Demand for Non-Alcoholic Beverages: Evidence from the ACNielsen Home Scan Panel

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Abstract

Using the ACNielsen HomeScan Panel over the period 1998 to 2001 as the source of data, we entertain various demand systems, namely, the LA/AIDS, the AIDS, and the QUAIDS to investigate the demand for eight non-alcoholic beverages. Own-price, cross-price, and expenditure elasticities are obtained by year and by demand system for milk, bottled water, carbonated soft drinks, powdered soft drinks, coffee, tea, fruit juices and drinks, and isotonics. Emphasis is placed on the magnitude of price sensitivity of households toward non-alcoholic beverages as well as on substitution and complementary patterns. This work provides a more current and more thorough analysis associated with the non-alcoholic beverage industry than previously reported in the literature.

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Background

The non-alcoholic beverage industry has changed dramatically over the past two decades. With the exception of milk, upward trends in per capita consumption are evident for most alcoholic beverages, particularly bottled water and carbonated soft drinks. The non-alcoholic beverage industry is a prime example of monopolistic competition, with notable advertising and promotion expenditures. This industry also is experiencing large growth in the introduction of new products. Simply put, the non-alcoholic beverage industry is a key sector of the overall food industry in the United States.

Understanding the forces behind the trends in the consumption and number of non-alcoholic beverages is important to private and public analysts associated with this industry. In examining non-alcoholic beverage consumption among U.S. children and adolescents, Harnack, Stang, and Story (1999) found that soft drinks were displacing milk and fruit juices. Buckley (2003) and Hellmich (2003) reported similar findings. Government programs such as the Food Stamp Program, the National School Lunch Program, the School Breakfast Program and the Special Supplemental Food Program for Women, Infants and Children, target households for the purpose of improving nutrition. Many of the choices available under these government programs are non-alcoholic beverages.

Past work in the non-alcoholic beverage arena has focused primarily on five beverages, namely milk, juices, soft drinks, coffee, and tea, (Xiao, Kinnucan, and Kaiser (1998); Heien and Wessels (1988, 1990); Ueda and Frechette (2002); Gould (1990, 1996); Maynard and Liu (1999); Yen and Lin (2001); and Kaiser and Reberte (1996)). The bulk of the extant literature centered on milk. An analysis including additional classifications of non-alcoholic beverages would provide greater information and serve to update and monitor the aforementioned trends in consumption and growth in the development of new products.

In this light, the objectives are threefold; (1) using the ACNielsen HomeScan Panel as the source of data, to investigate the demand for eight non-alcoholic beverage categories in particular bottled water; milk; carbonated soft drinks; tea; coffee; fruit juices and drinks; powdered soft drinks; and isotonics (e.g. Gatorade); (2) to obtain own-price and cross-price elasticities of demand for these non-alcoholic beverage categories; and (3) to entertain various demand systems, namely the LA/AIDS, the AIDS, and the QUAIDS to determine the impact of functional form on the set of demand elasticities. Emphasis is placed on the magnitude of price sensitivity of households toward non-alcoholic beverages as well as on the substitution and complementary patterns among the beverages considered. This work also provides an indication of the robustness of the empirical results with respect to functional form. Consequently, this work provides a more current and more thorough analysis associated with the non-alcoholic beverage segment of the food industry than previously reported in the literature.

Data

The Home Scan Panel provides information on purchases made by U.S. households from the 1998 to 2001 period. But, the households are not the same year after year so the ACNielsen Home Scan data do not conform to a true panel. The data set constitutes a collection of transactions by household for a particular year. Over a year, each household records expenditures and quantities of purchases made primarily, although not exclusively, in retail grocery outlets including discounts and coupons. This recording is done with scanning equipment. The scanner data were collected by date of purchase and only households purchasing products in at least 10 of the 12 calendar months were included in the sample. We only entertain households who purchased products in all 12 months. A breakdown of the households within the ACNielsen Home Scan Panel is exhibited in Table 1. Thus, our

analysis is based on purchase patterns of 26, 255 households.

The demographics of each household also are known with regard to income; household size; age, employment status, and education of household heads; age and presence of children, race, region, and ethnicity. This data set is a nationally representative sample capturing purchases of a vast number of items made by U.S. consumers. To substantiate this claim, selected demographic characteristics associated with the ACNielsen Home Scan Panel are presented in Table 2. This data set may be thought of as a cross-sectional analysis of purchases made by a large number of U.S. households within a single calendar year, but over the time frame 1998 to 2001.

Details associated with the creation of the data set used in this analysis are given in Pittman (2004). By year, for each household, our data set includes information on demographic variables previously described, as well as expenditures in dollars, and quantities in gallons, on: (1) milk; (2) carbonated soft drinks; (3) powdered soft drinks; (4) isotonics; (5) bottled water; (6) fruit juices and drinks (ready-to-drink as well as frozen); (7) coffee; and (8) tea. Prices associated with these eight beverages were derived, by taking the ratio of expenditures to quantities. Where expenditures and quantities were both zero, price imputations (of the first-order kind) were made through the use of auxiliary regressions of reported prices on demographic variables. The unit of measurement associated with the price variables is dollars per gallon.

Descriptive statistics associated with the aforementioned aggregate beverage products over the period 1998 to 2001 are exhibited in Tables 3-6. In Table 3, we present information on dollar expenditures. In Table 4, we present a descriptive picture on purchases. Over the period 1998 to 2001, the top non-alcoholic beverages in terms of purchases are milk, carbonated soft drinks, and coffee, while isotonics are at the bottom of our list of non-alcoholic beverages. In Table 5, we present information on prices associated with the non-

alcoholic beverages. The most expensive non-alcoholic beverages on a dollar per gallon basis are isotonics and fruit juices and drinks, while powdered soft drinks and coffee are the least expensive. In Table 6, we present descriptive data on average budget shares. Carbonated soft drinks, milk, and fruit juices and drinks account for roughly 80 percent of the share of expenditures associated with non-alcoholic beverages. Over the period 1998 to 2001, the shares are on the rise for bottled water, fruit juices and drinks and tea, but they are on the decline for milk, carbonated soft drinks and coffee. For tables 3-5, mean, standard deviation, minimum, and maximum values are reported for those households who purchase products in all 12 months of the calendar year.

In Table 7, we report the number and percentage of households who fail to purchase each of the aggregate beverage products by year. This information corresponds to the inverse of market penetration. As well, this information provides indications of the degree of censoring associated with the beverage products in all years. For milk, carbonated soft drinks, and fruit juices and drinks, the censored response issue is minimal. Roughly, 1 to 3 percent of all households fail to purchase these products within any given year. For coffee and tea, the degrees of censoring range from 23 to 26 percent; for bottled water, roughly 1/3 to 2/5 of households do not purchase this product over the period 1998 to 2001. For powdered soft drinks, about half of the HomeScan panel households are non-purchasers, and for isotonics, roughly 70 to 75 percent of HomeScan panel households are non-purchasers.

Demand Systems

To capture the interrelationships among the eight non-alcoholic beverages, we employ a demand systems approach in lieu of single-equation demand equations. The Linear Approximation/Almost Ideal Demand System (LA/AIDS), the AIDS, and the quadratic AIDS (QUAIDS) comprise the specifications indigenous to this examination. The reason behind

considering alternative demand systems is to check on the robustness of the results with respect to functional form.

Each of the respective demand systems is a variation of the almost demand system originally developed by Deaton and Muellbauer (1980). Banks, Blundell, and Lewbel (1997) developed a generalization of the almost ideal demand system with the QUAIDS. In each of the respective specifications, the dependent variable is the average budget share of the ith commodity, $w_i = p_i q_i / x$, where $x = \sum p_i q_i$, and common right-hand side variables include the logarithm of prices (p_i) and the logarithm of total expenditures ($x = \sum p_i q_i$). The AIDS models have been very popular in applied demand analyses, particularly with the use of cross-sectional data.

Mathematically we may represent each of these model specifications with additive disturbance terms as follows. The AIDS model (Deaton & Muellbauer (1980)) along with its theoretical restrictions is given by:

$$w_i = \alpha_i + \sum_{j=1}^{n} \gamma_{ij} \ln p_j + \beta_i (\ln x - \ln a(p)) + e_i \qquad (1)$$

where $\ln \alpha(p) = \alpha_0 + \sum_{j=1}^{n} \alpha_j \ln p_j + \frac{1}{2} \sum_{i=1}^{n} \sum_{j=1}^{n} \gamma_{ij} \ln p_i \ln p_j$

Adding Up

$$\sum_{i=1}^{n} \alpha_i = 1, \sum_{i=1}^{n} \beta_i = 0, \sum_{j=1}^{n} \gamma_{ij} = 0$$

Homogeneity

$$\sum_{j=1}^{n} \gamma_{ij} = 0$$

Symmetry

$$\gamma_{ij} = \gamma_{ij}$$

The linear approximate AIDS model which utilizes Stone's index is as follows:

$$w_i = \alpha_i + \sum_{j=1}^{n} \gamma_{ij} 1n\ p_j + \beta_i (1n\ x\text{-}1n\ p) + e_i \quad (2)$$

where $1n\ p = \sum_{j=1}^{n} w_j 1n\ p_j$ is Stone's Index

Adding Up

$$\sum_{i=1}^{n} \alpha_i = 1, \sum_{i=1}^{n} \beta_i = 0, \sum_{j=1}^{n} \gamma_{ij} = 0$$

Homogeneity

$$\sum_{j=1}^{n} \gamma_{ij} = 0$$

Symmetry

$$\gamma_{ij} = \gamma_{ij}$$

Next we have the quadratic AIDS model (QUAIDS) developed by Banks, Blundell, & Lewbel, (1997)

$$w_i = \alpha_i + \sum_{j=1}^{n} \gamma_{ij} 1n\ p_j + \beta_i (1n\ x\text{-}1n\ \alpha(p)) + \frac{\lambda_i}{\prod_{j=1}^{n} p_j^{\beta_i}} (1n\ x\text{-}1n\ \alpha(p))^2 + e_i \quad (3)$$

Adding Up

$$\sum_{i=1}^{n} \alpha_i = 1, \sum_{i=1}^{n} \beta_i = 0, \sum_{j=1}^{n} \gamma_{ij} = 0, \sum_{i=1}^{n} \Lambda i = 0$$

Homogeneity

$$\sum_{j=1}^{n} \gamma_{ij} = 0$$

Symmetry

$$\gamma_{ij} = \gamma_{ij}$$

For use as a more simple quadratic structure we substituted Stone's index into the QUAIDS model and estimated the demand system with this specification before moving on to the more complicated QUAIDS model. The QUAIDS model using Stone's index is given as follows:

$$w_i = \alpha_i + \sum_{j=1}^{n} \gamma_{ij} \ln p_j + \beta_i (\ln x - \ln P) + \frac{\lambda_i}{\prod_{j=1}^{n} p_j^{\beta_i}} (\ln x - \ln P)^2 + e_i \quad (4)$$

Adding Up

$$\sum_{i=1}^{n} \alpha_i = 1, \sum_{i=1}^{n} \beta_i = 0, \sum_{j=1}^{n} \gamma_{ij} = 0, \sum_{i=1}^{n} \lambda_{ij} = 0$$

Homogeneity

$$\sum_{j=1}^{n} \gamma_{ij} = 0$$

Symmetry

$$\gamma_{ij} = \gamma_{ij}$$

Equation (1), the AIDS model, is subsumed by equation (3), the QUAIDS model. In fact, if the joint hypothesis $H_0 : \lambda_i = 0$ for all i is rejected then the QUAIDS is a superior specification statistically to the AIDS model. In both the AIDS and QUAIDS models, the demand systems are nonlinear in parameters. In Equations (2) and (4), we simply replace $a(p)$ with $\ln P = \sum_{i=1}^{n} w_i \ln p_i$ the so-called Stone's Index. Consequently, the demand models associated with equations (2) and (4) are linear in parameters. Analogues to the situation involving equations (1) and (3), equation (2) is subsumed by equation (4). Moreover, each of the respective demand systems automatically satisfies the adding-up or Engel aggregation restrictions. Too, homogeneity and symmetry restrictions are imposed through the parameters γ_{ij}.

Once the respective demand parameters associated with the models given in equations (1)-(4), we are in position to calculate own-price, cross-price, and expenditure elasticities. We desire then, $\frac{d \ln q_i}{d \ln z}$ where z is either $p_i, p_j \; i \neq j,$ or x. But the demand equations are in terms of budget shares. Because

$w_j = \frac{p_i q_i}{x}$, then

$$1nw_i = \ln p_i + 1nq_i - 1nx \quad (5)$$

thus,

$$1nq_i = \ln w_i - 1np_i + 1nx \quad (6)$$

Consequently

$$\frac{dlnq_i}{dlnz} + \frac{dlnw_i}{dlnz} - \frac{dlnp_i}{dlnz} + \frac{dlnx}{dlnz} \quad (7)$$

But, since

$$\frac{dlnq_i}{dlnz} + \frac{dw_i}{dlnz}\left(\frac{1}{w_i}\right) - \frac{dlnp_i}{dlnz} + \frac{dlnx}{dlnz} \quad (8)$$

The end result of the use of equation (8) then is to appropriately delineate the elasticity formulas. The expenditure elasticities for the respective demand models are given by:

$$\left\{ \begin{array}{ll} \frac{\beta_i}{w_i} + 1 \text{ if LA/AIDS} & (9a) \\ \frac{\beta_i}{w_i} + 1 \text{ if AIDS} & (9b) \\ \left(\beta_i + \frac{2\lambda_i}{b(p)}(1n\ x - 1n\ P)\right)\frac{1}{w_i} + 1 \quad \text{if QUAIDS with Stone's Index} & (9c) \end{array} \right\}$$

where $b(p) = \prod_{i=1}^{n} pi^{Bi}$

The uncompensated price elasticity formulas are given by

$$\begin{cases} \dfrac{\gamma_{ij} - \beta_i w_j}{\mathrm{w}_i} - \delta_{ij} \text{ if LA/AIDS} & \text{(10a)} \\ \left(\gamma_{ij} - \beta_i (\alpha_j + \sum_k \gamma_{ij} \mathrm{ln\ p}_k) \right) \dfrac{1}{w_i} \text{-} \delta_{ij} \text{ if AIDS} & \text{(10b)} \\ \left(\gamma_{ij} - \beta_i w_j - \dfrac{2\lambda_i}{b(p)} (\mathrm{ln\ x\text{-}ln\ P}) \mathrm{w}_j \right) \dfrac{1}{w_i} \text{-} \delta_{ij} \text{ if QUAIDS with Stone's Index} & \text{(10c)} \\ \dfrac{\gamma_{ij}}{w_i} - \left(\alpha + \sum_k \gamma_{ij} \mathrm{ln\ p}_k \right) + \left(\beta_i \dfrac{2\lambda_i}{b(p)} (K) \right) \dfrac{1}{w_i} \text{-} \delta_{ij} \text{ if QUAIDS} & \text{(10d)} \end{cases}$$

where $\mathrm{b(p)} = \prod_{i=1}^{n} pi_i^{Bi}$,

and $\mathrm{K=1nx\text{-}}\alpha_0 - \sum_{i=1}^{n} \alpha_i \mathrm{ln\ p}_i - \frac{1}{2} \sum_{i=1}^{n} \sum_{i=1}^{n} \gamma_{ij} \mathrm{ln\ p}_i \ \mathrm{ln\ p}_j$

To derive compensated price elasticity formulas, we rely on Slutsky's equation

$$N_{ij}^{c} = N_{ij}^{u} + N_{i}^{c} w_j \qquad (11)$$

where N_{ij}^{c} is the compensated price elasticity associated with goods i and j, N_{ij}^{U} is the uncompensated price elasticity between these goods, N_i^x is the total expenditure elasticity of good i and w_i is the average budget share of good j.

Estimation Issues

Only observations corresponding to non-zero total expenditures can be used in the estimation of the demand system model. This issue was not problematic since every household purchased at least one non-alcoholic beverage in every year from 1998 to 2001.

From Table 7, however, censoring is evident in most of the non-alcoholic beverages in the respective demand systems. In the literature, different procedures have been developed to deal with censored demand systems (i.e., demand systems involving zero budget shares). The various methods include: (1) full-information maximum likelihood (FIML) methods developed by Amemry (1974); Wales and Woodland (1983); Lee and Pitt (1986, 1987); and Lee (1993); (2) multi-step estimation methods developed by Peraliand Chavas (2000) and

Shonkwiler and Yen (1999); (3) simulated maximum likelihood (SML) methods developed by Börch-Supan and Hajivassiliou (1993); Geweke (1991); and Keane (1993); and (4) quasi maximum likelihood (QML) methods initiated by Avery, Hansen, and Hotz (1983) and Avery and Hotz (1985). Yen, Lin, and Smallwood applied the QML approach to a censored translog demand system for foods.

We report the empirical results associated with the estimation of the demand models using Zellner's iterative seemingly unrelated regression procedure (ITSUR). The software package used was TSP, version 4.5. The beverage omitted from the direct estimation of the systems so as to avoid the singularity of the variance-covariance matrix of disturbance terms was tea. In this version, we do not consider estimating the demand models, taking into account, censored observations. Later, we compare the empirical results with and without taking the censoring issues into consideration.

Empirical Results

Parameter estimates and associated p-values by year for the various demand systems are exhibited in Tables 8-11. Most of the parameter estimates are statistically different from zero at the 0.05 level. Owing to the significance of the coefficients associated with the quadratic expenditure terms, the data support, at least statistically, the QUAIDS with Stone's Index over the LA/AIDS as well as the QUAIDS over the AIDS.

The uncompensated own-price and cross-price elasticities for the non-alcoholic beverages for the respective demand models are exhibited in Tables 12 and 13. More succinctly, we present the compensated own-price elasticities in Table 14. These elasticities remarkably are very similar across years and across demand specifications. The own-price elasticities for milk, isotonics, bottled water, and coffee are in the elastic range. Isotonics are the most price sensitive of the non-alcoholic beverages. The non-price elasticities for

carbonated soft drinks, powdered soft drinks, fruit juices and drinks, and tea are in the inelastic range. The compensated own-price for carbonated soft drinks, powdered soft drinks, and fruit juices and drinks are very similar.

Owing to the similarity of the results by model and by year, we present the compensated elasticity matrix for the QUAIDS for 1998 in Table 15. This matrix allows examination of the substitution and complementary patterns among the non-alcoholic beverages. With few exceptions, the set of non-alcoholic beverages are substitutes. Most of the compensated cross-price elasticities also are statistically significant at the 0.05 level. The most prominent substitutes for milk are carbonated soft drinks; fruit juices and drinks and coffee. The major substitute for carbonated soft drinks is milk. The most notable substitutes for powdered soft drinks are coffee, milk, and carbonated soft drinks. The most prominent complement to powdered soft drinks is fruit juices and drinks. Milk, carbonated soft drinks, fruit juices and drinks, and coffee are substitutes for isotonics. Bottled water is a complement to isotonics. Fruit juices and drinks and milk are the most notable substitutes for bottled water. Milk and to a lesser degree, coffee, tea, bottled water, and carbonated soft drinks are the major substitutes for fruit juices and drinks. Milk, carbonated soft drinks, and fruit juices and drinks are the key substitutes for coffee. Finally, fruit juices and drinks and milk are the primary substitutes for tea.

The expenditure elasticities by year and by demand model are exhibited in Table 16. Again, the striking feature of this table of elasticities rests on the similarity of the results by year and by model.

Concluding Remarks

The own-price, cross-price and expenditure elasticities are remarkably robust across the four demand models used in this analysis. Statistically speaking, the data support

quadratic versions of the AIDS model. Most of the compensated cross-priced elasticities are positive and statistically different from zero. Consequently, the non-alcoholic beverages largely are substitutes. Prominent substitutes for the respective non-alcoholic beverages are evident, and many of those involve milk, carbonated soft drinks, and fruit juices and drinks. This finding reveals the interrelatedness within the non-alcoholic beverage complex. In sum, this work provides a more current and thorough analysis associated with the non-alcoholic beverage segment of the food industry than reported previously in the literature.

Future studies may wish to consider alternative functional forms such as the translog demand system. Other issues to be considered include the impact of censored responses and heteroscedasticity in the demand system results.

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Tables

Table 1. A Breakdown of the Households within the ACNielsen Homescan Panel Over the Period 1998-2001

Year	10 Month Purchasers*	12 Month Purchasers**
1998	7624	6616
1999	7124	6397
2000	7523	6600
2001	8216	7142
Total	30487	26755

*Number of households making purchases in at least 10 months of the calendar year

**Number of households making purchases in all 12 months of the calendar year

Table 2. Selected Demographic Characteristics Associated With the ACNielsen Homescan Panel Over the Period 1998-2001

Region	East 21%, West 21%, South 34%, Central 24%
Children	31% of households have children under 18
Race	84% White, 10% Black, 2% Oriental, 4% Other
Hispanic	7% Hispanic Origin
Poverty	94% of the households are above 130% poverty
Income	$50,858 mean household income
Education	40% of the household heads have college plus education

Table 3. Descriptive Statistics for Dollar Expenditures on Each Beverage Category for years 1998-2001

	1998				1999			
	Mean ($)	Std. Dev.	Min	Max	Mean ($)	Std. Dev.	Min	Max
Milk	92.50	86.56	0	1026.97	92.05	90.18	0	1114.78
Carbonated Soft Drinks	126.66	148.74	0	4726.69	120.79	155.06	0	5712.32
Powdered Soft Drinks	7.09	16.01	0	270.44	6.95	16.41	0	323.23
Isotonics	4.79	18.57	0	374.87	4.24	14.56	0	235.44
Bottled Water	10.38	27.64	0	459.08	12.14	29.57	0	573.65
Fruit Juices and Drinks	92.74	87.30	0	1115.66	96.62	91.97	0	1294.89
Coffee	35.59	47.64	0	1045.58	32.95	45.54	0	709.63
Tea	13.37	23.25	0	473.14	14.28	25.28	0	376.26

	2000				2001			
	Mean ($)	Std. Dev.	Min	Max	Mean ($)	Std. Dev.	Min	Max
Milk	87.03	86.12	0	1499.67	84.15	82.02	0	889.32
Carbonated Soft Drinks	117.36	144.09	0	3700.06	113.31	137.48	0	2340.01
Powdered Soft Drinks	6.00	14.71	0	251.68	5.67	14.07	0	227.31
Isotonics	4.23	16.25	0	425.96	3.53	14.34	0	305.87
Bottled Water	13.89	32.83	0	596.09	17.43	47.17	0	1698.69
Fruit Juices and Drinks	96.34	94.46	0	1327.27	93.82	93.87	0	962.56
Coffee	32.01	48.93	0	1577.18	28.94	39.97	0	507.72
Tea	15.38	30.08	0	609.97	15.75	32.89	0	826.13

Table 4. Descriptive Statistics for Quantities of Each Beverage Category Purchased for years 1998-2001

	1998				1999			
	Mean (gallons)	Std. Dev.	Min	Max	Mean (gallons)	Std. Dev.	Min	Max
Milk	35.71	35.89	0	422.00	33.50	35.04	0	369.00
Carbonated Soft Drinks	54.49	62.94	0	1945.63	51.66	63.24	0	2185.88
Powdered Soft Drinks	9.18	25.98	0	751.00	8.83	21.71	0	472.00
Isotonics	1.08	4.25	0	91.00	0.98	3.38	0	51.80
Bottled Water	8.69	26.79	0	506.67	9.85	28.03	0	431.00
Fruit Juices and Drinks	24.28	22.71	0	237.58	24.20	23.21	0	298.01
Coffee	31.86	44.75	0	586.07	32.06	47.29	0	747.16
Tea	11.13	19.38	0	332.38	11.28	19.97	0	366.25

	2000				2001			
	Mean (gallons)	Std. Dev.	Min	Max	Mean (gallons)	Std. Dev.	Min	Max
Milk	31.59	33.15	0	391.25	29.35	30.87	0	347.00
Carbonated Soft Drinks	48.59	58.38	0	1677.32	47.04	55.63	0	797.13
Powdered Soft Drinks	7.86	19.96	0	323.50	7.60	19.19	0	316.67
Isotonics	0.98	3.78	0	96.75	0.79	3.24	0	71.78
Bottled Water	10.24	28.53	0	410.50	12.07	34.45	0	1155.04
Fruit Juices and Drinks	23.76	23.13	0	247.41	23.34	23.34	0	253.08
Coffee	31.58	54.86	0	1921.07	31.20	45.69	0	802.55
Tea	11.67	22.72	0	643.75	11.42	21.31	0	318.75

Table 5. Descriptive Statistics for Per Gallon Prices of Each Beverage Category for years 1998-2001

	1998				1999			
	Mean ($/gallons)	Std. Dev.	Min	Max	Mean ($/gallons)	Std. Dev.	Min	Max
Milk	$2.88	0.79	1.31	11.16	$3.06	0.81	1.22	8.29
Carbonated Soft Drinks	$2.44	0.73	0.74	10.09	$2.46	0.75	0.73	11.55
Powdered Soft Drinks	$0.99	0.43	0.04	3.88	$0.96	0.42	0.03	3.33
Isotonics	$4.59	0.66	0.99	10.36	$4.45	0.61	1.09	10.76
Bottled Water	$1.96	1.24	0.25	14.84	$1.90	1.27	0.14	14.24
Fruit Juices and Drinks	$4.03	1.19	0.78	14.13	$4.19	1.18	0.82	14.13
Coffee	$1.27	0.51	0.22	5.17	$1.20	0.53	0.18	5.85
Tea	$1.78	1.31	0.14	12.17	$1.81	1.43	0.08	19.16

	2000				2001			
	Mean ($/gallons)	Std. Dev.	Min	Max	Mean ($/gallons)	Std. Dev.	Min	Max
Milk	$3.11	0.92	0.62	10.00	$3.24	0.98	1.12	10.48
Carbonated Soft Drinks	$2.53	0.82	0.93	13.33	$2.54	0.89	0.80	18.03
Powdered Soft Drinks	$0.95	0.40	0.06	3.76	$0.91	0.38	0.09	3.60
Isotonics	$4.49	0.64	1.00	11.98	$4.53	0.54	0.75	9.96
Bottled Water	$2.07	1.30	0.25	12.62	$2.11	1.33	0.01	13.50
Fruit Juices and Drinks	$4.26	1.27	0.79	16.67	$4.24	1.32	0.88	16.29
Coffee	$1.20	0.55	0.11	5.10	$1.09	0.56	0.15	5.36
Tea	$1.86	1.39	0.08	16.00	$2.02	1.72	0.08	18.32

Table 6. Average Budget Shares For The Aggregate Beverage Products For The Period 1998 to 2001

Product	1998	1999	2000	2001
Milk	0.25	0.24	0.24	0.24
Carbonated Soft Drinks	0.30	0.29	0.29	0.29
Powdered Soft Drinks	0.02	0.02	0.02	0.02
Isotonics	0.01	0.01	0.01	0.01
Bottled Water	0.03	0.03	0.04	0.05
Fruit Juices and Drinks	0.25	0.26	0.26	0.26
Coffee	0.10	0.10	0.10	0.90
Tea	0.04	0.04	0.05	0.05

Table 7. Number of Censored Responses for Each Beverage Category by Year

Product	1998	1999	2000	2001
Milk	116	143	165	225
	1.90%	2.24%	2.50%	3.15%
Carbonated Soft Drinks	118	124	184	220
	1.93%	1.94%	2.79%	3.08%
Powdered Soft Drinks	3140	3302	3700	3998
	51.34%	51.62%	56.06%	55.98%
Isotonics	4247	4593	4882	5496
	69.44%	71.80%	73.97%	76.95%
Bottled Water	2398	2126	2367	2355
	39.21%	33.23%	35.86%	32.97%
Fruit Juices and Drinks	85	101	108	127
	1.39%	1.58%	1.64%	1.78%
Coffee	1377	1478	1606	1789
	22.51%	23.10%	24.33%	25.05%
Tea	1578	1628	1703	1881
	25.80%	25.45%	25.80%	26.34%

Table 8. Estimated Parameters and Associated P-values for 1998

* Note that the A's, C's, B's and L's correspond to the greek letters alpha, gamma, beta, and lambda respectively as found in equations 1 through 4 and the index key is as follows:

1	Milk
2	Carbonated Soft Drinks
3	Powdered Soft Drinks
4	Isotonics
5	Bottled Water
6	Fruit Juices and Drinks
7	Coffee
8	Tea

	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Parameter*	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
A1	0.334	[.000]	0.292	[.000]	0.279	[.000]	0.278	[.000]
C11	-0.101	[.000]	-0.099	[.000]	-0.099	[.000]	-0.102	[.000]
C12	0.037	[.000]	0.037	[.000]	0.037	[.000]	0.038	[.000]
C13	0.000	[.820]	0.000	[.829]	0.000	[.867]	0.000	[.800]
C14	0.005	[.006]	0.006	[.001]	0.006	[.001]	0.006	[.004]
C15	0.012	[.000]	0.011	[.000]	0.011	[.002]	0.015	[.000]
C16	0.019	[.001]	0.024	[.000]	0.024	[.000]	0.018	[.002]
C17	0.031	[.000]	0.026	[.000]	0.026	[.000]	0.029	[.000]
B1	-0.012	[.000]	-0.006	[.038]	0.001	[.973]	0.013	[.455]
L1					-0.001	[.710]	-0.003	[.141]
A2	-0.006	[.753]	0.058	[.001]	0.229	[.000]	0.138	[.006]
C22	0.030	[.001]	0.020	[.043]	0.025	[.014]	0.029	[.004]
C23	-0.003	[.087]	-0.003	[.118]	-0.002	[.191]	-0.003	[.095]
C24	0.003	[.090]	0.002	[.280]	0.002	[.262]	0.003	[.104]
C25	0.001	[.602]	0.003	[.296]	-0.002	[.571]	-0.002	[.631]
C26	-0.053	[.000]	-0.054	[.000]	-0.052	[.000]	-0.052	[.000]
C27	-0.010	[.040]	-0.002	[.674]	0.000	[.964]	-0.007	[.253]
B2	0.065	[.000]	0.060	[.000]	-0.028	[.223]	-0.001	[.971]
L2					0.011	[.000]	0.007	[.002]
A3	0.012	[.004]	0.025	[.000]	0.020	[.045]	0.012	[.305]
C33	0.005	[.000]	0.005	[.000]	0.005	[.000]	0.005	[.000]
C34	0.000	[.602]	0.001	[.415]	0.001	[.355]	0.001	[.575]
C35	0.002	[.010]	0.002	[.006]	0.003	[.010]	0.002	[.055]
C36	-0.009	[.000]	-0.009	[.000]	-0.010	[.000]	-0.009	[.000]
C37	0.004	[.003]	0.005	[.001]	0.004	[.012]	0.004	[.008]
B3	0.004	[.000]	0.001	[.044]	0.004	[.397]	0.004	[.416]
L3					0.000	[.592]	0.000	[.930]
A4	0.002	[.639]	-0.003	[.359]	0.020	[.027]	0.015	[.157]
C44	-0.010	[.000]	-0.011	[.000]	-0.011	[.000]	-0.010	[.000]
C45	-0.001	[.323]	-0.001	[.451]	-0.002	[.079]	-0.002	[.092]
C46	0.001	[.760]	0.000	[.833]	0.001	[.508]	0.001	[.705]
C47	0.000	[.974]	0.001	[.477]	0.002	[.191]	0.001	[.531]
B4	0.003	[.000]	0.005	[.000]	-0.007	[.103]	-0.003	[.507]
L4					0.001	[.004]	0.001	[.159]
A5	0.026	[.000]	0.043	[.000]	0.154	[.000]	0.155	[.000]
C55	-0.018	[.000]	-0.018	[.000]	-0.027	[.000]	-0.028	[.000]

C56	0.006	[.008]	0.006	[.018]	0.014	[.000]	0.010	[.007]
C57	-0.004	[.031]	-0.004	[.028]	0.005	[.105]	0.004	[.181]
B5	-0.002	[.129]	-0.006	[.000]	-0.063	[.000]	-0.060	[.000]
L5					0.007	[.000]	0.006	[.000]
A6	0.506	[.000]	0.324	[.000]	0.174	[.000]	0.382	[.000]
C66	0.012	[.108]	0.012	[.129]	0.005	[.584]	0.013	[.113]
C67	0.011	[.011]	0.009	[.043]	0.002	[.736]	0.007	[.127]
B6	-0.054	[.000]	-0.018	[.000]	0.059	[.003]	0.002	[.893]
L6					-0.010	[.000]	-0.006	[.003]
A7	0.043	[.000]	0.168	[.000]	0.013	[.669]	-0.056	[.092]
C77	-0.026	[.000]	-0.026	[.000]	-0.034	[.000]	-0.032	[.000]
B7	0.006	[.005]	-0.021	[.000]	0.058	[.000]	0.053	[.000]
L7					-0.010	[.000]	-0.005	[.000]
A8			0.040	[.591]	0.054	[.340]		

Table 9. Estimated Parameters and Associated P-values for 1999

	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Parameter*	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
A1	0.322	[.000]	0.245	[.000]	0.291	[.000]	0.273	[.000]
C11	-0.117	[.000]	-0.112	[.000]	-0.117	[.000]	-0.112	[.000]
C12	0.055	[.000]	0.047	[.000]	0.058	[.000]	0.050	[.000]
C13	0.001	[.578]	0.000	[.889]	0.001	[.602]	0.000	[.986]
C14	0.004	[.016]	0.004	[.018]	0.004	[.019]	0.005	[.010]
C15	0.014	[.000]	0.013	[.000]	0.015	[.000]	0.013	[.000]
C16	0.019	[.001]	0.025	[.000]	0.017	[.009]	0.026	[.001]
C17	0.029	[.000]	0.026	[.000]	0.028	[.000]	0.026	[.000]
B1	-0.008	[.005]	0.008	[.005]	0.007	[.728]	-0.004	[.832]
L1					-0.002	[.436]	0.001	[.665]
A2	0.000	[.980]	0.117	[.000]	0.206	[.000]	0.343	[.000]
C22	-0.001	[.957]	-0.011	[.285]	-0.007	[.568]	-0.022	[.096]
C23	-0.002	[.395]	-0.002	[.366]	-0.001	[.658]	-0.001	[.666]
C24	0.002	[.335]	0.001	[.704]	0.002	[.229]	0.002	[.322]
C25	0.007	[.013]	0.009	[.001]	0.004	[.191]	0.005	[.080]
C26	-0.052	[.000]	-0.054	[.000]	-0.046	[.000]	-0.032	[.005]
C27	-0.002	[.618]	0.004	[.453]	0.003	[.551]	0.012	[.059]
B2	0.063	[.000]	0.048	[.000]	-0.031	[.214]	-0.083	[.001]
L2					0.010	[.000]	0.017	[.000]
A3	0.016	[.000]	0.030	[.000]	0.004	[.786]	0.029	[.005]
C33	0.006	[.000]	0.006	[.000]	0.006	[.000]	0.006	[.000]
C34	0.000	[.800]	0.000	[.655]	0.000	[.935]	0.000	[.624]
C35	0.001	[.084]	0.002	[.043]	0.002	[.048]	0.002	[.047]
C36	-0.011	[.000]	-0.011	[.000]	-0.012	[.000]	-0.012	[.000]
C37	0.005	[.001]	0.005	[.000]	0.004	[.010]	0.005	[.002]
B3	0.004	[.000]	0.001	[.098]	0.009	[.107]	0.002	[.729]
L3					-0.001	[.348]	0.000	[.876]
A4	0.003	[.382]	0.003	[.388]	-0.009	[.388]	0.000	[.960]
C44	-0.010	[.000]	-0.011	[.000]	-0.010	[.000]	-0.011	[.000]
C45	-0.001	[.400]	0.000	[.658]	0.000	[.654]	0.000	[.673]
C46	0.003	[.111]	0.002	[.193]	0.002	[.220]	0.001	[.658]
C47	0.000	[.802]	0.000	[.695]	-0.001	[.495]	0.000	[.942]
B4	0.002	[.000]	0.003	[.000]	0.008	[.093]	0.004	[.284]
L4					-0.001	[.235]	0.000	[.817]

A5	0.024	[.000]	0.056	[.000]	0.066	[.001]	0.065	[.000]
C55	-0.019	[.000]	-0.019	[.000]	-0.020	[.000]	-0.019	[.000]
C56	-0.003	[.262]	-0.003	[.249]	0.000	[.969]	0.001	[.853]
C57	-0.004	[.040]	-0.004	[.047]	-0.002	[.440]	-0.002	[.329]
B5	0.000	[.868]	-0.008	[.000]	-0.019	[.024]	-0.013	[.124]
L5					0.002	[.022]	0.001	[.472]
A6	0.492	[.000]	0.298	[.000]	0.309	[.000]	0.049	[.216]
C66	0.025	[.001]	0.023	[.004]	0.019	[.055]	-0.010	[.472]
C67	0.010	[.018]	0.011	[.009]	0.004	[.380]	-0.002	[.709]
B6	-0.052	[.000]	-0.014	[.000]	0.031	[.154]	0.121	[.000]
L6					-0.009	[.000]	-0.017	[.000]
A7	0.033	[.004]	0.143	[.000]	-0.047	[.190]	0.022	[.451]
C77	-0.031	[.000]	-0.031	[.000]	-0.035	[.000]	-0.037	[.000]
B7	0.006	[.005]	-0.020	[.000]	0.043	[.004]	0.049	[.001]
L7					-0.004	[.009]	-0.009	[.000]
A8			0.494	[.000]			0.389	[.000]

Table 10. Estimated Parameters and Associated P-values for 2000

	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Parameter*	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
A1	0.326	[.000]	0.283	[.000]	0.215	[.000]	0.213	[.000]
C11	-0.094	[.000]	-0.092	[.000]	-0.099	[.000]	-0.099	[.000]
C12	0.045	[.000]	0.046	[.000]	0.048	[.000]	0.046	[.000]
C13	0.003	[.085]	0.002	[.248]	0.002	[.195]	0.001	[.504]
C14	0.006	[.001]	0.007	[.000]	0.006	[.001]	0.007	[.000]
C15	0.013	[.000]	0.012	[.000]	0.015	[.000]	0.014	[.000]
C16	0.011	[.056]	0.016	[.005]	0.011	[.072]	0.013	[.027]
C17	0.021	[.000]	0.016	[.000]	0.019	[.000]	0.015	[.000]
B1	-0.012	[.000]	-0.005	[.076]	0.040	[.032]	0.037	[.025]
L1					-0.006	[.005]	-0.006	[.004]
A2	0.000	[1.00]	0.068	[.000]	0.128	[.018]	0.106	[.015]
C22	0.027	[.003]	0.022	[.022]	0.029	[.003]	0.033	[.001]
C23	-0.005	[.004]	-0.004	[.015]	-0.005	[.006]	-0.004	[.017]
C24	0.000	[.864]	-0.001	[.558]	0.000	[.868]	0.000	[.994]
C25	0.006	[.025]	0.007	[.017]	0.005	[.078]	0.007	[.014]
C26	-0.058	[.000]	-0.061	[.000]	-0.060	[.000]	-0.065	[.000]
C27	-0.009	[.038]	-0.001	[.808]	-0.008	[.084]	-0.004	[.417]
B2	0.062	[.000]	0.055	[.000]	0.004	[.876]	0.032	[.126]
L2					0.007	[.013]	0.003	[.315]
A3	0.014	[.000]	0.029	[.000]	0.003	[.791]	0.021	[.017]
C33	0.005	[.000]	0.005	[.000]	0.005	[.000]	0.005	[.000]
C34	0.002	[.078]	0.002	[.028]	0.002	[.091]	0.002	[.022]
C35	0.000	[.673]	0.000	[.596]	0.001	[.470]	0.001	[.507]
C36	-0.008	[.000]	-0.008	[.000]	-0.008	[.000]	-0.009	[.000]
C37	0.005	[.000]	0.005	[.000]	0.005	[.000]	0.005	[.000]
B3	0.003	[.000]	0.000	[.719]	0.008	[.110]	0.004	[.297]
L3					-0.001	[.301]	-0.001	[.212]
A4	0.004	[.205]	0.001	[.823]	-0.001	[.915]	0.009	[.247]
C44	-0.011	[.000]	-0.012	[.000]	-0.011	[.000]	-0.011	[.000]
C45	-0.001	[.221]	-0.001	[.291]	-0.001	[.301]	-0.001	[.240]
C46	0.002	[.123]	0.002	[.184]	0.003	[.110]	0.002	[.195]
C47	0.000	[.700]	0.001	[.281]	0.000	[.773]	0.001	[.421]

B4	0.003	[.000]	0.004	[.000]	0.005	[.257]	-0.001	[.674]
L4					0.000	[.597]	0.001	[.105]
A5	0.007	[.288]	0.032	[.000]	0.056	[.005]	0.047	[.004]
C55	-0.025	[.000]	-0.025	[.000]	-0.026	[.000]	-0.025	[.000]
C56	0.006	[.018]	0.006	[.024]	0.006	[.041]	0.007	[.011]
C57	-0.001	[.465]	-0.001	[.521]	0.000	[.839]	-0.002	[.436]
B5	0.004	[.007]	-0.002	[.231]	-0.019	[.030]	-0.013	[.104]
L5					0.003	[.009]	0.002	[.081]
A6	0.493	[.000]	0.296	[.000]	0.434	[.000]	0.211	[.000]
C66	0.029	[.000]	0.029	[.000]	0.030	[.000]	0.028	[.001]
C67	0.007	[.093]	0.006	[.162]	0.007	[.106]	0.007	[.099]
B6	-0.051	[.000]	-0.011	[.000]	-0.025	[.235]	0.029	[.117]
L6					-0.003	[.202]	-0.004	[.046]
A7	0.062	[.000]	0.184	[.000]	0.031	[.341]	0.170	[.000]
C77	-0.017	[.000]	-0.019	[.000]	-0.017	[.000]	-0.020	[.000]
B7	0.003	[.130]	-0.025	[.000]	0.018	[.196]	-0.016	[.191]
L7					-0.002	[.264]	-0.001	[.509]
A8			-0.035	[.652]			-0.277	[.000]

Table 11. Estimated Parameters and Associated P-values for 2001

	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Parameter*	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
A1	0.327	[.000]	0.283	[.000]	0.303	[.000]	0.267	[.000]
C11	-0.082	[.000]	-0.080	[.000]	-0.082	[.000]	-0.082	[.000]
C12	0.046	[.000]	0.048	[.000]	0.046	[.000]	0.049	[.000]
C13	0.003	[.067]	0.002	[.240]	0.003	[.066]	0.002	[.248]
C14	0.002	[.119]	0.003	[.046]	0.002	[.119]	0.003	[.036]
C15	0.015	[.000]	0.014	[.000]	0.015	[.000]	0.015	[.000]
C16	0.006	[.257]	0.010	[.054]	0.005	[.328]	0.009	[.125]
C17	0.014	[.000]	0.008	[.034]	0.013	[.001]	0.007	[.062]
B1	-0.012	[.000]	-0.005	[.089]	-0.001	[.965]	0.006	[.702]
L1					-0.001	[.510]	-0.002	[.419]
A2	-0.010	[.567]	0.058	[.000]	0.137	[.004]	0.161	[.000]
C22	0.018	[.037]	0.013	[.140]	0.017	[.070]	0.021	[.020]
C23	-0.002	[.231]	-0.001	[.497]	-0.002	[.243]	-0.001	[.512]
C24	0.001	[.533]	0.000	[.745]	0.001	[.560]	0.001	[.540]
C25	0.011	[.000]	0.011	[.000]	0.009	[.003]	0.010	[.000]
C26	-0.056	[.000]	-0.058	[.000]	-0.054	[.000]	-0.058	[.000]
C27	-0.013	[.001]	-0.005	[.187]	-0.009	[.062]	-0.008	[.048]
B2	0.064	[.000]	0.055	[.000]	-0.004	[.847]	0.001	[.971]
L2					0.007	[.001]	0.007	[.008]
A3	0.017	[.000]	0.032	[.000]	0.018	[.086]	0.034	[.000]
C33	0.006	[.000]	0.006	[.000]	0.006	[.000]	0.006	[.000]
C34	0.001	[.166]	0.002	[.061]	0.001	[.153]	0.002	[.053]
C35	0.000	[.697]	0.000	[.763]	0.000	[.710]	0.000	[.714]
C36	-0.009	[.000]	-0.010	[.000]	-0.009	[.000]	-0.010	[.000]
C37	0.003	[.005]	0.003	[.006]	0.003	[.011]	0.003	[.008]
B3	0.002	[.001]	-0.001	[.219]	0.002	[.662]	-0.002	[.686]
L3					0.000	[.889]	0.000	[.871]
A4	0.003	[.362]	-0.002	[.502]	0.010	[.212]	0.009	[.206]
C44	-0.004	[.025]	-0.005	[.015]	-0.004	[.025]	-0.004	[.023]
C45	-0.001	[.422]	-0.001	[.463]	-0.001	[.318]	-0.001	[.412]

C46	0.000	[.730]	-0.001	[.530]	0.000	[.752]	-0.001	[.722]
C47	0.000	[.766]	0.001	[.367]	0.001	[.506]	0.001	[.431]
B4	0.002	[.000]	0.003	[.000]	-0.001	[.684]	-0.002	[.441]
L4					0.000	[.312]	0.001	[.055]
A5	0.003	[.673]	0.028	[.000]	0.057	[.004]	0.046	[.009]
C55	-0.025	[.000]	-0.025	[.000]	-0.026	[.000]	-0.025	[.000]
C56	0.002	[.436]	0.002	[.432]	0.004	[.199]	0.004	[.218]
C57	-0.005	[.014]	-0.004	[.028]	-0.002	[.413]	-0.004	[.049]
B5	0.006	[.000]	0.001	[.617]	-0.019	[.027]	-0.010	[.235]
L5					0.003	[.004]	0.001	[.158]
A6	0.505	[.000]	0.301	[.000]	0.373	[.000]	0.142	[.000]
C66	0.030	[.000]	0.030	[.000]	0.029	[.000]	0.018	[.056]
C67	0.019	[.000]	0.017	[.000]	0.015	[.001]	0.014	[.001]
B6	-0.052	[.000]	-0.010	[.001]	0.008	[.646]	0.070	[.000]
L6					-0.007	[.001]	-0.010	[.000]
A7	0.055	[.000]	0.190	[.000]	-0.045	[.119]	0.112	[.000]
C77	-0.011	[.002]	-0.014	[.000]	-0.017	[.000]	-0.013	[.000]
B7	0.003	[.154]	-0.027	[.000]	0.049	[.000]	0.014	[.229]
L7					-0.005	[.000]	-0.005	[.000]
A8			-0.102	[.133]			-0.103	[.070]

Note: All results were obtained using TSP version 4.5

Table 12. Uncompensated Own-price, Cross-price, and Expenditure Elasticity Estimates by Demand System for Years 1998-2001

* Note that E's are the own- and cross-price elasticities and the TE's are expenditure elasticities
e.g. E12 gives the elasticity of milk with respect to carbonated soft drink price

1	Milk
2	Carbonated Soft Drinks
3	Powdered Soft Drinks
4	Isotonics
5	Bottled Water
6	Fruit Juices and Drinks
7	Coffee
8	Tea

1998	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
E11	-1.397	[.000]	-1.395	[.000]	-1.399	[.000]	-1.395	[.000]
E12	0.164	[.000]	0.151	[.000]	0.172	[.000]	0.155	[.000]
E13	0.003	[.726]	-0.001	[.859]	0.003	[.695]	-0.001	[.886]
E14	0.022	[.005]	0.025	[.001]	0.023	[.003]	0.026	[.001]
E15	0.049	[.000]	0.045	[.000]	0.061	[.000]	0.049	[.001]
E16	0.092	[.000]	0.105	[.000]	0.088	[.000]	0.102	[.000]
E17	0.133	[.000]	0.111	[.000]	0.124	[.000]	0.108	[.000]
E18	-0.015	[.103]	-0.019	[.041]	-0.015	[.118]	-0.020	[.045]
TE1	0.949	[.000]	0.975	[.000]	0.943	[.000]	0.973	[.000]
E21	0.067	[.001]	0.068	[.001]	0.067	[.002]	0.064	[.008]
E22	-0.966	[.000]	-0.942	[.000]	-0.977	[.000]	-0.966	[.000]
E23	-0.014	[.017]	-0.012	[.049]	-0.014	[.017]	-0.009	[.159]
E24	0.008	[.187]	0.009	[.148]	0.007	[.223]	0.004	[.531]
E25	-0.001	[.866]	-0.001	[.878]	-0.013	[.337]	-0.044	[.003]
E26	-0.226	[.000]	-0.240	[.000]	-0.230	[.000]	-0.208	[.000]
E27	-0.055	[.001]	-0.045	[.004]	-0.046	[.014]	-0.009	[.660]
E28	-0.026	[.001]	-0.021	[.073]	-0.028	[.001]	-0.038	[.002]
TE2	1.214	[.000]	1.196	[.000]	1.234	[.000]	1.218	[.000]
E31	-0.030	[.763]	-0.044	[.662]	-0.031	[.757]	-0.036	[.722]
E32	-0.234	[.019]	-0.159	[.111]	-0.235	[.019]	-0.148	[.149]
E33	-0.737	[.000]	-0.725	[.000]	-0.735	[.000]	-0.726	[.000]
E34	0.023	[.635]	0.041	[.404]	0.025	[.610]	0.044	[.365]
E35	0.108	[.014]	0.116	[.009]	0.109	[.072]	0.137	[.022]
E36	-0.553	[.000]	-0.541	[.000]	-0.567	[.000]	-0.562	[.000]
E37	0.203	[.008]	0.232	[.002]	0.201	[.017]	0.209	[.013]
E38	0.004	[.915]	0.003	[.930]	0.002	[.966]	0.012	[.765]
TE3	1.216	[.000]	1.081	[.000]	1.231	[.000]	1.073	[.000]
E41	0.443	[.016]	0.480	[.010]	0.460	[.013]	0.468	[.014]
E42	0.206	[.237]	0.168	[.337]	0.183	[.302]	0.079	[.673]
E43	0.040	[.646]	0.066	[.452]	0.043	[.625]	0.077	[.382]
E44	-1.931	[.000]	-2.041	[.000]	-1.953	[.000]	-2.086	[.000]
E45	-0.086	[.276]	-0.085	[.283]	-0.184	[.077]	-0.266	[.010]
E46	-0.022	[.895]	-0.120	[.465]	-0.022	[.897]	0.017	[.923]
E47	-0.025	[.852]	0.005	[.972]	0.059	[.692]	0.173	[.255]
E48	0.087	[.182]	0.081	[.222]	0.076	[.262]	0.016	[.831]

TE4	1.288	[.000]	1.472	[.000]	1.339	[.000]	1.555	[.000]
E51	0.439	[.000]	0.446	[.000]	0.501	[.000]	0.415	[.001]
E52	0.070	[.471]	0.109	[.255]	-0.097	[.510]	-0.070	[.634]
E53	0.077	[.009]	0.082	[.005]	0.075	[.060]	0.100	[.009]
E54	-0.028	[.335]	-0.024	[.405]	-0.065	[.088]	-0.064	[.080]
E55	-1.660	[.000]	-1.650	[.000]	-2.011	[.000]	-1.971	[.000]
E56	0.243	[.005]	0.273	[.002]	0.332	[.012]	0.519	[.000]
E57	-0.142	[.040]	-0.109	[.112]	0.138	[.208]	0.176	[.095]
E58	0.068	[.053]	0.072	[.043]	0.040	[.462]	-0.045	[.411]
TE5	0.934	[.000]	0.789	[.000]	1.087	[.000]	0.936	[.000]
E61	0.131	[.000]	0.116	[.000]	0.130	[.000]	0.121	[.000]
E62	-0.146	[.000]	-0.212	[.000]	-0.139	[.000]	-0.187	[.000]
E63	-0.033	[.000]	-0.037	[.000]	-0.034	[.000]	-0.040	[.000]
E64	0.004	[.527]	0.001	[.925]	0.005	[.468]	0.006	[.427]
E65	0.031	[.001]	0.027	[.006]	0.046	[.002]	0.073	[.000]
E66	-0.897	[.000]	-0.928	[.000]	-0.892	[.000]	-0.963	[.000]
E67	0.067	[.000]	0.050	[.005]	0.054	[.006]	0.011	[.615]
E68	0.058	[.000]	0.053	[.000]	0.062	[.000]	0.070	[.000]
TE6	0.785	[.000]	0.926	[.000]	0.768	[.000]	0.904	[.000]
E71	0.288	[.000]	0.309	[.000]	0.274	[.000]	0.320	[.000]
E72	-0.116	[.016]	-0.011	[.817]	-0.069	[.219]	0.054	[.408]
E73	0.039	[.004]	0.047	[.001]	0.040	[.008]	0.039	[.015]
E74	0.000	[.988]	0.007	[.582]	0.009	[.541]	0.022	[.154]
E75	-0.042	[.025]	-0.029	[.110]	0.039	[.190]	0.089	[.005]
E76	0.092	[.031]	0.153	[.000]	0.067	[.160]	0.063	[.259]
E77	-1.253	[.000]	-1.215	[.000]	-1.315	[.000]	-1.320	[.000]
E78	-0.070	[.000]	-0.067	[.000]	-0.065	[.001]	-0.047	[.059]
TE7	1.062	[.000]	0.795	[.000]	1.021	[.000]	0.742	[.000]
E81	-0.037	[.512]	-0.025	[.661]	-0.032	[.581]	-0.029	[.615]
E82	-0.052	[.408]	-0.070	[.374]	-0.056	[.384]	-0.092	[.218]
E83	0.011	[.538]	0.008	[.660]	0.011	[.559]	0.010	[.571]
E84	0.028	[.095]	0.023	[.244]	0.026	[.135]	0.018	[.359]
E85	0.053	[.030]	0.063	[.013]	0.039	[.313]	0.025	[.522]
E86	0.380	[.000]	0.435	[.000]	0.403	[.000]	0.465	[.000]
E87	-0.149	[.001]	-0.128	[.008]	-0.138	[.006]	-0.092	[.091]
E88	-0.959	[.000]	-0.952	[.000]	-0.957	[.000]	-0.967	[.000]
TE8	0.725	[.000]	0.626	[.000]	0.704	[.000]	0.641	[.000]

1999	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
E11	-1.468	[.000]	-1.465	[.000]	-1.470	[.000]	-1.464	[.000]
E12	0.236	[.000]	0.189	[.000]	0.247	[.000]	0.196	[.000]
E13	0.005	[.526]	-0.002	[.847]	0.005	[.541]	0.000	[.961]
E14	0.018	[.015]	0.018	[.017]	0.018	[.017]	0.020	[.010]
E15	0.059	[.000]	0.052	[.000]	0.061	[.000]	0.050	[.000]
E16	0.086	[.000]	0.092	[.000]	0.078	[.003]	0.106	[.001]
E17	0.121	[.000]	0.101	[.000]	0.117	[.000]	0.104	[.000]
E18	-0.082	[.000]	-0.028	[.004]	-0.019	[.141]	-0.031	[.068]
TE1	0.967	[.000]	1.031	[.000]	0.962	[.000]	1.020	[.000]
E21	0.136	[.000]	0.125	[.000]	0.140	[.000]	0.118	[.000]
E22	-1.065	[.000]	-1.051	[.000]	-1.092	[.000]	-1.144	[.000]
E23	-0.009	[.141]	-0.008	[.208]	-0.007	[.278]	-0.006	[.495]
E24	0.003	[.552]	0.003	[.611]	0.005	[.412]	0.008	[.282]
E25	0.016	[.087]	0.020	[.026]	0.006	[.567]	0.003	[.808]

E26	-0.234	[.000]	-0.235	[.000]	-0.217	[.000]	-0.118	[.008]
E27	-0.029	[.068]	-0.018	[.260]	-0.011	[.571]	0.029	[.236]
E28	-0.033	[.000]	-0.063	[.000]	-0.057	[.000]	-0.136	[.000]
TE2	1.215	[.000]	1.164	[.000]	1.234	[.000]	1.209	[.000]
E31	0.009	[.929]	-0.028	[.785]	0.008	[.940]	-0.014	[.891]
E32	-0.144	[.159]	-0.098	[.338]	-0.103	[.342]	-0.066	[.575]
E33	-0.685	[.000]	-0.672	[.000]	-0.692	[.000]	-0.671	[.000]
E34	0.010	[.833]	0.021	[.650]	0.002	[.967]	0.023	[.618]
E35	0.070	[.115]	0.086	[.054]	0.088	[.066]	0.086	[.059]
E36	-0.629	[.000]	-0.606	[.000]	-0.667	[.000]	-0.627	[.000]
E37	0.223	[.002]	0.258	[.000]	0.189	[.019]	0.245	[.002]
E38	-0.053	[.167]	-0.049	[.200]	-0.017	[.759]	-0.035	[.593]
TE3	1.199	[.000]	1.064	[.000]	1.192	[.000]	1.051	[.000]
E41	0.400	[.033]	0.376	[.045]	0.400	[.035]	0.406	[.031]
E42	0.097	[.574]	0.033	[.847]	0.153	[.398]	0.071	[.715]
E43	0.018	[.838]	0.035	[.693]	0.003	[.970]	0.039	[.660]
E44	-1.990	[.000]	-2.136	[.000]	-2.004	[.000]	-2.105	[.000]
E45	-0.071	[.346]	-0.056	[.459]	-0.043	[.595]	-0.059	[.445]
E46	0.199	[.224]	0.102	[.534]	0.153	[.366]	0.071	[.720]
E47	-0.054	[.665]	-0.014	[.912]	-0.114	[.402]	-0.028	[.835]
E48	0.170	[.007]	0.176	[.005]	0.241	[.007]	0.191	[.061]
TE4	1.233	[.000]	1.349	[.000]	1.211	[.000]	1.353	[.000]
E51	0.433	[.000]	0.454	[.000]	0.442	[.000]	0.439	[.000]
E52	0.201	[.015]	0.299	[.000]	0.111	[.245]	0.235	[.017]
E53	0.044	[.085]	0.055	[.031]	0.053	[.050]	0.054	[.035]
E54	-0.019	[.399]	-0.011	[.625]	-0.011	[.643]	-0.011	[.623]
E55	-1.595	[.000]	-1.571	[.000]	-1.627	[.000]	-1.582	[.000]
E56	-0.085	[.258]	-0.011	[.881]	-0.013	[.882]	0.029	[.776]
E57	-0.115	[.040]	-0.068	[.226]	-0.055	[.405]	-0.053	[.402]
E58	0.131	[.000]	0.183	[.000]	0.062	[.160]	0.122	[.034]
TE5	1.006	[.000]	0.763	[.000]	1.037	[.000]	0.800	[.000]
E61	0.122	[.000]	0.107	[.000]	0.117	[.000]	0.121	[.000]
E62	-0.142	[.000]	-0.202	[.000]	-0.113	[.001]	-0.093	[.049]
E63	-0.038	[.000]	-0.041	[.000]	-0.040	[.000]	-0.044	[.000]
E64	0.012	[.056]	0.008	[.206]	0.010	[.119]	0.003	[.734]
E65	-0.004	[.673]	-0.007	[.428]	0.007	[.554]	0.009	[.542]
E66	-0.850	[.000]	-0.896	[.000]	-0.871	[.000]	-1.035	[.000]
E67	0.058	[.000]	0.052	[.001]	0.038	[.045]	-0.004	[.864]
E68	0.043	[.000]	0.051	[.000]	0.069	[.000]	0.141	[.000]
TE6	0.800	[.000]	0.948	[.000]	0.783	[.000]	0.915	[.000]
E71	0.280	[.000]	0.311	[.000]	0.275	[.000]	0.327	[.000]
E72	-0.042	[.383]	0.055	[.254]	0.024	[.695]	0.208	[.004]
E73	0.045	[.001]	0.054	[.000]	0.039	[.012]	0.051	[.002]
E74	-0.004	[.765]	0.004	[.748]	-0.010	[.478]	-0.003	[.835]
E75	-0.040	[.031]	-0.024	[.203]	-0.018	[.409]	-0.001	[.971]
E76	0.086	[.051]	0.179	[.000]	0.034	[.500]	-0.009	[.888]
E77	-1.322	[.000]	-1.282	[.000]	-1.361	[.000]	-1.361	[.000]
E78	-0.066	[.000]	-0.014	[.463]	-0.021	[.413]	0.067	[.059]
TE7	1.063	[.000]	0.796	[.000]	1.039	[.000]	0.731	[.000]
E81	-0.058	[.277]	0.027	[.643]	-0.044	[.550]	-0.059	[.473]
E82	-0.057	[.347]	0.179	[.022]	-0.227	[.007]	-0.210	[.049]
E83	-0.013	[.446]	-0.001	[.947]	0.002	[.926]	-0.001	[.951]
E84	0.044	[.002]	0.078	[.000]	0.059	[.003]	0.073	[.000]
E85	0.111	[.000]	0.076	[.003]	0.059	[.080]	0.057	[.114]
E86	0.298	[.000]	0.291	[.000]	0.440	[.000]	0.667	[.000]

E87	-0.109	[.006]	-0.188	[.000]	-0.014	[.805]	-0.001	[.989]
E88	-0.863	[.000]	-0.848	[.000]	-0.964	[.000]	-1.104	[.000]
TE8	0.648	[.000]	0.557	[.000]	0.690	[.000]	0.639	[.000]

2000	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
E11	-1.379	[.000]	-1.377	[.000]	-1.400	[.000]	-1.405	[.000]
E12	0.203	[.000]	0.193	[.000]	0.218	[.000]	0.198	[.000]
E13	0.013	[.067]	0.009	[.227]	0.011	[.152]	0.006	[.468]
E14	0.025	[.000]	0.027	[.000]	0.025	[.001]	0.031	[.000]
E15	0.055	[.000]	0.051	[.000]	0.067	[.000]	0.062	[.000]
E16	0.057	[.015]	0.072	[.002]	0.062	[.017]	0.067	[.009]
E17	0.092	[.000]	0.069	[.000]	0.085	[.000]	0.072	[.000]
E18	-0.073	[.000]	-0.027	[.006]	-0.006	[.641]	-0.007	[.665]
TE1	0.952	[.000]	0.979	[.000]	0.938	[.000]	0.948	[.000]
E21	0.105	[.000]	0.110	[.000]	0.111	[.000]	0.126	[.000]
E22	-0.968	[.000]	-0.934	[.000]	-0.968	[.000]	-0.904	[.000]
E23	-0.021	[.000]	-0.018	[.003]	-0.021	[.001]	-0.017	[.007]
E24	-0.003	[.597]	-0.002	[.737]	-0.003	[.586]	0.000	[.932]
E25	0.014	[.157]	0.015	[.121]	0.010	[.341]	0.013	[.181]
E26	-0.257	[.000]	-0.271	[.000]	-0.267	[.000]	-0.266	[.000]
E27	-0.052	[.001]	-0.042	[.005]	-0.049	[.002]	-0.048	[.002]
E28	-0.033	[.000]	-0.019	[.098]	-0.041	[.000]	0.000	[.978]
TE2	1.215	[.000]	1.189	[.000]	1.228	[.000]	1.185	[.000]
E31	0.137	[.179]	0.123	[.229]	0.104	[.328]	0.083	[.432]
E32	-0.346	[.001]	-0.252	[.016]	-0.335	[.002]	-0.246	[.020]
E33	-0.722	[.000]	-0.719	[.000]	-0.729	[.000]	-0.723	[.000]
E34	0.096	[.083]	0.119	[.028]	0.092	[.096]	0.125	[.022]
E35	0.015	[.766]	0.027	[.588]	0.032	[.539]	0.038	[.462]
E36	-0.520	[.000]	-0.478	[.000]	-0.504	[.000]	-0.493	[.000]
E37	0.267	[.000]	0.281	[.000]	0.255	[.001]	0.285	[.000]
E38	-0.092	[.028]	-0.088	[.034]	-0.067	[.167]	-0.038	[.514]
TE3	1.166	[.000]	0.985	[.000]	1.151	[.000]	0.938	[.000]
E41	0.559	[.002]	0.580	[.001]	0.535	[.003]	0.675	[.000]
E42	-0.106	[.544]	-0.122	[.479]	-0.105	[.550]	-0.046	[.797]
E43	0.167	[.086]	0.203	[.034]	0.161	[.100]	0.217	[.025]
E44	-2.178	[.000]	-2.235	[.000]	-2.185	[.000]	-2.159	[.000]
E45	-0.112	[.180]	-0.105	[.202]	-0.099	[.253]	-0.128	[.131]
E46	0.188	[.262]	0.091	[.581]	0.204	[.237]	0.112	[.508]
E47	0.022	[.859]	0.048	[.694]	0.011	[.931]	0.010	[.936]
E48	0.195	[.004]	0.187	[.005]	0.215	[.006]	0.082	[.373]
TE4	1.265	[.000]	1.412	[.000]	1.263	[.000]	1.472	[.000]
E51	0.324	[.000]	0.336	[.000]	0.384	[.000]	0.372	[.000]
E52	0.141	[.066]	0.184	[.016]	0.105	[.209]	0.190	[.017]
E53	0.008	[.726]	0.013	[.573]	0.015	[.531]	0.015	[.519]
E54	-0.028	[.206]	-0.023	[.284]	-0.025	[.275]	-0.026	[.239]
E55	-1.667	[.000]	-1.661	[.000]	-1.700	[.000]	-1.679	[.000]
E56	0.140	[.047]	0.173	[.015]	0.118	[.122]	0.176	[.017]
E57	-0.046	[.362]	-0.024	[.639]	-0.025	[.658]	-0.048	[.356]
E58	0.032	[.276]	0.038	[.197]	-0.011	[.762]	-0.021	[.646]
TE5	1.096	[.000]	0.957	[.000]	1.138	[.000]	1.042	[.000]
E61	0.087	[.000]	0.071	[.001]	0.090	[.000]	0.057	[.011]
E62	-0.163	[.000]	-0.230	[.000]	-0.169	[.000]	-0.243	[.000]
E63	-0.027	[.000]	-0.030	[.000]	-0.026	[.000]	-0.032	[.000]

E64	0.011	[.065]	0.008	[.201]	0.012	[.056]	0.008	[.193]
E65	0.030	[.002]	0.024	[.015]	0.029	[.006]	0.028	[.007]
E66	-0.839	[.000]	-0.877	[.000]	-0.832	[.000]	-0.886	[.000]
E67	0.045	[.004]	0.030	[.050]	0.045	[.004]	0.034	[.040]
E68	0.050	[.000]	0.041	[.000]	0.052	[.000]	0.054	[.000]
TE6	0.806	[.000]	0.958	[.000]	0.800	[.000]	0.963	[.000]
E71	0.207	[.000]	0.226	[.000]	0.189	[.000]	0.200	[.000]
E72	-0.103	[.025]	0.002	[.965]	-0.087	[.071]	-0.014	[.755]
E73	0.049	[.000]	0.053	[.000]	0.047	[.000]	0.050	[.000]
E74	0.004	[.720]	0.011	[.356]	0.003	[.784]	0.010	[.390]
E75	-0.015	[.429]	-0.001	[.949]	-0.005	[.813]	0.000	[.997]
E76	0.061	[.145]	0.139	[.001]	0.064	[.142]	0.128	[.003]
E77	-1.176	[.000]	-1.148	[.000]	-1.182	[.000]	-1.156	[.000]
E78	-0.060	[.001]	-0.063	[.002]	-0.049	[.018]	-0.106	[.000]
TE7	1.033	[.000]	0.745	[.000]	1.020	[.000]	0.749	[.000]
E81	-0.053	[.287]	-0.047	[.346]	0.012	[.843]	0.097	[.201]
E82	-0.073	[.201]	-0.137	[.063]	-0.125	[.056]	-0.267	[.005]
E83	-0.027	[.083]	-0.026	[.092]	-0.018	[.305]	-0.006	[.795]
E84	0.046	[.001]	0.034	[.030]	0.050	[.002]	-0.008	[.676]
E85	0.039	[.103]	0.047	[.051]	0.005	[.868]	-0.010	[.775]
E86	0.301	[.000]	0.347	[.000]	0.305	[.000]	0.419	[.000]
E87	-0.099	[.007]	-0.047	[.276]	-0.079	[.068]	-0.007	[.900]
E88	-0.880	[.000]	-0.874	[.000]	-0.916	[.000]	-1.092	[.000]
TE8	0.746	[.000]	0.653	[.000]	0.766	[.000]	0.748	[.000]

2001	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
E11	-1.332	[.000]	-1.332	[.000]	-1.332	[.000]	-1.335	[.000]
E12	0.205	[.000]	0.201	[.000]	0.209	[.000]	0.209	[.000]
E13	0.014	[.052]	0.009	[.218]	0.014	[.050]	0.009	[.209]
E14	0.010	[.105]	0.012	[.048]	0.010	[.104]	0.013	[.034]
E15	0.063	[.000]	0.060	[.000]	0.065	[.000]	0.063	[.000]
E16	0.038	[.092]	0.050	[.030]	0.036	[.120]	0.043	[.086]
E17	0.063	[.000]	0.037	[.017]	0.060	[.000]	0.033	[.033]
E18	-0.073	[.000]	-0.020	[.026]	-0.011	[.312]	-0.016	[.303]
TE1	0.952	[.000]	0.980	[.000]	0.949	[.000]	0.968	[.000]
E21	0.105	[.000]	0.116	[.000]	0.104	[.000]	0.120	[.000]
E22	-1.001	[.000]	-0.963	[.000]	-1.010	[.000]	-0.959	[.000]
E23	-0.011	[.067]	-0.008	[.176]	-0.011	[.065]	-0.008	[.173]
E24	0.001	[.797]	0.003	[.553]	0.001	[.848]	0.002	[.687]
E25	0.027	[.006]	0.029	[.004]	0.021	[.056]	0.024	[.027]
E26	-0.252	[.000]	-0.260	[.000]	-0.252	[.000]	-0.229	[.000]
E27	-0.065	[.000]	-0.059	[.000]	-0.054	[.001]	-0.054	[.000]
E28	-0.027	[.001]	-0.008	[.473]	-0.038	[.000]	-0.031	[.057]
TE2	1.222	[.000]	1.191	[.000]	1.238	[.000]	1.201	[.000]
E31	0.151	[.131]	0.132	[.187]	0.149	[.137]	0.131	[.191]
E32	-0.162	[.115]	-0.066	[.514]	-0.162	[.115]	-0.057	[.573]
E33	-0.650	[.000]	-0.644	[.000]	-0.649	[.000]	-0.644	[.000]
E34	0.067	[.173]	0.092	[.061]	0.069	[.161]	0.095	[.053]
E35	-0.026	[.606]	-0.013	[.796]	-0.026	[.614]	-0.015	[.769]
E36	-0.603	[.000]	-0.565	[.000]	-0.611	[.000]	-0.566	[.000]
E37	0.185	[.009]	0.204	[.004]	0.185	[.017]	0.199	[.005]
E38	-0.103	[.009]	-0.099	[.012]	-0.107	[.020]	-0.104	[.083]
TE3	1.141	[.000]	0.949	[.000]	1.153	[.000]	0.942	[.000]

E41	0.227	[.207]	0.256	[.154]	0.220	[.223]	0.267	[.141]
E42	0.040	[.819]	0.037	[.834]	0.024	[.890]	0.033	[.854]
E43	0.136	[.178]	0.181	[.073]	0.140	[.166]	0.183	[.068]
E44	-1.525	[.000]	-1.563	[.000]	-1.524	[.000]	-1.526	[.000]
E45	-0.079	[.352]	-0.080	[.345]	-0.100	[.257]	-0.099	[.249]
E46	-0.121	[.472]	-0.236	[.160]	-0.124	[.461]	-0.130	[.470]
E47	0.014	[.909]	0.019	[.876]	0.063	[.633]	0.033	[.787]
E48	0.070	[.282]	0.053	[.415]	0.030	[.687]	-0.079	[.412]
TE4	1.238	[.000]	1.423	[.000]	1.270	[.000]	1.478	[.000]
E51	0.290	[.000]	0.308	[.000]	0.290	[.000]	0.310	[.000]
E52	0.199	[.002]	0.233	[.000]	0.153	[.029]	0.223	[.001]
E53	-0.009	[.613]	-0.006	[.750]	-0.010	[.606]	-0.008	[.666]
E54	-0.013	[.383]	-0.011	[.467]	-0.017	[.279]	-0.013	[.404]
E55	-1.561	[.000]	-1.557	[.000]	-1.589	[.000]	-1.565	[.000]
E56	0.011	[.847]	0.041	[.487]	0.039	[.543]	0.076	[.263]
E57	-0.112	[.006]	-0.093	[.022]	-0.056	[.256]	-0.089	[.033]
E58	0.065	[.007]	0.072	[.003]	0.025	[.397]	0.030	[.471]
TE5	1.129	[.000]	1.016	[.000]	1.165	[.000]	1.055	[.000]
E61	0.070	[.001]	0.050	[.015]	0.071	[.001]	0.048	[.043]
E62	-0.154	[.000]	-0.218	[.000]	-0.145	[.000]	-0.212	[.000]
E63	-0.032	[.000]	-0.036	[.000]	-0.033	[.000]	-0.035	[.000]
E64	0.000	[.973]	-0.003	[.496]	0.000	[.987]	-0.002	[.762]
E65	0.017	[.094]	0.010	[.343]	0.024	[.032]	0.018	[.148]
E66	-0.833	[.000]	-0.873	[.000]	-0.834	[.000]	-0.923	[.000]
E67	0.090	[.000]	0.073	[.000]	0.076	[.000]	0.061	[.000]
E68	0.042	[.000]	0.030	[.001]	0.054	[.000]	0.081	[.000]
TE6	0.802	[.000]	0.961	[.000]	0.788	[.000]	0.947	[.000]
E71	0.141	[.000]	0.159	[.000]	0.142	[.001]	0.152	[.000]
E72	-0.147	[.001]	-0.044	[.315]	-0.096	[.073]	-0.037	[.450]
E73	0.035	[.006]	0.041	[.001]	0.036	[.011]	0.041	[.002]
E74	0.003	[.784]	0.007	[.476]	0.008	[.504]	0.010	[.374]
E75	-0.050	[.012]	-0.031	[.115]	-0.019	[.423]	-0.020	[.371]
E76	0.193	[.000]	0.273	[.000]	0.160	[.001]	0.199	[.000]
E77	-1.125	[.000]	-1.083	[.000]	-1.184	[.000]	-1.102	[.000]
E78	-0.081	[.000]	-0.091	[.000]	-0.040	[.067]	-0.041	[.170]
TE7	1.031	[.000]	0.705	[.000]	0.993	[.000]	0.678	[.000]
E81	-0.008	[.852]	-0.006	[.887]	-0.006	[.914]	0.002	[.972]
E82	-0.020	[.698]	-0.143	[.030]	-0.090	[.137]	-0.245	[.005]
E83	-0.029	[.035]	-0.026	[.063]	-0.031	[.055]	-0.029	[.146]
E84	0.016	[.148]	0.000	[.987]	0.009	[.462]	-0.020	[.225]
E85	0.081	[.001]	0.082	[.001]	0.043	[.131]	0.039	[.287]
E86	0.251	[.000]	0.291	[.000]	0.311	[.000]	0.511	[.000]
E87	-0.130	[.000]	-0.051	[.198]	-0.056	[.186]	0.035	[.498]
E88	-0.886	[.000]	-0.883	[.000]	-0.929	[.000]	-1.130	[.000]
TE8	0.726	[.000]	0.665	[.000]	0.748	[.000]	0.752	[.000]

Table 13. Compensated Own-Price and Cross-Price Elasticities for the Non-Alcoholic Beverages by Year and by Demand System

* Note that EE's are the own- and cross-price elasticities where, for example
EE12 gives the compensated elasticity of milk with respect to carbonated soft drink price

1	Milk
2	Carbonated Soft Drinks
3	Powdered Soft Drinks
4	Isotonics
5	Bottled Water
6	Fruit Juices and Drinks
7	Coffee
8	Tea

1998	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
EE11	-1.163	[.000]	-1.155	[.000]	-1.167	[.000]	-1.156	[.000]
EE12	0.453	[.000]	0.449	[.000]	0.460	[.000]	0.451	[.000]
EE13	0.020	[.008]	0.017	[.029]	0.020	[.007]	0.017	[.028]
EE14	0.032	[.000]	0.035	[.000]	0.033	[.000]	0.036	[.000]
EE15	0.076	[.000]	0.072	[.000]	0.087	[.000]	0.076	[.000]
EE16	0.328	[.000]	0.348	[.000]	0.323	[.000]	0.344	[.000]
EE17	0.232	[.000]	0.213	[.000]	0.221	[.000]	0.209	[.000]
EE18	0.023	[.013]	0.019	[.040]	0.023	[.014]	0.018	[.071]
EE21	0.366	[.000]	0.362	[.000]	0.371	[.000]	0.363	[.000]
EE22	-0.596	[.000]	-0.577	[.000]	-0.601	[.000]	-0.594	[.000]
EE23	0.008	[.164]	0.010	[.082]	0.009	[.151]	0.013	[.053]
EE24	0.020	[.001]	0.021	[.000]	0.020	[.001]	0.017	[.010]
EE25	0.032	[.000]	0.032	[.000]	0.021	[.110]	-0.010	[.496]
EE26	0.076	[.000]	0.058	[.007]	0.077	[.001]	0.095	[.001]
EE27	0.071	[.000]	0.079	[.000]	0.082	[.000]	0.117	[.000]
EE28	0.022	[.006]	0.028	[.018]	0.021	[.012]	0.031	[.012]
EE31	0.269	[.008]	0.222	[.029]	0.272	[.007]	0.228	[.025]
EE32	0.137	[.164]	0.171	[.082]	0.141	[.151]	0.180	[.072]
EE33	-0.714	[.000]	-0.705	[.000]	-0.713	[.000]	-0.706	[.000]
EE34	0.036	[.463]	0.052	[.287]	0.038	[.440]	0.055	[.257]
EE35	0.142	[.001]	0.146	[.001]	0.143	[.017]	0.167	[.005]
EE36	-0.250	[.008]	-0.272	[.004]	-0.261	[.006]	-0.295	[.003]
EE37	0.329	[.000]	0.344	[.000]	0.329	[.000]	0.320	[.000]
EE38	0.052	[.172]	0.047	[.222]	0.051	[.191]	0.061	[.134]
EE41	0.759	[.000]	0.842	[.000]	0.789	[.000]	0.850	[.000]
EE42	0.599	[.001]	0.617	[.000]	0.591	[.001]	0.553	[.003]
EE43	0.064	[.463]	0.093	[.287]	0.067	[.440]	0.106	[.230]
EE44	-1.918	[.000]	-2.026	[.000]	-1.939	[.000]	-2.070	[.000]
EE45	-0.050	[.526]	-0.044	[.579]	-0.146	[.157]	-0.223	[.029]
EE46	0.299	[.068]	0.246	[.135]	0.312	[.060]	0.405	[.025]
EE47	0.108	[.425]	0.157	[.247]	0.198	[.188]	0.334	[.029]
EE48	0.139	[.035]	0.142	[.031]	0.129	[.056]	0.126	[.081]
EE51	0.669	[.000]	0.640	[.000]	0.768	[.000]	0.645	[.000]
EE52	0.354	[.000]	0.350	[.000]	0.235	[.110]	0.216	[.137]
EE53	0.094	[.001]	0.097	[.001]	0.095	[.017]	0.117	[.002]
EE54	-0.018	[.526]	-0.016	[.579]	-0.054	[.157]	-0.054	[.137]

EE55	-1.634	[.000]	-1.628	[.000]	-1.981	[.000]	-1.945	[.000]
EE56	0.476	[.000]	0.470	[.000]	0.603	[.000]	0.752	[.000]
EE57	-0.045	[.516]	-0.027	[.690]	0.250	[.022]	0.273	[.010]
EE58	0.105	[.003]	0.102	[.004]	0.083	[.126]	-0.013	[.805]
EE61	0.324	[.000]	0.344	[.000]	0.319	[.000]	0.343	[.000]
EE62	0.093	[.000]	0.071	[.007]	0.095	[.001]	0.089	[.006]
EE63	-0.019	[.008]	-0.020	[.004]	-0.019	[.006]	-0.023	[.003]
EE64	0.012	[.068]	0.010	[.135]	0.013	[.060]	0.015	[.041]
EE65	0.053	[.000]	0.052	[.000]	0.067	[.000]	0.098	[.000]
EE66	-0.702	[.000]	-0.698	[.000]	-0.700	[.000]	-0.738	[.000]
EE67	0.148	[.000]	0.146	[.000]	0.134	[.000]	0.105	[.000]
EE68	0.089	[.000]	0.090	[.000]	0.092	[.000]	0.098	[.000]
EE71	0.549	[.000]	0.504	[.000]	0.525	[.000]	0.503	[.000]
EE72	0.208	[.000]	0.232	[.000]	0.242	[.000]	0.280	[.000]
EE73	0.059	[.000]	0.061	[.000]	0.059	[.000]	0.053	[.001]
EE74	0.011	[.425]	0.016	[.247]	0.020	[.188]	0.030	[.056]
EE75	-0.012	[.516]	-0.007	[.689]	0.067	[.022]	0.110	[.000]
EE76	0.356	[.000]	0.351	[.000]	0.321	[.000]	0.247	[.000]
EE77	-1.143	[.000]	-1.133	[.000]	-1.209	[.000]	-1.243	[.000]
EE78	-0.028	[.095]	-0.037	[.050]	-0.025	[.203]	-0.017	[.482]
EE81	0.141	[.013]	0.129	[.023]	0.142	[.014]	0.129	[.026]
EE82	0.169	[.006]	0.121	[.121]	0.158	[.012]	0.103	[.159]
EE83	0.024	[.172]	0.019	[.280]	0.024	[.191]	0.022	[.226]
EE84	0.036	[.035]	0.029	[.135]	0.033	[.056]	0.024	[.207]
EE85	0.073	[.003]	0.080	[.001]	0.058	[.126]	0.043	[.269]
EE86	0.561	[.000]	0.590	[.000]	0.578	[.000]	0.625	[.000]
EE87	-0.074	[.095]	-0.209	[.000]	-0.065	[.203]	-0.026	[.642]
EE88	-0.931	[.000]	-0.930	[.000]	-0.929	[.000]	-0.971	[.000]

1999	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
EE11	-1.232	[.000]	-1.213	[.000]	-1.234	[.000]	-1.215	[.000]
EE12	0.519	[.000]	0.491	[.000]	0.529	[.000]	0.495	[.000]
EE13	0.023	[.004]	0.018	[.025]	0.023	[.004]	0.019	[.019]
EE14	0.028	[.000]	0.028	[.000]	0.028	[.000]	0.030	[.000]
EE15	0.090	[.000]	0.085	[.000]	0.093	[.000]	0.084	[.000]
EE16	0.338	[.000]	0.360	[.000]	0.329	[.000]	0.371	[.000]
EE17	0.216	[.000]	0.202	[.000]	0.211	[.000]	0.203	[.000]
EE18	0.018	[.063]	0.017	[.079]	0.022	[.095]	0.013	[.453]
EE21	0.433	[.000]	0.410	[.000]	0.442	[.000]	0.414	[.000]
EE22	-0.709	[.000]	-0.710	[.000]	-0.730	[.000]	-0.790	[.000]
EE23	0.013	[.040]	0.014	[.035]	0.016	[.021]	0.017	[.048]
EE24	0.015	[.008]	0.014	[.013]	0.017	[.005]	0.020	[.007]
EE25	0.055	[.000]	0.058	[.000]	0.046	[.000]	0.042	[.001]
EE26	0.082	[.000]	0.068	[.003]	0.104	[.000]	0.197	[.000]
EE27	0.090	[.000]	0.096	[.000]	0.110	[.000]	0.147	[.000]
EE28	0.020	[.025]	-0.012	[.276]	-0.004	[.762]	-0.055	[.002]
EE31	0.302	[.004]	0.232	[.025]	0.300	[.004]	0.243	[.020]
EE32	0.207	[.040]	0.214	[.035]	0.246	[.021]	0.242	[.035]
EE33	-0.662	[.000]	-0.652	[.000]	-0.669	[.000]	-0.651	[.000]
EE34	0.021	[.643]	0.031	[.498]	0.014	[.773]	0.033	[.473]
EE35	0.109	[.014]	0.120	[.007]	0.127	[.008]	0.120	[.008]
EE36	-0.316	[.001]	-0.329	[.001]	-0.357	[.001]	-0.354	[.005]
EE37	0.340	[.000]	0.362	[.000]	0.305	[.000]	0.348	[.000]

EE38	-0.001	[.971]	-0.003	[.931]	0.035	[.519]	0.017	[.784]
EE41	0.701	[.000]	0.706	[.000]	0.696	[.000]	0.737	[.000]
EE42	0.458	[.008]	0.429	[.013]	0.508	[.005]	0.468	[.014]
EE43	0.041	[.643]	0.060	[.498]	0.026	[.773]	0.065	[.469]
EE44	-1.978	[.000]	-2.123	[.000]	-1.993	[.000]	-2.092	[.000]
EE45	-0.031	[.680]	-0.012	[.871]	-0.004	[.965]	-0.015	[.847]
EE46	0.520	[.001]	0.453	[.005]	0.469	[.006]	0.424	[.037]
EE47	0.066	[.596]	0.118	[.346]	0.004	[.976]	0.105	[.433]
EE48	0.223	[.000]	0.235	[.000]	0.293	[.001]	0.295	[.003]
EE51	0.679	[.000]	0.640	[.000]	0.696	[.000]	0.635	[.000]
EE52	0.496	[.000]	0.522	[.000]	0.415	[.000]	0.470	[.000]
EE53	0.063	[.014]	0.069	[.007]	0.073	[.008]	0.069	[.007]
EE54	-0.009	[.680]	-0.004	[.871]	-0.001	[.965]	-0.003	[.880]
EE55	-1.562	[.000]	-1.547	[.000]	-1.593	[.000]	-1.556	[.000]
EE56	0.177	[.018]	0.187	[.013]	0.257	[.004]	0.238	[.024]
EE57	-0.017	[.765]	0.007	[.902]	0.046	[.490]	0.026	[.685]
EE58	0.174	[.000]	0.215	[.000]	0.107	[.015]	0.131	[.018]
EE61	0.318	[.000]	0.339	[.000]	0.309	[.000]	0.345	[.000]
EE62	0.093	[.000]	0.076	[.003]	0.117	[.000]	0.176	[.000]
EE63	-0.023	[.001]	-0.024	[.001]	-0.026	[.001]	-0.027	[.005]
EE64	0.019	[.001]	0.017	[.005]	0.018	[.006]	0.012	[.144]
EE65	0.022	[.018]	0.023	[.013]	0.032	[.004]	0.039	[.007]
EE66	-0.642	[.000]	-0.649	[.000]	-0.667	[.000]	-0.797	[.000]
EE67	0.136	[.000]	0.145	[.000]	0.114	[.000]	0.085	[.000]
EE68	0.077	[.000]	0.092	[.000]	0.103	[.000]	0.170	[.000]
EE71	0.540	[.000]	0.506	[.000]	0.529	[.000]	0.506	[.000]
EE72	0.269	[.000]	0.288	[.000]	0.328	[.000]	0.423	[.000]
EE73	0.065	[.000]	0.069	[.000]	0.058	[.000]	0.064	[.000]
EE74	0.007	[.596]	0.012	[.346]	0.000	[.976]	0.004	[.770]
EE75	-0.006	[.765]	0.002	[.903]	0.015	[.490]	0.023	[.338]
EE76	0.362	[.000]	0.386	[.000]	0.305	[.000]	0.182	[.005]
EE77	-1.218	[.000]	-1.204	[.000]	-1.259	[.000]	-1.289	[.000]
EE78	-0.020	[.245]	0.019	[.330]	0.023	[.367]	0.098	[.005]
EE81	0.100	[.063]	0.163	[.005]	0.125	[.095]	0.098	[.231]
EE82	0.133	[.025]	0.343	[.000]	-0.025	[.762]	-0.023	[.829]
EE83	-0.001	[.971]	0.009	[.604]	0.015	[.519]	0.010	[.656]
EE84	0.050	[.000]	0.083	[.000]	0.066	[.001]	0.079	[.000]
EE85	0.132	[.000]	0.094	[.000]	0.081	[.015]	0.078	[.030]
EE86	0.467	[.000]	0.436	[.000]	0.620	[.000]	0.833	[.000]
EE87	-0.046	[.245]	-0.134	[.003]	0.053	[.367]	0.062	[.352]
EE88	-0.835	[.000]	-0.826	[.000]	-0.935	[.000]	-1.110	[.000]

2000	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
EE11	-1.151	[.000]	-1.143	[.000]	-1.175	[.000]	-1.178	[.000]
EE12	0.479	[.000]	0.477	[.000]	0.489	[.000]	0.473	[.000]
EE13	0.029	[.000]	0.025	[.000]	0.027	[.000]	0.022	[.005]
EE14	0.035	[.000]	0.037	[.000]	0.034	[.000]	0.040	[.000]
EE15	0.091	[.000]	0.087	[.000]	0.101	[.000]	0.097	[.000]
EE16	0.309	[.000]	0.331	[.000]	0.310	[.000]	0.317	[.000]
EE17	0.184	[.000]	0.164	[.000]	0.176	[.000]	0.164	[.000]
EE18	0.024	[.011]	0.018	[.068]	0.038	[.002]	0.037	[.022]
EE21	0.396	[.000]	0.394	[.000]	0.405	[.000]	0.410	[.000]
EE22	-0.616	[.000]	-0.590	[.000]	-0.612	[.000]	-0.561	[.000]

EE23	-0.001	[.932]	0.002	[.745]	0.000	[.991]	0.004	[.565]
EE24	0.009	[.136]	0.010	[.095]	0.009	[.136]	0.011	[.059]
EE25	0.059	[.000]	0.059	[.000]	0.056	[.000]	0.057	[.000]
EE26	0.064	[.004]	0.044	[.053]	0.058	[.010]	0.047	[.044]
EE27	0.066	[.000]	0.073	[.000]	0.070	[.000]	0.067	[.000]
EE28	0.023	[.010]	0.036	[.002]	0.015	[.128]	0.067	[.000]
EE31	0.416	[.000]	0.359	[.000]	0.380	[.000]	0.308	[.004]
EE32	-0.009	[.932]	0.034	[.745]	-0.001	[.991]	0.025	[.810]
EE33	-0.703	[.000]	-0.702	[.000]	-0.709	[.000]	-0.707	[.000]
EE34	0.107	[.052]	0.128	[.018]	0.103	[.062]	0.134	[.014]
EE35	0.058	[.245]	0.064	[.202]	0.075	[.153]	0.072	[.156]
EE36	-0.212	[.037]	-0.218	[.032]	-0.200	[.055]	-0.245	[.019]
EE37	0.381	[.000]	0.377	[.000]	0.367	[.000]	0.376	[.000]
EE38	-0.038	[.363]	-0.043	[.303]	-0.014	[.770]	0.002	[.979]
EE41	0.862	[.000]	0.918	[.000]	0.838	[.000]	1.028	[.000]
EE42	0.260	[.136]	0.287	[.095]	0.260	[.136]	0.381	[.032]
EE43	0.188	[.052]	0.227	[.018]	0.182	[.062]	0.242	[.012]
EE44	-2.165	[.000]	-2.221	[.000]	-2.173	[.000]	-2.145	[.000]
EE45	-0.066	[.434]	-0.053	[.520]	-0.053	[.544]	-0.073	[.386]
EE46	0.523	[.002]	0.464	[.005]	0.538	[.002]	0.501	[.003]
EE47	0.145	[.243]	0.185	[.129]	0.134	[.290]	0.153	[.220]
EE48	0.253	[.000]	0.254	[.000]	0.274	[.000]	0.175	[.053]
EE51	0.587	[.000]	0.565	[.000]	0.656	[.000]	0.622	[.000]
EE52	0.459	[.000]	0.461	[.000]	0.434	[.000]	0.491	[.000]
EE53	0.027	[.245]	0.029	[.202]	0.034	[.153]	0.033	[.161]
EE54	-0.017	[.434]	-0.014	[.520]	-0.014	[.544]	-0.016	[.472]
EE55	-1.627	[.000]	-1.626	[.000]	-1.658	[.000]	-1.640	[.000]
EE56	0.429	[.000]	0.426	[.000]	0.419	[.000]	0.451	[.000]
EE57	0.060	[.239]	0.069	[.173]	0.086	[.126]	0.053	[.314]
EE58	0.083	[.005]	0.082	[.006]	0.041	[.253]	0.029	[.522]
EE61	0.280	[.000]	0.300	[.000]	0.281	[.000]	0.287	[.000]
EE62	0.071	[.004]	0.048	[.053]	0.063	[.010]	0.036	[.155]
EE63	-0.014	[.037]	-0.014	[.032]	-0.013	[.055]	-0.016	[.018]
EE64	0.019	[.002]	0.017	[.005]	0.020	[.002]	0.017	[.005]
EE65	0.060	[.000]	0.060	[.000]	0.059	[.000]	0.064	[.000]
EE66	-0.626	[.000]	-0.624	[.000]	-0.621	[.000]	-0.632	[.000]
EE67	0.123	[.000]	0.123	[.000]	0.122	[.000]	0.127	[.000]
EE68	0.087	[.000]	0.084	[.000]	0.088	[.000]	0.096	[.000]
EE71	0.454	[.000]	0.405	[.000]	0.433	[.000]	0.380	[.000]
EE72	0.196	[.000]	0.218	[.000]	0.208	[.000]	0.202	[.000]
EE73	0.066	[.000]	0.066	[.000]	0.064	[.000]	0.063	[.000]
EE74	0.014	[.243]	0.018	[.130]	0.013	[.290]	0.018	[.147]
EE75	0.023	[.239]	0.026	[.173]	0.033	[.126]	0.028	[.161]
EE76	0.334	[.000]	0.335	[.000]	0.333	[.000]	0.326	[.000]
EE77	-1.076	[.000]	-1.076	[.000]	-1.083	[.000]	-1.083	[.000]
EE78	-0.013	[.462]	-0.030	[.132]	-0.002	[.922]	-0.072	[.012]
EE81	0.126	[.011]	0.109	[.030]	0.196	[.002]	0.277	[.000]
EE82	0.143	[.010]	0.052	[.474]	0.097	[.128]	-0.051	[.596]
EE83	-0.014	[.363]	-0.015	[.333]	-0.005	[.770]	0.007	[.741]
EE84	0.053	[.000]	0.040	[.010]	0.057	[.000]	-0.001	[.952]
EE85	0.066	[.005]	0.071	[.003]	0.033	[.253]	0.017	[.623]
EE86	0.498	[.000]	0.520	[.000]	0.507	[.000]	0.617	[.000]
EE87	-0.027	[.462]	0.016	[.707]	-0.004	[.922]	0.065	[.258]
EE88	-0.846	[.000]	-0.845	[.000]	-0.881	[.000]	-1.094	[.000]

2001	Linear Approximate AIDS		Nonlinear AIDS		Quadratic AIDS Model (QUAIDS)		QUAIDS using Stone's Index	
Elasticity	Estimate	P-value	Estimate	P-value	Estimate	P-value	Estimate	P-value
EE11	-1.106	[.000]	-1.099	[.000]	-1.106	[.000]	-1.105	[.000]
EE12	0.479	[.000]	0.483	[.000]	0.483	[.000]	0.488	[.000]
EE13	0.030	[.000]	0.025	[.000]	0.030	[.000]	0.025	[.000]
EE14	0.018	[.004]	0.020	[.001]	0.018	[.004]	0.021	[.001]
EE15	0.106	[.000]	0.104	[.000]	0.108	[.000]	0.107	[.000]
EE16	0.289	[.000]	0.308	[.000]	0.286	[.000]	0.298	[.000]
EE17	0.151	[.000]	0.128	[.000]	0.148	[.000]	0.123	[.000]
EE18	0.033	[.000]	0.026	[.005]	0.034	[.001]	0.030	[.045]
EE21	0.396	[.000]	0.399	[.000]	0.399	[.000]	0.406	[.000]
EE22	-0.649	[.000]	-0.619	[.000]	-0.653	[.000]	-0.613	[.000]
EE23	0.010	[.098]	0.012	[.040]	0.010	[.094]	0.012	[.058]
EE24	0.011	[.023]	0.013	[.010]	0.011	[.026]	0.012	[.021]
EE25	0.082	[.000]	0.082	[.000]	0.077	[.000]	0.078	[.000]
EE26	0.070	[.001]	0.054	[.013]	0.075	[.001]	0.087	[.002]
EE27	0.048	[.001]	0.051	[.000]	0.061	[.000]	0.057	[.000]
EE28	0.031	[.000]	0.049	[.000]	0.021	[.034]	0.037	[.021]
EE31	0.423	[.000]	0.358	[.000]	0.423	[.000]	0.356	[.000]
EE32	0.167	[.098]	0.207	[.040]	0.170	[.094]	0.214	[.034]
EE33	-0.631	[.000]	-0.628	[.000]	-0.630	[.000]	-0.628	[.000]
EE34	0.076	[.121]	0.099	[.043]	0.078	[.111]	0.102	[.036]
EE35	0.026	[.606]	0.030	[.548]	0.026	[.614]	0.028	[.581]
EE36	-0.303	[.003]	-0.315	[.002]	-0.308	[.002]	-0.318	[.004]
EE37	0.291	[.000]	0.292	[.000]	0.292	[.000]	0.286	[.000]
EE38	-0.049	[.214]	-0.055	[.167]	-0.052	[.252]	-0.062	[.294]
EE41	0.522	[.004]	0.595	[.001]	0.523	[.004]	0.619	[.001]
EE42	0.397	[.023]	0.446	[.010]	0.390	[.026]	0.458	[.010]
EE43	0.157	[.121]	0.204	[.043]	0.161	[.111]	0.208	[.039]
EE44	-1.515	[.000]	-1.551	[.000]	-1.514	[.000]	-1.514	[.000]
EE45	-0.023	[.787]	-0.015	[.855]	-0.042	[.631]	-0.033	[.705]
EE46	0.206	[.219]	0.139	[.404]	0.210	[.212]	0.260	[.153]
EE47	0.129	[.285]	0.151	[.208]	0.181	[.171]	0.171	[.163]
EE48	0.128	[.048]	0.121	[.062]	0.091	[.227]	0.012	[.898]
EE51	0.559	[.000]	0.550	[.000]	0.567	[.000]	0.562	[.000]
EE52	0.524	[.000]	0.525	[.000]	0.488	[.000]	0.526	[.000]
EE53	0.009	[.606]	0.011	[.548]	0.010	[.614]	0.010	[.607]
EE54	-0.004	[.787]	-0.003	[.854]	-0.008	[.631]	-0.004	[.783]
EE55	-1.510	[.000]	-1.511	[.000]	-1.537	[.000]	-1.517	[.000]
EE56	0.309	[.000]	0.309	[.000]	0.346	[.000]	0.354	[.000]
EE57	-0.007	[.867]	0.001	[.971]	0.053	[.287]	0.009	[.836]
EE58	0.119	[.000]	0.121	[.000]	0.080	[.007]	0.082	[.045]
EE61	0.261	[.000]	0.278	[.000]	0.258	[.000]	0.273	[.000]
EE62	0.077	[.001]	0.059	[.013]	0.081	[.001]	0.061	[.029]
EE63	-0.019	[.003]	-0.020	[.002]	-0.019	[.002]	-0.019	[.006]
EE64	0.006	[.219]	0.004	[.404]	0.006	[.212]	0.006	[.287]
EE65	0.053	[.000]	0.053	[.000]	0.059	[.000]	0.060	[.000]
EE66	-0.622	[.000]	-0.620	[.000]	-0.626	[.000]	-0.674	[.000]
EE67	0.164	[.000]	0.162	[.000]	0.149	[.000]	0.149	[.000]
EE68	0.079	[.000]	0.075	[.000]	0.091	[.000]	0.123	[.000]
EE71	0.386	[.000]	0.327	[.000]	0.379	[.000]	0.313	[.000]
EE72	0.149	[.001]	0.159	[.000]	0.190	[.000]	0.158	[.001]
EE73	0.052	[.000]	0.052	[.000]	0.052	[.000]	0.053	[.000]
EE74	0.011	[.285]	0.013	[.208]	0.016	[.171]	0.015	[.165]

EE75	-0.003	[.867]	0.001	[.971]	0.026	[.287]	0.011	[.632]
EE76	0.465	[.000]	0.459	[.000]	0.422	[.000]	0.377	[.000]
EE77	-1.029	[.000]	-1.017	[.000]	-1.092	[.000]	-1.039	[.000]
EE78	-0.032	[.053]	-0.058	[.002]	0.007	[.750]	-0.009	[.758]
EE81	0.164	[.000]	0.152	[.001]	0.173	[.001]	0.182	[.010]
EE82	0.189	[.000]	0.049	[.456]	0.126	[.034]	-0.028	[.746]
EE83	-0.017	[.214]	-0.015	[.281]	-0.018	[.252]	-0.017	[.407]
EE84	0.022	[.048]	0.005	[.679]	0.015	[.227]	-0.014	[.403]
EE85	0.113	[.000]	0.112	[.000]	0.077	[.007]	0.073	[.047]
EE86	0.443	[.000]	0.467	[.000]	0.508	[.000]	0.709	[.000]
EE87	-0.063	[.053]	0.011	[.782]	0.014	[.750]	0.105	[.044]
EE88	-0.851	[.000]	-0.852	[.000]	-0.894	[.000]	-1.133	[.000]

Table 14. Compensated Own-Price Elasticities for the Non-Alcoholic Beverages Over the Period 1998 to 2001

		Milk	Carbonated Soft Drinks	Powdered Soft Drinks	Isotonics	Bottled Water	Fruit Juice & Other Drinks	Coffee	Tea
1998	LA/AIDS	-1.163	-0.596	-0.714	-1.918	-1.634	-0.702	-1.143	-0.931
	AIDS	-1.155	-0.577	-0.705	-2.026	-1.628	-0.698	-1.133	-0.930
	QUAIDSs	-1.167	-0.601	-0.713	-1.939	-1.981	-0.700	-1.209	-0.929
	QUAIDS	-1.156	-0.594	-0.706	-2.070	-1.945	-0.738	-1.243	-0.971
1999	LA/AIDS	-1.232	-0.709	-0.662	-1.978	-1.562	-0.642	-1.218	-0.835
	AIDS	-1.213	-0.710	-0.652	-2.123	-1.547	-0.649	-1.204	-0.826
	QUAIDSs	-1.234	-0.730	-0.669	-1.993	-1.593	-0.667	-1.259	-0.935
	QUAIDS	-1.215	-0.790	-0.651	-2.092	-1.556	-0.797	-1.289	-1.110
2000	LA/AIDS	-1.151	-0.616	-0.703	-2.165	-1.627	-0.626	-1.076	-0.846
	AIDS	-1.143	-0.590	-0.702	-2.221	-1.626	-0.624	-1.076	-0.845
	QUAIDSs	-1.175	-0.612	-0.709	-2.173	-1.658	-0.621	-1.083	-0.881
	QUAIDS	-1.178	-0.561	-0.707	-2.145	-1.640	-0.632	-1.083	-1.094
2001	LA/AIDS	-1.106	-0.649	-0.631	-1.515	-1.510	-0.622	-1.029	-0.851
	AIDS	-1.099	-0.619	-0.628	-1.551	-1.511	-0.620	-1.017	-0.852
	QUAIDSs	-1.106	-0.653	-0.630	-1.514	-1.537	-0.626	-1.092	-0.894
	QUAIDS	-1.105	-0.613	-0.628	-1.514	-1.517	-0.674	-1.039	-1.133
MEAN		-1.162	-0.639	-0.676	-1.934	-1.629	-0.665	-1.137	-0.929
MIN		-1.234	-0.790	-0.714	-2.221	-1.981	-0.797	-1.289	-1.133
MAX		-1.099	-0.561	-0.628	-1.514	-1.510	-0.620	-1.017	-0.826
STD DEV		0.045	0.064	0.035	0.259	0.139	0.051	0.088	0.101

Table 15. Compensated Elasticity Matrix For The Set of Non-Alcoholic Beverages Using the QUAIDS System and 1998 ACNielsen Homescan Data

	Milk	Carbonated Soft Drinks	Powdered Soft Drinks	Isotonics	Bottled Water	Fruit Juice & Other Drinks	Coffee	Tea
Milk	-1.156	0.451	0.017	0.036	0.076	0.344	0.209	0.018
	[.000]	[.000]	[.028]	[.000]	[.000]	[.000]	[.000]	[.071]
Carbonated Soft Drinks	0.363	-0.594	0.013	0.017	-0.010	0.095	0.117	0.031
	[.000]	[.000]	[.053]	[.010]	[.496]	[.001]	[.000]	[.012]
Powdered Soft Drinks	0.228	0.180	-0.706	0.055	0.167	-0.295	0.320	0.061
	[.025]	[.072]	[.000]	[.257]	[.005]	[.003]	[.000]	[.134]
Isotonics	0.850	0.553	0.106	-2.070	-0.223	0.405	0.334	0.126
	[.000]	[.003]	[.230]	[.000]	[.029]	[.025]	[.029]	[.081]
Bottled Water	0.645	0.216	0.117	-0.054	-1.945	0.752	0.273	-0.013
	[.000]	[.137]	[.002]	[.137]	[.000]	[.000]	[.010]	[.805]
Fruit Juices and Drinks	0.343	0.089	-0.023	0.015	0.098	-0.738	0.105	0.098
	[.000]	[.006]	[.003]	[.041]	[.000]	[.000]	[.000]	[.000]
Coffee	0.503	0.280	0.053	0.030	0.110	0.247	-1.243	-0.017
	[.000]	[.000]	[.001]	[.056]	[.000]	[.000]	[.000]	[.482]
Tea	0.129	0.103	0.022	0.024	0.043	0.625	-0.026	-0.971
	[.026]	[.159]	[.226]	[.207]	[.269]	[.000]	[.642]	[.000]

Note: P-values are in brackets

Table 16. Expenditure Elasticities by Year and by Demand Model, 1998 to 2001

		Milk	Carbonated Soft Drinks	Powdered Soft Drinks	Isotonics	Bottled Water	Fruit Juice & Other Drinks	Coffee	Tea
1998	LA/AIDS	0.949	1.214	1.216	1.288	0.934	0.785	1.062	0.725
	AIDS	0.975	1.196	1.081	1.472	0.789	0.926	0.795	0.626
	QUAIDSs	0.943	1.234	1.231	1.339	1.087	0.768	1.021	0.704
	QUAIDS	0.973	1.218	1.073	1.555	0.936	0.904	0.742	0.641
1999	LA/AIDS	0.967	1.215	1.199	1.233	1.006	0.800	1.063	0.648
	AIDS	1.031	1.164	1.064	1.349	0.763	0.948	0.796	0.557
	QUAIDSs	0.962	1.234	1.192	1.211	1.037	0.783	1.039	0.690
	QUAIDS	1.020	1.209	1.051	1.353	0.800	0.915	0.731	0.639
2000	LA/AIDS	0.952	1.215	1.166	1.265	1.096	0.806	1.033	0.746
	AIDS	0.979	1.189	0.985	1.412	0.957	0.958	0.745	0.653
	QUAIDSs	0.938	1.228	1.151	1.263	1.138	0.800	1.020	0.766
	QUAIDS	0.948	1.185	0.938	1.472	1.042	0.963	0.749	0.748
2001	LA/AIDS	0.952	1.222	1.141	1.238	1.129	0.802	1.031	0.726
	AIDS	0.980	1.191	0.949	1.423	1.016	0.961	0.705	0.665
	QUAIDSs	0.949	1.238	1.153	1.270	1.165	0.788	0.993	0.748
	QUAIDS	0.968	1.201	0.942	1.478	1.055	0.947	0.678	0.752
MEAN		0.938	1.164	0.938	1.211	0.763	0.768	0.678	0.557
MIN		1.031	1.238	1.231	1.555	1.165	0.963	1.063	0.766
MAX		0.968	1.210	1.096	1.351	0.997	0.866	0.888	0.690
STD DEV		0.026	0.020	0.101	0.106	0.126	0.079	0.153	0.059