	1.22	0.58	2.38	-1.2
PHOENIX	3434	4158	3682	11271	4,781	0.72	0.87	0.77	2.36	2.9
DALLAS	3136	6229	3262	12627	5,555	0.56	1.12	0.59	2.27	2.0
MEMPHIS	920	3526	942	5388	2,387	0.39	1.48	0.39	2.26	4.2
SACRAMENTO	1817	2973	2151	6941	3,108	0.58	0.96	0.69	2.23	6.1
KANSAS	904	2607	2135	5646	2,543	0.36	1.03	0.84	2.22	8.6
SAN DIEGO	1966	2639	1485	6110	2,801	0.71	0.94	0.53	2.18	3.8
LITTLE ROCK	507	2181	1161	3849	1,765	0.29	1.24	0.66	2.18	5.1
OKLAHOMA CITY	894	2977	2154	6025	2,903	0.31	1.03	0.74	2.08	3.7
LOS ANGELES	9375	15443	6343	31161	15,550	0.60	0.99	0.41	2.00	0.4

(a) Total OJ is NFC-OJ + RECON-OJ + FCOJ; excludes CSSOJ and aseptic OJ.

(b) For 52 week period ending 10/30/99.

Table 6b. Per Capita OJ Gallons Sales, By Product Form, By City, Ranked by NFC Per Capita OJ Sales.

	Gallon Sales (000)				1998				Per Capita Gallon Sales				Est. Annual NFC Vol. Growth TOT. (a)	Average Price of NFC (b) \$/Ga.	Per Capita Disp. Inc. \$		
	52 Weeks Ending 10/30/99		TOT. (a)		Population		52 Weeks Ending 10/30/99		TOT. (a)		NFC	RECON				FCOJ	TOT. (a)
	NFC	RECON	FCOJ	TOT. (a)	Millions	NFC	RECON	FCOJ	TOT. (a)								
NEW YORK	52027	12295	2856	67178	18,507	2,81	0,66	0,15	3,63	0,12	4,99	20,484					
BOSTON	19577	9829	3644	33049	7,443	2,63	1,32	0,49	4,44	0,12	5,06	19,324					
HARTFORD/NEW H	6744	3628	912	11,284	2,990	2,28	1,21	0,30	3,77	0,20	4,96	19,669					
PHILADELPHIA	18269	9416	2934	30,619	8,294	2,20	1,14	0,35	3,69	0,14	4,88	19,319					
ALBANY	3772	2122	1207	7,102	1,836	2,06	1,16	0,68	3,87	0,19	4,57	15,781					
MIAMI	10177	10680	903	21,770	5,250	1,94	2,04	0,17	4,15	0,15	5,32	18,302					
BALTIMORE	5048	3704	1782	10,535	2,691	1,88	1,38	0,68	3,91	0,17	5,48	17,840					
WASHINGTON D.C	9477	7384	4009	20,869	6,062	1,56	1,22	0,66	3,44	0,19	5,60	20,938					
TAMPA	6499	7780	1083	15,362	4,369	1,49	1,78	0,25	3,52	0,13	5,15	17,431					
BUFFALOROCHES	3923	3125	3419	10,467	2,776	1,41	1,13	1,23	3,77	0,07	5,25	15,097					
CHARLOTTE	2975	3158	804	6,937	2,253	1,32	1,40	0,36	3,08	0,26	4,58	16,386					
SYRACUSE	2632	2567	2005	7,204	2,003	1,31	1,28	1,00	3,60	0,19	5,07	13,408					
PITTSBURGH	4955	5089	2492	12,535	3,943	1,26	1,29	0,63	3,18	0,32	4,52	16,502					
ORLANDO	3388	5170	601	9,159	2,762	1,23	1,87	0,22	3,32	0,07	5,03	16,487					
CHICAGO	10056	15537	4023	29,617	8,333	1,21	1,86	0,48	3,55	0,23	5,25	19,911					
RALEIGH/DURHAM	4291	5488	1353	11,133	3,685	1,16	1,49	0,37	3,02	0,25	4,76	16,435					
RICHMOND/NORFO	3923	4170	1598	9,688	3,398	1,15	1,23	0,47	2,85	0,19	5,13	15,235					
CLEVELAND	5221	4929	2919	13,068	4,758	1,10	1,04	0,61	2,75	0,22	5,00	16,483					
JACKSONVILLE	1867	2790	353	5,009	1,736	1,08	1,61	0,20	2,88	0,17	5,02	15,880					
U.S.	287432	341890	152331	781654	270,825	1,06	1,26	0,56	2,88	0,12	6,24	16,791					
SAN FRANCISCO	6941	7599	4905	19,444	6,901	1,01	1,10	0,71	2,82	0,12	6,30	20,752					
ATLANTA	4803	9159	1268	15,229	4,959	0,97	1,85	0,28	3,07	0,23	5,25	17,239					
DENVER	3338	3227	5347	11,812	3,592	0,93	1,80	1,49	3,32	0,10	6,00	17,829					
DETROIT	5900	8883	3793	18,177	6,337	0,87	1,40	0,60	2,87	0,21	5,61	17,356					
CINCINNATI	2681	5697	1981	10,359	3,090	0,87	1,84	0,84	3,35	0,18	5,14	17,455					
PHOENIX	3434	4156	3682	11,271	4,781	0,72	0,87	0,77	2,36	0,22	5,80	14,705					
ST. LOUIS	2286	4950	1893	9,129	3,196	0,72	1,55	0,59	2,86	0,16	5,57	17,154					
SAN DIEGO	1986	2639	1485	6,110	2,801	0,71	0,94	0,53	2,18	0,13	6,37	15,814					
HOUSTON	3422	7689	2617	13,728	4,874	0,70	1,58	0,54	2,82	0,19	5,33	18,228					
PORTLAND	2300	2236	4429	8,965	3,276	0,70	0,68	1,35	2,74	0,27	5,74	18,567					
MILWAUKEE	1584	2842	2267	6,692	2,277	0,70	1,25	1,00	2,94	0,22	5,02	17,224					
MINNEAPOLIS	2635	4845	4444	11,724	3,806	0,69	1,22	1,17	3,08	0,23	5,02	17,885					
COLUMBUS	1683	4600	1107	7,390	2,441	0,69	1,88	0,45	3,03	0,18	5,51	16,884					
NEW ORLEANS/MO	2645	8292	1397	10,334	3,969	0,66	1,56	0,35	2,59	0,23	5,45	14,604					
NASHVILLE	1509	4357	819	6,685	2,459	0,61	1,77	0,33	2,72	0,10	5,25	16,744					
LOS ANGELES	9375	15443	6343	31,161	15,550	0,60	0,99	0,41	2,00	-0,03	6,37	15,080					
SEATTLE	2401	2951	4610	9,963	4,071	0,59	0,72	1,13	2,45	0,23	5,95	20,929					
SACRAMENTO	1817	2973	2151	6,941	3,108	0,58	0,86	0,89	2,23	0,23	5,69	14,964					
LOUISVILLE	1368	4520	826	6,712	2,358	0,58	1,92	0,35	2,85	0,26	5,05	15,630					
REMAINING U.S.	35422	74769	35446	145637	61,233	0,68	1,22	0,58	2,38	0,13	5,22	14,316					
SAN ANTONIO	1838	4245	1916	7,988	3,218	0,57	1,32	0,60	2,49	0,15	4,89	15,832					
BIRMINGHAM	1753	5362	877	7,993	3,076	0,57	1,74	0,29	2,60	0,07	5,35	15,436					
DALLAS	3136	6229	3262	12,627	5,555	0,56	1,12	0,59	2,27	0,16	5,36	18,943					
GRAND RAPIDS	1468	3650	1699	6,818	2,620	0,56	1,39	0,65	2,60	0,28	5,53	15,604					
DES MOINES	548	2318	732	3,598	0,979	0,56	2,37	0,75	3,87	0,13	5,57	16,756					
SALT LAKE CITY	1607	2380	4853	8,841	3,213	0,50	0,74	1,51	2,75	0,36	5,52	14,348					
INDIANAPOLIS	1427	5630	1711	8,767	2,387	0,47	1,85	0,56	2,88	0,19	5,74	17,206					
MEMPHIS	920	3526	942	5,388	2,387	0,39	1,48	0,39	2,88	0,18	5,21	14,855					
OMAHA	482	2288	1186	3,957	1,332	0,36	1,72	0,89	2,97	0,30	5,55	19,017					
KANSAS	904	2607	2135	5,646	2,543	0,36	1,03	0,84	2,22	0,31	5,66	16,869					
OKLAHOMA CITY	894	2977	2154	6,025	2,903	0,31	1,03	0,74	2,08	0,29	5,54	14,776					
LITTLE ROCK	507	2181	1161	3,849	1,765	0,29	1,24	0,66	2,18	0,17	5,16	14,703					

(a) Total OJ is NFC-OJ + RECON-OJ + FCOJ; excludes CSOJ and aseptic OJ.

(b) For 52 week period ending 10/30/99.

Table 6c. Per Capita OJ Gallons Sales, By Product Form, By City, Ranked by NFC Per Capita OJ Sales.

	Gallon Sales ('000)				1998 Population				Per Capita Gallon Sales				Average Price (b)				Per Capita Disp. Inc.	
	52 Weeks Ending 10/30/99		TOT. ('a)		Millions		TOT. ('a)		NFC	RECON	FCOJ	TOT. ('a)	NFC	RECON	FCOJ	GJ	\$	
	NFC	RECON	FCOJ	TOT. ('a)	NFC	RECON	FCOJ	TOT. ('a)	NFC	RECON	FCOJ	TOT. ('a)	NFC	RECON	FCOJ			
	287432	341890	152331	781654	270.825	1.06	1.26	0.56	2.89	5.24	3.86	3.18	5.24	3.86	3.18	4.87	18791	
U.S.	35422	74769	35446	145637	61.233	0.58	1.22	0.58	2.22	5.22	3.14	5.22	3.77	3.14	4.46	14316		
Northeast	3772	2122	1207	7102	1.836	2.08	1.16	0.66	3.87	4.57	2.91	3.87	4.57	2.91	4.21	15781		
Northeast	2632	2567	2005	7204	2.003	1.31	1.28	1.00	3.60	5.07	3.18	3.60	5.07	3.18	4.66	13408		
Northeast	4955	5089	2492	12535	3.943	1.31	1.28	0.63	3.18	4.52	3.13	3.18	4.52	3.13	4.72	16502		
Northeast	6744	3628	912	11284	2.990	1.28	1.21	0.30	3.41	4.98	3.16	3.41	4.98	3.16	4.62	19669		
Northeast	5048	3704	1782	10535	2.691	1.88	1.38	0.88	3.91	5.49	3.41	3.91	5.49	3.41	5.22	17840		
Northeast	52027	12295	2856	67178	18.507	2.81	0.66	0.15	3.63	4.89	3.77	3.63	4.89	3.77	4.87	20484		
Northeast	3923	3419	3419	10467	2.776	1.41	1.13	1.23	3.77	5.25	3.14	3.77	5.25	3.14	4.78	15097		
Northeast	19577	9829	3644	33049	7.443	2.63	1.32	0.49	4.44	5.06	3.32	4.44	5.06	3.32	4.50	19324		
Northeast	9477	7384	4009	20869	6.062	1.56	1.22	0.66	3.44	5.60	3.31	3.44	5.60	3.31	5.10	20938		
Northeast	18269	9416	2934	30619	8.294	2.20	1.14	0.35	3.69	4.88	3.51	3.69	4.88	3.51	4.54	19319		
South	1509	4357	819	6685	2.459	0.61	1.77	0.33	2.72	5.25	3.31	2.72	5.25	3.31	4.81	16744		
South	2645	6292	1397	10334	3.969	0.66	1.58	0.35	2.59	5.45	3.55	2.59	5.45	3.55	4.36	14604		
South	4291	5488	1353	11133	3.685	1.16	1.49	0.37	3.02	4.76	3.25	3.02	4.76	3.25	4.29	16435		
South	3388	5170	601	9159	2.762	1.23	1.87	0.22	3.32	5.03	3.10	3.32	5.03	3.10	3.57	16467		
South	507	2181	1161	3849	1.765	0.29	1.24	0.66	2.18	5.18	3.64	2.18	5.18	3.64	3.73	14703		
South	3923	4170	1596	9688	3.398	1.15	1.23	0.47	2.85	5.13	3.88	2.85	5.13	3.88	4.54	15255		
South	1838	4245	1916	7998	3.218	0.57	1.32	0.60	2.49	4.89	3.89	2.49	4.89	3.89	2.75	15832		
South	6499	7780	1083	15362	4.369	1.49	1.78	0.25	3.52	5.15	3.21	3.52	5.15	3.21	3.76	17431		
South	4803	9159	1288	15229	4.959	0.97	1.85	0.28	3.07	5.25	3.18	3.07	5.25	3.18	4.75	17239		
South	10177	10690	903	21770	5.250	1.94	2.04	0.17	4.15	5.32	2.98	4.15	5.32	2.98	4.03	18302		
South	3526	3526	942	5388	2.387	0.39	1.48	0.39	2.26	5.21	3.34	2.26	5.21	3.34	4.21	14855		
South	820	7689	2617	13728	4.874	0.70	1.58	0.54	2.82	5.33	4.02	2.82	5.33	4.02	4.22	18228		
South	3422	7899	877	13993	3.076	1.08	1.74	0.29	2.60	5.35	3.38	2.60	5.35	3.38	4.44	15436		
South	1753	5362	353	7993	1.736	1.06	1.81	0.20	2.88	5.02	3.10	2.88	5.02	3.10	3.74	15880		
South	1887	2790	290	5009	2.253	1.32	1.40	0.38	3.08	4.58	3.68	3.08	4.58	3.68	4.33	16388		
South	2975	3158	804	6937	2.555	0.56	1.12	0.59	2.27	5.36	4.36	2.27	5.36	4.36	4.29	16943		
South	3136	6229	3262	12627	5.555	0.96	1.40	0.61	2.86	5.00	4.18	2.86	5.00	4.18	5.01	16483		
Midwest	5221	4829	2919	13068	8.333	1.21	1.86	0.46	3.55	5.25	3.87	3.55	5.25	3.87	5.08	19911		
Midwest	10056	15537	4023	29617	8.333	0.87	1.96	0.59	3.55	5.25	3.87	3.55	5.25	3.87	5.08	19911		
Midwest	2286	4950	1893	9129	3.196	0.72	1.55	0.59	2.86	5.14	3.30	2.86	5.14	3.30	4.69	17154		
Midwest	2881	5697	1981	10359	3.090	0.87	1.84	0.64	3.35	5.14	3.37	3.35	5.14	3.37	4.87	17455		
Midwest	1683	4600	1107	7390	2.441	0.69	1.88	0.45	3.03	5.51	3.28	3.03	5.51	3.28	4.93	16884		
Midwest	904	2607	2135	5646	2.543	0.36	1.03	0.84	2.22	5.66	4.09	2.22	5.66	4.09	4.49	16869		
Midwest	548	2318	732	3588	0.979	0.56	2.37	0.75	3.87	5.57	3.39	3.87	5.57	3.39	4.85	16756		
Midwest	894	2977	2154	6025	2.903	0.31	1.03	0.74	2.08	5.54	3.11	2.08	5.54	3.11	3.92	14776		
Midwest	1427	5630	1711	8767	3.047	0.47	1.65	0.56	2.88	5.74	3.68	2.88	5.74	3.68	4.94	17206		
Midwest	1584	2842	2267	6692	2.277	0.70	1.25	1.00	2.94	5.02	3.48	2.94	5.02	3.48	4.52	17224		
Midwest	1468	3650	1699	6818	2.620	0.56	1.39	0.65	2.60	5.53	3.48	2.60	5.53	3.48	4.79	15604		
Midwest	2635	4645	4444	11724	3.806	0.69	1.22	1.17	3.08	5.02	3.78	3.08	5.02	3.78	4.28	17885		
Midwest	5500	8883	3793	18177	6.337	0.87	1.40	0.60	2.85	5.61	3.99	2.85	5.61	3.99	5.17	17358		
Midwest	1366	4520	826	6712	2.358	0.58	1.92	0.35	2.85	5.05	3.03	2.85	5.05	3.03	4.65	15630		
Midwest	482	2288	1188	3957	1.332	0.36	1.72	0.89	2.97	5.55	3.36	2.97	5.55	3.36	4.44	19017		
West	2401	2951	4610	9963	4.071	0.59	0.72	1.13	2.45	5.95	3.01	2.45	5.95	3.01	5.54	20929		
West	3338	3227	5347	11912	3.592	0.93	0.90	1.49	3.32	6.00	5.14	3.32	6.00	5.14	5.20	17829		
West	1607	2380	74	8641	3.213	0.50	0.74	1.51	2.75	5.52	4.61	2.75	5.52	4.61	4.72	14348		
West	6941	7599	4905	19444	6.901	1.01	0.94	0.71	2.82	6.30	5.56	2.82	6.30	5.56	6.89	20752		
West	2639	2639	1485	6110	2.801	0.71	0.94	0.53	2.18	6.37	5.39	2.18	6.37	5.39	5.72	15814		
West	1986	2639	9375	31161	15.550	0.60	0.98	0.41	2.00	6.37	5.25	2.00	6.37	5.25	5.72	15080		
West	1817	2973	2151	6941	3.108	0.58	0.98	0.69	2.23	5.89	5.04	2.23	5.89	5.04	5.57	14964		
West	2300	2236	4429	8965	3.276	0.70	0.88	1.35	2.74	5.74	5.20	2.74	5.74	5.20	5.68	16587		
West	3434	4156	3692	11271	4.781	0.72	0.87	1.35	2.36	5.80	4.78	2.36	5.80	4.78	5.37	14705		

(a) Total OJ is NFC-OJ + RECON-OJ + FCOJ, excludes CSSOJ and aseptic OJ.

(b) For 52 week period ending 10/30/99.

Table 6d. Per Capita OJ Volume Sales, Prices and Income, By Product Form, By Region.

	Gallon Sales (000)			Per Capita Gallon Sales			Average Price (b)			Per Capita Disp. Inc. \$			
	52 Weeks Ending 10/30/99			52 Weeks Ending 10/30/99			RECON \$/Ga.						
	NFC	RECON	FCOJ	TOT. (a)	NFC	RECON	FCOJ	TOT. (a)	NFC		RECON	FCOJ	
Northeast	126424	59159	25260	210843	56.5	2.2	1.0	0.4	3.7	5.03	3.67	3.26	19094.7
South	53653	88285	20950	162888	55.7	1.0	1.6	0.4	2.9	5.16	3.50	3.24	16747.7
Midwest	38734	76074	32871	147679	50.0	0.8	1.5	0.7	3.0	5.31	3.73	3.14	17378.6
West	33199	43603	37805	114607	47.3	0.7	0.9	0.8	2.4	6.12	5.22	3.18	16671.0

Table 7. Estimated Price & Income Effects, Based on Cross-Section of 50 Cities & Remaining U.S.

	Price			Intercepts (Dummy Shifters)			R2			
	NFC	RECON	FCOJ	GJ	INCOME	NE Constant		South Dum.	Midwest Dum.	West Dum.
NFC										
Est. Coefficient	-0.47	-0.29	0.45	-0.04	1.18E-04	1.80	0.20	-0.69	-0.77	-0.60
Est. Std. Error	0.19	0.13	0.19	0.14	2.57E-05	1.05	0.27	0.29	0.23	0.38
t Statistic	-2.52	-2.24	2.39	-0.27	4.60	1.72	0.75	-2.35	-3.28	-1.60
Elasticity (a)	-2.34	-1.04	1.34	-0.17	1.87					
RECON										
Est. Coefficient	0.32	-0.56	-0.07	0.25	-5.90E-07	0.66	0.02	0.41	0.27	0.09
Est. Std. Error	0.13	0.09	0.13	0.10	1.76E-05	0.72	0.19	0.20	0.16	0.26
t Statistic	2.52	-6.47	-0.51	2.57	-0.03	0.92	0.11	2.05	1.71	0.34
Elasticity (a)	1.35	-1.72	-0.17	0.93	-0.01					
FCOJ										
Est. Coefficient	0.10	0.29	-0.71	-0.03	-3.12E-05	1.89	0.19	-0.05	0.13	-0.07
Est. Std. Error	0.10	0.06	0.09	0.07	1.30E-05	0.53	0.14	0.15	0.12	0.19
t Statistic	1.02	4.50	-7.51	-0.48	-2.40	3.56	1.37	-0.32	1.10	-0.39
Elasticity (a)	0.91	1.99	-4.04	-0.29	-0.93					

(a) Elasticities calculated at total U.S. average values:

	NFC	RECON	FCOJ	GJ
Per Capita Ga.	1.06	1.26	0.56	
Price (\$/Ga.)	5.24	3.86	3.18	4.67
Per Capita Inc.	16791			

Table 8. Disposable Income and Real Per Capita Income

Year	Disp. Personal Income		CPI (1983-84=100)	Population Mil.	Per Capita	
	Bil. \$	1998 Dollars			Real Disp. Personal Income	% Change
1990	4171.4	20817	130.7	249.9		
1991	4340.9	20566	136.2	252.6		-1.21%
1992	4605.1	20948	140.3	255.4		1.86%
1993	4791.1	20940	144.5	258.1		-0.04%
1994	5018.9	21182	148.2	260.6		1.16%
1995	5277.0	21460	152.4	263.0		1.31%
1996	5534.7	21657	156.9	265.5		0.92%
1997	5795.1	21969	160.5	267.9		1.44%
1998	6027.0	22297	163.0	270.3		1.50%

Table 9. Estimated OJ Demand Income Elasticities, and Impacts of Income on Demand, By Product Form.

Year	% Change Per Capita Real Disp. Per. Inc.	Product Form		
		NFC-OJ	RECON-OJ	FCOJ
		-----Estimated Income Elasticity (a)-----		
		2.01	-0.055	-0.432
		-----Estimated % Change Gallon Sales-----		
1991	-1.2%	-2.4%	0.1%	0.5%
1992	1.9%	3.7%	-0.1%	-0.8%
1993	-0.0%	-0.1%	0.0%	0.0%
1994	1.2%	2.3%	-0.1%	-0.5%
1995	1.3%	2.6%	-0.1%	-0.6%
1996	0.9%	1.8%	-0.1%	-0.4%
1997	1.4%	2.9%	-0.1%	-0.6%
1998	1.5%	3.0%	-0.1%	-0.6%

(a) The NFC and FCOJ income elasticities were statistically different from zero at .90 level of significance; the RECON income elasticity was not statistically different than zero.

Table 10. OJ advertising Versus Gallon Sales, and Estimated Advertising Elasticities, By City, Ranked By % Increase in Advertising.

	52 Week Gallon Sales (Sept. 98-Aug. 99)			OJ			% Change From Previous 52 Week Period			Sept. 97-Aug 98			OJ Advertising \$			Adv. Elast. (a)			
	OJ	NFC	RECON	RECON	FCOJ	FCOJ	OJ	NFC	RECON	RECON	FCOJ	FCOJ	NFC	RECON	FCOJ	NFC	RECON	FCOJ	% Change
		Million Gallons	Million Gallons	Million Gallons	1000 Dollars	1000 Dollars													
MINNEAPOLIS	11.8	2.6	4.7	4.5	5.2%	16.5%	-0.5%	-13.8%	5.37	224.95	373.5%	0.002							
GRAND RAPIDS	6.8	1.4	3.7	1.7	0.8%	17.7%	-3.9%	-20.6%	6.19	168.35	330.3%								
OMAHA	4.0	0.5	2.3	1.2	-3.8%	6.8%	-9.6%	-17.2%	4.63	55.59	248.5%	0.019							
PORTLAND	9.2	2.3	2.2	4.7	-2.3%	3.5%	-1.8%	-16.1%	13.76	160.57	245.7%	0.002							
LOUISVILLE	6.8	1.4	4.5	0.8	-1.3%	4.8%	-6.4%	-17.2%	6.45	62.98	227.9%	0.002							
MEMPHIS	5.6	0.9	3.6	1.2	-8.6%	1.2%	-13.0%	-15.2%	4.41	36.3	210.8%	0.002							
LITTLE ROCK	3.9	0.5	2.2	1.2	2.6%	33.6%	-15.4%	-10.7%	4.68	35.02	201.3%	0.002							
NEW ORLEANS/MO	10.6	2.6	6.4	1.5	-4.3%	20.1%	-15.5%	-11.3%	9.15	67.25	199.5%	0.003							
DES MOINES	3.7	0.5	2.4	0.7	-0.9%	16.1%	-4.0%	-12.4%	5.84	28.9	159.9%								
INDIANAPOLIS	8.9	1.4	5.7	1.7	-3.0%	26.0%	-21.4%	-12.4%	19.23	93.74	158.4%								
ST. LOUIS	9.3	2.2	5.0	1.9	7.3%	8.4%	13.0%	-15.3%	18.37	87.24	155.8%	0.007							
NEW YORK	67.4	51.7	12.5	3.0	-5.8%	13.3%	-5.2%	-22.6%	77.89	363.48	164.0%								
MIAMI	22.1	10.2	10.7	0.9	-2.2%	6.3%	-7.7%	-22.6%	105.87	455.44	145.9%								
KANSAS	5.8	0.9	2.6	2.2	-6.8%	11.4%	-8.8%	-12.3%	25.29	91.56	128.7%								
COLUMBUS	7.5	1.6	4.7	1.1	-2.2%	6.5%	-0.9%	-16.0%	22.61	79.43	126.8%	0.002							
RALEIGH/DURHAM	11.2	4.1	5.6	1.4	0.4%	10.6%	1.1%	-8.3%	6.46	22.24	123.8%								
CINCINNATI	10.4	2.6	5.7	2.0	-5.9%	-1.0%	-11.2%	-19.8%	32.45	96.22	108.7%								
DALLAS	13.0	3.1	6.2	3.3	-2.1%	18.7%	-5.2%	-16.0%	176.33	492.19	102.7%								
SALT LAKE CITY	9.1	1.6	2.4	5.1	-4.3%	10.8%	-2.8%	-19.0%	15.28	41.77	100.8%	0.006							
CLEVELAND	13.3	5.2	5.0	3.0	-4.0%	10.4%	-10.6%	-18.1%	19.49	51.06	96.3%								
SAN DIEGO	6.3	2.0	2.7	1.5	-4.3%	14.4%	-1.9%	-13.3%	99.6	255.93	94.4%								
SACRAMENTO	7.1	1.8	3.0	2.2	-3.5%	12.3%	1.7%	-17.2%	77.22	191.65	90.9%								
PHOENIX	11.5	3.2	4.3	3.8	-6.7%	7.0%	-10.3%	-17.8%	117.27	278	86.3%	0.012							
OKLAHOMA CITY	6.1	0.9	3.0	2.2	1.2%	18.0%	0.4%	-17.4%	7.33	17.2	85.3%								
SAN ANTONIO	8.5	1.8	4.3	1.9	0.8%	12.8%	2.7%	-14.9%	20.42	39.24	65.3%	0.003							
PHILADELPHIA	31.3	18.4	9.5	3.1	2.8%	8.3%	-0.9%	-10.8%	131.43	244.6	62.1%								
DETROIT	18.6	5.5	9.1	3.9	-2.1%	14.9%	-4.7%	-8.9%	124.3	222.19	58.1%								
PITTSBURGH	12.6	4.9	5.0	2.6	0.7%	18.6%	-1.7%	-6.0%	23.28	38.75	51.0%								
SEATTLE	10.2	2.3	3.0	4.8	-2.2%	7.7%	-2.3%	-17.4%	171.11	259.62	41.7%								
DENVER	12.0	3.3	3.2	5.3	-6.0%	13.6%	-10.0%	-18.8%	144.16	217.56	41.2%	0.003							
CHICAGO	28.9	9.7	15.2	4.0	2.3%	6.5%	-8.4%	-18.3%	507.94	667.4	27.3%								
SAN FRANCISCO	20.1	6.9	7.9	5.1	-3.2%	15.0%	-0.7%	-12.6%	511.49	657.89	25.2%								
HOUSTON	14.4	3.3	7.8	2.6	-5.7%	31.7%	-8.8%	-11.8%	192.68	228.8	17.2%								
NASHVILLE	6.7	1.5	4.3	0.8	-1.0%	2.5%	-1.1%	-17.2%	79.01	90.6	13.7%								
MILWAUKEE	6.8	1.5	2.9	2.3	3.9%	8.1%	4.1%	-17.6%	79.21	85.16	7.2%								
RICHMOND/NORFO	9.8	3.8	4.3	1.6	-6.7%	15.2%	-16.3%	-11.9%	34.23	35.01	2.3%								
TAMPA	15.7	6.5	7.8	1.1	-7.1%	47.4%	-36.3%	-19.9%	260.89	247.71	-5.2%								
SYRACUSE	7.3	2.6	2.6	2.0	-4.9%	22.7%	-12.6%	-12.8%	6.46	5.66	-13.2%	0.008							
BIRMINGHAM	8.3	1.7	5.5	0.9	-0.8%	29.7%	-15.1%	-14.2%	85.77	66.49	-25.6%								
HARTFORD/NEWH	11.4	6.8	3.7	0.9	4.8%	25.2%	-5.5%	-7.7%	18.9	13.15	-36.3%								
WASHINGTON D.C	21.5	9.4	7.7	4.1	-0.8%	21.4%	-6.9%	-8.4%	359.26	195.17	-61.0%								
LOS ANGELES	32.1	9.5	15.6	6.4	-4.9%	8.8%	-5.3%	-16.6%	873.72	415.43	-74.3%	0.012							
ORLANDO	9.2	3.4	5.2	0.6	-0.8%	19.9%	0.9%	-7.2%	175.68	82.69	-75.5%	0.011							
BALTIMORE	10.6	5.0	3.6	1.8	0.3%	19.3%	-3.4%	-13.8%	186.67	87.21	-76.1%								
BUFFALO/ROCHES	10.6	3.9	3.2	3.4	-1.2%	12.1%	-3.9%	-10.1%	84.87	29	-107.4%								
JACKSONVILLE	5.2	1.9	2.9	0.4	0.5%	14.4%	-3.9%	-10.1%	18.38	3.99	-152.7%	0.003							
ATLANTA	15.3	4.7	9.2	1.3	-10.2%	12.2%	-2.3%	-24.3%	343.85	74.03	-153.8%								
CHARLOTTE	7.0	2.8	3.2	0.8	0.3%	13.2%	-2.0%	-11.3%	99.59	12.12	-210.6%								
ALBANY	7.1	3.7	2.2	1.3	-2.5%	4.1%	-6.7%	-11.9%	42.04	4.82	-216.6%	2.00E-06							
BOSTON	33.4	19.6	9.9	3.8	0.5%	9.5%	-2.6%	-12.1%	390.77	21.32	-290.8%								

(a) Positive, statistically significant advertising elasticities, estimated from a regression of gallon sales on OJ prices by product form, the price of GJ and advertising (a double log specification was used).

Table 11. OJ advertising versus Estimated Demand Growth, By City, Ranked By % Increase in Advertising.

	OJ Advertising \$		TOT. (a), (b)	Est. % Demand Growth, Prices Constant	NFC	RECON	FCOJ
	Sept. 97-Aug 98	Sept. 98-Aug 99					
	-1000 Dollars		% Change				
MINNEAPOLIS	5.37	224.95	373.5%	6.8	23.5	7.1	-4.0
GRAND RAPIDS	6.19	168.35	330.3%	7.5	28.2	6.5	-8.1
OMAHA	4.63	55.59	248.5%	6.2	30.3	10.6	-15.2
PORTLAND	13.76	160.57	245.7%	6.5	26.7	0.2	-0.9
LOUISVILLE	6.45	62.98	227.9%	4.8	25.7	0.7	-6.9
MEMPHIS	4.41	36.3	210.8%	4.2	18.3	2.4	-3.0
LITTLE ROCK	4.68	35.02	201.3%	6.1	17.0	7.6	-4.7
NEW ORLEANS/MO	9.15	67.25	189.5%	6.1	23.5	2.1	-9.1
DES MOINES	5.84	28.9	159.9%	3.7	13.3	5.8	-10.1
INDIANAPOLIS	19.23	93.74	158.4%	6.7	19.0	7.6	-6.7
ST. LOUIS	18.37	87.24	155.8%	6.2	16.0	4.1	-0.2
NEW YORK	77.89	363.48	154.0%	4.8	11.6	-20.0	-13.1
MIAMI	105.87	455.44	145.9%	6.4	15.0	-0.2	-13.3
KANSAS	25.29	91.56	128.7%	8.6	30.9	10.0	-2.6
COLUMBUS	22.61	79.43	125.6%	8.0	18.2	4.4	-5.8
RALEIGH/DURHAM	6.46	22.24	123.8%	5.4	25.1	-5.6	-12.0
CINCINNATI	32.45	96.22	108.7%	4.9	17.9	2.5	-5.7
DALLAS	176.33	492.19	102.7%	2.0	15.8	2.6	-12.6
SALT LAKE CITY	41.77	100.8%	100.8%	8.0	36.0	-3.3	4.3
CLEVELAND	19.48	51.06	96.3%	9.0	22.0	0.7	-0.2
SAN DIEGO	99.6	255.93	94.4%	3.8	12.5	4.3	-8.9
SACRAMENTO	77.22	191.65	90.9%	8.1	22.5	5.0	-6.2
PHOENIX	117.27	278	86.3%	2.9	22.2	-0.3	-11.6
OKLAHOMA CITY	7.33	17.2	85.3%	3.7	28.8	6.6	-10.6
SAN ANTONIO	20.42	39.24	65.3%	3.4	14.9	3.2	-7.5
PHILADELPHIA	131.43	244.6	62.1%	5.1	13.5	-5.1	-14.0
DETROIT	124.3	222.19	56.1%	6.4	21.2	5.8	-13.7
PITTSBURGH	23.28	36.75	51.0%	7.8	31.9	-8.7	-6.5
SEATTLE	171.11	259.62	41.7%	1.2	23.2	-0.7	-9.0
DENVER	144.16	217.56	41.2%	2.8	9.7	5.5	-3.2
CHICAGO	507.94	667.4	27.3%	9.2	23.2	2.4	-0.0
SAN FRANCISCO	511.49	657.89	25.2%	3.2	12.3	5.6	-13.4
HOUSTON	192.68	228.8	17.2%	2.8	18.5	1.9	-15.3
NASHVILLE	79.01	90.6	13.7%	0.7	9.7	0.5	-14.9
MILWAUKEE	79.21	85.16	7.2%	4.8	21.6	6.7	-9.1
RICHMOND/MORFO	34.23	35.01	2.3%	5.8	18.9	-1.3	-8.0
TAMPA	260.89	247.71	-5.2%	1.4	12.7	-5.0	-20.4
SYRACUSE	6.46	5.66	-13.2%	8.0	19.3	3.0	-7.8
BIRMINGHAM	85.77	66.49	-25.5%	-2.1	7.1	-2.7	-17.1
HARTFORD/NEWH	18.9	13.15	-36.3%	6.2	19.7	-13.2	-16.0
WASHINGTON D.C	359.26	195.17	-61.0%	4.1	19.1	-6.5	-11.6
LOS ANGELES	873.72	415.43	-74.3%	0.4	-3.1	4.9	-5.3
ORLANDO	175.98	82.69	-75.5%	4.3	7.1	5.1	-19.4
BALTIMORE	186.67	87.21	-76.1%	4.6	16.5	-3.4	-12.7
BUFFALO/ROCHES	84.87	29	-107.4%	2.7	7.5	7.2	-7.0
JACKSONVILLE	18.38	3.99	-152.7%	7.0	17.1	3.5	-18.2
ATLANTA	343.85	74.03	-163.6%	5.5	22.6	-1.3	-10.9
CHARLOTTE	99.59	12.12	-210.6%	6.8	25.8	-7.4	-9.8
ALBANY	42.04	4.82	-216.8%	6.5	18.6	-3.7	-13.4
BOSTON	390.77	21.32	-290.8%	1.4	11.9	-12.8	-16.2

Correlation Coefficient: % Change in Advertising and Demand Growth Rate 0.27 0.36 0.38 0.42

(a) Positive, statistically significant advertising elasticities, estimated from a regression of gallon sales on OJ prices by product form, the price of GJ and advertising (a double log specification was used)
 (b) All correlation coefficients indicate a positive relationship between the % change in advertising and the demand growth rate. The correlation coefficient for total OJ was statistically significant at the 90% level, those for NFC, RECON and FCOJ were statistically significant at the 95% level.