United States Environmental Protection Agency
Office of Water 4301
EPA-822-R-00-008
April 2000

Estimated Per Capita Water Ingestion in the United States

Based on Data Collected by the United States Department of Agriculture's 1994–96 Continuing Survey of Food Intakes by Individuals

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Support provided under

EPA Contracts: # 68–C4–0046 and # 68–C–99–233

ACKNOWLEDGMENTS

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PREFACE

This report presents current estimates of per capita water ingestion. The basis for these estimates is dietary and demographic data collected during a 1994 through 1996 survey conducted by the United States Department of Agriculture (USDA). In this survey, known as the Continuing Survey of Food Intakes by Individuals (CSFII), two non–consecutive days of food ingestion data were collected from a sample of more than 15,000 individuals in the 50 United States and the District of Columbia. Respondent information, in conjunction with food code, recipe, and nutrient data from USDA, forms the means of estimating per capita ingestion of plain drinking water (direct water) and water ingested indirectly. Water used in the final preparation of foods and beverages at home, or by food service establishments such as school cafeterias and restaurants is defined as indirect water. Quantities of ingested water reported in the USDA 1994 through 1996 CSFII are averaged by participant to generate a two–day average. These daily average ingestion amounts comprise the empirical distributions from which mean and upper percentile per capita ingestion estimates are produced.

The CSFII survey, and consequently estimates reported in this document, extend to the population of the United States. We augment population per capita ingestion estimates with estimates of per capita ingestion by various population subsets. These population subsets include (1) gender and age categories and (2) pregnant, lactating, and childbearing–age women. Subpopulation ingestion estimates support assessments of “at risk” populations.

EPA generated the estimates in this report in response to legislative mandates in Safe Drinking Water Act Amendments of 1996. These mandates require up–to–date information on water ingestion to identify subpopulations at elevated risk of health effects from exposure to contaminants in drinking water. These up–to–date estimates also support characterization of health risks to sensitive populations from contaminants in drinking water. The estimates in this document characterize the empirical distributions of two–day average per capita ingestion of water for specific subpopulations. Subpopulation estimates apply to demographic categories but do not distinguish individuals with a history of serious illness or with lifestyles that effect water consumption.

Water ingestion rates for the overall population and for subpopulations have several important applications within the United States Environmental Protection Agency (USEPA). Information on water intake is used in risk assessment and regulations which involve default values for water ingestion and in the estimation of risks to highly exposed and/or sensitive populations.

It is important to emphasize that risk is a function of both exposure and sensitivity. Sensitivity is determined by genetics, developmental stage (old as well as young), lifestyle, and preexisting disease conditions. With the exception of age, these other determinants of sensitivity are not addressed in this report.

Water ingestion estimates in this document support the evaluation and possible revision of the standard water ingestion quantities of two liters for a 70–kilogram average adult and one liter for a 10–kilogram child. These standard quantities are used by many federal agencies including the EPA and the World Health Organization (WHO). The two liter standard is supported by a 1989 National Cancer Institute report on tap water consumption (Ershow and Cantor, 1989). Estimates of water ingested in this report differ from the estimates reported by Ershow and Cantor for several reasons. Ershow and Cantor's estimates are based on data from the 1977–78 USDA National Food Consumption Survey while the estimates reported here are based on 1994–96 data. Also, the 1989 report presents estimates of tap water ingestion. Ershow and Cantor define tap water as "water from the household tap." In this report, water coming from the tap is distinguished by source. Sources of water coming from the tap may include: community water, household well or cistern, a household or public spring, and other. Thus, estimates in this report are expected to differ from those reported in 1989 because the estimates in this report incorporate more recent ingestion data and thus reflect changes in ingestion behavior. Also, estimates will differ between the 1989 report and this report because the sources of water ingested are more definitive in this report. A third way that the estimates in this report differ from those in the 1989 report is that the 1994–96 data include water ingestion by pregnant and lactating women. These women were excluded from the 1989 report. To further address changes in water ingestion patterns, this report provides separate estimates for community water, bottled water, and water from other sources.

This report consists of the following chapters:

- **Executive Summary,** summarizes the most pertinent information contained in this report, including the main features of the CSFII data collection and results from the analysis.

- **Chapter 1, Definitions,** identifies water–related terms used in the report. Definitions distinguish indirect water from direct water and identify water sources.

- **Chapter 2, Sources of Data,** describes the surveys; summarizes the method of data collection; and identifies the respondent data files and concomitant information files used to establish the estimates. Appendix D provides the details of the sample design.

- **Chapter 3, Methods,** presents the means of determining source and amount of direct water ingested by survey respondents. Conventions for identifying and determining the amount of water ingested indirectly through food preparations are also presented. Data convention descriptions are followed by a summary of the statistical methods used for generating mean and empirical percentile estimates and the size of the subpopulation to which the estimates are applicable. Appendix D records statistical estimation formulae.

- **Chapter 4, Results,** provides an overview of key results. These results are augmented with graphical presentations and numerous tables of the empirical distribution of estimated average daily per capita ingestion of water.

- **Chapter 5, Discussion,** discusses the advantages and disadvantages of the CSFII for estimating per capita water ingestion in the United States. Sources of error, bias, and uncertainty are defined, and the report's conclusions are presented.

Material included in the appendices augment the data convention descriptions and methods described in Chapters 2 and 3. Appendix E presents tabulated estimates of per capita water ingestion by water source and subpopulation for all respondents and for "consumers only."

- **Appendix A, CSFII Survey Questions Pertaining to Water Ingestion,** lists the household level questions that are used to determine water source, sample person questions that identify the number of fluid ounces and source of directly ingested water, and food item questions for determining foods with water added at home or by a food service facility.

- **Appendix B, Examples of Procedures Used in the Estimation of Indirect Water Ingestion**, provides three sets of examples. For food codes that were prepared at home or by food service establishments, Appendix B1 identifies how the proportion of indirect water in 100 grams of each food was estimated and provides examples. Appendix B2 provides examples, supplied by USDA, of how to estimate preparation water absorbed in foods such as cooked pasta, rice, cereal grains, beans, and legumes. USDA guidance and examples for calculating the percent and amount of moisture in 100 grams of food follow in Appendix B3.

- **Appendix C, 1994–96 CSFII Food Codes,** lists CSFII Food Codes at the three–digit level and the assignments of percentage of indirect water and commercial water in C1 and C2, respectively. Commercially added waters are not included in the ingestion estimates presented in this report. Appendix C3 lists food codes and their corresponding proportions of water in 100 grams of food.

- **Appendix D, Statistical Methods and Sample Design,** provides the statistical formulae for generating point and interval estimates about the mean and upper percentiles of the distribution of two–day average per capita water ingestion. This appendix also provides the details of the sample design.

- **Appendix E, Per Capita Water Ingestion Estimates,** includes tabulated presentations of per capita water ingestion estimates. All estimates are from empirical distributions of two–day average amounts of water ingested. This appendix presents tables for the entire population and for individuals in specific subpopulations in four parts. Parts I and II record estimates of direct, indirect, and both direct and indirect water ingestion for all individuals. Parts III and IV contain water ingestion estimates for "consumers only." These estimates only include individuals who reported ingestion of the water under consideration. Therefore, these estimates do not include individuals who reported zero amounts of water ingested from the water source under consideration. Biological and commercially added waters are not included in the amounts of indirect water ingested.

  Five sets of estimates comprise each part of this appendix. The five sets differ by the source of water ingested. These sources are community water, bottled water, water from other sources, missing source, and all sources. Each part contains three tables of estimates for each water source. These tables report water ingestion estimates by gender and broad age category; fine age category; and pregnant, lactating, and childbearing–age women. For each water source, ingestion estimates contained in Parts I and Parts III are reported in units of milliliters/person/day. Units for Parts II and IV are in milliliters/kilogram of body weight/day.

- **Appendix F, Final SAB Report and EPA Response**, includes the results of a review of the July 1999 version of this report by the Drinking Water Intake Subcommittee (DWIS), a special subcommittee of the EPA SAB. The EPA's response to this report is also included.

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EXECUTIVE SUMMARY

The objective of the report is to provide current estimates of water ingestion for the population of the United States and selected subpopulations. The subpopulations include gender and age categories, pregnant women, lactating women and women of childbearing age. These ingestion estimates may be used in estimating risk to human health from the ingestion of contaminated waters. Knowledge of water ingestion is of fundamental importance to the mission of the Office of Water, and credible national estimates are of great utility to many EPA programs. In particular, the estimates support the development of risk assessments based on the ingestion of water that may be contaminated. The Safe Drinking Water Act Amendments of 1996 require EPA to identify subpopulations at elevated risk of health effects from exposure to contaminants in drinking water and to conduct studies characterizing health risk to sensitive populations from contaminants in drinking water. The process of establishing human risk requires up–to–date information on water ingestion and this report responds to that need.

The reported estimates were calculated using data from the combined 1994, 1995, and 1996 Continuing Survey of Food Intakes by Individuals (CSFII), conducted by the United States Department of Agriculture (USDA). The CSFII is a complex, multistage area probability sample of the entire United States and is conducted to survey the food and beverage intake of the United States. The CSFII collected two non–consecutive days of food ingestion data from a sample of more than 15,000 individuals. The two days of dietary intake, in conjunction with food code, recipe, and nutrient data from the USDA, were used to identify the direct (plain drinking water) and indirect water consumed by each respondent. Indirect water is defined as water used in the final preparation of foods and beverages at home, or by food service establishments such as school cafeterias and restaurants. Quantities of ingested water reported were averaged by participant to generate a two–day average. These daily average ingestion amounts comprise the empirical distributions from which mean and percentile per capita ingestion estimates are produced.

This report provides ingestion estimates of direct water, indirect water and both direct and indirect water combined .[1] Also provided are water ingestion amounts by water source. Sources include community water, bottled water, other sources, and all sources combined (total water)[2]. Other sources include water from private household wells and rain cisterns, and household and public springs.

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[1]For the purpose of this report, indirect water does not include water found naturally in foods (biological water) and water added by commercial food and beverage manufacturers (commercial water).

[2]References in this report to the ingestion of community water, bottled water, and other water refer to the ingestion of the combined amount of direct and indirect community, bottled, or other water, respectively.

Additionally, the report provides estimates of water consumption for "all individuals" and for "consumers only". The estimates for all individuals are based on all survey respondents in the population (or subpopulation) under consideration including those who reported no consumption of the water from the source under consideration during the two survey days. The "consumers only" estimates are based on only those respondents in the population (or subpopulation) of interest who reported ingestion of the water from the source under consideration during the two survey days and excludes the "zero" consumers. All estimates are provided in units of milliliters/person/day (ml/person/day) and milliliters/kilogram of body weight/day (ml/kg/day).

The estimated mean two–day average per capita ingestion of community water is 927 ml/person/day. This mean ingestion estimate applies to all individuals in the United States population. A 90% confidence interval about this mean ingestion ranges from 902 to 951 ml/person/day (See Table 4–1–B1). These estimates of community water are based on a sample of 15,303 individuals in the 50 United States and the District of Columbia. The sample was selected to represent the entire population of the United States based on 1990 census data.

The estimated 90th percentile of the empirical distribution of two–day average per capita ingestion of community water is 2.016 liters/person/day. The 90% bootstrap interval about the 90th percentile estimate ranges from 1.991 to 2.047 liters/person/day. Therefore, current ingestion data indicate that 90 percent of the United States population ingests an amount of community water which is approximately less than or equal to the two liters/person/day estimate used as a standard ingestion value by many federal agencies (See Table 4–1–B1).

Women aged 15 to 44 years, the childbearing years, ingest a mean of 922 ml of community water per day (90% confidence interval is 887 to 957 ml). This mean ingestion is similar to the mean daily per capita ingestion of community water for the United States population. Lactating women have the highest community water ingestion of any subpopulation identified in the sample. Lactating women reported a mean two–day average ingestion of 1.379 liters (90% confidence interval is 1.021 to 1.737 ml/person/day). The 90th and 95th percentile estimates of ingestion of community water for lactating women are 2.872 and 3.434 liters/day, respectively (See Table 4–1–E).

The estimates of community water ingestion based on "consumers only" are higher than those based on all individuals because respondents reporting zero community water ingestion during the two survey days are excluded from the analysis. For "consumers only," the estimated mean two–day average per capita ingestion of community water is 1.0 liter/person/day (90% confidence interval is 976 to 1,024 ml/person/day). These estimates are based on the 14,012 respondents to the CSFII who reported consuming community water. The estimated 90th percentile of consumption is 2.069 liters/person/day (See Table 4–2–B1).

The highest consumption estimates (and therefore most conservative with regard to risk) are for total water ingestion by "consumers only." The estimated mean ingestion of total water by "consumers only" is 1,241 ml/person/day (90% confidence interval is 1,208 to 1,274 ml/person/day). The estimated 90th and 95th percentiles are 2,345 ml/person/day and 2,922 ml/person/day, respectively (See Table 4–2–A).

For babies younger than one year old the estimated mean community water ingestion is 342 ml/person/day (90% confidence interval is 295 to 388 ml/person/day); the estimated 90th percentile is 878 ml/person/day (90% bootstrap interval is 849 to 918 ml/person/day); and the 95th percentile is 1,040 ml/person/day (90% bootstrap interval is 936 to 1121 ml/person/day) (See Table 4–1–B1). Thus, the standard one liter ingestion rate used in risk assessments for a 10–kilogram child is approximately less than or equal to the 95th percentile of the empirical distribution of community water ingestion for infants.

For babies younger than one year old who are water consumers, the estimated mean total water ingestion is 563 ml/person/day (90% confidence interval is 508 to 618 ml/person/day). The estimated 90th percentile is 968 ml/person/day (90% bootstrap interval is 940 to 1,121 ml/person/day), and the estimated 95th percentile is 1,236 ml/person/day (90% bootstrap interval is 1,121 to 1,282 ml/person/day). Thus, the one liter standard used in risk assessments for a 10–kilogram child is approximately less than or equal to the 90th percentile of the empirical distribution of total water ingestion for babies less than one year old when considering "consumers only" (See Table 4–2–D1).

The Recommended Dietary Allowances (RDA, 1989) for water intake are 1.5 ml/K cal and 980 K cal/day for a child between six months and one year old. Thus, the RDA for a 10–kilogram child is equivalent to 1,275 ml of water/day. Therefore, the default of 1 liter/10–kg child/day is slightly lower than the RDA value of 1,275 milliliters per child per day.

For children one to ten years old, the estimated mean community water ingestion is 400 ml/person/day (90% confidence interval is 380 to 420 ml/person/day); the 90th percentile is 905 ml/person/day (90% bootstrap interval is 863 to 935 ml/person/day) and the 95th percentile is 1,118 ml/person/day (90% bootstrap interval is 1,079 to 1,143 ml/person/day), respectively (See Table 4–1–B1). Thus, the standard one liter ingestion rate used for risk assessments for a 10–kilogram child lies between the 90th and 95th percentiles of the empirical distribution of community water ingestion for children one to ten years old.

For children one to ten years old who consume water, the estimated mean total water ingestion is 532 ml/person/day (90% confidence interval is 509 to 556 ml/person/day). The estimated 90th percentile of total water ingestion is 1,004 ml/person/day (90% bootstrap interval is 980 to 1,030 ml/person/day), and the estimated 95th percentile is 1,242 ml/person/day (90% bootstrap interval is 1,198 to 1,284 ml/person/day) (See Table 4–2–D1). Thus, the one liter standard ingestion used in risk assessments for a 10–kilogram child is approximately less than or equal to the 90th percentile of the empirical distributions of total water ingestion for children one to ten years old when considering "consumers only."

When considering water ingestion rates based on units of milliliters per kilogram of body weight per day, this analysis shows that the mean ingestion rates for babies younger than one year are estimated to be three to four times higher than the mean rates for the population as a whole. For example, the estimated community water ingestion rate is 46 ml/kg/day (90% confidence interval is 39 to 53 ml/kg/day) for babies in the U.S. population versus 16 ml/kg/day (90% confidence interval is 15 to 16 ml/kg/day) for the general population (See Table 4–1–B2). The estimated community water ingestion rate for babies consuming community water is 69 ml/kg/day (90% confidence interval is 62 to 77 ml/kg/day) versus 17 ml/kg/day (90% confidence interval is 16 to 17 ml/person/day) for the general population (See Table 4–2–B2).

The mean per capita ingestion of community water is 75 percent of the mean total water ingested from all sources. The mean bottled water ingested is 13 percent of the mean of total water ingestion, while water from other sources such as wells and rain cisterns is 10 percent of the mean of total water ingested.

Many federal agencies, including EPA, use the standard water ingestion quantities of two liters for a 70–kilogram adult and one liter for a 10–kilogram child. This 2–liter quantity of ingested water is supported by a National Cancer Institute (NCI) analysis of the USDA 1977–78 USDA National Food Consumption Survey (NFCS) data (1989, Ershow and Cantor). The mean per capita daily intake of tap water, as estimated from the 1977–78 NFCS data is 1.193 liters/person/day. The estimated percentile corresponding to two liters per day ingested is the 88th. There are a number of differences in the methodologies used in the Ershow and Cantor study and this analysis. One difference is that the Ershow and Cantor estimates were based on 1977–78 data while the estimates in this document are based on data collected in 1994 through 1996. A second difference is that the 1977–78 NFCS was based on three consecutive days of food intake while the 1994–96 CSFII was based on two non–consecutive days. A third difference is that the Ershow and Cantor report defined tap water as "water from the household tap." In this report, water coming from the tap is distinguished by source. Sources of water coming from the tap may include: community water, household well or cistern, a household or public spring, and other. Another way that the estimates in this report differ from those in the 1989 report is that the 1994–96 data include water ingestion by pregnant and lactating women. These women were excluded from the 1989 report.

The CSFII surveys have advantages and limitations for estimating per capita water ingestion. The primary advantage of the CSFII surveys is that they were designed and conducted by the USDA to support unbiased estimation of food consumption across the population in the United States and the District of Columbia. One limitation of the CSFII surveys is that individual food consumption data were collected for only two days—a brief period which does not necessarily depict “usual intake.” Usual dietary intake is defined as “the long–run average of daily intakes by an individual.” Upper percentile estimates may differ for short–term and long–term data because short term food consumption data tend to be inherently more variable. It is important to note, however, that variability due to duration of the survey does not result in bias of estimates of overall mean consumption levels. A second limitation is that the multistage survey design does not support interval estimates for many of the subpopulations reported in this document because of sparse representation in the sample. Therefore, only mean and percentile estimates are reported for all subpopulations considered here. The survey does support interval estimates for the U.S. population and some large subpopulations which are presented in Chapter 4. A third limitation is that the survey design does not support generating water consumption estimates for certain subpopulations of interest. Examples of such subpopulations are Native Americans with traditional lifestyles, people who live in hot climates, people who consume large amounts of water because of physical activity, and people with medical conditions necessitating increased water intake. While these individuals are participants in the survey, they are not present in sufficient numbers to support water ingestion estimates.

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1. DEFINITIONS

Biological Water is water found naturally in foods. This water source is not included in the estimates presented in this document.

Bottled Water is purchased plain water.

Broad Age Categories cover babies (less than one year old), children (one to 10 years old), young adults (11 to 19 years old), adults (20 years and older).

Commercial Water is water added by the manufacturer prior to merchandising. This water is not included in the estimates presented in this document. An example of commercial water is water added to bottled iced tea by the manufacturer.

Community Water is tap water from the community water supply.

Consumers are individuals who reported ingestion of the water source under consideration. Individuals with reported ingestions of zero are not considered consumers.

CSFII is the acronym for the USDA's Continuing Survey of Food Intakes by Individuals.

Direct Water is plain water ingested directly as a beverage.

Fine Age Categories include 11 age groupings. These groupings are less than six months (<0.5 years), between six months and one year (0.5 to 0.9 years), 1 to 3 years, 4 to 6 years, 7 to 10 years, 11 to 14 years, 15 to 19 years, 20 to 24 years, 25 to 54 years, 55 to 64 years, and 65 and older.

Food Code is an 8–digit number assigned to each unique food in the USDA Food Coding Database.

Food Coding Database is a database in the USDA CSFII 1994–96 Technical Support Files which contains information used to code foods and amounts, including descriptions of the food code.

Indirect Water is water added to foods and beverages during final preparation at home, or by food service establishments such as school cafeterias and restaurants. An example of indirect water is water added to dry cake mix.

Missing Water Source indicates that a survey participant responded “don’t know” or “not ascertained” to the survey question regarding the source of water.

Nutrient Database is a database in the USDA 1994–96 CSFII Technical Support Files which contains nutrient composition information (including grams of water per 100 grams of food) used to calculate the nutrient value of foods ingested in the CSFII.

Other Water is water obtained from one of the following sources: a well or rain cistern (household’s), spring (household’s or public), or other source.

Preparation Water is water used to prepare foods. Preparation water includes the water used to prepare foods at home and by local food service establishments (indirect water), as well as, water added by commercial food manufacturers.

Recipe Database is a database in the USDA 1994–96 CSFII Technical Support Files which provides, for each food code, a standard recipe including the gram weight of each ingredient.

Technical Support Files consist of four USDA technical databases used to code food data collected in the 1994–96 CSFII. They are the Food Coding Database, the Nutrient Database, the Recipe Database, and the Pyramid Servings Database.

Total Water is the sum of direct and indirect water from all sources. Water sources include community water, bottled water, other water and missing sources.

2. USDA's CSFII SURVEY DESCRIPTION AND FILES

A brief description of the USDA's 1994, 1995, and 1996 series of the Continuing Survey of Food Intakes by Individuals (CSFII) is presented in this chapter. Section 2.1 provides a description of the surveys, and Section 2.2 describes the process used to collect the dietary recall information. Files from which data were drawn to produce the estimates in this report are listed in Section 2.3. Section 2.4 presents a brief discussion about survey weights and their use. The details of the sample design and resulting survey weights are provided in Appendix D.

2.1 Survey Description

The CSFII, conducted by the United States Department of Agriculture (USDA), collects dietary intake information from nationally representative samples of non–institutionalized persons residing in United States households. Households in these national surveys are sampled from the 50 states and Washington, D.C. Each survey collects daily consumption records for approximately 10,000 food codes across nine food groups. These food groups are (1) milk and milk products; (2) meat, poultry, and fish; (3) eggs; (4) dry beans, peas, legumes, nuts, and seeds; (5) grain products; (6) fruit; (7) vegetables; (8) fats, oils, and salad dressings; and (9) sweets, sugars, and beverages. Data provide "up–to–date information on food intakes by Americans for use in policy formation, regulation, program planning and evaluation, education, and research." The survey is "the cornerstone of the National Nutritional Monitoring and Related Research Program, a set of related federal activities intended to provide regular information on the nutritional status of the United States population" (CSFII survey documentation, p. 2–3).

The 1994–1996 CSFII was conducted according to a stratified, multi–area probability sample organized using estimates of the 1990 United States population. Stratification accounted for geographic location, degree of urbanization, and socioeconomics. Each year of the survey consisted of one sample with oversampling for low–income households. Eligibility for the low–income sample was limited to households with gross incomes at or below 130 percent of the federal poverty guidelines (DHHS 1996). The sample design aimed at specified precision levels for estimates of mean one–day consumption of saturated fat and iron.

Two days of dietary recall data were provided by 15,303 individuals across the three survey years. This constitutes an overall two–day response rate of 75.9 percent. Response rates for each survey year are provided in Table 2–1. Survey weights were corrected by the USDA for nonresponse.

TABLE 2–1 CSFII RESPONSE RATES

YEAR	TOTAL ELIGIBLE INDIVIDUALS SAMPLED	NUMBER WITH TWO–DAY RESPONSE	(TWO–DAY) RESPONSE RATE
1994	6,973	5,311	76.2%
1995	6,664	5,072	76.1%
1996	6,484	4,920	75.9%

2.2 Dietary Records

Survey participants provided two non–consecutive, 24–hour days of dietary data. Both days' dietary recall information was collected by an in–home interviewer. Interviewers provided participants with an instructional booklet and standard measuring cups and spoons to assist them in adequately describing the type and amount of food ingested. If the respondent referred to a cup or bowl in their own home, a 2–cup measuring cup was provided to aid in the calculation of the amount consumed. The sample person could fill their own bowl or cup with water to represent the amount eaten or drunk, and the interviewer could then measure the amount consumed by pouring it into the 2–cup measure. The Day 2 interview occurred 3 to 10 days after the Day 1 interview, but not on the same day of the week. The interviews allowed participants "three passes" through the daily intake record to maximize recall (CSFII survey documentation, p. 3–6). Proxy interviews were conducted for children aged six and younger and sampled individuals unable to report due to mental or physical limitations. The average questionnaire administration time for Day 1 intake was 30 minutes, while Day 2 averaged 27 minutes.

2.3 Data Files

The USDA records 1994–96 CSFII participant information in three record types. Data extracted from these record types provide the information to determine the amount and source of commodities ingested by participants. These data are publicly available on CD–ROM (See Section 5.4 References), and the three CSFII record types used for this report are described here. Record type 15 (RT15) reports household information. Generally the source of water is determined from these records. Record type 25 (RT25) records individual information. This is where the amount of direct water ingested is recorded. Record type 30 (RT30) records food items ingested on each of the two survey days by each individual. The amount of indirect water ingested can be calculated from these records in conjunction with the CSFII 1994–96 Technical Support Files including the food coding, recipe and nutrient databases. Refer to Appendix A for the CSFII questions related to the amount of water ingested and the source of the water. Chapter 3 details how these record types were combined to establish a working database of individual records with the amount, source, and type of ingestion (direct or indirect).

2.4 Survey Weights

USDA files provide a survey weight for each individual with two days of consumption data in the 1994-96 survey. These weights account for the probability that the individual was selected and contain adjustments for non-respondents. The recorded weights also reflect USDA's calibration to ensure that the sample is representative of population characteristics during the three years of the survey. Survey weights are applied during the generation of ingestion estimates recorded in this report. These weights project data from an individual to the population. Appendix D provides a more detailed discussion of the development and application of the three year, two day survey weights.

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3. METHODS

This chapter addresses the methods employed to produce the reported daily average per capita water ingestion estimates by source and type of ingestion. Section 3.1 defines the data conventions applied to the CSFII data to establish water ingestion records for each respondent with two days of consumption data. These conventions include identification of the records from CSFII used to determine the source and amount of directly ingested waters. We also describe CSFII auxiliary files and how they were used to quantify the amount of indirect water ingested by a survey participant. Section 3.2 summarizes the statistical methods used to estimate the mean and percentiles of the empirical distributions of daily average per capita water ingestion. Appendix D provides the statistical formulae used to calculate these estimates. Rounding procedures and units of measurement are recorded in Sections 3.3 and 3.4, respectively. Section 3.5 provides the minimum sample size requirements used to identify potentially unreliable estimates.

3.1 Data Conventions Applied to the 1994–96 CSFII Data

A series of CSFII records is used to define the source and type of water ingested by a survey respondent. We drew from household records and individual records to define the amount and source of plain water ingested as a beverage. The source and amount of indirect water ingestion was determined using the household and individual records in conjunction with the 1994–96 CSFII Technical Support Files including the food coding, recipe and nutrient databases. All CSFII data used are publicly available on CD–ROM (See Section 5.4 References). The following paragraphs describe the protocols followed for assigning the source and quantifying the amount of the daily average water ingested by each respondent with two days of consumption records.

CSFII record type 15 (RT15) reports household information. The source of water ingested is generally assigned from these records. Record type 25 (RT25) records the amount of direct water ingested. Record type 30 (RT30) reports food items ingested on each of the two survey days by each individual. The amount of indirect water ingested by each participant was calculated from food code records in conjunction with the 1994–96 CSFII Technical Support Files. A more detailed description of how information was drawn from these three sets of records to determine the average daily water ingestion for each survey participant is provided in the remainder of this chapter. We first describe the data conventions and then follow the description with a flow chart. As a point of reference, Appendix A contains all CSFII questions related to the amount of water ingested and the source of the water.

Water Ingestion listed as "Direct" is defined as plain water directly ingested by an individual. The amount of water ingested is recorded in CSFII RT25, variables D1_H2O_O and D2_H2O_O. The number following the letter D in these variables indicates the day of the survey to which the consumption corresponds. It is in these two variables that the amount of direct water ingested by participants is recorded in fluid ounces (fl oz). This amount was converted to milliliters by multiplying the amount in fluid ounces by the conversion factor of 29.574 ml/fl oz.

The companion RT25 variables to which respondents to the question (D1_H2O_O) “How many fluid ounces of plain drinking water did you consume?” are directed are D1_H2O_H and D1_H2O_A. A similar set of variables records information for D2_H2O_O. The variable with the suffix “H” asks the respondent how much of this water was ingested at home. The choice of responses is all, most, some, none, don’t know, and not ascertained. The variable D1_H2O_A asks what the source was of plain drinking water that did not come from your home. The choices of responses are tap/fountain, bottled, other, don’t know, and not ascertained. If an individual answers with either of the last two responses, the source of that water is considered “missing.”

Because the amount of plain, noncarbonated water ingested by an individual as recorded in the RT25 files does not completely designate the source of the water, RT15 household records were consulted. The RT15 variable, H2O_DRNK, records source information for the household. For this variable, the following conventions were applied to assign source.

If H2O_DRNK is valued as

1, then the water source was a **community water supply**
2, then the water source was a **household well or rain cistern**
3, then the water source was a **household or public spring**
4, then the water source was considered **bottled water (purchased)**
96, it is defined explicitly as **“other”** and considered to be **“other” water** sources.

All remaining values of the associated variable, which include 98 for “don’t know” and 99 for “not ascertained,” are considered missing water sources.

To determine source for direct water ingestion (D1_H2O_O), **if RT25 variable D1_H2O_H is valued as**

"1" designating "**all**," then the source was derived from RT15 variable H2O_DRNK.
"2" designating "**most**," then 75% of the water ingested was allocated according to the RT15 variable H2O_DRNK and 25% according to the response to RT25 variable D1_H2O_A.
"3" designating "**some**," then 25% was allocated according to the RT15 variable H2O_DRNK and 75% according to the response to RT25 variable D1_H2O_A.
"4" designating "**none**," then the source was derived from RT25 variable D1_H2O_A.
"8" or "9" designating "**don’t know**" or "**not ascertained**," respectively, then 50% was allocated according to the RT15 variable H2O_DRNK and 50% according to the response to RT25 variable D1_H2O_A.

Indirect water is defined as water added to foods and beverages during final preparation at home or by local food service establishments (e.g., school cafeterias and restaurants). Excluded from indirect water are biological water and water added by the manufacturer during processing. For example, an apple contains biological water, and canned ready–to–serve soup contains water added by the manufacturer. The 1994–96 CSFII Food Coding Database contains 10,620 food codes. The food code descriptions contained in USDA's Food Coding Database generally do not indicate where the food was prepared. Therefore, in order to identify indirect water ingestion, each food code description, corresponding recipe and in some instances nutrient composition information associated with the reported food codes for the 1994–96 CSFII was reviewed. A subset of these food codes which contained preparation water was created. A food code was considered to contain preparation water if the food code recipe contained one of the following ingredients: (1) water; (2) an ingredient which had its own recipe which contained water; (3) brewed coffee or tea; and (4) pre–cooked pasta, rice, cereals, beans or legumes. The subset consisted of 7,560 food codes which contained preparation water. The food codes in this subset were then reviewed to identify and exclude those which appeared to be commercial products (e.g., yogurt, frozen milk desserts, frozen entrees, ready–to–serve soups, ready–to–serve fruitades and drinks, all soft drinks, and other food codes with descriptions identifying brand names). This resulted in a smaller subset of 2,478 food codes which were assumed to contain indirect water. Next the foods which could reasonably be assumed to have been prepared in final form in the home or by a food service establishment were identified (e.g., foods described as "made from home recipe," orange juice made from concentrate, infant formula made from concentrate, canned soup with water added). It was assumed that the recipe water in such foods was 100% indirect. For some foods, both homemade and commercially prepared varieties were identified under one food code. For these food codes, a "best guess" estimate was made as to the proportion which would have been home–prepared versus commercially processed. For example, it was estimated that 50% of pre–cooked beans to be home–prepared and 50% to be commercially canned. These allocations are documented in Appendix C1.

When a respondent supplied specific information about ingredients that differed from the standard recipe maintained in the Food Coding Database, this modification was recorded. This flexibility allowed the database to capture the specific type of fat, type of milk, and dilution of foods. For example, if the standard recipe in the Food Coding Database for an infant formula prepared from liquid concentrate calls for a specified amount of water to be added and a respondent reported making the formula with 3 times that amount of water, a recipe modification would be created to allow for this deviation from the standard recipe.

Appendix B1 contains examples for estimating the proportion of indirect water in 100 grams of a food. The ingredient amount as a percent of the prepared product (P%) was calculated for each ingredient of each recipe that contains indirect water using the method provided in USDA guidance examples. Appendix B3 contains these guidance documents. The grams absorbed moisture per 100 grams cooked ingredient

(G_am) was calculated for pre-cooked pasta, rice, cereals, beans, and legumes using the total solids method provided by the USDA (refer to Appendix B2).

Next, the proportion of moisture in 100 grams of food as ingested (P_m) was found. These values were taken from a file (WTR_FC.TXT) provided by the USDA when available. The WTR_FC.TXT file contains the amounts of water in 100 grams of the CSFII 1994-96 foods. These amounts represent both water from survey recipes as well as from ingredients (referred to as PDS ingredients) used in the survey recipes. Adjustments were made by USDA for any moisture and fat losses/gains associated with the recipe in which the PDS codes with water appear. For those recipe ingredients not available in WTR_FC.TXT, the values were calculated as follows:

P_m = (P%)(G_am/100), for pre-cooked pasta, rice, cereals, beans, and legumes
P_m = P%, for water, brewed coffee and tea, and pds-coded ingredients

Then the proportion of indirect preparation water per 100 grams of food (G_i) was calculated for each ingredient. This was done by multiplying the proportion of moisture in 100 grams of a food as ingested (P_m) by the percentage of that ingredient assumed to be home or food service establishment prepared and dividing by 100. (Appendix B1 provides examples of these calculations.)

For recipes with indirect water, the ratio of the amount of water to the total grams in the recipe was derived by summing the values of G_i across all ingredients in the recipe. This water ratio was then multiplied by the amount of the given food ingested by the respondent to determine the number of grams of indirect water. Under the assumption that the density of this water is 1, the number of grams of indirect water ingested from foods or beverages was converted to milliliters.

To assign the source of indirect water, several variables were consulted. First, if the respondent indicated in RT30 variable FOODSRCE that the source was >1, then the source was assumed to be tap water. If FOODSRCE=1 to indicate that the food items were obtained from the store, then it was assumed the recipe was prepared at home. In this case, RT15 variables H2O_COOK or H2O_BEVR were consulted. If the first three digits of the food code indicated that the ingested food was a beverage, then the water source was assigned to the record based on the response to H2O_BEVR. This question indicated, "What is the main source of the water used in your home for preparing beverages such as coffee, tea, juices, and baby formula?" The same source allocations in RT15 variable H2O_DRNK were applied to these records. Likewise, if the first three digits of the food code indicated that the food code was not a beverage, then the source was assigned according to the response to H2O_COOK, which asked, "What is the main source of the water used for cooking in your home?"

Figures 3-1 through 3-4 present flow charts of the data conventions for the assignment of water source.

For each of the 15,303 respondents with two days of records in the CSFII databases, a daily average ingestion value was determined for each water source and ingestion type (direct, indirect, and both direct and indirect). For subpopulation estimates, if a respondent was a member of the subpopulation but did not report ingestion of the specified water source and ingestion type, then that individual's average daily amount of water ingested entered the estimation algorithms as zero. These estimates are provided in the tables of this report identified as "All Individuals."

Ingestion (direct, indirect, and both direct and indirect) was also estimated for consumers with two days of records in the CSFII databases. Hence, these estimates do not include individuals who reported zero amounts of water ingested from the water source under consideration. These estimates are provided in the tables of this report identified as "Consumer Only."

The convention described in the preceding paragraphs produces individual daily averages in milliliters/person/day. If estimates are required on the milliliters/kilogram body weight/day basis, then the individual's daily average is divided by the individual's body weight in kilograms. The milliliters/kilogram body weight daily average for each individual then enters the estimating algorithm described in Section 3.2 and Appendix D, as do the milliliter daily averages.

Internal quality assurance and quality control procedures were utilized during the calculation of estimates for this report. Algorithm testing was conducted for data procedures. Data subsetting procedures were quality assessed by intermediate estimates verification. Final tabulated estimates were reviewed for consistency and validity. USDA experts were consulted on data assumptions.

3.2 Statistical Methods

This section summarizes the statistical methods used to generate point and interval estimates of daily average per capita water ingestion. Point estimates include the mean, 1st, 5th, 10th, 25th, 50th, 75th, 90th, 95th, and 99th percentiles. Mean estimates were generated using ratio estimation techniques. The mean, daily average per capita ingestion for a given commodity type, was estimated as the ratio of total ingestion by the United States population or subpopulation, divided by the estimate of the total number of individuals in the population or subpopulation. Empirical percentiles were estimated using nonparametric techniques. All estimates incorporated CSFII survey weights to project a sampled individual's ingestion to the population.

The majority of the per capita water ingestion estimates in this report are presented for specific subpopulations and water source. The design of the CSFII survey did not always support estimation of the variance when subpopulations were evaluated. Without a variance estimate, confidence intervals about the mean or bootstrap intervals about percentile estimates cannot be produced. Therefore, the tabulated presentations in Appendix E include only point estimates. However, the survey did support variance, and thus interval estimation, for some subpopulations. These estimates are presented in the key figures of Chapter 4 augmenting tabulated estimates for the all individuals.

When a variance was estimated for the mean per capita ingestion, we estimated the variance of the mean using a Taylor series approximation of the deviation of estimates from their expected values. The Taylor series approximations were applied to ultimate clusters, which resulted in an overall estimate of the variance instead of estimating variance components due to sample-design stages. In Appendix D, we include the statistical formulae for generating both the mean estimate and the estimate of the confidence interval about the mean. We also provide the method for generating percentile estimates and estimates of 90% bootstrap intervals about the percentile estimates.

All three CSFII surveys are multistage, stratified-cluster samples. Sample weights, which project the data from a sampled individual to the population, are based on the probability of an individual being sampled at each stage of the sampling design. As mentioned in Chapter 2 of this report, the sample weights associated with each individual reporting two days of consumption data were adjusted to correct for nonresponse bias. These adjusted sample weights, which are recorded in the CSFII data in the variable SAM_WT, record the number of individuals the sampled person represents in the population. For example, a sample weight valued as 22 projects the data from the individual with that sample weight to 22 individuals in the population of the 50 United States and the District of Columbia.

Because the sample design contains multiple levels, specific information is necessary to partition the variance-of-the-mean estimate into components. That is, specification of the sample size and population size within each level of sampling is required. However, this information is not inherent in the CSFII data. Rather, the CSFII reports an adjusted sample weight for each individual who reported two non-consecutive days of consumption data during the survey. Given that only the adjusted weight was available, and not the specific sample and population size in each phase, it was necessary to estimate the mean using ratio estimation techniques and the variance of the mean using the ultimate cluster methodology, which does not partition the variance into sample design components (refer to Appendix D).

Interval estimates for percentiles are bootstrap intervals. The reported bootstrap intervals do not result from direct estimates of the standard deviation of the point estimate. Rather, the bootstrap estimates result from the percentile method, which estimates the lower and upper bounds for the interval estimate by the 100α percentile and $100(1-\alpha)$ percentile estimates from the nonparametric distribution of the given point estimate. This distribution of the observed values of the given point estimate is determined from repeated resampling of the empirical data.

3.3 Rounding Procedures

Tabulated estimates of per capita ingestion in milliliters are rounded to the nearest whole number. Conventional rounding procedures were applied such that the whole number remained the same if decimal estimates were less than 0.5 and increased by one if the decimal estimate was 0.5 or greater. Whole number presentations do not reflect significant digits as the number of significant digits is not available for the CSFII.

3.4 Units of Measure Including Conversion Factors

Per capita water ingestion estimates are presented in this report in units of ml/person/day or ml/kg body wt/day. The person/day component reflects that estimates are based on an average of two days of consumption. When the units are ml/kg body wt/day, the average water ingestion over two days by an individual is divided by the individual's body weight. Body weight is recorded in the CSFII in pounds (lb). These pounds are converted to kilograms by multiplying the reported body weight by a factor of 0.454 kg/lb.

Survey participants reported the amount of plain water ingested directly as a beverage in fluid ounces. Reported ingestions were multiplied by 29.574 to convert fluid ounces to milliliters. Water ingested indirectly from foods with water added at home or locally during the final stage of preparation was estimated in grams as food consumption and recipe amount are reported in the CSFII in grams. These grams of water were converted into milliliters based on the assumption that the specific gravity of water is one for the temperature range of ingested foods.

3.5 Sample Size Criteria

Estimates based on small sample sizes may be less statistically reliable than estimates based on larger sample sizes. "Third Report on Nutrition Monitoring in the United States" suggest minimal reporting requirements (LSRO 1995). If the sample size is less than 30*(variance inflation factor), the estimate of the mean may be unreliable and is marked with an asterisk. If the (sample size)*(1–percentile) is less than 8*(variance inflation factor), then the percentile estimate may be unreliable and is marked with an asterisk. The variance inflation factor for the two days of CSFII data is 1.60. The variance inflation factor is sample design specific and is a broadly calculated design effect measure. In accordance with the suggested minimum reporting requirements, mean ingestions estimated with sample size < 48 are marked with an asterisk to designate that they may be statistically unreliable. Similarly, percentiles estimated with sample size < 12.8/(1–percentile) are marked and may be statistically unreliable.

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Figure 3-1. Water Source Assignment for Direct Water Ingestion

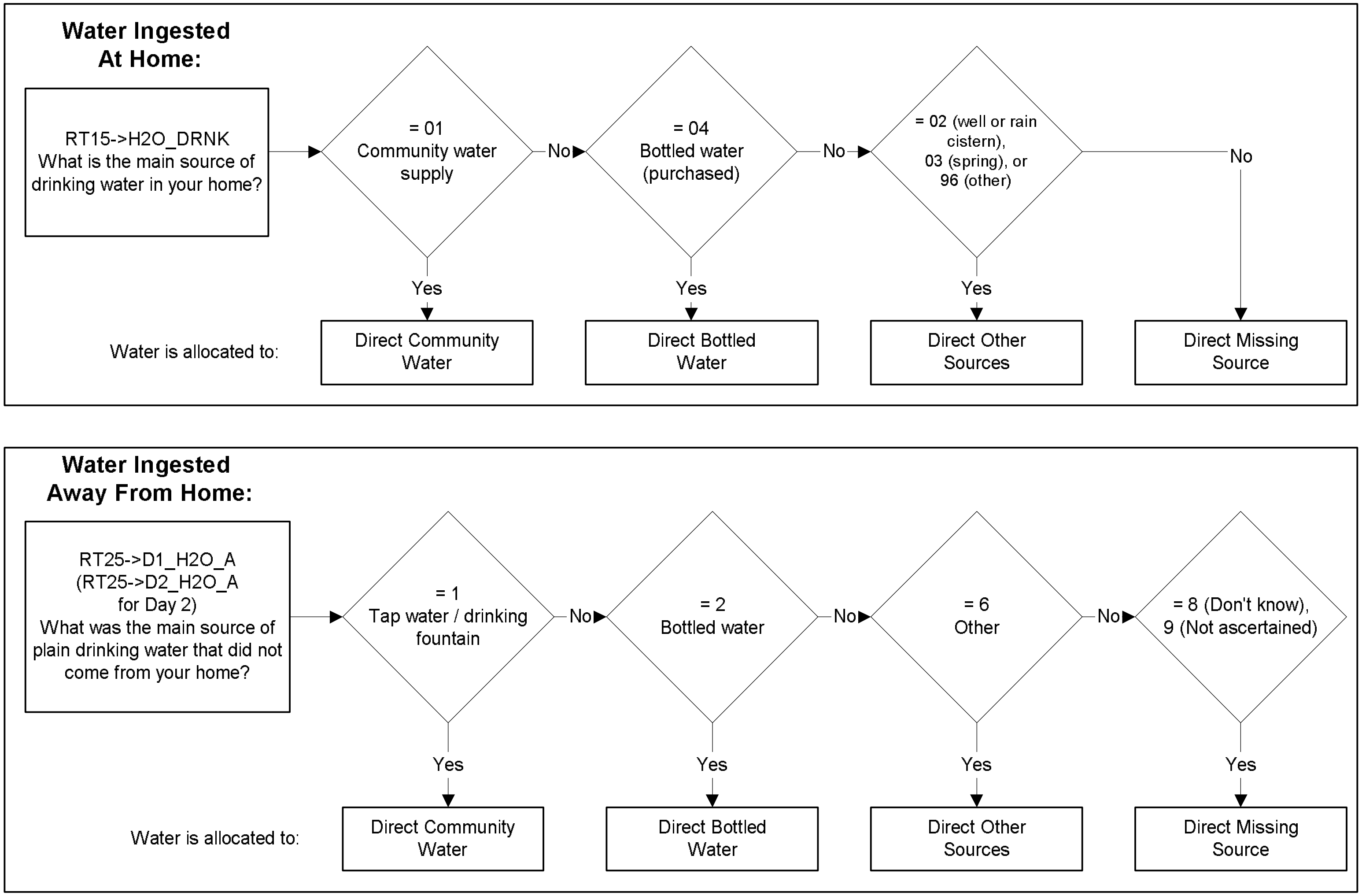


Figure 3-2. Data Conventions for Direct Water Ingestion

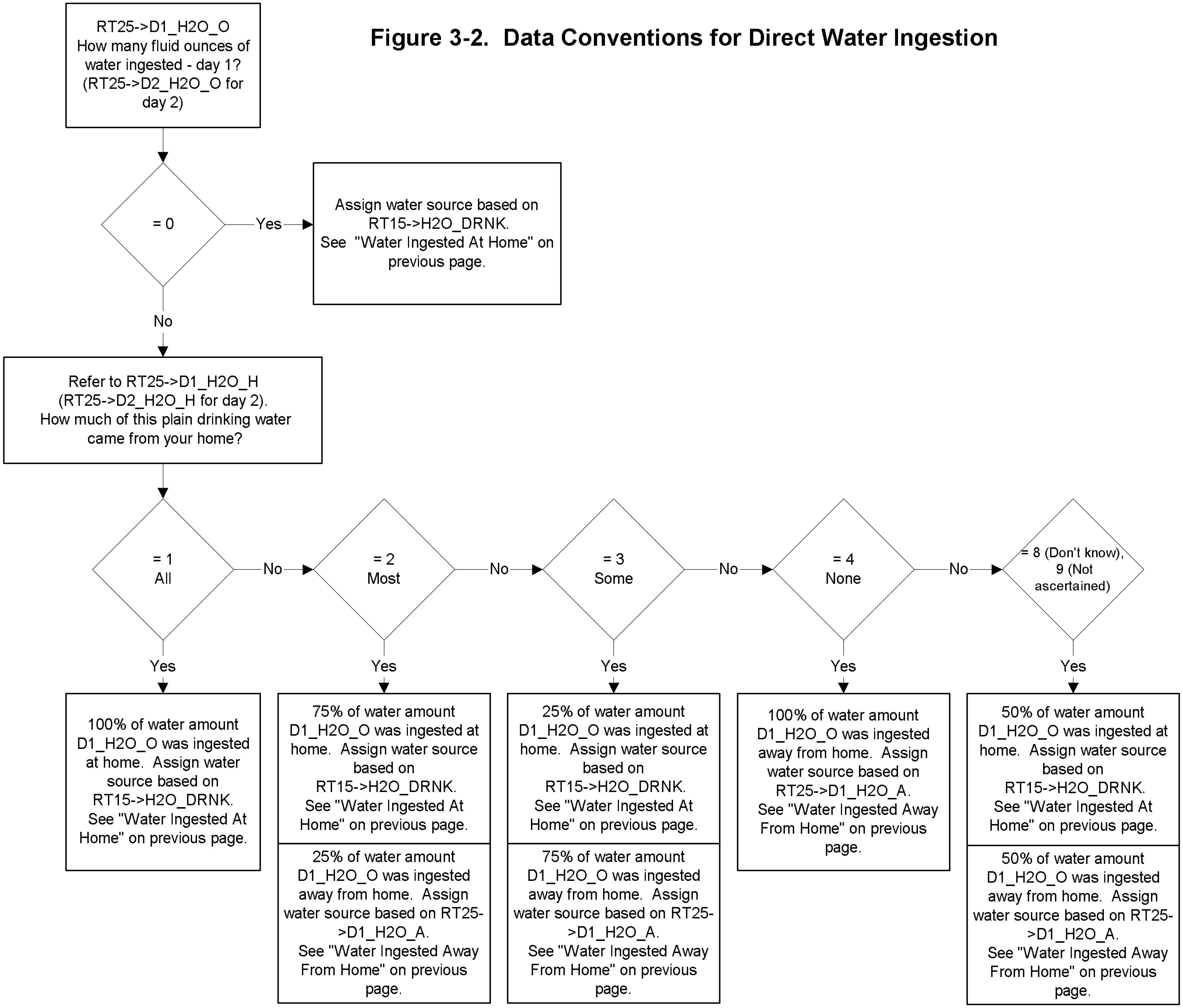


Figure 3-3. Water Source Assignment for Indirect Water Ingestion

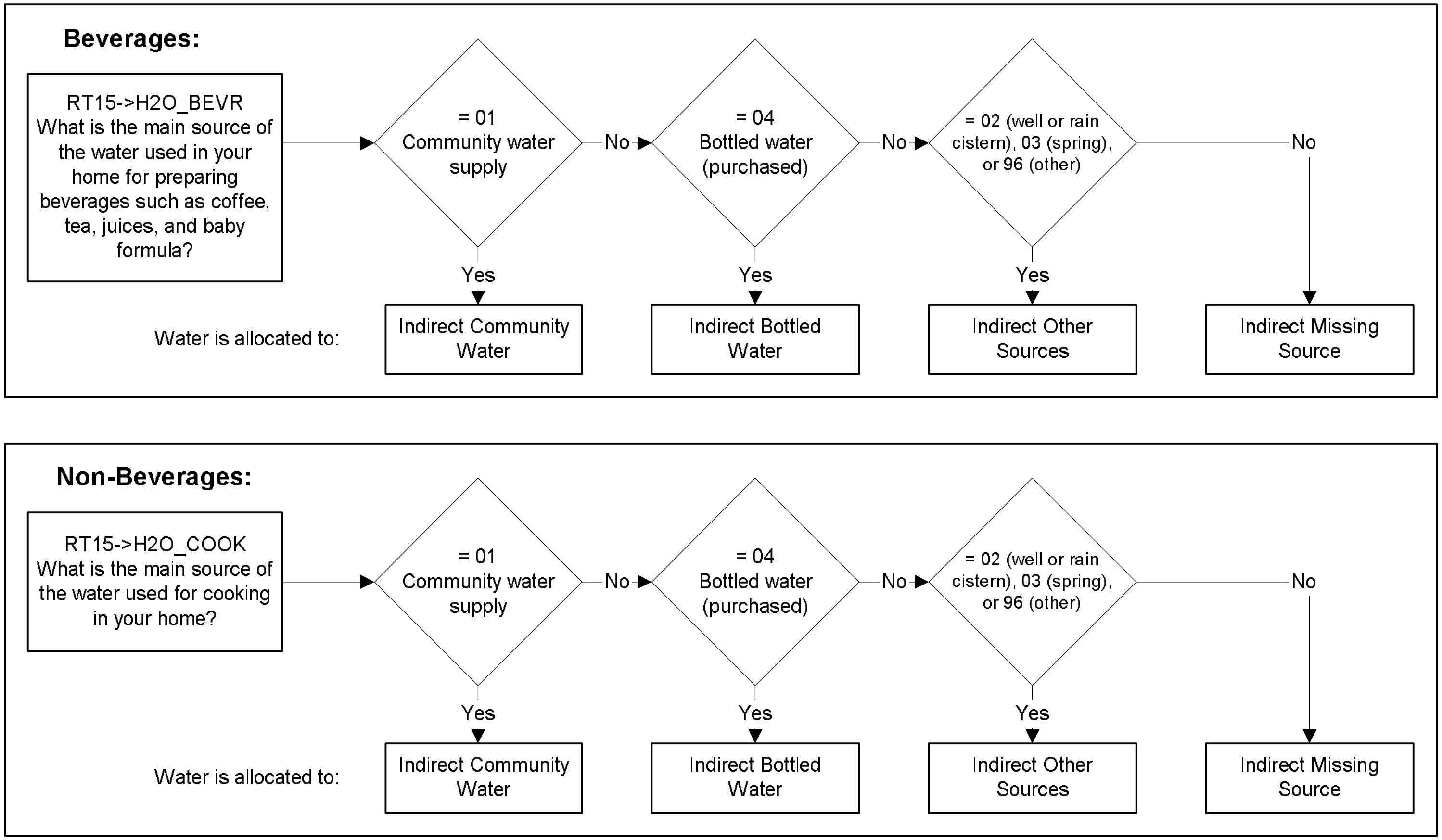
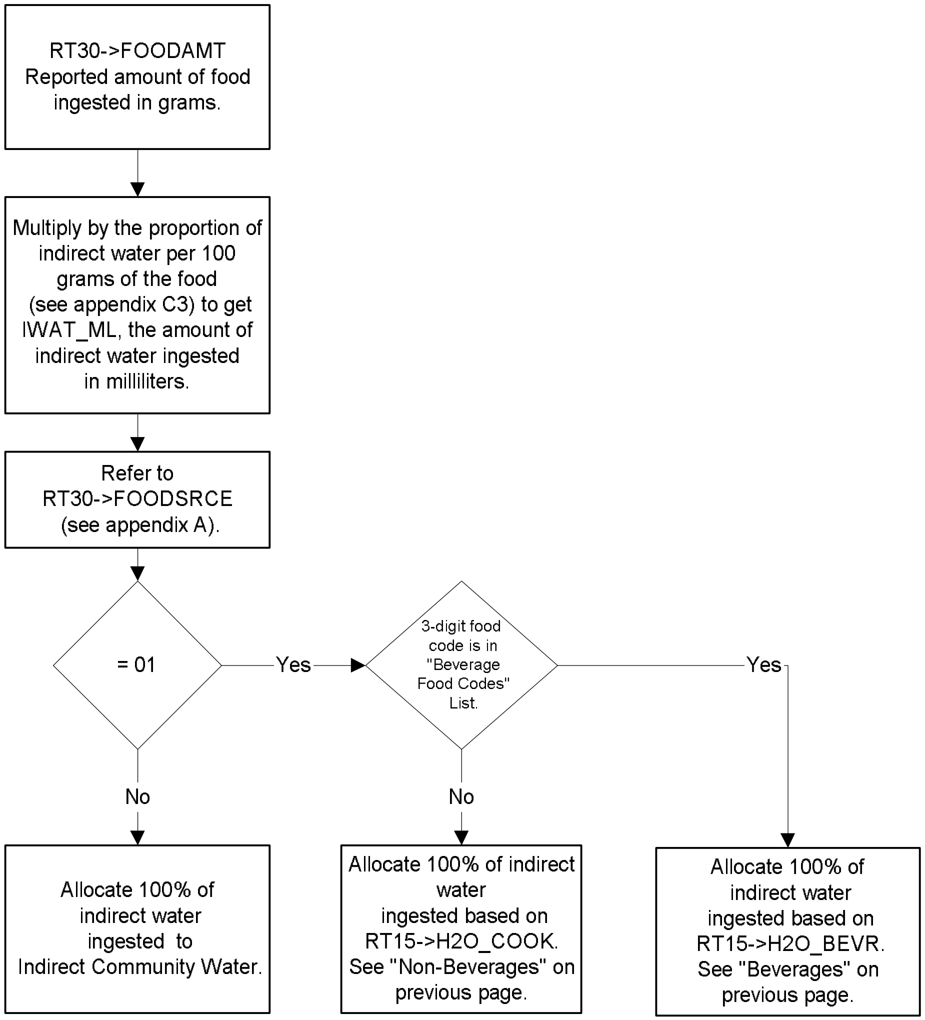


Figure 3-4. Data Conventions for Indirect Water Ingestion



BEVERAGE FOOD CODES

110 Milk, human
111 Milk, fluid (regular, filled, buttermilk, and reconstituted)
112 Milk, fluid, evaporated and condensed
113 Milk, fluid, imitation
115 Flavored milk and milk drinks, fluid
117 Infant formulas, fluid, reconstituted concentrate, reconstituted dry, and ready-to-feed
612 Citrus fruit juices
641 Fruit juices, excluding citrus
642 Nectars
644 Vinegar
672 Fruit juice baby food
921 Coffee
922 Coffee substitutes
923 Tea
924 Soft drinks
925 Fruitades and drinks
926 Beverages, nonfruit
927 Beverages, noncarbonated, without vitamin C, made from powdered mixes
928 Nonalcoholic beers, wines, cocktails
929 Beverage concentrates, dry, not reconstituted
931 Beers and ales
932 Cordials and liqueurs
933 Cocktails
934 Wines
935 Distilled liquors

4. RESULTS

This chapter presents point and interval estimates of the mean, 90th percentile and 95th percentile for select subpopulations. We augment tabulated estimates in this chapter with graphical presentations of the empirical distributions of per capita water ingestion estimates for select subpopulations. Because EPA anticipates that per capita ingestion of community water will be of primary interest to the readers of this report, we emphasize these results in this chapter. Since children less than one year of age and pregnant, lactating, and childbearing–age women are considered to be high risk subpopulations, we also discuss their estimates in this chapter. Finally, to reflect changes in consumer behavior since the 1977–78 survey, which was the basis for the Ershow and Cantor report, we report per capita ingestion of bottled water from 1994–96 CSFII.

This report provides tables and figures of per capita estimates of daily average water ingestion. Tables and figures of estimates are provided for all individuals and for "consumers only" by source, and type of ingestion. Sources of ingestion include community water, bottled water, other sources, and total water (all sources combined). Other sources include a household well, household rain cistern, household or public spring and other sources. Types of ingestion are direct for plain water ingested as a beverage, indirect for ingestion of the water added to foods and beverages during final preparation at home or by food service establishments (e.g., school cafeterias and restaurants), and both direct and indirect for combined direct and indirect water ingestion. Biological and commercial water are excluded from these estimates of water ingestion. Estimates are provided in both units of milliliters/person/day (ml/person/day) and milliliters/kilogram of body weight/day (ml/kg/day).

Refer to Appendix E for a more comprehensive set of empirical distributions of estimated per capita water ingestion. In addition to the broad age categories reported in this chapter, Appendix E provides estimates of water ingestion by finer age categories. Appendix E also provides a more extensive percentile distribution which includes point estimates of the mean, and 1st, 5th, 10th, 25th, 50th, 75th, 90th, 95th and 99th percentiles.

It should be noted that the dispersion of individuals for some subpopulations across CSFII estimation strata did not always support generation of variance estimates. Therefore, the following discussions will point out differences in mean per capita ingestion between subpopulations, but these differences are a quantitative statement and do not imply statistical differences. Without variance estimates about the means of the subpopulations, we cannot perform formal statistical tests to ascertain whether means for various subpopulations differ statistically.

4.1.a Ingestion of Community Water (ml/person/day)

The mean daily average of estimated per capita community water is 927 ml/person. This average projects to the population of the United States. The 90% confidence interval about the mean is 902 to 951 ml/person/day. The estimated 90th percentile from the empirical distribution of daily average per capita community water ingestion is 2.016 liters. A 90% bootstrap interval about the 90th percentile intake estimate for all individuals is 1.991 liters to 2.047 liters (See Table 4–1–A).

Figure 4–1–F1 depicts the empirical distribution of daily average per capita community water ingestion for all individuals during 1994–96. Considering that the 5th percentile estimate from this empirical distribution is zero and the 95th percentile estimate is 2.544 liters (See Appendix E, Part I, Table A1), the empirical distribution is obviously skewed. That is, the mean estimate is influenced by people ingesting either zero to a very little amount of water or very large volumes of water. Figure 4–1–G1 displays a histogram of daily average per capita community water estimates. This histogram illustrates that most of the daily average ingestion reported by CSFII respondents are less than two liters. The bar with the midpoint of 1.575 liters has an upper value of 2.2 liters. This is between the estimated 90th and 95th percentiles of the empirical distribution.

The mean daily average of estimated per capita ingestion of community water for "consumers only" is 1.0 liter/person (90% confidence interval is 976 ml to 1.024 liter/person). The estimated 90th percentile from the empirical distribution of daily average per capita community water ingestion for consumers is 2.069 liters (90% bootstrap interval is 2.041 to 2.106 liters/person/day) (See Table 4–2–A). Figure 4–2–F1 portrays the empirical distribution of daily average per capita community water ingestion for consumers.

One point of clarification regarding the histograms (See Figures 4–1–G1, 4–1–G2, 4–2–G1, and 4–2–G2) is necessary. Amounts printed along the x–axis are midpoint values for all the bars except the first two. That is, the width of the third bar and beyond is 630 ml. The first bar for Figures 4–1–G1 and 4–1–G2 represents nonconsumers (respondents with zero reported water ingestion or with missing ingestion) and respondents with minimal ingestion. In this case, minimal ingestion is more than zero but less than 157.5 ml/day. The second bar represents ingestion of greater than 157.5 ml/day but less than 630 ml/day. Therefore, the first two bars together represent ingestion of 630 ml/day or less. All other bars are each intervals of 630 ml/day. Bars are defined similarly for Figures 4–2–G1 and 4–2–G2 for consumers except that the first bar only represents respondents with minimal ingestion defined as more than zero but less than 157.5 ml/day.

4.1.b Ingestion of Community Water (ml/kg of body weight/day)

The mean ingestion of community water for the United States population, reported in units of per kilogram of body weight, is 16 ml/kg/day (90% confidence interval is 15 to 16 ml/kg/day) (See Table

4–1–B2). For "consumers only," the mean ingestion of community water is 17 ml/kg/day (90% confidence interval is 16 to 17 ml/kg/day) (See Table 4–2–B2). The 90th percentile from the empirical distribution of daily average per capita ingestion of community water for all individuals and "consumers only" is 33 ml/kg (See Table 4–1–B2 and Table 4–2–B2).

4.2.a Ingestion of Community Water by Age and Gender (ml/person/day)

In the United States population, individuals 20 years and older ingest an average of 1.098 liters (90% confidence interval is 1.068 to 1.127 liters) of community water per day. This is followed by individuals 11 to 19 years old who ingest an average of 683 ml daily (90% confidence interval is 634 to 732 ml), children one to ten years old who ingest an average of 400 ml daily (90% confidence interval is 380 to 420 ml), and children less than one year old who ingest an average of 342 ml daily (90% confidence interval is 295 to 388 ml) (See Table 4–1–B1).

Results for "consumers only" by age category are similar. Individuals 20 years or older ingest an average of 1.176 liters of community water per day (90% confidence interval is 1.148 to 1.204 liters/day). Young adults 11 to 19 years old ingest an average of 735 ml/day (90% confidence interval is 684 to 786 ml/day), children one to ten years old ingest an average of 435 ml/day (90% confidence interval is 414 to 457 ml/day), and children less than one year old ingest an average of 513 ml/day (90% confidence interval is 460 to 567 ml/day) (See Table 4–2–B1).

The mean community water ingested by males is higher than that ingested by females in all age categories except for children younger than one year old and children one to ten years of age. The highest mean per capita ingestion by males is found in the 20 years and older age group. The mean for this group is 1.162 liters/person/day and the 90th percentile is 2.337 liters/person/day. For females 20 years and older, the mean daily average of estimated per capita community water ingestion is 1.039 liters, while the 90th percentile estimate is 2.126 liters. Ninetieth percentile estimates are less than two liters/person/day for males and females less than one year old, between the ages of one and ten, and between the ages of 11 and 19 (See Table 4–1–C1).

Similarly, male consumers ingest more community water on average than female consumers. Male consumers 20 years and older have the highest mean per capita ingestion (1.242 liters). The 90th percentile estimate of daily average per capita community water ingestion for male consumers 20 years and older is 2.387 liters. The daily average per capita community water ingestion for female consumers 20 years and older is 1.116 liters, and the 90th percentile estimate is 2.165 liters. The mean difference between the two genders for individuals 20 years and older is 126 ml or 4.2 fluid ounces. Ninetieth percentile estimates are less than two liters/person/day for male and female consumers for all age categories younger than 20 years old (See Table 4–2–C1).

4.2.b Ingestion of Community Water By Age and Gender (ml/kg of body weight/day)

For all individuals, the lowest mean daily average per capita ingestion from community water, reported per kilogram of body weight, is 12 ml/kg for individuals aged 11 to 19 years old. The highest mean daily average per capita ingestion is 46 ml/kg for children less than one year old. Adults 20 years and older have a mean daily average per capita ingestion of 15 ml/kg, and children one to ten years old have a mean daily average per capita ingestion of 19 ml/kg (See Table 4–1–B2). This pattern is similar for consumers (See Table 4–2–B2). Thus, based on per kilogram body weight, the infants less than one year of age consume approximately three times the estimated amount of community water as the adult 20 years or older.

Males and females in the U.S. population have similar mean daily average per capita ingestion, reported per kilogram of body weight, from community water. Females have higher mean ingestion for all age groups except for individuals 11 to 19 years old (11 ml/kg/day vs. 13 ml/kg/day) (See Table 4–1–C2). The comparison between mean ingestion estimates for male and female consumers is similar (See Table 4–2–C2).

4.3.a Ingestion of Community Water for Children Younger Than One Year of Age (ml/person/day)

The age group with the lowest mean ingestion of direct and indirect community water for both genders is children less than one year old. This is also the only age group where the mean per capita ingestion by females (384 ml) is higher than that for males (298 ml) (See Table 4–1–C1). Similarly, female consumers less than one year old have a higher mean per capita ingestion of community water than male consumers (560 ml/day vs. 462 ml/day) (See Table 4–2–C1).

4.3.b Ingestion of Community Water for Children Younger Than One Year of Age (ml/kg of body weight/day)

Children younger than one year old have a mean intake of community water of 46 ml/kg/day, the highest of the age categories. The average for all individuals (all ages) is 16 ml/kg/day (See Table 4–1–B2) Likewise, consumers less than one year old have the highest mean ingestion, 69 ml/kg/day. The mean for all individuals (all ages) is 17 ml/kg/day. Therefore, infants younger than one year of age ingest approximately three to four times the estimated amount of community water than do individuals in all age groups (See Table 4–2–B2).

4.4.a Ingestion of Community Water for Women in Childbearing Years (ml/person/day)

Lactating women have the highest mean water ingestion. The mean daily average ingestion by lactating women is 1.379 liters, while the means for pregnant women and women in childbearing years are 819 and 922 ml, respectively. The 75th percentile estimate for lactating women exceeds two liters (2.263

liters), compared to 1.272 liters for women of childbearing age. The 90th percentile daily average per capita ingestion by lactating women is 2.872 liters as compared to 2.008 liters for women in childbearing years. The 90th percentile estimate from the empirical distribution of daily average per capita ingestion of community water by pregnant women is 1.816 liters. The 95th percentile estimates from the empirical distributions of daily average per capita ingestion of community water for pregnant women, lactating women, and women aged 15 to 44 are 2.501, 3.434, and 2.604 liters, respectively (See Table 4–1–E and Appendix E, Part I, Table A3).

Similarly, for "consumers only," lactating women ingest more water than do pregnant women or women in the childbearing ages. The mean daily average ingestion, for "consumers only," of community water for lactating women is 1.665 liters, for pregnant women is 872 ml, and for women in childbearing years is 984 ml. As noted above, the 75th percentile estimate of ingestion, for "consumers only," for lactating women exceeds two liters/day (2.417 liters/day), compared to 1.314 liters/day for women of childbearing age and 1.424 liters/day for pregnant women. The 90th percentile estimate of ingestion for "consumers only" exceeds two liters/day for both lactating women and women of childbearing age (2.959 liters and 2.044 liters, respectively). The 95th percentile estimates of daily average per capita ingestion of community water for pregnant consumers, lactating consumers, and female consumers aged 15 to 44 are 2.588, 3.588, and 2.722 liters, respectively (See Table 4–2–E and Appendix E, Part III, Table A3).

4.4.b Ingestion of Community Water for Women in Childbearing Years (ml/kg of body weight/day)

When estimates are reported for all women of childbearing age in units of milliliter/kilogram of body weight/day, the mean ingestion by lactating women is the highest at 21 ml/kg. Pregnant women have the lowest mean ingestion of community water with a mean of 13 ml/kg. Women in childbearing years have an estimated mean ingestion of 14 ml/kg. The 90th and 95th percentiles from the empirical distribution of daily average per capita ingestion per kilogram of body weight for lactating women both exceed 50 ml/kg. Ninetieth percentile estimates for pregnant women and women in childbearing years are 32 ml/kg, while the 95th percentile estimates from these two distributions are 43 and 39 ml/kg, respectively (See Appendix E, Part II, Table A3).

The mean ingestion of community water is 26 ml/kg/day for lactating consumers, 14 ml/kg/day for pregnant consumers, and 15 ml/kg/day for female consumers aged 15 to 44. The 90th and 95th percentiles of daily average per capita ingestion per kilogram of body weight for lactating consumers both exceed 50 ml/kg. Ninetieth percentile estimates for pregnant consumers and female consumers aged 15 to 44 are 33 and 32 ml/kg/day, while the 95th percentile estimates from these two groups are 43 and 39 ml/kg/day (See Appendix E, Part IV, Table A3).

4.5 Ingestion of Bottled Water and Water from Other Sources

Mean per capita ingestion of bottled water for the United States population is 161 ml. The 90th and 95th percentile estimates from the empirical distribution of daily average per capita ingestion of bottled water for the United States population are 591 ml and 1.036 liters, respectively (See Table 4–1–A). Mean ingestion of water from other sources by the United States population is 128 ml. Ninetieth and 95th percentile estimates of per capita ingestion of water from other sources are 343 ml and 1.007 liters, respectively (See Table 4–1–A). Other sources include water from wells, rain cisterns, springs, and sources identified by respondents as "other." Comparing the mean daily average per capita ingestion of bottled water and water from other sources to total water ingestion regardless of sources (1.232 liters) suggests that 13 percent of total water ingestion is attributable to bottled water while 10 percent is attributable to water from other sources. Community water comprises 75 percent of the total water ingestion by individuals in the United States population.

Daily average per capita ingestion for consumers of bottled water is 737 ml/person. The 90th and 95th percentile estimates of ingestion for consumers of bottled water are 1.568 liters/person/day and 1.967 liters/person/day (See Table 4–2–A). The daily average per capita ingestion for consumers of water from other sources is 965 ml. The 90th and 95th percentile estimates of daily per capita ingestion are 1.971 and 2.475 liters (See Table 4–2–A).

4.6.a Ingestion of Total Water for All Individuals

The mean estimate of total water ingestion (ingestion of water from all sources) for the general population is 1,232 ml/person/day (90% confidence interval is 1,199 to 1,265 ml/person/day). The 90th and 95th percentiles of the distribution are 2,341 ml/person/day and 2,908 ml/person/day, respectively (See Table 4–1–D1). Approximately 84 percent of the U.S. population ingests two liters or less per day of total water (See Figure 4–1–F2).

For babies younger than one year old, the estimated mean consumption of total water is 484 ml/person/day (90% confidence interval is 438 to 530 ml/person/day). The 90th and 95th percentiles of consumption are 949 ml/person/day (90% bootstrap interval is 893 to 1,046 ml/person/day) and 1,182 ml/person/day, (90% bootstrap interval is 1,046 to 1,282 ml/person/day), respectively. The mean value of the daily total water ingestion for a child one to ten years old is 528 ml/person/day (90% confidence interval is 505 to 552 ml/person/day). The 90th and 95th percentiles of total water ingestion are 1,001 ml/person/day (90% bootstrap interval is 980 to 1,027 ml/person/day) and 1,242 ml/person/day (90% bootstrap interval is 1,189 to 1,264 ml/person/day), respectively (See Table 4–1–D1). Thus, approximately 90 percent of the children ten years of age or younger consume less than or equal to the standard default value of one liter per day.

4.6.b Ingestion of Total Water for "Consumers Only"

The most conservative water ingestion distributions for the two–day average per capita ingestion of water from all sources are by "consumers only". The estimated mean for the general population is 1,241 ml/person/day (90% confidence interval is 1,208 to 1,274 ml/person/day). The 90th and 95th percentiles are 2,345 ml/person/day (90% bootstrap interval is 2,315 to 2,378 ml/person/day) and 2,922 ml/person/day (90% bootstrap interval is 2,848 to 2,959 ml/person/day), respectively (See Table 4–2–D1). Approximately 83 percent of "consumers only" ingest less than or equal to the standard two liters/day when considering total water (See Fig. 4–2–F2). For "consumer only" infants younger than one year old, the estimated mean ingestion of total water is 563 ml/person/day (90% confidence interval is 508 to 618 ml/person/day). The 90th and 95th percentiles are 968 ml/person/day (90% bootstrap interval is 940 to 1,121 ml/person/day) and 1,236 ml/person/day (90% bootstrap interval is 1,121 to 1,282 ml/person/day), respectively. For "consumer only" children one to ten years of age, the estimated mean consumption of total water is 532 ml/person/day (90% confidence interval is 509 to 556 ml/person/day). The 90th and 95th percentiles are 1,004 ml/person/day (90% bootstrap interval is 980 to 1,030 ml/person/day) and 1,242 ml/person/day (90% bootstrap interval is 1,198 to 1,284 ml/person/day), respectively (See Table 4–2–D2). Therefore, even by the most conservative estimate (i.e., water from all sources and excluding the zero consumers), 90% of all children ten years or younger drink less than or equal to the default value of one liter of water per day.

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Table 4-1-A. Estimated Direct and Indirect Water Ingestion
By Source
All Individuals

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Source	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
Community Water	15,303	261,897,260	927	902	951	2,016	1,991	2,047	2,544	2,485	2,576
Bottled Water	15,303	261,897,260	161	147	176	591	591	632	1,036	1,006	1,065
Other Sources	15,303	261,897,260	128	101	155	343	305	360	1,007	947	1,074
Missing Source	15,303	261,897,260	16	13	20	-	-	-	-	-	-
All Sources	15,303	261,897,260	1,232	1,199	1,265	2,341	2,308	2,366	2,908	2,840	2,960

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 10:35 m:\PW\OSTWATER\REQ003\R003_2A.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4−1−A. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Water Ingestion
By Source
All Individuals

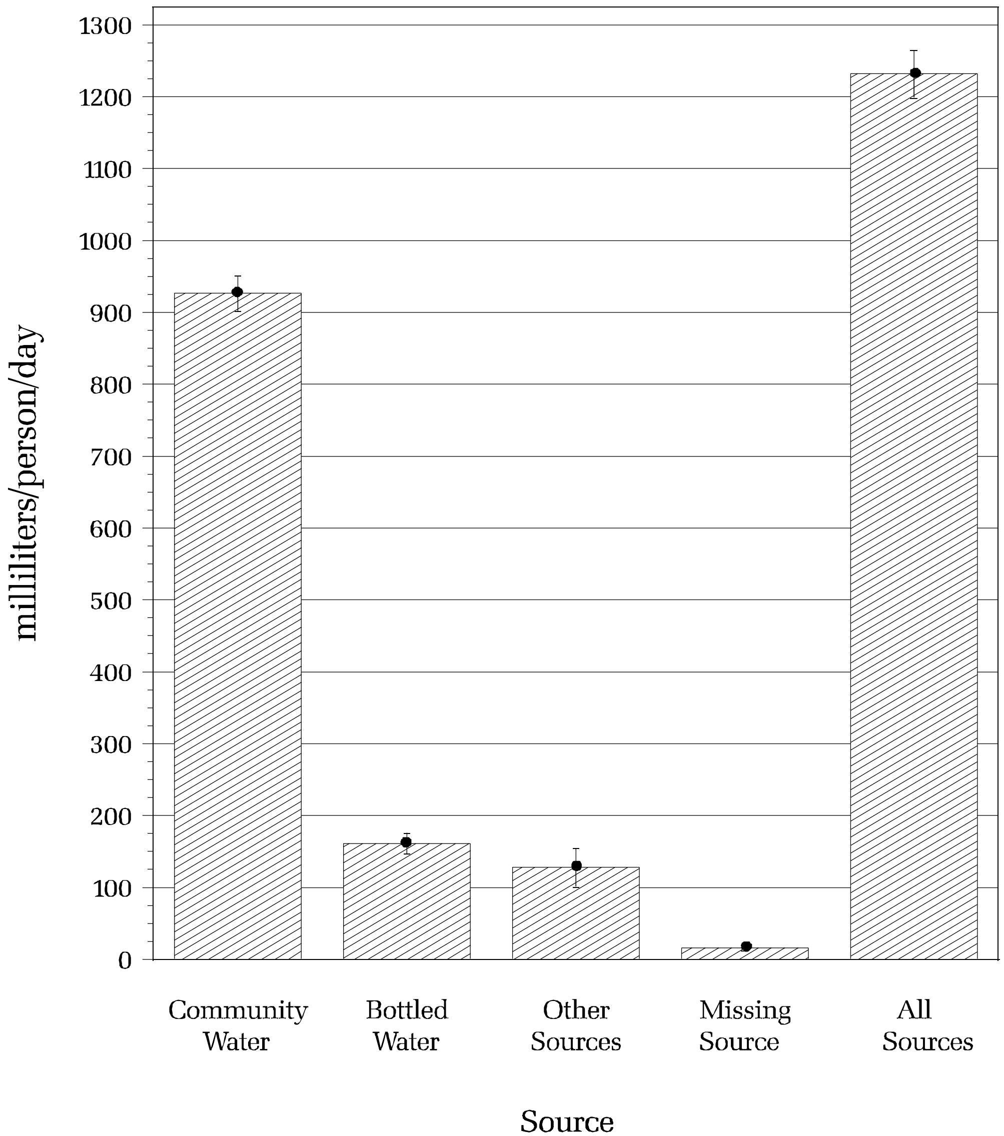


Table 4-1-B1. Estimated Direct and Indirect Community Water Ingestion
By Age Categories
All Individuals

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	359	3,772,296	342	295	388	878	849	918	1,040	936	1,121
1-10	3,980	40,145,854	400	380	420	905	863	935	1,118	1,079	1,143
11-19	1,641	33,567,485	683	634	732	1,533	1,460	1,578	1,946	1,870	2,013
20 +	9,323	184,411,625	1,098	1,068	1,127	2,224	2,178	2,290	2,801	2,703	2,883
All ages	15,303	261,897,260	927	902	951	2,016	1,991	2,047	2,544	2,485	2,576

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 11:03 m:\PW\OSTWATER\REQ003\R003_2B1.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4-1-B1. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Community Water Ingestion
By Age Categories
All Individuals

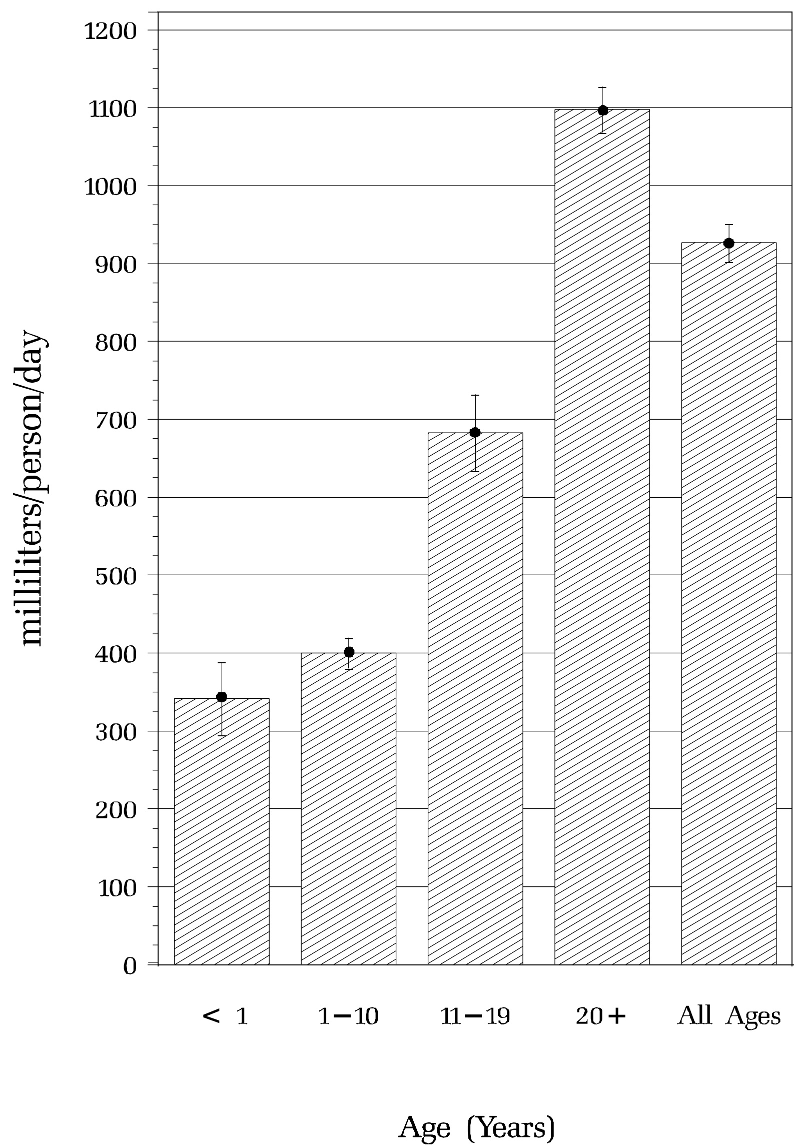


Table 4-1-B2. Estimated Direct and Indirect Community Water Ingestion
By Age Categories
All Individuals

			Milliliters/Kg of body weight/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	344	3,675,893	46	39	53	127	118	137	156	139	170
1-10	3,744	37,805,094	19	18	20	42	40	44	56	53	61
11-19	1,606	33,017,367	12	11	12	26	25	27	33	32	35
20 +	9,161	181,055,224	15	15	15	31	31	31	39	38	39
All ages	14,855	255,553,578	16	15	16	33	32	33	43	42	43

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 12:46 m:\PW\OSTWATER\REQ003\R003_2B2.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Figure 4-1-B2. Estimated Mean and 90% Confidence Intervals Around the Mean

Direct and Indirect Community Water Ingestion

By Age Categories

All Individuals

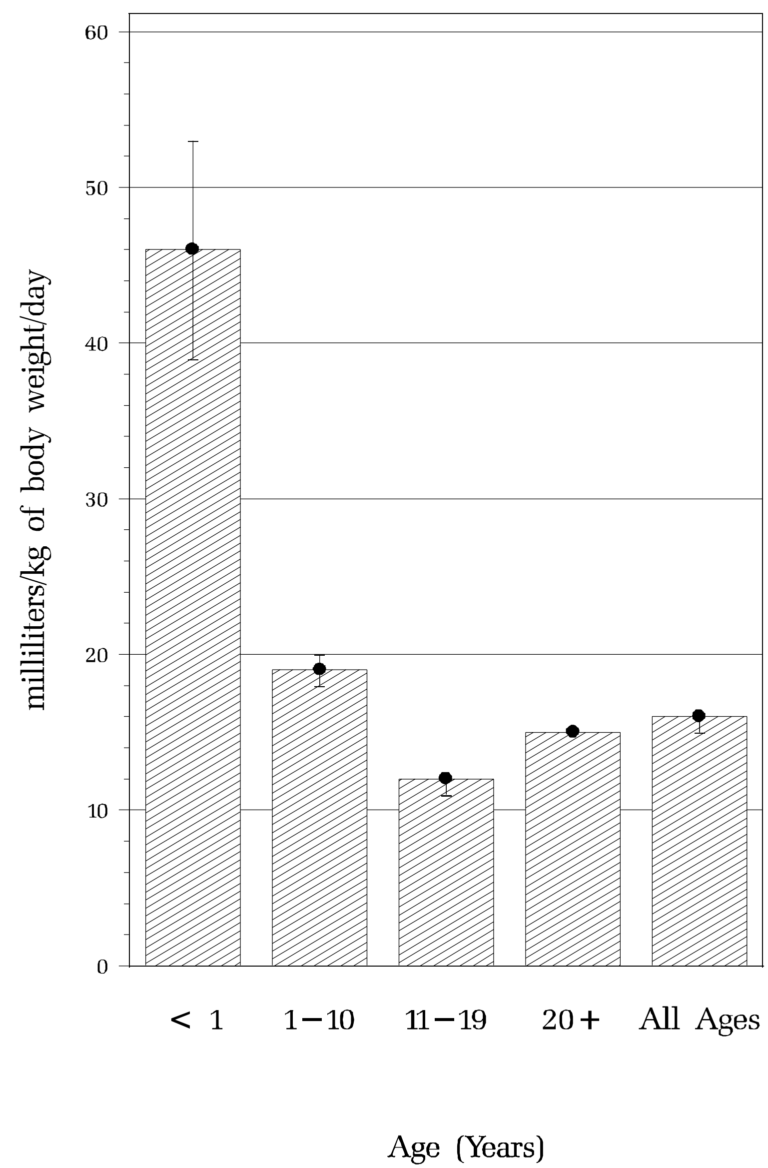


Table 4-1-C1. Estimated Direct and Indirect Community Water Ingestion
By Gender and Age Categories
All Individuals

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
a. Female											
< 1	185	1,925,330	384	321	447	904	842	969	1,051*	963*	1,132*
1-10	1,968	19,495,194	394	367	421	915	830	956	1,091	1,023	1,138
11-19	825	16,496,841	590	546	634	1,307	1,264	1,454	1,744	1,578	1,839
20 +	4,572	96,012,199	1,039	1,005	1,072	2,126	2,041	2,197	2,652	2,542	2,773
All ages	7,550	133,929,564	880	854	906	1,941	1,908	1,975	2,419	2,366	2,476
b. Male											
< 1	174	1,846,966	298	243	353	868	831	882	945*	882*	1,142*
1-10	2,012	20,650,660	406	384	427	894	882	938	1,134	1,056	1,202
11-19	816	17,070,644	772	706	839	1,658	1,504	1,843	2,016	1,977	2,235
20 +	4,751	88,399,426	1,162	1,125	1,199	2,337	2,290	2,384	2,935	2,840	3,098
All ages	7,753	127,967,696	975	943	1,007	2,115	2,070	2,153	2,660	2,584	2,725

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 12:27 m:\PW\OSTWATER\REQ003\R003_2D1.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4-1-C1. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Community Water Ingestion
By Gender and Age Categories
All Individuals

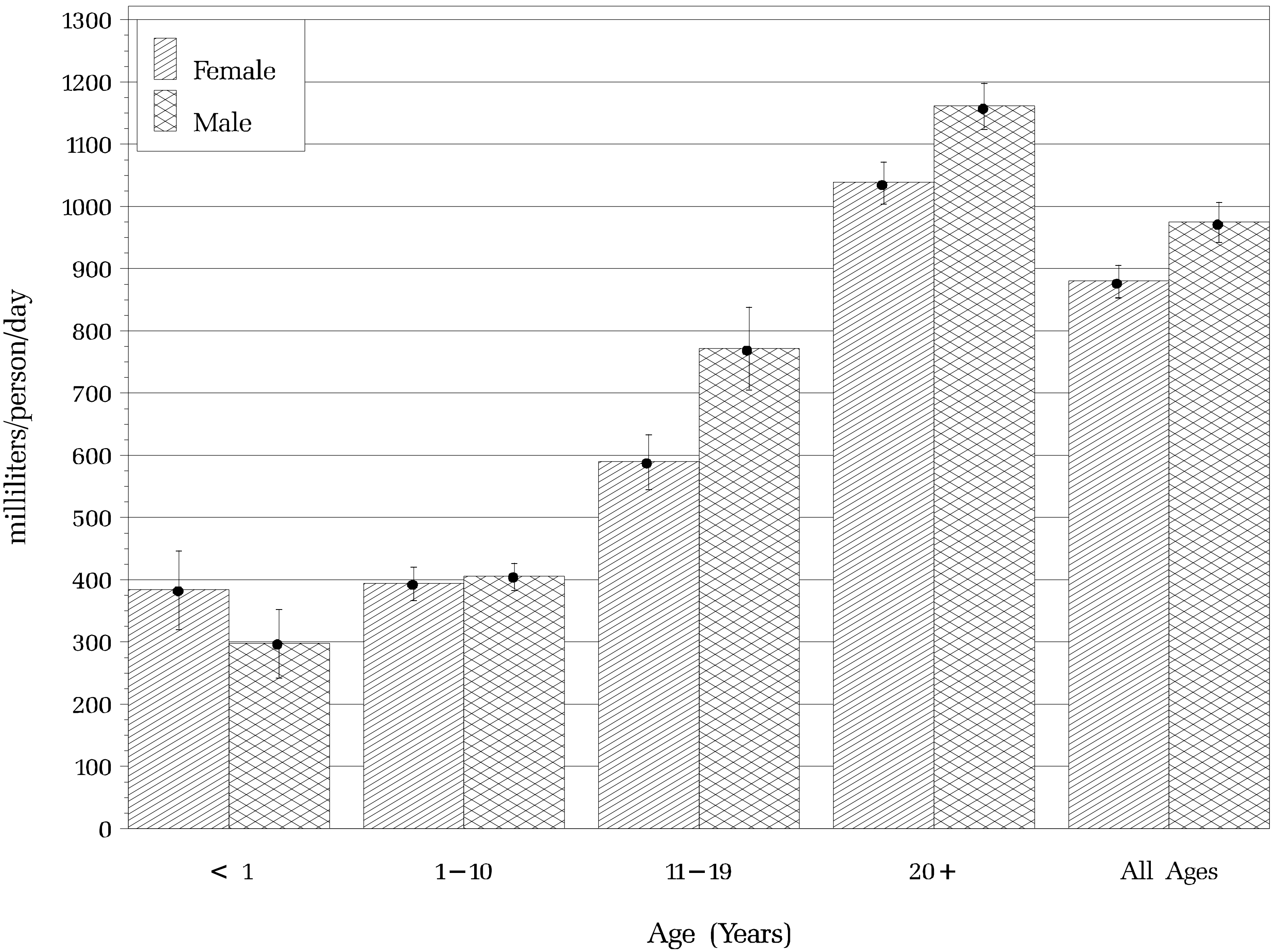


Table 4-1-C2. Estimated Direct and Indirect Community Water Ingestion
By Gender and Age Categories
All Individuals

Age	Sample Size	Population	Milliliters/Kg of body weight/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
			Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
a. Female											
< 1	174	1,851,027	49	40	59	126	113	131	157*	141*	170*
1-10	1,843	18,169,754	20	18	21	44	40	47	59	51	65
11-19	805	16,192,004	11	10	11	25	23	26	32	29	34
20 +	4,437	93,104,821	16	15	16	33	31	33	40	39	41
All ages	7,259	129,317,606	16	16	17	34	33	35	44	42	45
b. Male											
< 1	170	1,824,866	43	34	52	134	101	139	155*	137*	205*
1-10	1,901	19,635,340	19	18	20	41	39	43	53	51	59
11-19	801	16,825,363	13	12	14	26	25	28	36	32	42
20 +	4,724	87,950,403	14	14	15	29	29	30	37	36	39
All ages	7,596	126,235,972	15	15	16	31	31	32	41	40	44

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 12:31 m:\PW\OSTWATER\REQ003\R003_2D2.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Figure 4-1-C2. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Community Water Ingestion
By Gender and Age Categories
All Individuals

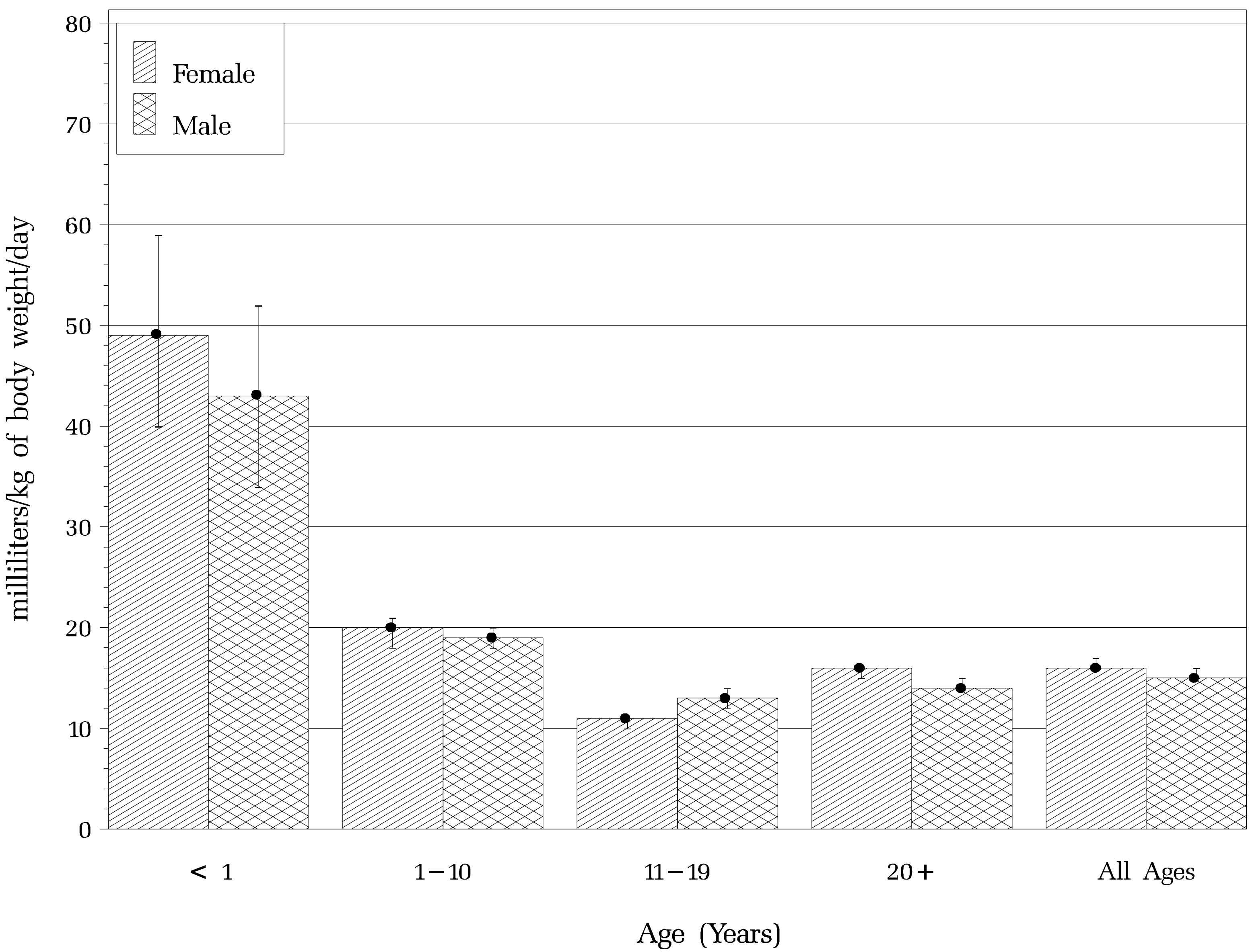


Table 4-1-D1. Estimated Total Direct and Indirect Water Ingestion
By Age Categories
All Individuals

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	359	3,772,296	484	438	530	949	893	1,046	1,182	1,046	1,282
1-10	3,980	40,145,854	528	505	552	1,001	980	1,027	1,242	1,189	1,264
11-19	1,641	33,567,485	907	851	962	1,780	1,720	1,896	2,185	2,062	2,346
20 +	9,323	184,411,625	1,460	1,422	1,498	2,549	2,513	2,604	3,194	3,028	3,313
All ages	15,303	261,897,260	1,232	1,199	1,265	2,341	2,308	2,366	2,908	2,840	2,960

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 11:12 m:\PW\OSTWATER\REQ003\R003_2C1.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4-1-D1. Estimated Mean and 90% Confidence Intervals Around the Mean
Total Direct and Indirect Water Ingestion
By Age Categories
All Individuals

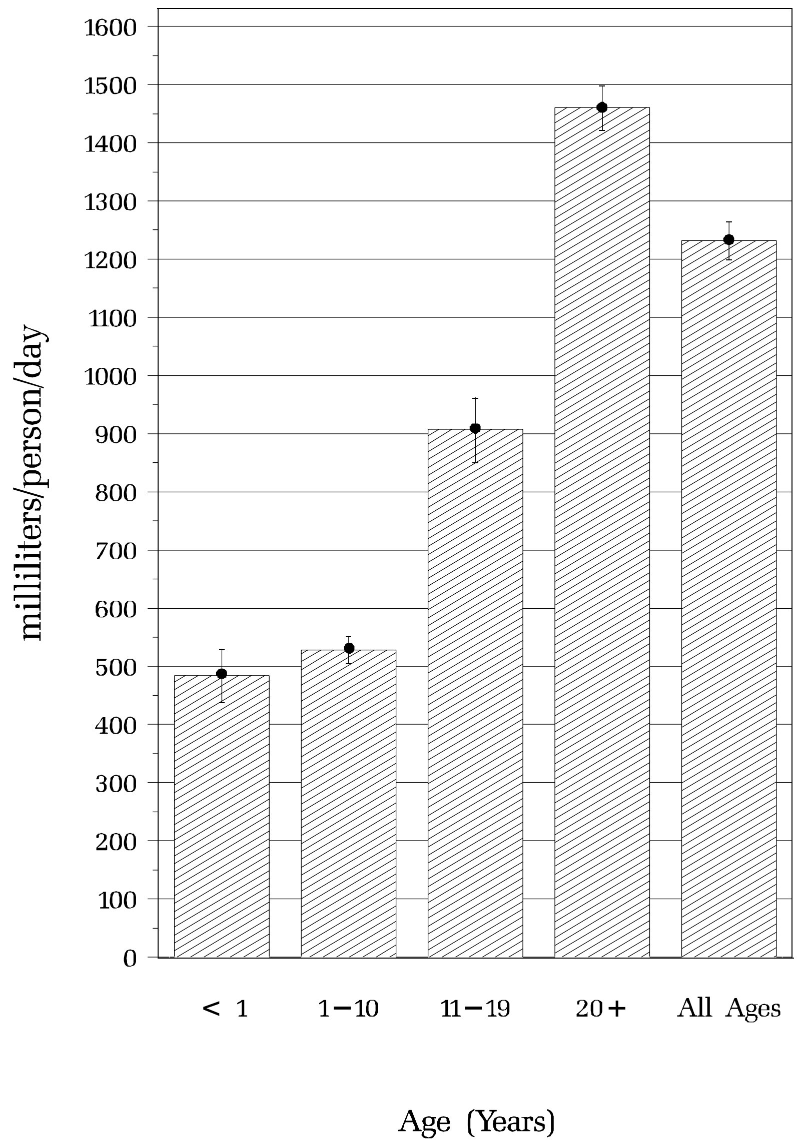


Table 4-1-D2. Estimated Total Direct and Indirect Water Ingestion
By Age Categories
All Individuals

			Milliliters/Kg of body weight/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	344	3,675,893	67	61	73	156	145	166	170	166	171
1-10	3,744	37,805,094	25	24	26	49	48	50	64	61	66
11-19	1,606	33,017,367	16	15	17	30	29	32	39	38	41
20 +	9,161	181,055,224	20	19	20	35	35	36	44	43	45
All ages	14,855	255,553,578	21	20	21	38	38	39	50	48	51

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 11:16 m:\PW\OSTWATER\REQ003\R003_2C2.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Figure 4−1−D2. Estimated Mean and 90% Confidence Intervals Around the Mean
Total Direct and Indirect Water Ingestion
By Age Categories
All Individuals

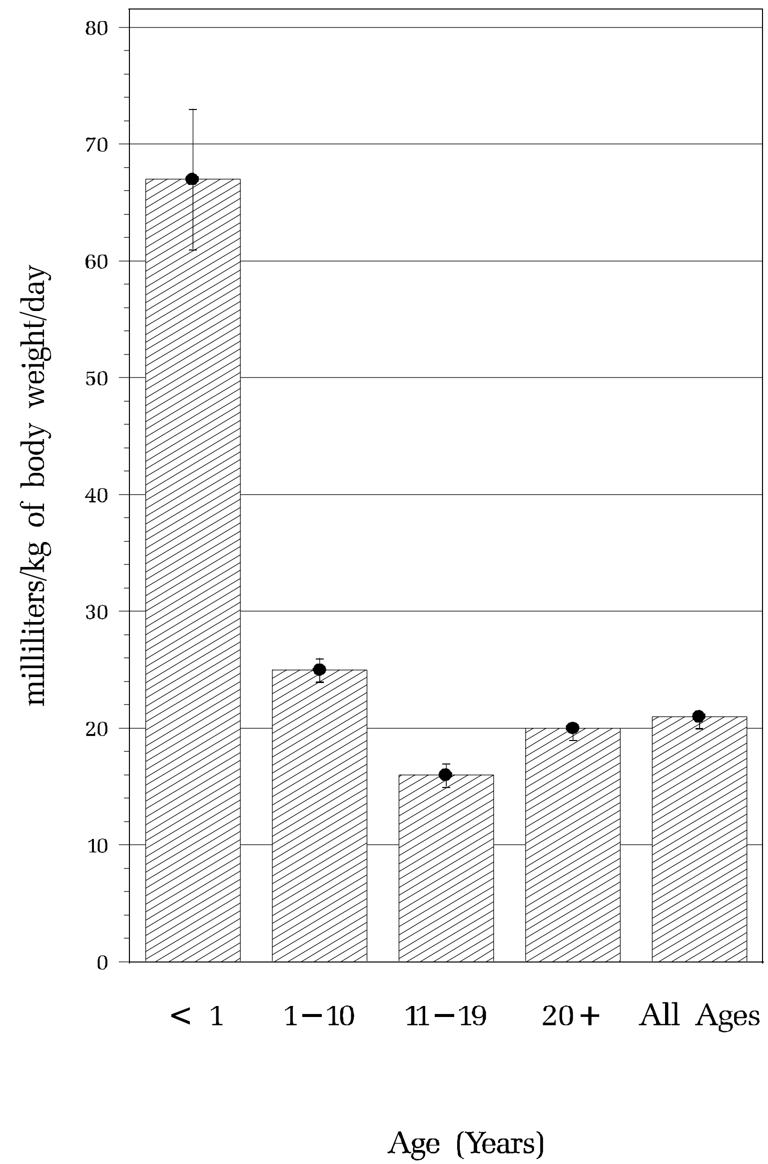


Table 4-1-E. Estimated Direct and Indirect Community Water Ingestion
By Pregnant, Lactating, and Childbearing Age Women Categories
All Individuals

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Women Categories	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
Pregnant	70	1,751,888	819	668	969	1,816*	1,479*	2,808*	2,501*	2,167*	3,690*
Lactating	41	1,171,868	1,379*	1,021*	1,737*	2,872*	2,722*	3,452*	3,434*	2,987*	3,803*
Women Age 15-44	2,332	58,978,782	922	887	957	2,008	1,893	2,055	2,604	2,483	2,790

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 12:33 m:\PW\OSTWATER\REQ003\R003_2E.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

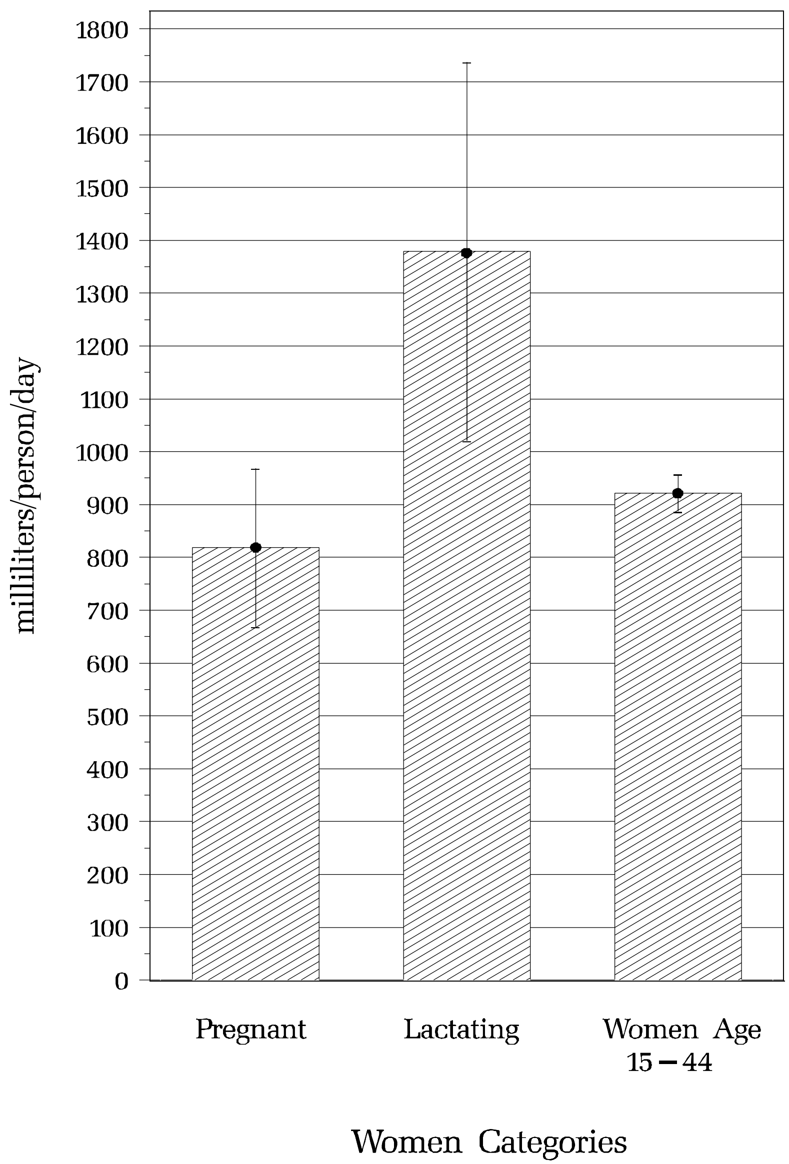
**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4−1−E. Estimated Mean and 90% Confidence Intervals Around the Mean

Direct and Indirect Community Water Ingestion

By Pregnant, Lactating, and Childbearing Age Women Categories

All Individuals



4 – 24

Figure 4−1−F1. Cumulative Distribution of Per Capita Direct and Indirect Community Water Ingestion
All Individuals

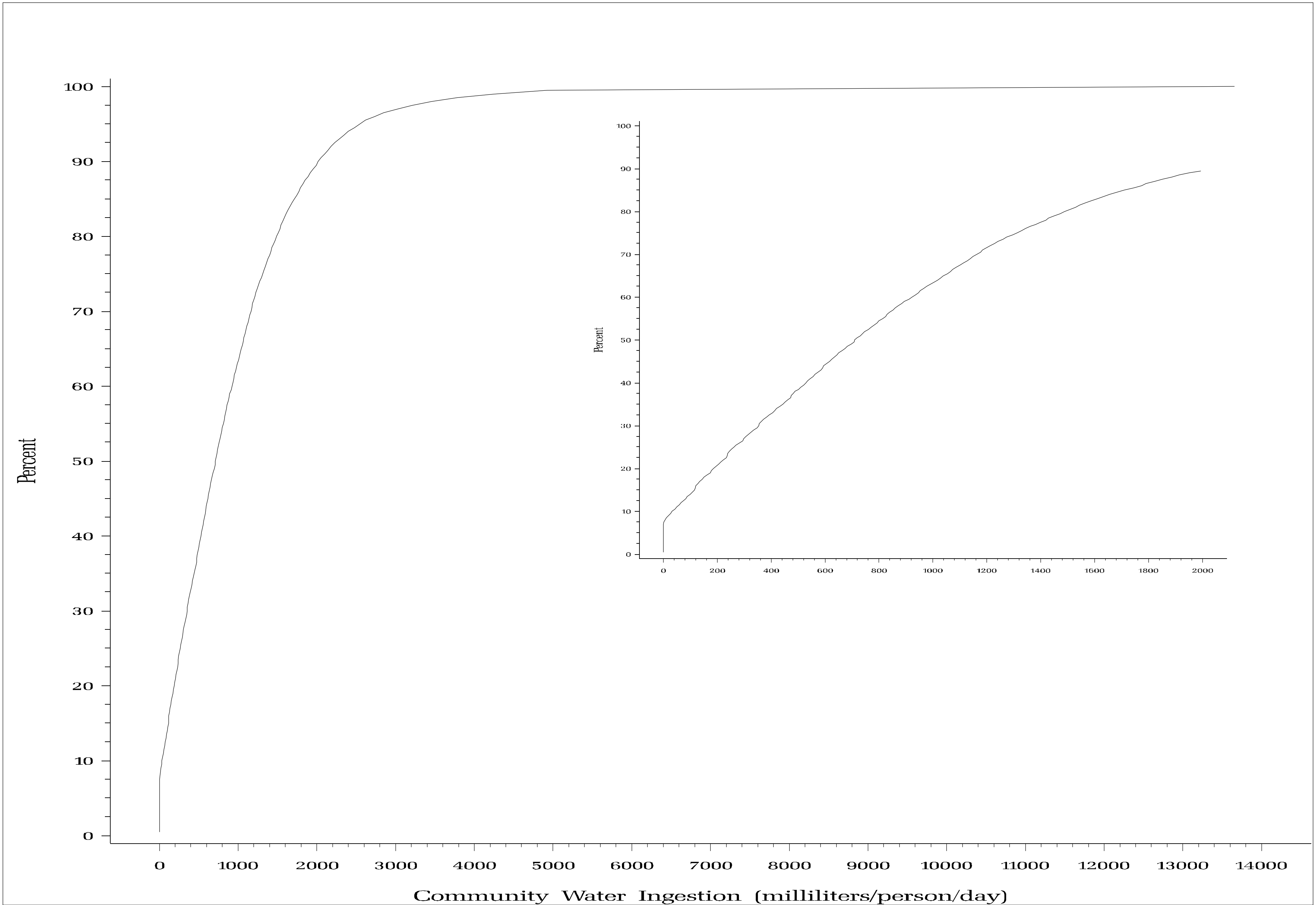


Figure 4−1−F2. Cumulative Distribution of Per Capita Direct and Indirect Total Water Ingestion
All Individuals

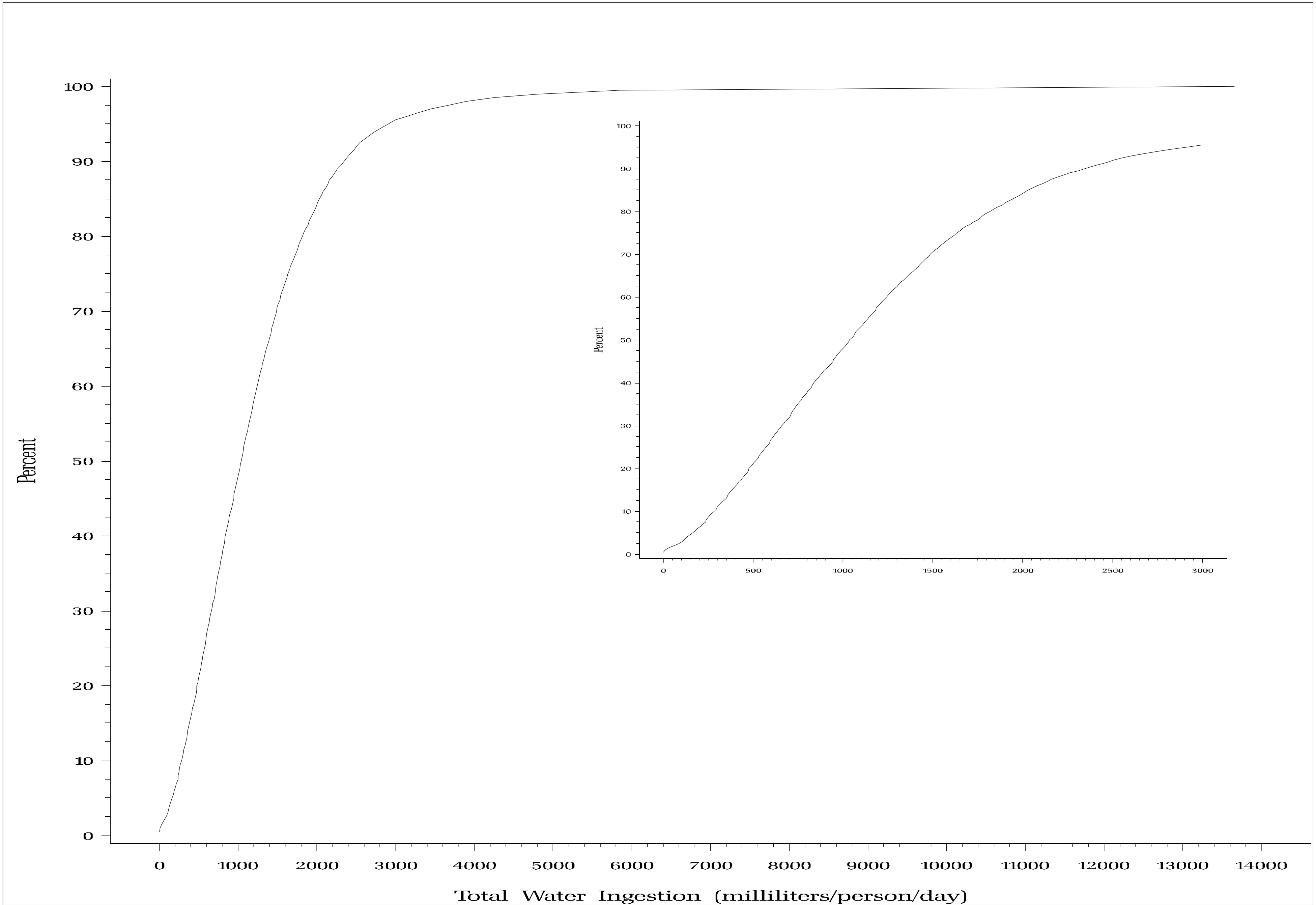


Figure 4−1−G1. Histogram of Per Capita Direct and Indirect Community Water Ingestion
All Individuals

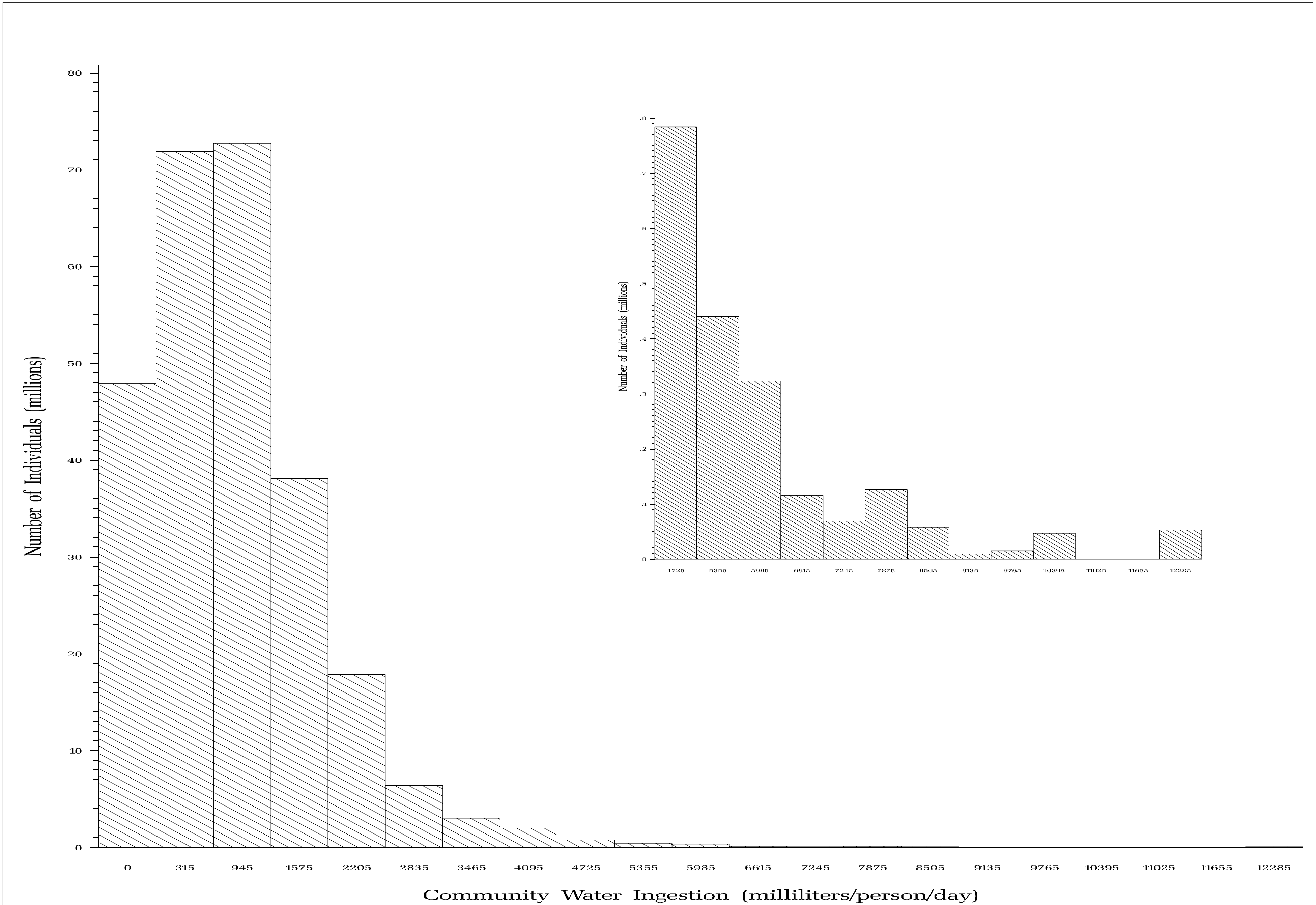


Figure 4−1−G2. Histogram of Per Capita Direct and Indirect Total Water Ingestion
All Individuals

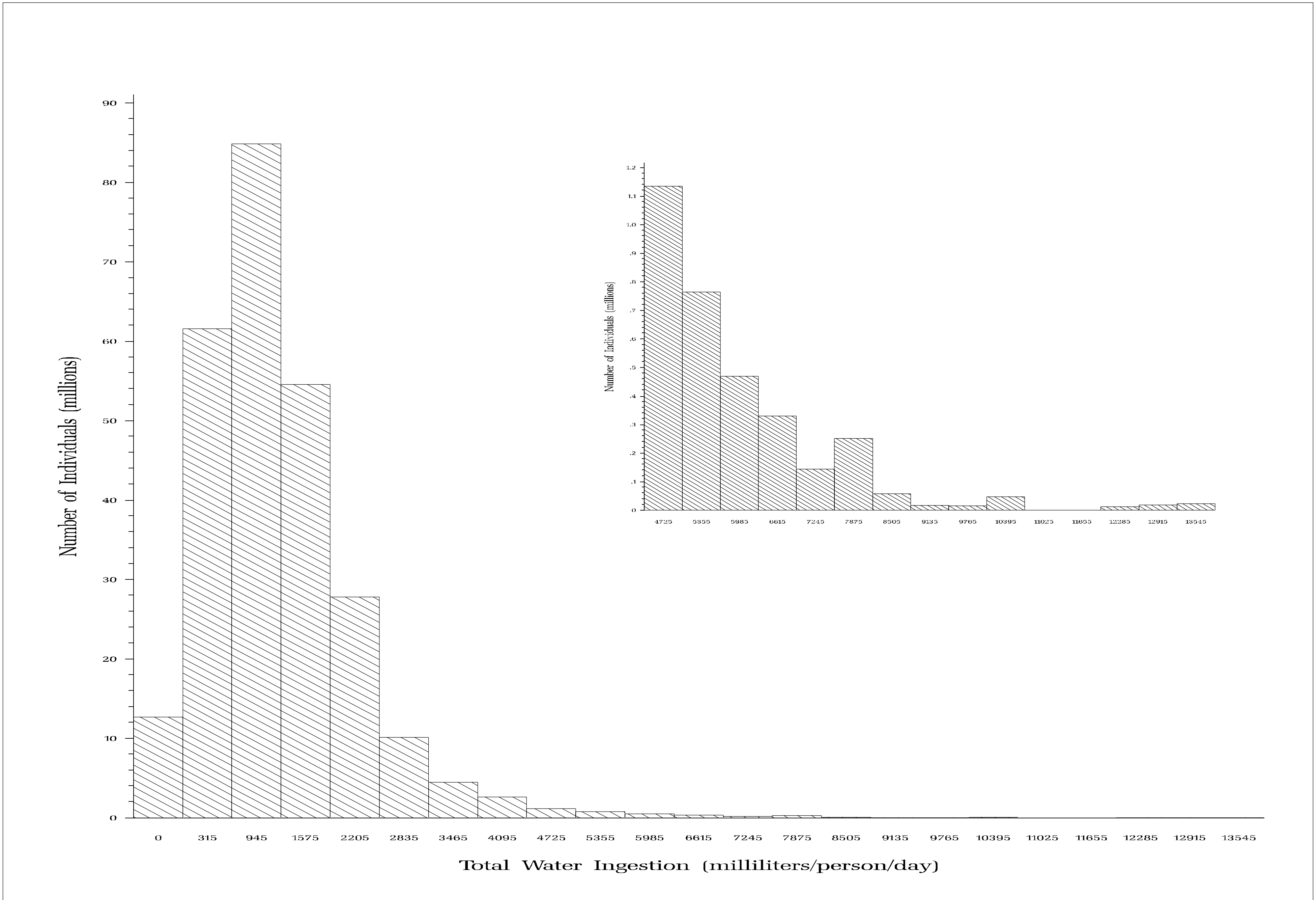


Table 4-2-A. Estimated Direct and Indirect Water Ingestion
By Source
Consumers Only

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Source	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
Community Water	14,012	242,641,675	1,000	976	1,024	2,069	2,041	2,106	2,600	2,538	2,662
Bottled Water	3,078	57,316,806	737	710	764	1,568	1,433	1,756	1,967	1,893	2,070
Other Sources	2,129	34,693,744	965	904	1,025	1,971	1,925	2,015	2,475	2,294	2,651
Missing Source	549	9,657,323	437	395	479	1,141	993	1,302	1,456	1,375	1,813
All Sources	15,172	259,972,235	1,241	1,208	1,274	2,345	2,315	2,378	2,922	2,848	2,959

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 10:31 m:\PW\OSTWATER\REQ003\R003_1A.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4-2-A. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Water Ingestion
By Source
Consumers Only

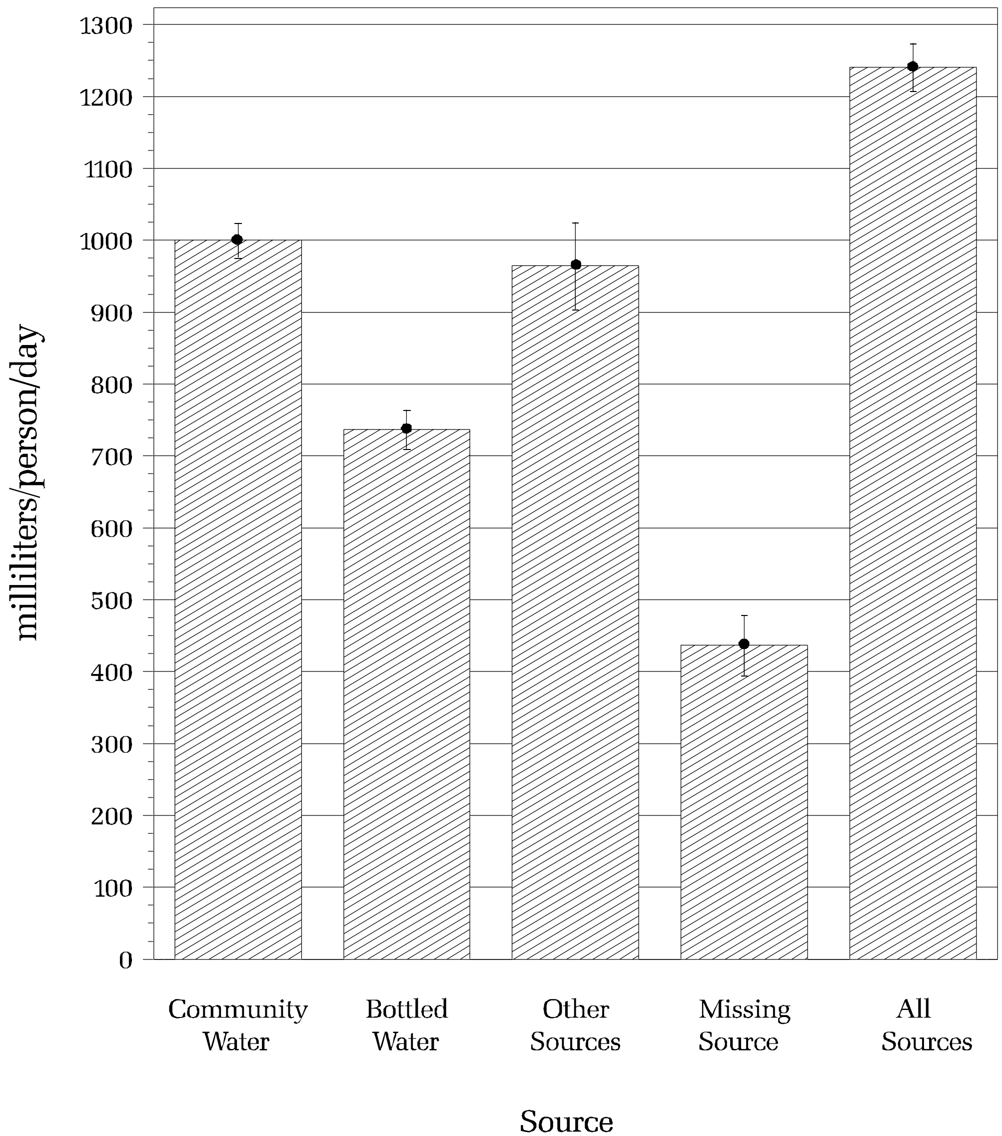


Table 4-2-B1. Estimated Direct and Indirect Community Water Ingestion
By Age Categories
Consumers Only

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	246	2,511,834	513	460	567	950	882	1,046	1,121*	1,046*	1,246*
1-10	3,619	36,867,691	435	414	457	937	910	947	1,137	1,099	1,166
11-19	1,536	31,173,365	735	684	786	1,566	1,526	1,648	1,972	1,900	2,103
20 +	8,611	172,088,785	1,176	1,148	1,204	2,284	2,244	2,338	2,848	2,783	2,958
All ages	14,012	242,641,675	1,000	976	1,024	2,069	2,041	2,106	2,600	2,538	2,662

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 03MAR00 14:30 m:\PW\OSTWATER\REQ003\R003_1B1.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4-2-B1. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Community Water Ingestion
By Age Categories
Consumers Only

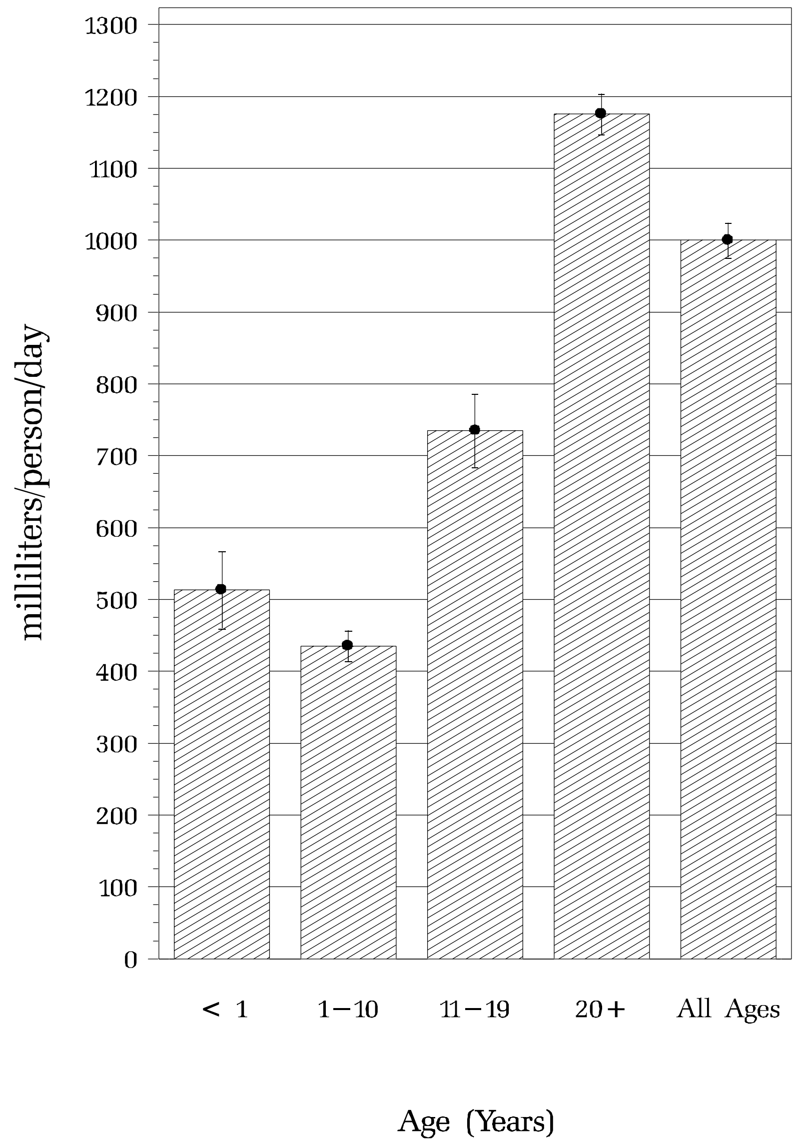


Table 4-2-B2. Estimated Direct and Indirect Community Water Ingestion
By Age Categories
Consumers Only

			Milliliters/Kg of body weight/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	234	2,439,694	69	62	77	139	137	156	170*	168*	176*
1-10	3,393	34,596,970	21	20	22	44	42	45	59	55	63
11-19	1,507	30,748,807	13	12	13	26	25	27	34	32	36
20 +	8,459	168,957,363	16	16	16	32	31	33	39	38	41
All ages	13,593	236,742,834	17	16	17	33	33	34	44	42	45

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 03MAR00 16:46 m:\PW\OSTWATER\REQ003\R003_1B2.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Figure 4-2-B2. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Community Water Ingestion
By Age Categories
Consumers Only

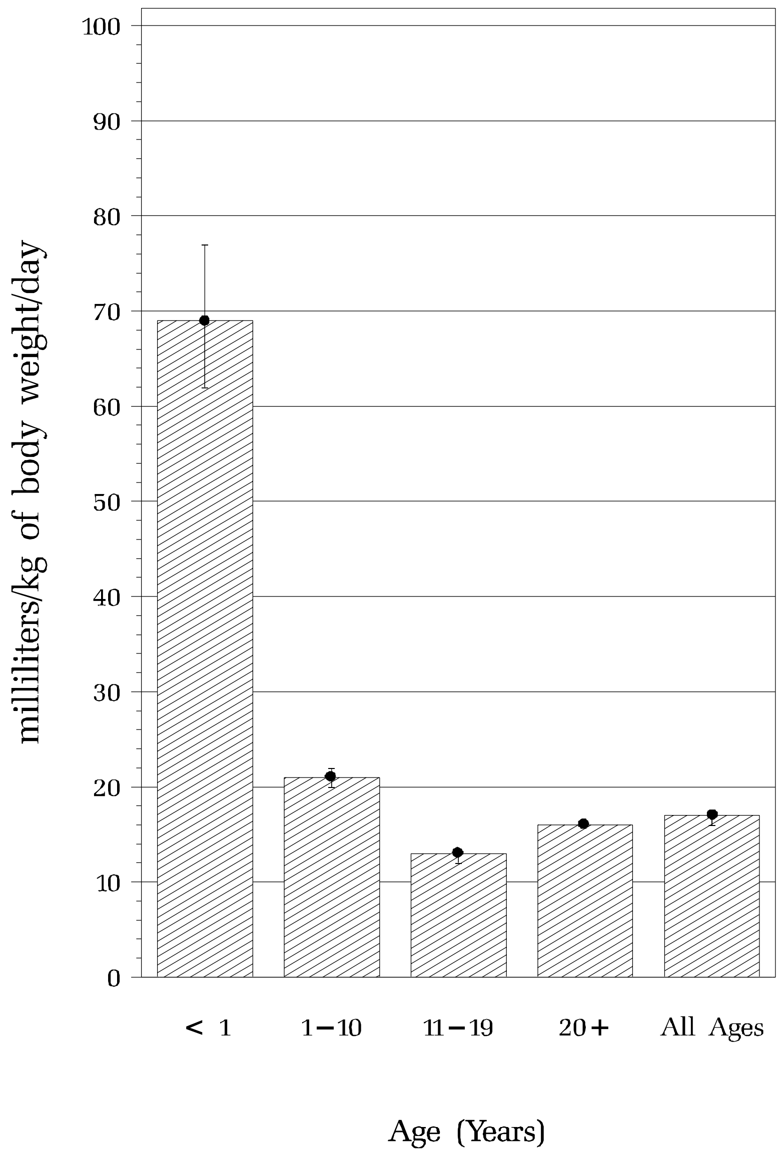


Table 4-2-C1. Estimated Direct and Indirect Community Water Ingestion
By Gender and Age Categories
Consumers Only

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
a. Female											
< 1	128	1,320,308	560	494	626	967*	918*	1,121*	1,122*	1,037*	1,695*
1-10	1,807	18,020,621	426	398	455	940	876	959	1,109	1,065	1,166
11-19	768	15,249,740	638	591	685	1,382	1,283	1,536	1,774	1,583	1,943
20 +	4,227	89,385,243	1,116	1,084	1,148	2,165	2,112	2,230	2,711	2,613	2,866
All ages	6,930	123,975,912	951	925	977	2,005	1,952	2,040	2,482	2,416	2,575
b. Male											
< 1	118	1,191,526	462	405	519	881*	855*	1,121*	1,121*	882*	1,142*
1-10	1,812	18,847,070	444	423	466	934	868	958	1,155	1,086	1,237
11-19	768	15,923,625	828	761	895	1,673	1,648	1,782	2,058	1,940	2,346
20 +	4,384	82,703,542	1,242	1,207	1,277	2,387	2,262	2,490	3,016	2,812	3,256
All ages	7,082	118,665,763	1,052	1,020	1,084	2,164	2,125	2,204	2,733	2,591	2,860

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 13:30 m:\PW\OSTWATER\REQ003\R003_1D1.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4-2-C1. Estimated Mean and 90% Confidence Intervals Around the Mean
Direct and Indirect Community Water Ingestion
By Gender and Age Categories
Consumers Only

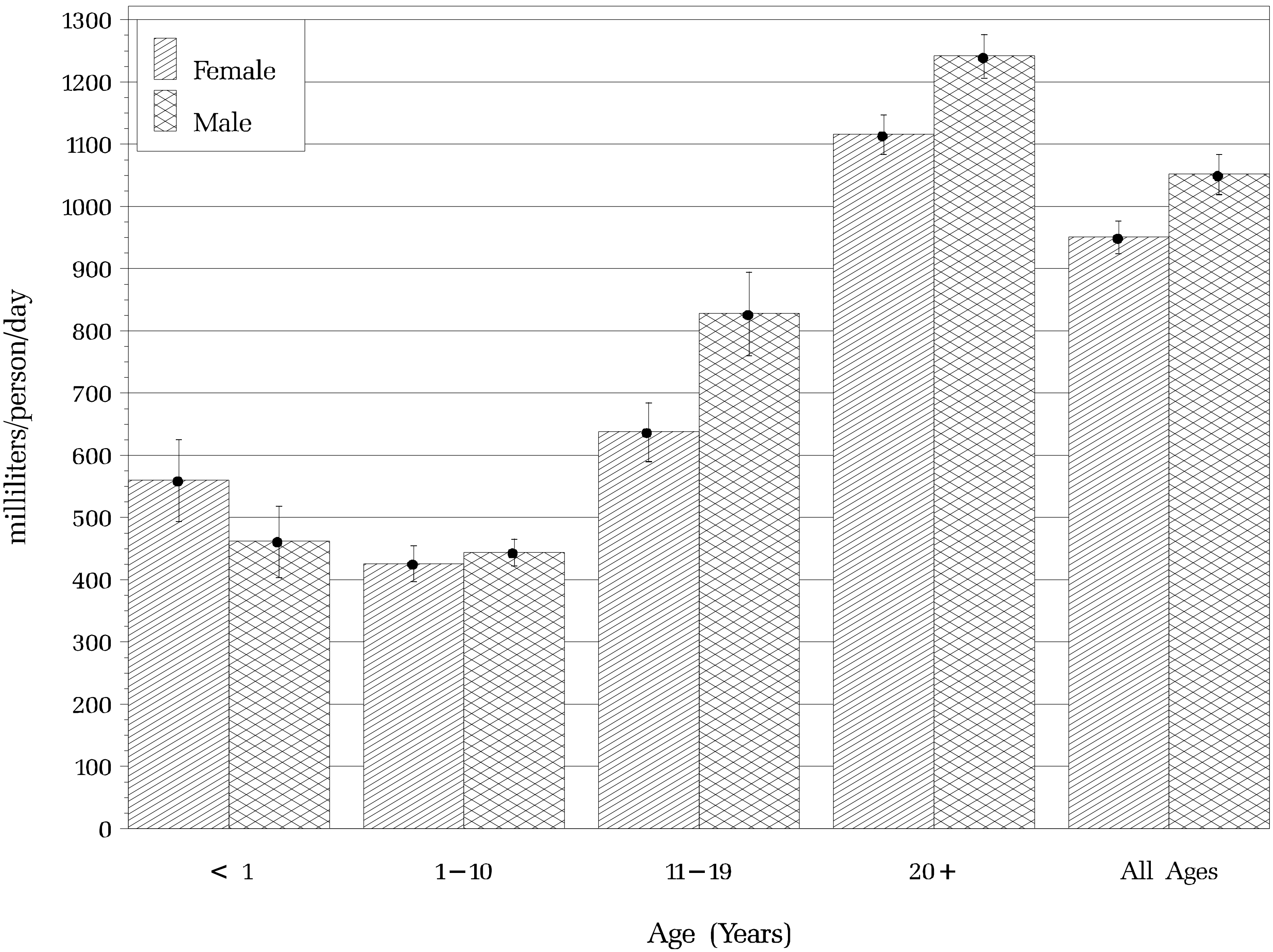


Table 4-2-C2. Estimated Direct and Indirect Community Water Ingestion
By Gender and Age Categories
Consumers Only

Age	Sample Size	Population	Mean (Milliliters/Kg of body weight/Day) Estimate	Mean 90% C.I. Lower Bound	Mean 90% C.I. Upper Bound	90th percentile Estimate	90th percentile 90% B.I.** Lower Bound	90th percentile 90% B.I.** Upper Bound	95th percentile Estimate	95th percentile 90% B.I.** Lower Bound	95th percentile 90% B.I.** Upper Bound
a. Female											
< 1	119	1,259,405	72	62	82	139*	130*	170*	169*	144*	176*
1-10	1,688	16,731,906	21	20	23	45	44	47	61	58	65
11-19	752	15,031,443	12	11	12	26	22	27	32	29	35
20 +	4,099	86,643,885	17	16	17	33	33	34	41	39	42
All ages	6,658	119,666,639	17	17	18	35	34	35	45	44	47
b. Male											
< 1	115	1,180,289	66	55	77	139*	114*	170*	175*	139*	205*
1-10	1,705	17,865,064	21	20	22	43	41	44	55	52	60
11-19	755	15,717,364	14	13	15	27	25	29	38	32	44
20 +	4,360	82,313,478	15	15	16	30	28	31	38	36	39
All ages	6,935	117,076,195	16	16	17	32	32	33	43	41	44

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 09MAR00 13:11 m:\PW\OSTWATER\REQ003\R003_1D2.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Figure 4−2−C2. Estimated Mean and 90% Confidence Intervals Around the Mean

Direct and Indirect Community Water Ingestion

By Gender and Age Categories

Consumers Only

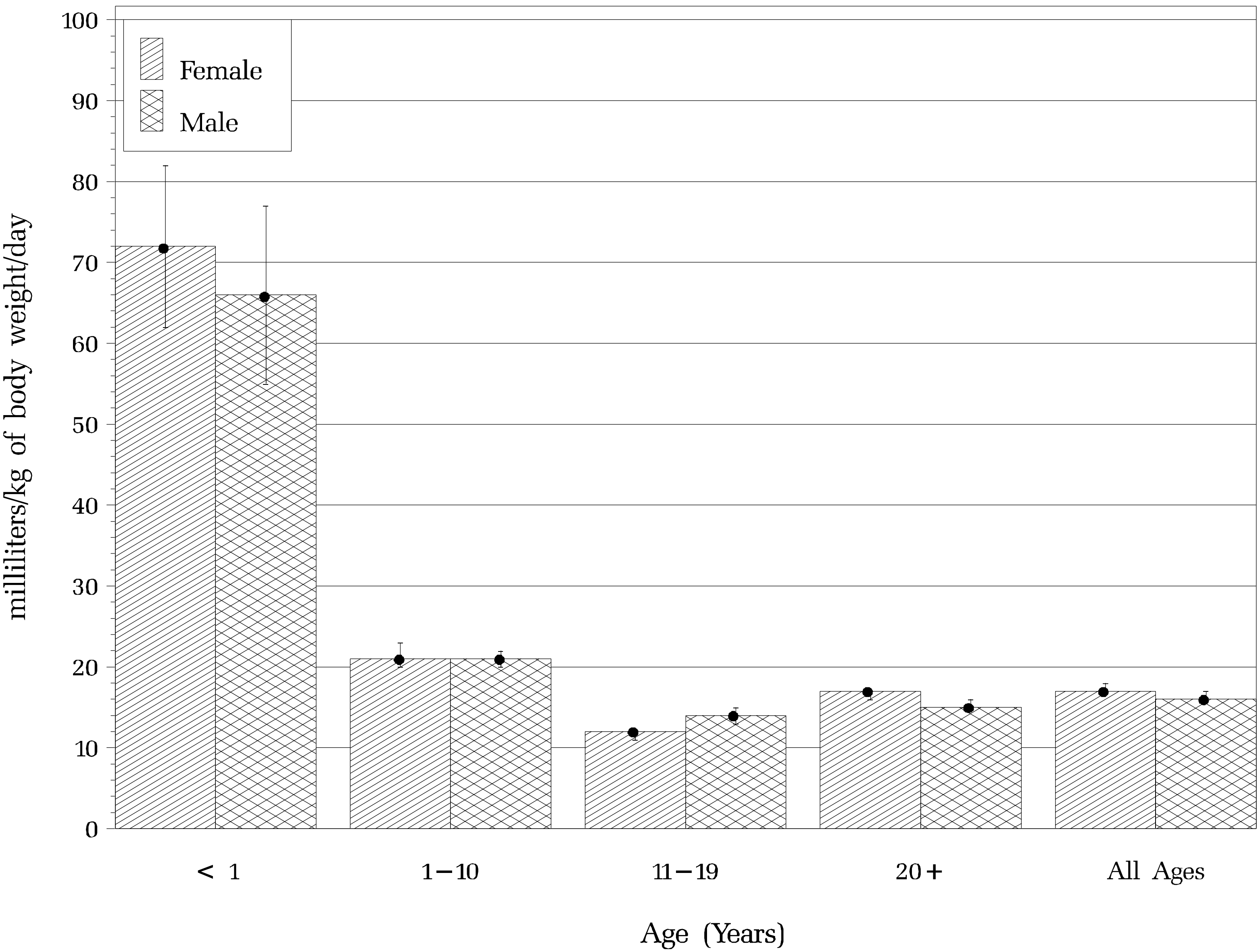


Table 4-2-D1. Estimated Total Direct and Indirect Water Ingestion
By Age Categories
Consumers Only

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	310	3,240,720	563	508	618	968	940	1,121	1,236	1,121	1,282
1-10	3,944	39,830,481	532	509	556	1,004	980	1,030	1,242	1,198	1,284
11-19	1,626	33,201,719	917	861	973	1,782	1,725	1,872	2,202	2,098	2,346
20 +	9,292	183,699,315	1,465	1,427	1,504	2,551	2,516	2,604	3,195	3,109	3,376
All ages	15,172	259,972,235	1,241	1,208	1,274	2,345	2,315	2,378	2,922	2,848	2,959

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 03MAR00 17:39 m:\PW\OSTWATER\REQ003\R003_1C1.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4-2-D1. Estimated Mean and 90% Confidence Intervals Around the Mean

Total Direct and Indirect Water Ingestion

By Age Categories

Consumers Only

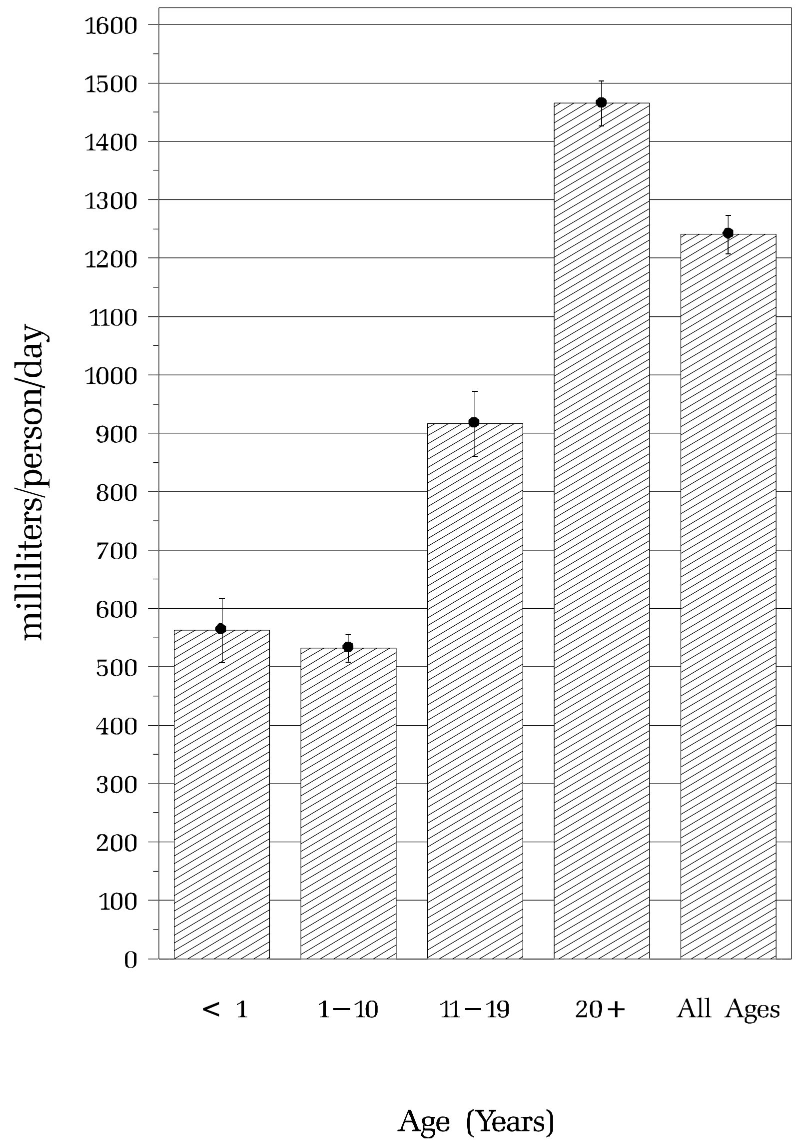


Table 4-2-D2. Estimated Total Direct and Indirect Water Ingestion
By Age Categories
Consumers Only

			Milliliters/Kg of body weight/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Age	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
< 1	296	3,154,260	78	70	85	164	144	168	170	164	190
1-10	3,708	37,489,721	26	24	27	49	48	50	64	62	66
11-19	1,592	32,680,793	16	15	17	31	29	32	39	37	42
20 +	9,130	180,342,914	20	19	21	36	35	36	44	43	45
All ages	14,726	253,667,688	21	20	22	38	38	39	50	48	51

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 10MAR00 09:43 m:\PW\OSTWATER\REQ003\R003_1C2.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Figure 4-2-D2. Estimated Mean and 90% Confidence Intervals Around the Mean
Total Direct and Indirect Water Ingestion
By Age Categories
Consumers Only

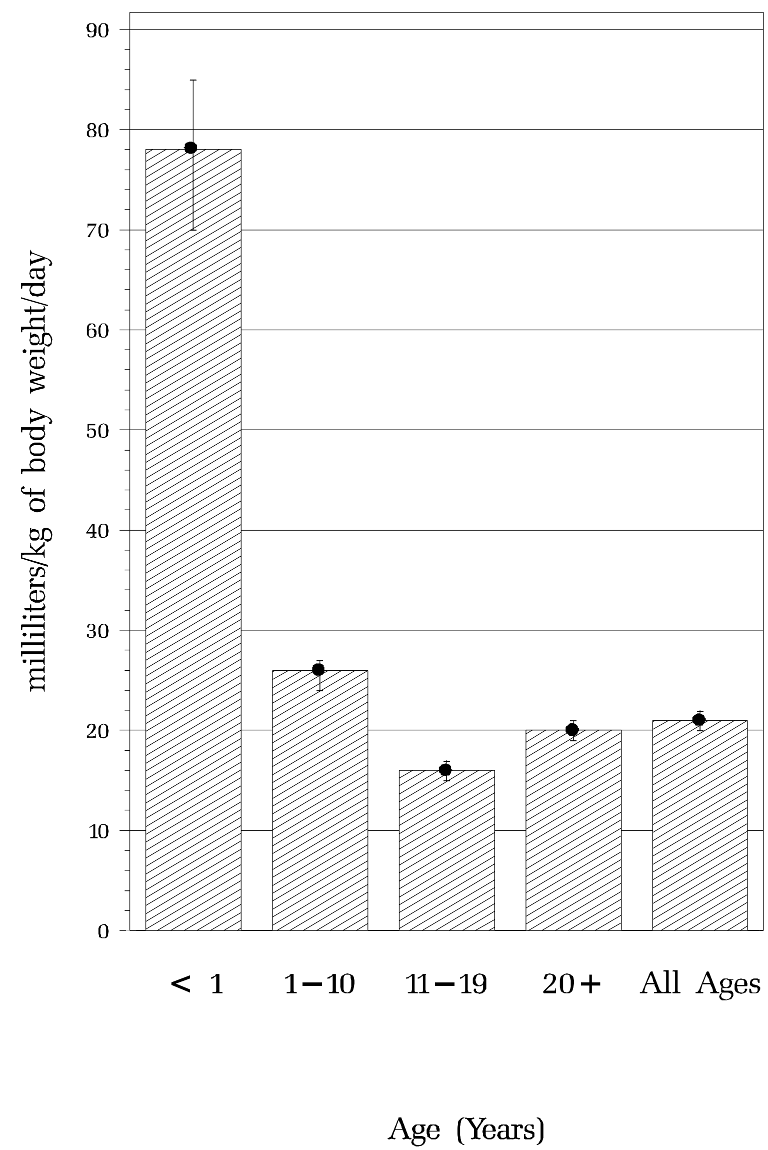


Table 4-2-E. Estimated Direct and Indirect Community Water Ingestion
By Pregnant, Lactating, and Childbearing Age Women Categories
Consumers Only

			Milliliters/Person/Day								
			Mean			90th percentile			95th percentile		
				90% C.I.			90% B.I.**			90% B.I.**	
Women Categories	Sample Size	Population	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound	Estimate	Lower Bound	Upper Bound
Pregnant	65	1,645,565	872	728	1,015	1,844*	1,776*	3,690*	2,588*	2,167*	3,690*
Lactating	34	971,057	1,665*	1,181*	2,148*	2,959*	2,722*	3,452*	3,588*	2,987*	4,026*
Women Age 15-44	2,176	55,251,477	984	946	1,022	2,044	1,957	2,175	2,722	2,455	2,873

(1) Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 03MAR00 17:44 m:\PW\OSTWATER\REQ003\R003_1E.lst
(2) Estimates are based on 2-day averages.
(3) Interval estimates may involve aggregation of variance estimation units when data are too sparse to support estimation of the variance.
(4) All estimates exclude commercial and biological water.

**: Percentile intervals were estimated using percentile bootstrap method with 1,000 bootstrap replications.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Figure 4−2−E. Estimated Mean and 90% Confidence Intervals Around the Mean

Direct and Indirect Community Water Ingestion

By Pregnant, Lactating, and Childbearing Age Women Categories

Consumers Only

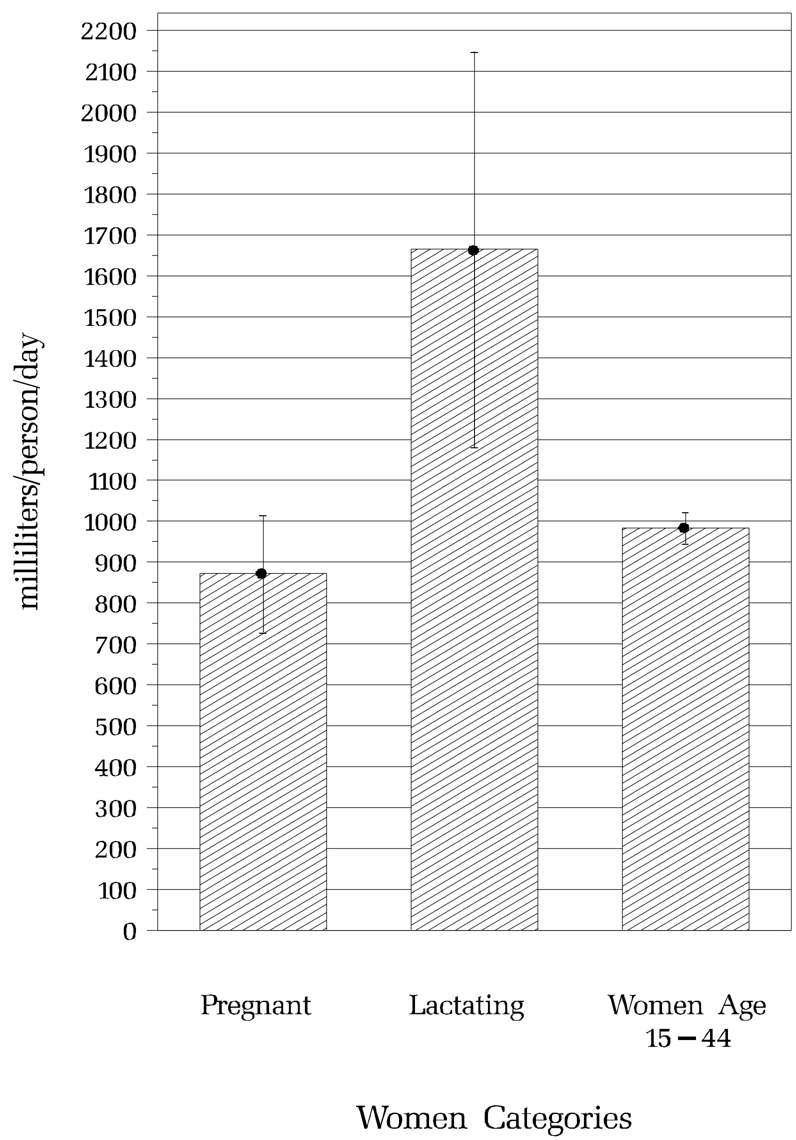


Figure 4-2-F1. Cumulative Distribution of Per Capita Direct and Indirect Community Water Ingestion
Consumers Only

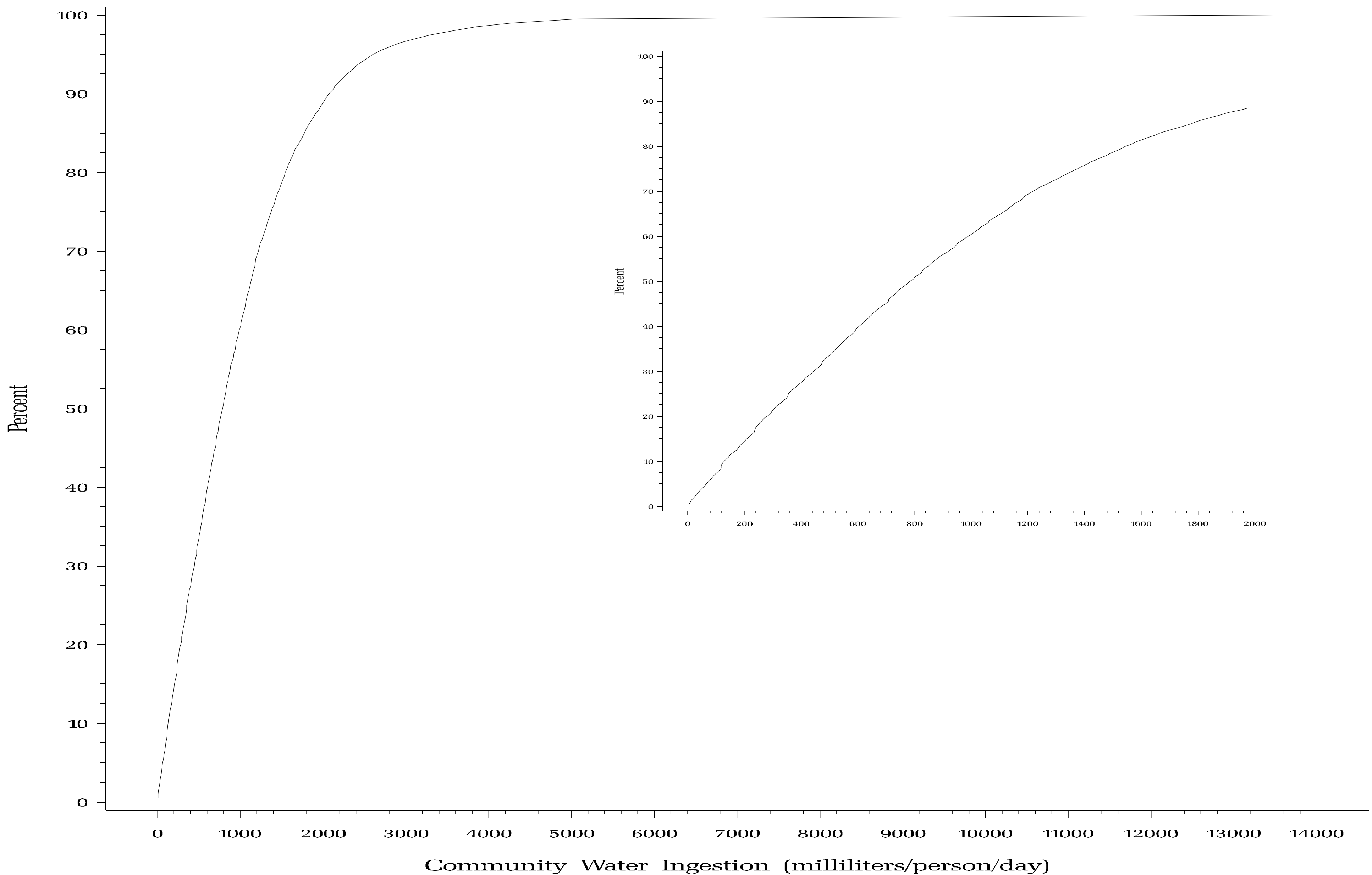


Figure 4-2-F2. Cumulative Distribution of Per Capita Direct and Indirect Total Water Ingestion
Consumers Only

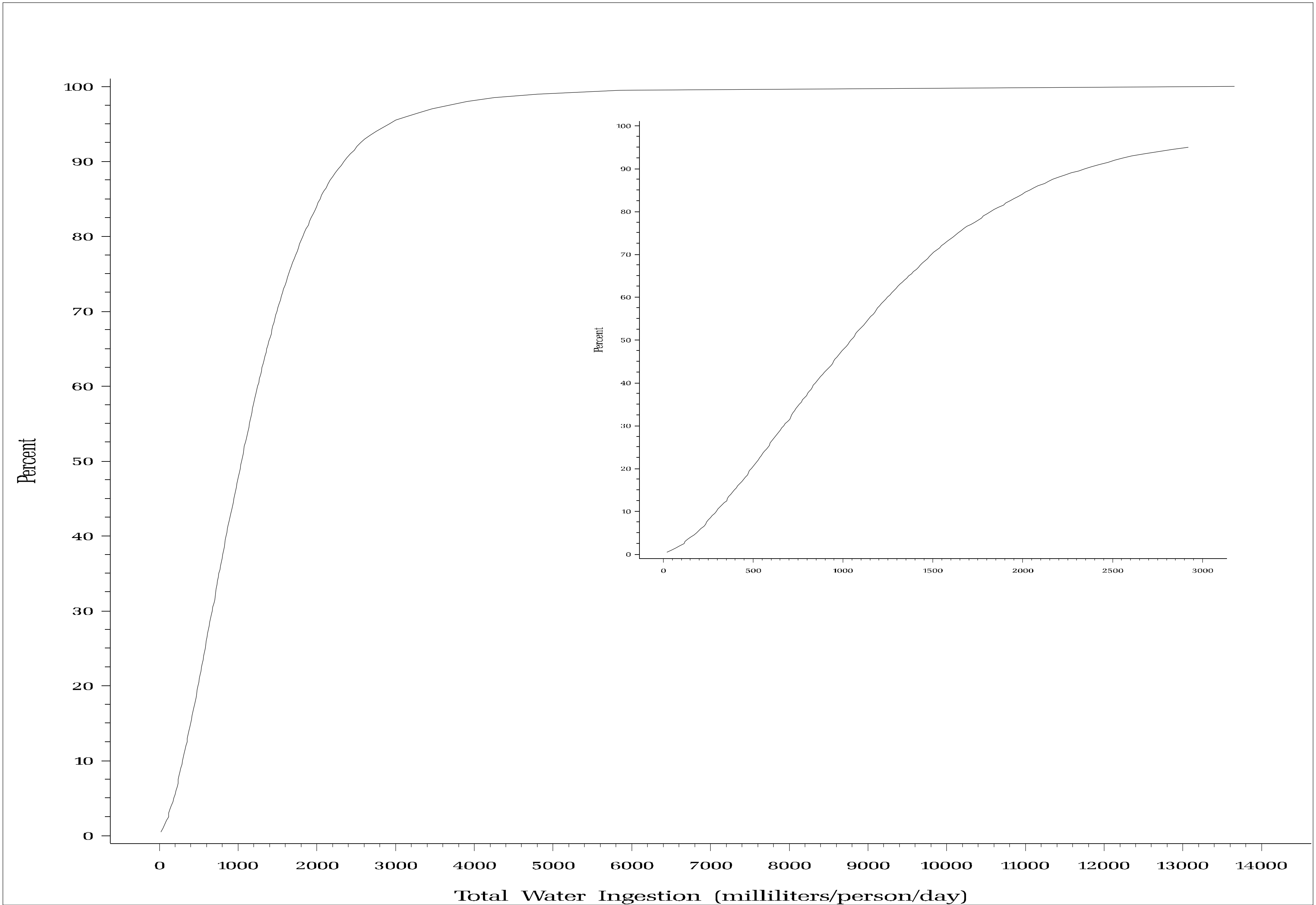


Figure 4−2−G1. Histogram of Per Capita Direct and Indirect Community Water Ingestion
Consumers Only

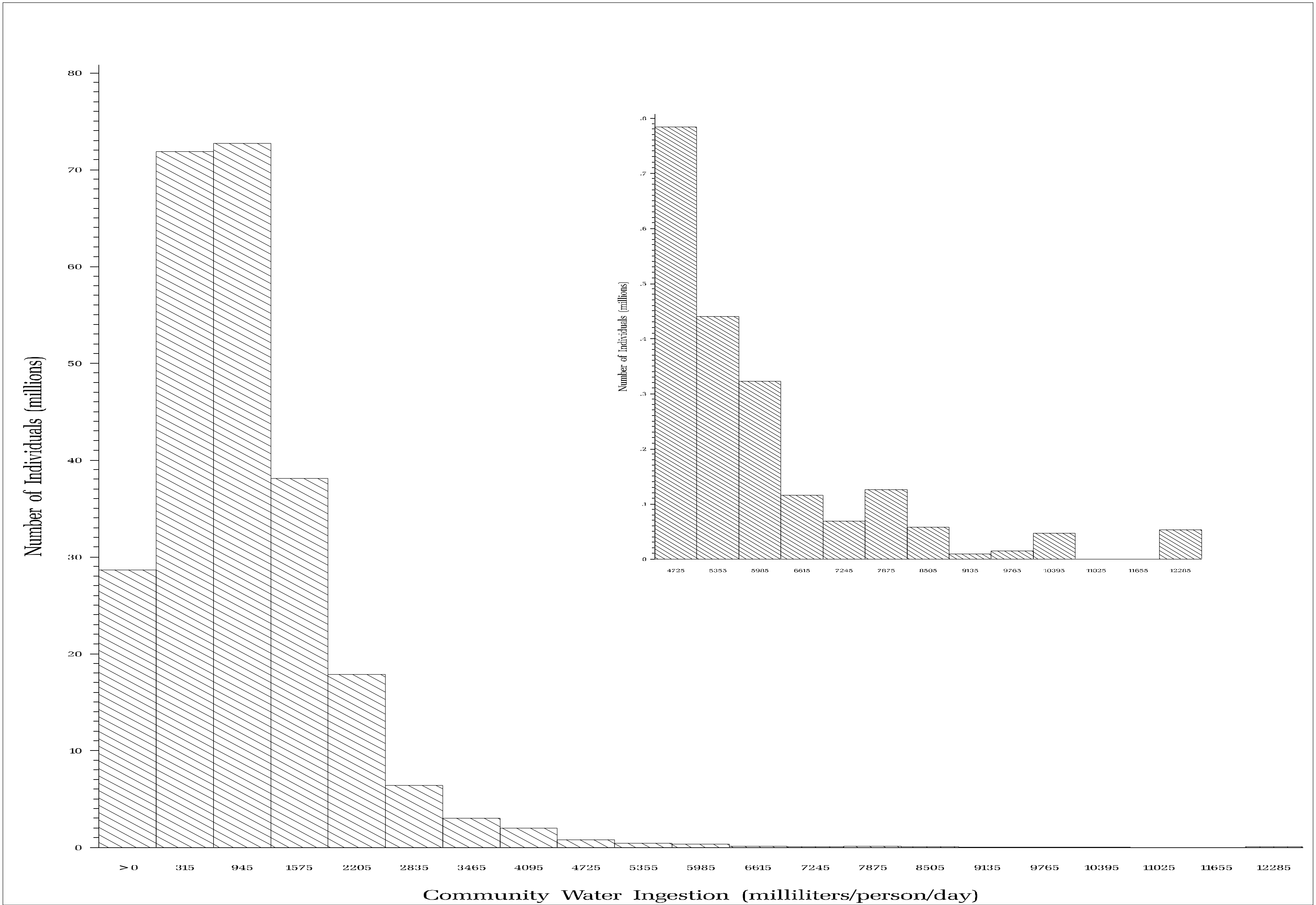
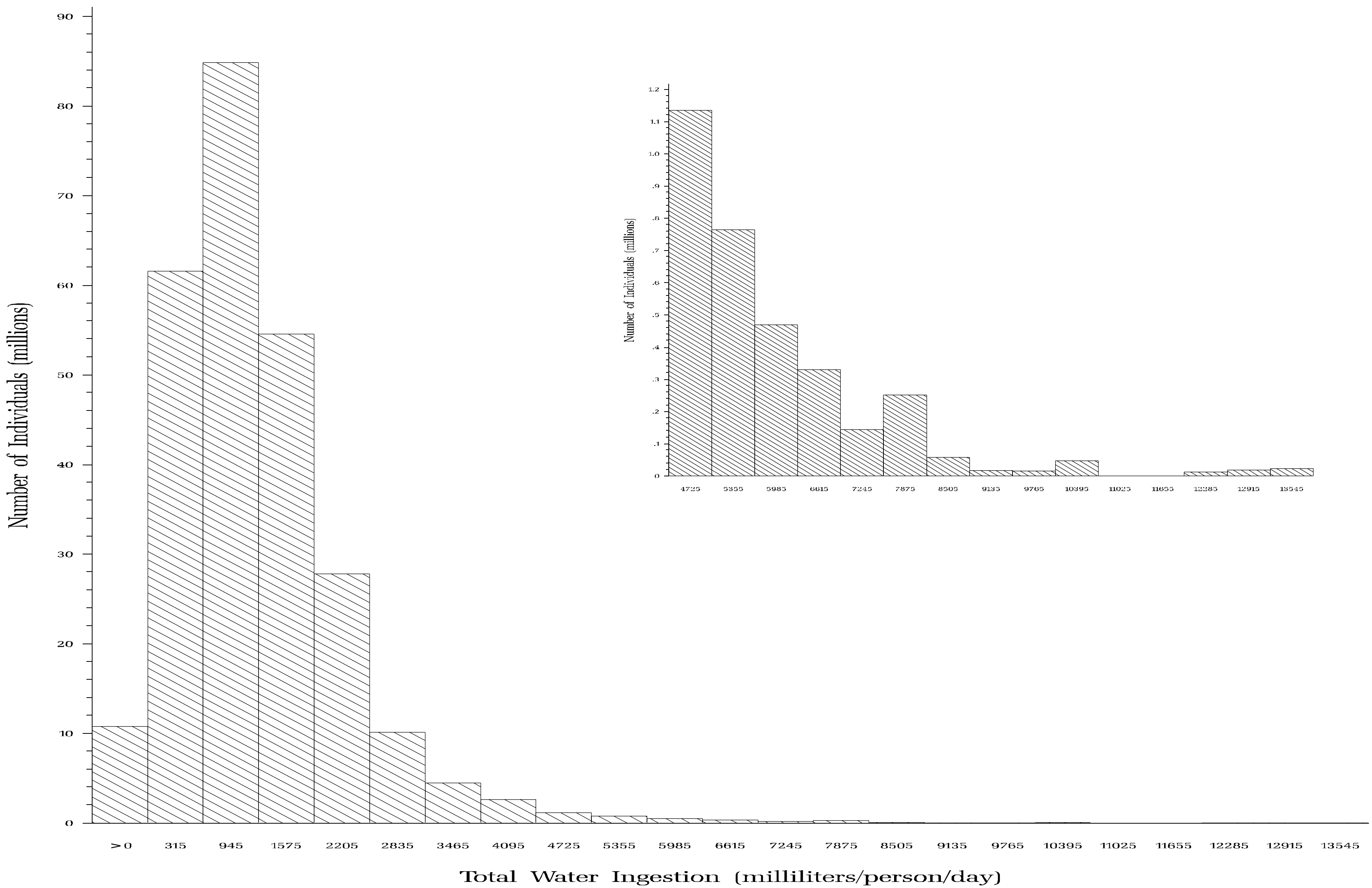


Figure 4−2−G2. Histogram of Per Capita Direct and Indirect Total Water Ingestion
Consumers Only



5. DISCUSSION

All surveys have strengths and limitations when assessed against the specific objective being addressed. There are also biases introduced in the survey process. Section 5.1 presents the strengths and limitations of the USDA's 1994–96 CSFII data for supporting the estimates reported in this document. Section 5.2 identifies and discusses sources of bias and error in the 1994–96 CSFII with respect to water ingestion estimates. Section 5.3 presents the report conclusions, and Section 5.4 provides a listing of references used in this report.

5.1 Survey Strengths and Limitations

The strengths of the USDA's 1994–96 CSFII survey for supporting estimates of per capita water ingestion are twofold. First, the survey design is structured to obtain a statistically representative sample of the United States population. Second, the survey is designed to record daily intakes of foods and nutrients and support estimation of food consumption. These features are in direct alignment with the objective of producing current, per capita water ingestion estimates for the United States population and for population subsets sensitive to potential contaminants in drinking water.

The 1994–96 CSFII survey design allows the combination of three years of data through a weighting scheme. This combination of three years provides a sample of over 15,000 respondents. With increased sample sizes, the precision and accuracy of estimates are improved and the support for subpopulation estimates is enhanced. This design structure, in conjunction with the implementation of a sampling protocol, increases the sample's representation of the United States population and minimizes seasonal and/or regional bias from respondents. Low–income individuals are oversampled to ensure their representation in the survey. Finally, the survey weight associated with each respondent's information to project the response to the population has been adjusted for nonresponse bias. These adjustments were based on sociodemographic factors. Nonresponse adjustments were also significantly reduced for the current CSFII. The response rate for participants with multiple days of food intake information is 75.9 percent for the 1994–96 CSFII, as opposed to approximately 45 percent for the 1989–91 CSFII.

The method employed to collect dietary intake data also strengthened the CSFII design for supporting per capita ingestion estimates. For example, the USDA's 1994–96 CSFII survey was administered by an interviewer on both days of data collection. This administration provided multiple passes through the day's intake to facilitate more complete responses. Previous surveys have relied on interviewer administration for the first day and self–administration on subsequent days. This change in administration method insures consistency with respect to the way responses are recorded across interview days.

Previous CSFII surveys have collected dietary intake information on consecutive days. This collection method raises issues about the contribution of within–individual variance to overall estimates. Because the 1994–96 CSFII collects data on two non–consecutive days, the within–individual variance component is diminished. The third change in data collection methods that facilitates completion of the objective of this report is that previous surveys included all members of a household in the survey. The 1994–96 survey includes a subsample of household members with sampling rates varying to achieve more responses from children and the elderly.

Another important feature of the 1994–96 CSFII that supports per capita estimation of water ingestion is the questionnaire design. The questionnaire collects data on a household's source of drinking water and water used for the preparation of foods and beverages. It also allows a respondent to indicate if water was ingested at home or away from home. This information directly supports the assignment of water source for both direct and indirect water intake. The 1994–96 CSFII Technical Support Files supported the estimation of the amount of water ingested through food. This enhances the estimation of indirect water ingestion and partitions it from water directly ingested as a beverage.

The limitations of the CSFII survey for supporting per capita ingestion estimates involve the length of time data were collected, the influence of extreme values on estimates, and the availability of information to support variance estimation. The CSFII survey collects only two non–consecutive days of data. Because daily averages are estimated from each respondent from only two days, the precision of an individual's daily average consumption is diminished. Also, the limited time period of dietary intake collection does not produce usual intake estimates. Usual intakes are defined as "the long run average of daily intakes of a dietary component by an individual." Rather, the estimates presented in this report characterize the empirical distribution of daily average per capita ingestion. Because the data from the CSFII are not usual intakes and some consumers report no direct and minimal amounts of indirect water ingestion, while other consumers report over two liters of ingestion, the empirical distribution of daily average per capita ingestion can be skewed.

Another limitation of the 1994–96 CSFII is a function of the way that survey data are reported. Data from two variance estimation units are required to generate an estimate of the variance within a variance estimation stratum. These variances are then summed across strata to generate a variance estimate for the subpopulation. For many of the subpopulations evaluated in this report, numerous strata did not have information for two variance estimation units. Because there is insufficient information in the naming convention, combining data across like strata was not possible. Therefore, the survey did not support variance estimation for many of the reported subpopulations. Because of this, means differences cannot be formally tested and interval estimates about the mean and upper percentiles cannot be supplied, except for the larger subpopulation. All reported differences are empirical as opposed to statistical. Also, certain variables, such as region, are at a summary level. USDA has named the States within a region. Estimates by State, however, are not trackable because USDA data do not contain a variable identifying States. For this reason, water ingestion estimates by State are not possible.

Statistically significant differences can be found by comparing the confidence intervals between two independent groups. If the confidence intervals for the two groups do not overlap, then the estimates for these groups are statistically significant at the 0.10 alpha level since 90% confidence intervals are reported. For example, children one to ten years old (90% confidence interval about the mean is 380 to 420 ml/person/day) ingest significantly less community water than children 11 to 19 years old (90% confidence interval about the mean is 634 to 732 ml/person/day) (See Table 4–1–B1).

A final limitation is that the survey does not support water ingestion estimates for subpopulations with different lifestyles, occupations, or activities. Examples include:

- People with traditional life styles (e.g., Native Americans and recent immigrants).
- People who live in hot climate areas.
- People who consume large amounts of water because of physical activity.
- People with health conditions that affect water ingestion, such as diabetes, kidney disease, conditions requiring rapid rehydration needs (GI upsets, food poisoning), and disorders of water and sodium metabolism.

While individuals from these specific subpopulations are included in the survey and U.S. population estimates, they were not targeted during survey design and thus do not occur in high enough frequencies to support estimate generation.

5.2 Sources of Error, Bias, and Uncertainty

All surveys contain errors despite the diligence of the design statistician and the respondents. These errors ultimately lead to bias and uncertainty in the estimates resulting from the survey's data. Some errors are quantifiable, while others are not. Random error occurs in all stochastic processes. To quantify error and bias, we must know the true population value. In reality, these are not known. In general, the estimation process assumes that the true population value is known and the error is random or partitioned to assess components of the variance. In complex surveys, these assumptions may be violated.

In general, there are three sources of error in a survey. Two of these sources involve the survey design and data collection. The third source of error is introduced during the use of the data. The following paragraphs discuss these sources of error specific to the 1994–96 USDA's CSFII survey and its use to generate the estimates presented in this report.

The first source of error is attributed to the survey design. All designs are constructed to minimize the coefficient of variation with respect to a given parameter. For the 1994–96 CSFII, the goal was to minimize the variance of the mean Day 1 saturated fat and iron intakes. In this report, we address water ingestion. Thus, the design has not been specifically structured to minimize the coefficient of variation with respect to water ingestion. Another design error is attributed to nonresponse and the representative nature of the sample frame. The CSFII adjusts for these through its sample weights. The method USDA used to derive survey sample weights is discussed in Chapter 2 of this report. For the combined three–year sample, the USDA estimates the variance inflation factor (VIF) for two–day respondents to be 1.60. The 1994–96 CSFII documentation describes the VIF as "the proportional increase in the variance of survey estimates resulting from the variation in weights" and indicates that the VIF measures "the broadly calculated average design effect" (CSFII survey documentation, p. 5–4 and 5–5).

The second source of error is measurement error. For the CSFII, this error presents itself in the records of foods and beverages ingested by the participant. Measurement error in this case is comprised of the amount of a food or beverage consumption reported and the completeness of the reported consumption record. It is generally anticipated that food and beverage intakes are under–reported (Swan, 1983).

The third source of error is introduced when data are used. The first incidence of this occurring is in the data coding and database building by the USDA. Other sources occur during applications of data conventions. As indicated in Chapter 3 of this report, assumptions were made about sources of water and about which foods were prepared at home or by a food service establishment.

5.3 Conclusion

The purpose of this study is to provide current estimates of per capita water ingestion in the United States. Results are presented for the general U.S. population and for certain sub–populations (i.e. gender and age categories, pregnant and lactating women). The data on water ingestion were obtained from the U.S. Department of Agriculture's 1994-96 Continuing Survey of Food Intake by Individuals. The estimates report mean and percentiles from empirical distributions for both direct (plain water ingested as a beverage) and indirect water (water added to food and beverages during preparation). Commercial and natural water in the food and beverages are not included in the analysis.

Two liters/person/day has been used as the default value for water ingestion by EPA, other Federal agencies, and the WHO. This value is supported by the National Cancer Institute's report (Ershow and Cantor, 1989) based on 1977–78 survey data. The two liters included the sum of direct and indirect tap water ingestion and was the 88th percentile for the United States population when excluding pregnant and lactating women and breast–fed children.

This analysis, based on 1994–96 CSFII data, found that 90 percent of the population of the United States ingests two liters/day or less of community water. This analysis also found that approximately 83 percent of the population ingests two liters/day or less of total water (i.e., water from all sources) (See Figure 4–1–F2).

For babies younger than one year of age who ingested community water during the two survey days (i.e., "consumers only"), this analysis showed that 90 percent ingested less than or equal to one liter/day of community water. For babies who ingested water from any source during the two survey days, this analysis showed that over 90 (but less than 95) percent ingested less than or equal to one liter/day of total water.

When considering water ingestion in units of milliliters per kilogram of body weight per day, this analysis shows that the mean per capita ingestion rates for babies younger than one year are estimated to be three to four times higher than the mean rates for the population as a whole.

Our results show that pregnant women do not differ significantly in their water intake compared with women of childbearing age (age 15–44). However, lactating women ingest significantly more water than the other two groups. These conclusions are a result of comparing the confidence intervals among the three groups of women. Note, however, that the pregnant women and lactating women are included in the larger group of childbearing–age women.

The mean community water ingested by males is significantly higher than that ingested by females in all age categories except for babies younger than one year old and children one to ten years of age. The highest mean per ingestion by males is found in males in the 20 years and older age group.

A comparison of ingestion by various sources, indicates that community water comprises 75 percent of the total water ingested by individuals in the United States population, followed by bottled water which constitutes 13 percent of total water ingested while 10 percent is attributable to water from other sources.

The results presented may be used in risk assessment analyses where exposures that occur through ingestion of water are of concern. The ingestion estimates presented provide the basis for evaluation of the proportion of the population that may be affected under various exposure scenarios.

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Appendix A
CSFII Survey Questions Pertaining to Water Ingestion

Chapter 3 of this report defines the data conventions applied to assign source and amount of water ingested by the respondent. These conventions are predicated on participant responses to survey questions. This appendix lists the questions used to assign source classifications, record the amount of water ingested by a participant, and identify food sources. These questions were extracted from the USDA's 1994–96 CSFII survey instrument, "WHAT WE EAT IN AMERICA: 1994–1996."

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APPENDIX A
CSFII Survey Questions Pertaining to Water Ingestion

Record Type 15: Households.

Name	Position	W	T	
HHID	3-7	5	N	Household identification number. Applies to all records. 10001 - 52999 = HHID
H2O_COOK	103-104	2	N	H18. What is the main source of the water used for cooking in your home? Applies to all records. 1 = Community water supply 2 = Well or rain cistern (household's) 3 = Spring (household's or public) 4 = Bottled water (purchased) 96 = Other 98 = Don't know 99 = Not ascertained
H2O_BEVR	105-106	2	N	H19. What is the main source of the water used in your home for preparing beverages such as coffee, tea, juices, and baby formula? Applies to all records. 1 = Community water supply 2 = Well or rain cistern (household's) 3 = Spring (household's or public) 4 = Bottled water (purchased)

96 = Other
98 = Don't know
99 = Not ascertained

H2O_DRNK	107-108	2	N	H20. What is the main source of plain drinking water in your home?

Applies to all records.

1 = Community water supply
2 = Well or rain cistern (household's)
3 = Spring (household's or public)
4 = Bottled water (purchased)
96 = Other
98 = Don't know
99 = Not ascertained

Record Type 25: Sample Persons.

Name	Position	W	T	
HHID	3-7	5	N	Household identification number.

Applies to all records.

10001 - 52999 = HHID

SPNUM	8-9	2	N	Sample person (SP) number.

Applies to all records.

1 - 23 = SP number

Now I'd like you to think about all of the plain drinking water that (you/NAME) had yesterday, regardless of where (you/he/she) drank it. By plain drinking water I mean tap water or any bottled water that is not carbonated, with nothing added to it, not even lemon.

D1_H2O_O 136-138 3 N DA15. How many fluid ounces of plain drinking water did you drink yesterday - day 1?

Applies to all records.

* 0 = None
1 - 995 = Fluid ounces
998 = Don't know
999 = Not ascertained

* Skip D1_H2O_H - D1_H2O_A

D1_H2O_H 139 1 N DA16. How much of this plain drinking water came from your home? Would you say all, most, some, or none - day 1?

Applies if: D1_H2O_O > 0

* 1 = All
2 = Most
3 = Some
4 = None
8 = Don't know
9 = Not ascertained

* Skip D1_H2O_A

D1_H2O_A 140 1 N DA17. What was the main source of plain drinking water that did not come from your home? Was it tap water, water from a drinking fountain, bottled water, or something else - day 1?

Applies if: D1_H2O_H > 1

1 = Tap water / drinking fountain
2 = Bottled water
6 = Other
8 = Don't know

9 = Not ascertained
Blank = Not applicable

Now I'd like you to think about all of the plain drinking water that (you/NAME) had yesterday, regardless of where (you/he/she) drank it. By plain drinking water I mean tap water or any bottled water that is not carbonated, with nothing added to it, not even lemon.

D2_H2O_O 159-161 3 N DB13. How many fluid ounces of plain drinking water did you drink yesterday - day 2?

Applies if: COMP_D2 = 1

* 0 = None
1 - 995 = Fluid ounces
998 = Don't know
999 = Not ascertained
Blank = Not applicable

* Skip D2_H2O_H - D2_H2O_A

D2_H2O_H 162 1 N DB14. How much of this plain drinking water came from your home? Would you say all, most some, or none - day 2?

Applies if: D2_H2O_O > 0

* 1 = All
2 = Most
3 = Some
4 = None
8 = Don't know
9 = Not ascertained
Blank = Not applicable

* Skip D2_H2O_A

D2_H2O_A 163 1 N DB15. What was the main source of plain drinking water that did not come from your home? Was it tap water, water from a drinking fountain, bottled water, or something else - day 2?

Applies if: D2_H2O_H > 1

1 = Tap water / drinking fountain
2 = Bottled water
6 = Other
8 = Don't know
9 = Not ascertained
Blank = Not applicable

Record Type 30: Food Items.

Name	Position	W	T	
HHID	3-7	5	N	Household identification number. Applies to all records. 10001 - 52999 = HHID
SPNUM	8-9	2	N	Sample person (SP) number. Applies to all records. 1 - 23 = SP number
DAYCODE	64	1	N	Day 1 / day 2 indicator. Applies to all records. 1 = Day 1 2 = Day 2

FOODCODE	67-74	8	N	Food code. See File 4, "Food Codes and Abbreviated Descriptions" (Chapter 11 on the CD-ROM). Complete documentation of the Food Coding Data Base, nutrient Data Base, and other supporting files used in processing the CSFII 1994 is available in a directory on the CD-ROM [CD-ROM drive]:\TSF1994. For more information see the README.TXT file in the root directory of the CD-ROM. Applies to all records. * 11000000 = Human milk 11100000 - 99999999 = Food code * Skip FOODAMT.
MODCODE	75-80	6	N	Recipe modification code. Indicates predefined survey recipe was modified to capture some specific information provided by the respondent. See Section 2.3, "Data Processing." Modified recipes are found in a directory on the CD-ROM [CD-ROM drive]:\TSF1994. For more information see the README.TXT file in the root directory of this CD-ROM. Applies to all records. 0 = No modification 100000 - 999999 = Modification code
FOODAMT	81-88	8	N2	Amount of food in grams. Note: there is a non-zero amount for all foods except human milk (FOODCODE = 11000000). Applies if: FOODCODE > 11000000

0.01 - 99999.99 = Amount in grams
Blank = Not applicable

FOODSRCE 100-101 2 N I7. Where was the food item obtained?

Applies to all records.

1 = Store
2 = Restaurant with table service
3 = Fast food place, pizza place
4 = Bar, tavern, lounge
5 = School cafeteria
6 = Other cafeteria
7 = Vending machine
8 = Child care center, family day care home, adult day care
9 = Soup kitchen, shelter, food pantry
10 = Meals on Wheels
11 = Other community food program
12 = Grown or caught by you or someone you know
13 = Someone else / gift
14 = Mail order purchase
15 = Common coffee pot or snack tray
16 = Residential dining facility
* 20 = Not applicable, breast-feeding
71 = Fish or seafood caught by you or someone you know and coming from: freshwater lake, pond, or river
72 = Fish or seafood caught by you or someone you know and coming from: ocean
73 = Fish or seafood caught by you or someone you know and coming from: bay, sound, or estuary
74 = Fish or seafood caught by you or someone you know and coming

from: don't know body of water
96 = Other
98 = Don't know
99 = Not ascertained

* Skip EATHOME - EVERHOME.

Appendix B

Examples of Procedures Used in the Estimation of Indirect Water Ingestion

This appendix is comprised of three subsections. Appendix B1 provides examples of estimating the proportion of indirect water in 100 grams of a food code. USDA–supplied examples for estimating the amount of preparation water in foods appear in Appendix B2. Finally, Appendix B3 presents USDA guidance and examples for calculation of p% and GUi.

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APPENDIX B1
Examples for Estimating the Proportion of Indirect Water in 100 Grams of a Food

Definitions:

Food code	=	An 8 digit number assigned to each unique food in the Food Coding Database.
Mod number	=	Identifies a specific recipe modification.
Food code description	=	Food descriptions provided to each unique food in the Food Coding Database.
M%	=	Moisture change during cooking.
F%	=	Fat change during cooking.
Ingredient code	=	A 5 digit number assigned to recipe ingredients.
Ingredient description	=	Ingredient description provided in the USDA Recipe Database files, RECING.TXT and MODING.TXT.
Grams	=	Amount (grams) of recipe ingredients based on recipes defined by USDA.
P%	=	Ingredient amount as a percent of the prepared product. Calculated using method provided in Appendix B3, "USDA Guidance and Examples for the Calculation of P% and GUi."
G_am	=	Grams absorbed moisture per 100 grams cooked ingredient. Applies to pre–cooked pasta, rice, and cereals. Calculated using the "total solids" method provided by USDA in Appendix B2 "Examples for Estimating Preparation Water."
P_m	=	Proportion of moisture in 100 grams of food as ingested. Obtained from the USDA WTR_FC file when available. Otherwise calculated by EPA contractor, SAIC, using the formula: P_m = (P%)(G_am/100)
A_h	=	Assumed percent of ingredient that is home/restaurant prepared.
G_i	=	Proportion of indirect preparation water per 100 grams of food. Calculated by EPA contractor, SAIC, using the formula: G_i = (P_m)(A_h/100)

Examples in which the P_m calculated by USDA.

1. Food code with recipe water ingredient.

Food code: 92530910, modification code: 100424, Lemonade with vitamin C added made from frozen concentrate w/ 4 cans of water.
M% = 0.0 F% = 0.0

Ingredient code	Ingredient name	Grams	P%	G_am	P_m	A_h	G_i
14292	Lemonade, frz, conc, white	438					
14429 *	Water, municipal	1,422			0.7645	100%	0.7645
	Total	1,860					0.7645

* Ingredient contains preparation water.

2. Food code with pre–cooked pasta ingredient

Food code: 56101010. Mod code: 0. Macaroni, cooked, fat not added in cooking.

Ingredient code	Ingredient name	Grams	P%	G_am	P_m	A_h	G_i
20100 *	Macaroni, ckd, enr	100.00			0.6161	100%	0.6161
02047	Salt, table	0.60					
	Total						0.6161

* Contains preparation water.

Examples in which P_m calculated by EPA contractor, SAIC:

3. Food code with pre–cooked rice ingredient.

Food code: 58156410. Modcode: 0. Rice with onions, Puerto Rican Style. M%=31.2 F5=0.0

Ingredient code	Ingredient name	Grams	P%	G_am	P_m	A_h	G_i
04610	Margarine	56.70	0.1014				
11282	Onions, raw	70.00	0.0848				
11264	Mushrooms, cnd, drained	98.63	0.1184				
20045 *	Rice, white, long, reg, ckd, enr	237.00	0.3265	64.2906	.2099	100%	.2099
06045	Soup, onion, cond, comm	298.00	0.3688				
	Total		1.0000				.2099

* Contains preparation water.

4. Food code with pre–cooked legume ingredient.

Food code: 41106010. Modcode: 0. Red kidney beans, dry, cooked, fat added in cooking. M%=0.0 F%=0.0

Ingredient code	Ingredient name	Grams	P%	G_am	P_m	A_h	G_i
16033 *	Beans, kidney, red, mature, bld	92.00	0.9154	62.5382	0.5725	50%	.2862
10165	Pork, cured, salt, raw	8.00	0.0796				
02047	Salt, table	0.50	0.0050				
	Total		1.0000				.2862

* Contains preparation water.

5. Food code with two recipe ingredients that contain preparation water.

Food code: 58160110. Modcode: 0. Rice with beans. M%=0.0 F%=0.0.

Ingredient code	Ingredient name	Grams	P%	G_am	P_m	A_h	G_i
20045 *	Rice, white, long, reg, ckd, enr	158.00	0.4497	64.2906	0.2835	100%	.2835
16050 *	Beans, white, mature, bld	179.00	0.4996	58.3672	0.2916	100%	.2916
02047	Salt, table	2.40	0.0067				
04610	Margarine, reg, stick, comp	18.92	0.0528				
	Total		1.0000				.5751

* Contains preparation water.

6. Food code with brewed tea ingredient.

Food code: 92302200. Modcode: 0. Tea, leaf, pre–sweetened with sugar. M%=0.0. F%=0.0.

Ingredient code	Ingredient name	Grams	P%	G_am	P_m	A_h	G_i
14355 *	Tea, brewed	236.80	0.9499	.	0.9499	100%	0.9499
19335	Sugars, granulated	12.50	0.0501				
	Total		1.0000				0.9499

* Contains preparation water.

APPENDIX B2
EXAMPLES FOR ESTIMATING PREPARATION WATER

Examples illustrating how preparation water can be estimated per 100 grams of cooked pasta, rice, legumes (dried beans and peas), and cereal grains such as bulgur, oatmeal, farina.

<u>Estimates based on the total solids approach:</u>

Total solids = 100 – moisture
Source for moisture value:
    CSFII 1994–96 Survey Nutrient Database, Nutrient code 255
Basic algorithms:
    [TS/100g cooked x 100] / TS/100g dry = gm dry ingr/100g ckd
    100g cooked – gm dry ing/100g ckd = gm prep water/100g ckd

<u>Example 1</u>: Cooked rice, white, long-grain, regular

	PDS code	Moisture	Total Solids
cooked rice	20045	68.44	31.56
dry rice	20044	11.62	88.38

[31.56 x 100] / 88.38 = 35.709 gm dry ingred/100g cooked
    If 100 grams dry rice has 88.38 grams total solids, 35.709 grams dry rice would provide 31.56 grams total solids, the same as in 100 grams cooked rice.

100 – 35.709 = 64.291 gm prep water/100g cooked
    Since 100 grams cooked rice has 35.709 grams dry rice, the remainder is assumed to be water absorbed during preparation.

<u>Example 2:</u> Cooked (egg) noodles

	PDS code	Moisture	Total Solids
cooked noodle	20110	68.70	31.30
dry noodle	20109	9.67	90.33

[31.30 x 100]/90.33 = 34.651 gm dry ingred /100g cooked
    100 – 34.651 = 65.349 gm prep water /100g cooked

Notes:
Minor adjustments could be made to estimates of preparation water when rice, pasta, legumes, cooked cereal grains, etc. contain salt; however, the change is probably less than one percent.

The cooking yields for rice, pasta, dry beans, etc can be quite variable. For example, rice yields range between 243 to 375 (mean is 308).

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APPENDIX B3
USDA Guidance and Examples for the Calculation of P% and GUi

Example 1: No moisture or fat change

Follow the steps/calculations below to calculate the amount of each ingredient required to prepare 100 grams of the food (GUi), and the amount of each ingredient as a proportion of the prepared food within each individual recipe.

	Recipe Yield	Moist. Change	Fat Change	Fat Code
	(Ryld)	(M_chg)	(F_chg)	(F_Code)
11513100 Cocoa and sugar mixture, whole milk	100.00	0.0	0.0	0

Recipe Code	Ingredient Code	Ingredient description	Retn code	(1) Recipe ingred amount	(2) Ingred amount in 100 gms of recipe	(3) Amount of moist. in 100 gms ingred	(4) Amount of ingred moist. in 100 gms of recipe	(5) Ingred moist. as percent of recipe total	(6) Amount of moist. lost per ingred	(7) Ingred amount in 100 gms of recipe adjusted for loss	(8) Ingred amount as percent of prepared product	(9) Ingred amount needed to prepare 100 gms of product
				(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi–)	(Pgmi)	(P%)	(GUi)
11513100	1077	Milk, whl, 3.3% fat	0	244.000	91.7293	87.990	80.7126	0.99908	0.0000	91.7293	0.91729	91.729
11513100	14175	Choc flav bev mix	0	22.000	8.2707	0.900	0.0744	0.00092	0.0000	8.2707	0.08271	8.271
		Recipe totals:		266.00	100.000		80.7871	1.00000	0.0000	100.000	1.00000	

Steps/Calculations:
(1) Gmi = Values are from the 1994–96 CSFII Recipe Database
(2) Gmi_100 = (Gmi/sum(Gmi)) * 100
(3) Mi_100 = Values are obtained from the 1994–96 CSFII Nutrient Database
(4) Mi = Gmi_100 * (M_100/100)
(5) Mi% = Mi/sum(Mi)
(6) Mi– = Mi% * M_chg
(7) Pgmi = Gmi_100 + (Mi–)
(8) P% = Pgmi/sum(Pgmi)
(9) Gui = (Gmi_100/Ryld) * 100

Example 2: A moisture loss and no fat change

Follow the steps/calculations below to calculate the amount of each ingredient required to prepare 100 grams of the food (GUi), and the amount of each ingredient as a proportion of the prepared food within each individual recipe.

	Recipe Yield	Moist. Change	Fat Change	Fat Code
	(Ryld)	(M_chg)	(F_chg)	(F_Code)
11512500 Spanish–style hot chocolate drink	87.00	–13.0	0.0	0

Recipe Code	Ingredient Code	Ingredient description	Retn code	(1) Recipe ingred amount	(2) Ingred amount in 100 gms of recipe	(3) Amount of moist. in 100 gm ingred	(4) Amount of ingred moist. in 100 gms of recipe	(5) Ingred moist. as percent of recipe total	(6) Amount of moist. lost per ingred	(7) Ingred amount in 100 gms of recipe adjusted for loss	(8) Ingred amount as percent of prepared product	(9) Ingred amount needed to prepare 100 gms of product
				(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi–)	(Pgmi)	(P%)	(GUi)
11512500	1096	Milk, cnd, evap, whl	2151	756.000	47.8273	74.040	35.4113	0.44053	–5.7268	42.1005	0.48391	54.974
11512500	2010	Cinnamon, ground	0	0.287	0.0182	9.520	0.0017	0.00002	–0.0003	0.0179	0.00021	0.021
11512500	14429	Water, municipal	0	711.000	44.9804	99.900	44.9355	0.55901	–7.2671	37.7133	0.43349	51.702
11512500	19081	Candies, swt choc	0	113.400	7.1741	0.500	0.0359	0.00045	–0.0058	7.1683	0.08239	8.246
			Recipe totals:	1580.69	100.0000		80.3844	1.00000	–13.000	87.0000	1.00000	

Steps/Calculations:
(1) Gmi = Values are from the 1994–96 CSFII Recipe Database
(2) Gmi_100 = (Gmi/sum(Gmi)) * 100
(3) Mi_100 = Values are obtained from the 1994–96 CSFII Nutrient Database
(4) Mi = Gmi_100 * (M_100/100)
(5) Mi% = Mi/sum(Mi)
(6) Mi– = Mi% * M_chg
(7) Pgmi = Gmi_100 + (Mi–)
(8) P% = Pgmi/sum(Pgmi)
(9) Gui = (Gmi_100/Ryld) * 100

Example 3: A moisture loss and a fat gain

Follow the steps/calculations below to calculate the amount of each ingredient required to prepare 100 grams of the food (GUi), and the amount of each ingredient as a proportion of the prepared food within each individual recipe.

	Recipe Yield	Moist. Change	Fat Change	Fat Code
	(Ryld)	(M_chg)	(F_chg)	(F_Code)
56201520 Cornmeal mush, fried	36.00	–65.1	1.1	4615

Recipe Code	Ingredient Code	Ingredient description	Retn code	(1) Recipe ingred amount	(2) Ingred amount in 100 gms of recipe	(3) Amount of moist. in 100 gms ingred	(4) Amount of ingred moist. in 100 gms of recipe	(5) Ingred moist. as percent of recipe total	(6) Amount of moist. lost per ingred	(7) Ingred amount in 100 gms of recipe adjusted for loss	(8) Ingred amount as percent of prepared product	(9) Ingred amount needed to prepare 100 gms of product
				(Gmi)	(Gmi_100)	(M_100)	(Mi)	(Mi%)	(Mi–)	(Pgmi)	(P%)	(GUi)
56201520	2047	Salt, table	0	3.000	0.2755	0.200	0.0006	0.00001	–0.0004	0.2751	0.00764	0.765
56201520	4615	fat_added	0	—	1.1000	0.000	0.0000	0.00000	0.0000	1.1000	0.03056	3.056
56201520	14429	Water, municipal	0	948.000	87.0523	99.900	86.9653	0.98339	–64.0184	23.0339	0.63983	241.812
56201520	20022	Cornmeal, degermed, enr, yel	305	138.000	12.6722	11.590	1.4687	0.01661	–1.0812	11.5910	0.32197	35.200
			Recipe totals:	1089.00	101.1000		88.4345	1.00000	–65.1000	36.0000	1.00000	

Steps/Calculations:
(1) Gmi = Values are from the 1994–96 CSFII Recipe Database
(2) Gmi_100 = (Gmi/sum(Gmi)) * 100
(3) Mi_100 = Values are obtained from the 1994–96 CSFII Nutrient Database
(4) Mi = Gmi_100 * (M_100/100)
(5) Mi% = Mi/sum(Mi)
(6) Mi– = Mi% * M_chg
(7) Pgmi = Gmi_100 + (Mi–)
(8) P% = Pgmi/sum(Pgmi)
(9) Gui = (Gmi_100/Ryld) * 100

Example 4: No moisture or fat change but an ingredient with a moisture loss

This situation requires calculating P% and GUi amounts for ingredients of ingredients in a foodcode recipe using a two stage process:

Stage I. Calculate the amount of each ingredient required to prepare 100 grams of the food (GUi) and the amount of each ingredient as a proportion of the prepared food within each individual recipe. [Comparable to examples 1+2]

Stage II. Where an ingredient has a recipe (e.g., the ingredient 53114200 in the recipe 53114150), merge it's ingredient information with the foodcode recipe ingredient information and calculate compound ingredient P% and Gui amounts.

Stage I.

		Recipe Yield (Ryld)	Moist. Change (M_chg)	Fat Change (F_chg)	Fat Code (F_Code)
Foodcode Recipe:	53114150 Cake, lemon, lowfat, NS as to icing	100.0	0.0	0.0	0
Ingredient Recipe:	53114200 Cake, lemon, lowfat, without icing	80.00	–20.0	0.0	0
Ingredient Recipe:	91305020 Icing, white	100.00	0.0	0.0	0

Recipe Code	Ingredient Code	Ingredient description	Retn code	(1) Recipe ingred amount (Gmi)	(2) Ingred amount in 100 gms of recipe (Gmi_100)	(3) Amount of moist. in 100 gms ingred (M_100)	(4) Amount of ingred moist. in 100 gms of recipe (Mi)	(5) Ingred moist. as percent of recipe total (Mi%)	(6) Amount of moist. lost per ingred (Mi–)	(7) Ingred amount in 100 gms of recipe adjusted for loss (Pgmi)	(8) Ingred amount as percent of prepared product (P%)	(9) Ingred amount needed to prepare 100 gms of product (GUi)
53114150	53114200	Cake, lemon, lowfat, w/o icing	0	786.000	62.9808	29.617	18.6530	0.85379	0.0000	62.9808	0.62981	62.981
53114150	91305020	Icing, white	0	462.000	37.0192	8.629	3.1944	0.14621	0.0000	37.0192	0.37019	37.019
			Recipe Totals:	1248.00	100.0000		21.8474	1.00000	0.0000	100.0000	1.00000	
53114200	1123	Eggs, chick, whl, raw/frz	101	100.000	10.8217	75.330	8.1520	0.18657	–3.7314	7.0903	0.08863	13.527
53114200	14429	Water, municipal	0	308.100	33.3416	99.900	33.3083	0.76231	–15.2463	18.0954	0.22619	41.677
53114200	18142	Cake, yel, dry mix, pudd–type	301	515.970	55.8367	4.000	2.2335	0.05112	–1.0223	54.8144	0.68518	69.796
			Recipe Totals:	924.07	100.0000		43.6937	1.00000	–20.0000	80.0000	1.00000	
91305020	2047	Salt, table	0	1.500	0.2619	0.200	0.0005	0.00006	0.0000	0.2619	0.00262	0.262
91305020	2050	Vanilla extract	0	4.333	0.7566	52.580	0.3978	0.04610	0.0000	0.7566	0.00757	0.757
91305020	4610	Margarine, reg, stick, comp, 80% fat	0	75.125	13.1181	15.700	2.0595	0.23869	0.0000	13.1181	0.13118	13.118
91305020	19336	Sugars, pdr	0	453.600	79.2061	0.300	0.2376	0.02754	0.0000	79.2061	0.79206	79.206
91305020	11100000	Milk, nfs	0	38.125	6.6573	89.121	5.9330	0.68761	0.0000	6.6573	0.06657	6.657
91305020			Recipe Totals:	572.68	100.0000		8.6285	1.00000	0.0000	100.0000	1.00000	

Steps/Calculations:

(1) Gmi = Values are from the 1994–96 CSFII Recipe Database
(2) Gmi_100 = (Gmi/sum(Gmi)) * 100
(3) Mi_100 = Values are obtained from the 1994–96 CSFII Nutrient Database
(4) Mi = Gmi_100 * (M_100 / 100)
(5) Mi% = Mi/sum(Mi)

(6) Mi– = Mi% * M_chg
(7) Pgmi = Gmi_100 + (Mi–)
(8) P% = Pgmi/sum(Pgmi)
(9) Gui = (Gmi_100/Ryld) * 100

Stage II.

Foodcode recipe information						Ingredient recipe information in 100 grams of ingredient					(1)	(2)
Recipe code	**Rec yld**	**Ingred. Code**	**Ingred Gmi_100**	**Ingred. P%**	**Ingred. GUi**	**Rec yld**	**Ingred. Code**	**Ingred Gmi_100**	**Ingred. P%**	**Ingred. GUi**	**Compound P%**	**Compound GUi**
	(Ryld)		**(Gmi_100)**	**(P%)**	**(GUi)**	**(I_Ryld)**		**(I_Gmi_100)**	**(I_P%)**	**(I_GUi)**	**(C_P%)**	**(C_GUi)**
53114150	100.0	53114200	62.9808	0.62981	62.981	80.0	1123	10.8217	0.08863	13.527	0.05582	8.519
							14429	33.3416	0.22619	41.677	0.14246	26.249
							18142	55.8367	0.68518	69.796	0.43153	43.958
										Ingredient recipe subtotals:	0.62981	78.726
		91305020	37.0192	0.37019	37.019	100.0	2047	0.2619	0.00262	0.262	0.00097	0.097
							2050	0.7566	0.00757	0.757	0.00280	0.280
							4610	13.1181	0.13118	13.118	0.04856	4.856
							19336	79.2061	0.79206	79.206	0.29321	29.322
							11100000	6.6573	0.06657	6.657	0.02465	2.464
										Ingredient recipe subtotals:	0.37019	37.019
										Foodcode recipe totals:	1.00000	115.745

Steps/Calculations: (1) C_P% = P% * I_P%
(2) C_GUi = ((Gmi_100/Ryld) * (I_Gmi_100/I_Rydl) * 100

Example 5: A moisture loss and an ingredient with a moisture loss

This situation requires calculating nested ingredient amounts in a two stage process:

Stage I. Calculate the amount of each ingredient required to prepare 100 grams of the food (GUi) and the amount of each ingredient as a proportion of the prepared food within each individual recipe. [Comparable to example 2]

Stage II. Where an ingredient has a recipe (e.g., the ingredient 53116000 in the recipe 13210160), merge it's ingredient information with the foodcode recipe ingredient information and calculate compound ingredient P% and GUi amounts.

<u>Stage I.</u>

		Recipe Yield	Moist. Change	Fat Change	Fat Code
		(Ryld)	(M_chg)	(F_chg)	(F_Code)
Foodcode Recipe:	13210160 Diplomat pudding, Puerto Rican sty	65.40	–34.6	0.0	0
Ingredient Recipe:	53116000 Cake, pound, without icing	88.00	–12.0	0.0	0

Recipe Code	Ingredient Code	Ingredient description	Retn code	(1) Recipe ingred amount (Gmi)	(2) Ingred amount in 100 gms of recipe (Gmi_100)	(3) Amount of moist. in 100 gms ingred (M_100)	(4) Amount of ingred moist. in 100 gms of recipe (Mi)	(5) Ingred moist. as percent of recipe total (Mi%)	(6) Amount of moist. lost per ingred (Mi–)	(7) Ingred amount in 100 gms of recipe adjusted for loss (Pgmi)	(8) Ingred amount as percent of prepared product (P%)	(9) Ingred amount needed to prepare 100 gms of product (GUi)
13210160	1077	Milk, whl, 3.3% fat	2152	488.000	30.8307	87.990	27.1279	0.45434	–15.7201	15.1107	0.23105	47.142
13210160	1123	Eggs, chick, whl, raw/frz	101	300.000	18.9533	75.330	14.2775	0.23912	–8.2735	10.6798	0.16330	28.981
13210160	2010	Cinnamon, ground	0	1.150	0.0727	9.520	0.0069	0.00012	–0.0040	0.0686	0.00105	0.111
13210160	2047	Salt, table	0	0.750	0.0474	0.200	0.0001	0.00000	–0.0001	0.0473	0.00072	0.072
13210160	9100	Fruit cocktail, cnd, hvy syrup	151	248.000	15.6681	80.400	12.5971	0.21098	–7.2998	8.3683	0.12796	23.957
13210160	9156	Lemon peel, raw	0	6.000	0.3791	81.600	0.3093	0.00518	–0.1792	0.1998	0.00306	0.580
13210160	14429	Water, municipal	0	4.937	0.3119	99.900	0.3116	0.00522	–0.1806	0.1313	0.00201	0.477
13210160	19335	Sugars, granulated	0	200.000	12.6355	0.000	0.0000	0.00000	0.0000	12.6355	0.19320	19.320
13210160	42222	Sweet liqueur, bkd 46–60 min	0	34.000	2.1480	46.200	0.9924	0.01662	–0.5751	1.5730	0.02405	3.284
13210160	53116000	Cake, pound, w/o icing	301	300.000	18.9533	21.558	4.0860	0.06843	–2.3677	16.5856	0.25360	28.981
			Recipe totals:	1582.84	100.000		59.7089	1.00000	–34..6000	65.4000	1.00000	
53116000	1123	Eggs, chick, whl, raw/frz	101	150.000	25.2838	75.330	19.0463	0.61497	–7.3796	17.9041	0.20346	28.732
53116000	2047	Salt, table	0	1.002	0.1689	0.200	0.0003	0.00001	–0.0001	0.1688	0.00192	0.192
53116000	4610	Margarine, reg, stick, comp, 80% fat	0	84.600	14.2600	15.700	2.2388	0.07229	–0.8675	13.3926	0.15219	16.205
53116000	14429	Water, municipal	0	0.617	0.1040	99.900	0.1039	0.00335	–0.0403	0.0637	0.00072	0.118
53116000	18369	Baking pdr, double–acting, NaAlSO4	0	2.875	0.4846	5.000	0.0242	0.00078	–0.0094	0.4752	0.00540	0.551
53116000	19335	Sugars, granulated	0	150.000	25.2838	0.000	0.0000	0.00000	0.0000	25.2838	0.28732	28.732
53116000	20084	Wheat flr, white, cake, enr	301	163.500	27.5593	12.510	3.4477	0.11132	–1.3358	26.2235	0.29799	31.317
53116000	11100000	Milk, nfs	2152	40.672	6.8556	89.121	6.1098	0.19727	–2.3673	4.4883	0.05100	7.790
			Recipe totals:	593.27	100.0000		30.9710	1.00000	–12.0000	88.0000	1.00000	

Steps/Calculations:

(1) Gmi = Values are from the 1994–96 CSFII Recipe Database

(2) Gmi_100 = (Gmi/sum(Gmi)) * 100

(3) Mi_100 = Values are obtained from the 1994–96 CSFII Nutrient Database

(4) Mi = Gmi_100 * (M_100/100)

(5) Mi% = Mi/sum(Mi)

(6) Mi– = Mi% * M_chg
(7) Pgmi = Gmi_100 + (Mi–)
(8) P% = Pgmi/sum(Pgmi)
(9) Gui = (Gmi_100/Ryld) * 100

Stage II.

Foodcode recipe information						Ingredient recipe information in 100 grams of ingredient					(1)	(2)
Recipe code	**Rec yld**	**Ingred. Code**	**Ingred Gm1_100**	**Ingred. P%**	**Ingred. GUi**	**Rec yld**	**Ingred. Code**	**Ingred Gm1_100**	**Ingred. P%**	**Ingred. GUi**	**Compound P%**	**Compound GUi**
	(Ryld)		**(Gmi_100)**	**(P%)**	**(GUi)**	**(I_Ryld)**		**(I_Gmi_100)**	**(I_P%)**	**(I_GUi)**	**(C_P%)**	**(C_GUi)**
13210160	65.4	1077	30.8307	0.23105	47.142						0.23105	47.142
		1123	18.9533	0.16330	28.981						0.16330	28.981
		2010	0.0727	0.00105	0.111						0.00105	0.111
		2047	0.0474	0.00072	0.072						0.00072	0.072
		9100	15.6681	0.12796	23.957						0.12796	23.957
		9156	0.3791	0.00306	0.580						0.00306	0.580
		14429	0.3119	0.00201	0.477						0.00201	0.477
		19335	12.6355	0.19320	19.320						0.19320	19.320
		42222	2.1480	0.02405	3.284						0.02405	3.284
										Subtotals:	0.74640	123.924
		53116000	18.9533	0.25360	28.981	88.0	1123	25.2838	0.20346	28.732	0.05160	8.327
							2047	0.1689	0.00192	0.192	0.00049	0.056
							4610	14.2600	0.15219	16.205	0.03860	4.696
							14429	0.1040	0.00072	0.118	0.00018	0.034
							18369	0.4846	0.00540	0.551	0.00137	0.160
							19335	25.2838	0.28732	28.732	0.07286	8.327
							20084	27.5593	0.29799	31.317	0.07557	9.076
							11100000	6.8556	0.05100	7.790	0.01293	2.258
										Ingredient recipe subtotals:	0.25360	32.934
										Foodcode recipe totals:	1.00000	156.858

Steps/Calculations: (1) C_P% = P% * I_P%
(2) C_GUi = ((Gmi_100/Ryld) * (I_Gmi_100/I_Rydl) _ * 100

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Appendix C
1994–96 CSFII Food Codes

Appendix C1 lists percent allocations of food codes to indirect (implying that water was added during final preparation at home or by food service establishments such as school cafeterias and restaurants) and commercial water. Note that three–digit food codes for groups of foods which are assumed to be commercial (e.g. 281, "frozen or shelf stable meals") are not included in this list. Also note that 8–digit food codes for commercial ready–to–serve products which are included under a 3–digit food code groups were assumed to have no indirect water (e.g., food code 26100250 "Fish stick, patty, or fillet, NS as to type, battered, fried," was assumed to be 100% commercial.)

All three–digit food codes from the CSFII appear in Appendix C2. Finally, the proportion of indirect water per 100 grams of a food code is listed in Appendix C3.

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APPENDIX C1
Assumptions for the Assignment of Water Type for 3–digit Food Code Series in the USDA 1994–96 CSFII Recipe Database

Note: Food codes that appear to be commercial are removed from this listing.

		Indirect %	Commercial %
111	Milk, fluid (regular, filled, buttermilk, and dry reconstituted)	100	0
112	Milk, fluid, evaporated and condensed	100	0
115	Flavored milk and milk drinks, fluid	100	0
116	Milk-based meal replacements, fluid	100	0
117	Infant formulas, fluid, reconstituted concentrate, reconstituted dry, and ready-to-feed	100	0
132	Puddings, custards, and other milk desserts	100	0
147	Cheese soups	90	10
232	Veal	100	0
241	Chicken	100	0
243	Duck	100	0
261	Finfish	100	0
263	Shellfish	100	0
271	Meat, poultry, fish in gravy or sauce or creamed	100	0
272	Meat, poultry, fish with starch item (include white potatoes)	100	0
273	Meat, poultry, fish with starch item and vegetables	100	0
274	Meat, poultry, fish with vegetables (excluding white potatoes)	90	10
283	Soups, broths, extracts from meat, poultry, fish base	90	10
284	Gelatin and gelatin-based meal supplements	100	0
285	Gravies from meat, poultry, fish base	90	10
321	Egg dishes	100	0
331	Egg substitute, from powdered mixture	100	0
332	Egg substitute, from frozen mixture	100	0
333	Egg substitute, from liquid mixture	100	0
411	Dried beans	50	50
412	Dried beans mixtures	50	50
413	Dried peas, lentils, and mixtures	50	50
416	Soups with legumes as major ingredient	90	10
418	Meat substitutes, mainly vegetable protein	50	50
522	Cornbread, corn muffins, tortillas	50	50
523	Other muffins, popovers	50	50
524	Other quick breads	50	50
531	Cakes	90	10
532	Cookies	90	10
533	Pies	90	10
534	Cobblers, eclairs, turnovers, other pastries	90	10
535	Danish, breakfast pastries, doughnuts, granola bars	90	10
536	Coffee cake, not yeast	90	10
551	Pancakes	100	0
553	French toast	100	0
555	Flour-water patties	100	0
557	Rice flour cakes	100	0
561	Pastas	100	0
562	Cooked cereals, rice	100	0
581	Grain mixtures	100	0
584	Soups with grain product as major ingredient	90	10
612	Citrus fruit juices	100	0
634	Mixtures of fruits and nonfruit items	100	0
641	Fruit juices, excluding citrus	100	0

715	White potatoes, mashed, stuffed, puffs	100	0
717	Potato recipes	100	0
718	Potato soups	90	10
719	Puerto Rican starchy vegetables	100	0
722	Dark-green nonleafy vegetables	100	0
723	Dark-green vegetable soups	90	10
732	Pumpkin	100	0
735	Deep-yellow vegetable soups	90	10
744	Tomato sauces	100	0
745	Tomato mixtures	100	0
746	Tomato soups	90	10
753	Other vegetables mixtures, cooked	100	0
754	Other cooked vegetables, cooked with sauces, batters, casseroles	90	10
756	Vegetable soups	100	0
771	White potato with meat, poultry, fish (mixtures)	100	0
772	Puerto Rican starchy vegetable (viandas) mixtures	100	0
773	Other vegetable mixtures	100	0
775	Puerto Rican stews or soups with starchy vegetables (viandas)	100	0
813	Other fats	100	0
913	Syrups, honey, molasses, sweet toppings	100	0
915	Gelatin desserts or salads	100	0
921	Coffee	100	0
922	Coffee substitutes	100	0
923	Tea	100	0
926	Beverages, nonfruit	100	0
927	Beverages, noncarbonated, without vitamin C, made from powdered mixes	100	0
933	Cocktails	100	0

APPENDIX C2:
Listing of All 3-digit Food Codes in the USDA 1994-96 CSFII Recipe Database

11 MILKS AND MILK DRINKS

- 110 Milk, human
- 111 Milk, fluid (regular, filled, buttermilk, and dry reconstituted)
- 112 Milk, fluid, evaporated and condensed
- 113 Milk, fluid, imitation
- 114 Yogurt
- 115 Flavored milk and milk drinks, fluid
- 116 Milk-based meal replacements, fluid
- 117 Infant formulas, fluid, reconstituted concentrate, reconstituted dry, and ready-to-feed
- 118 Milk, dry, and powdered mixtures with dry milk, not reconstituted
- 119 Infant formulas, dry, not reconstituted

12 CREAMS AND CREAM SUBSTITUTES

- 121 Sweet dairy cream
- 122 Cream substitutes
- 123 Sour cream

13 MILK DESSERTS, SAUCES, GRAVIES

- 131 Milk desserts, frozen
- 132 Puddings, custards, and other milk desserts
- 133 Milk desserts baby food
- 134 White sauces and milk gravies

14 CHEESES

- 140 Cheese, NS as to type
- 141 Natural cheeses
- 142 Cottage cheeses
- 143 Cream cheeses
- 144 Processed cheeses and cheese spreads
- 145 Imitation cheeses
- 146 Cheese mixtures
- 147 Cheese soups

20 MEAT, NS AS TO TYPE

- 200 Meat, NS as to type

21 BEEF

- 210 Beef, NFS
- 211 Beef steak
- 213 Beef oxtails, neckbones, short ribs
- 214 Beef roasts, stew meat, corned beef, beef brisket, sandwich steaks
- 215 Ground beef, beef patties, beef meatballs
- 216 Other beef items (beef bacon, dried beef, pastrami)
- 217 Beef baby food

22 PORK

- 220 Pork, NFS; ground, dehydrated
- 221 Pork chops
- 222 Pork steaks, cutlets
- 223 Ham
- 224 Pork roasts
- 225 Canadian bacon
- 226 Bacon, salt pork
- 227 Other pork items (spareribs, cracklings, skin, miscellaneous parts)
- 228 Pork baby food

23 LAMB, VEAL, GAME, OTHER CARCASS MEAT

- 230 Lamb, NFS
- 231 Lamb and goat
- 232 Veal
- 233 Game
- 234 Lamb or veal baby food

24 POULTRY

- 241 Chicken
- 242 Turkey
- 243 Duck
- 244 Other poultry
- 247 Poultry baby food

25 ORGAN MEATS, SAUSAGES AND LUNCHMEATS, AND MEAT SPREADS

- 251 Organ meats and mixtures
- 252 Frankfurters, sausages, lunchmeats, meat spreads

26 FISH AND SHELLFISH

- 261 Finfish
- 262 Other seafood
- 263 Shellfish

27 MEAT, POULTRY, FISH WITH NONMEAT ITEMS

- 271 Meat, poultry, fish in gravy or sauce or creamed
- 272 Meat, poultry, fish with starch item (include white potatoes)
- 273 Meat, poultry, fish with starch item and vegetables
- 274 Meat, poultry, fish with vegetables (excluding white potatoes)
- 275 Sandwiches with meat, poultry, fish
- 276 Meat, poultry, fish with nonmeat items baby food

28 FROZEN PLATE MEALS, SOUPS, AND GRAVIES WITH MEAT, POULTRY, FISH BASE; GELATIN AND GELATIN-BASED DRINKS

- 281 Frozen plate meals with meat, poultry, fish as major ingredient
- 283 Soups, broths, extracts from meat, poultry, fish base

284 Gelatin and gelatin-based meal supplements
285 Gravies from meat, poultry, fish base

31 EGGS

311 Chicken eggs
312 Other poultry eggs

32 EGG MIXTURES

321 Egg dishes
322 Egg sandwiches
323 Egg soups
324 Meringues

33 EGG SUBSTITUTES

330 Egg substitute, NS as to form
331 Egg substitute, from powdered mixture
332 Egg substitute, from frozen mixture
333 Egg substitute, from liquid mixture

34 EGGS BABY FOOD

341 Eggs baby food

35 FROZEN PLATE MEALS WITH EGG AS MAJOR INGREDIENT

350 Frozen plate meals with egg as major ingredient

41 LEGUMES

411 Dried beans
412 Dried beans mixtures
413 Dried peas, lentils, and mixtures
414 Soybean derived products (excluding milks)
415 Frozen plate meals with legumes as major ingredient
416 Soups with legumes as major ingredient
417 Legumes baby food
418 Meat substitutes, mainly vegetable protein
419 Meat substitute sandwiches

42 NUTS, NUT BUTTERS, AND NUT MIXTURES

421 Nuts
422 Nut butters
423 Nut butter sandwiches
424 Coconut beverages
425 Nut mixtures

43 SEEDS AND SEED MIXTURES

431 Seeds

44 CAROB PRODUCTS

441 Carob powder, flour
442 Carob chips, syrup

50 FLOUR AND DRY MIXES

500 Flour and dry mixes

51 YEAST BREADS, ROLLS

510 Breads, rolls, NFS
511 White breads, rolls
512 Whole wheat breads, rolls
513 Wheat, cracked wheat breads, rolls
514 Rye breads, rolls
515 Oat breads
516 Multigrain breads, rolls
517 Cottonseed breads
518 Other breads

52 QUICK BREADS

521 Biscuits
522 Cornbread, corn muffins, tortillas
523 Other muffins, popovers
524 Other quick breads

53 CAKES, COOKIES, PIES, PASTRIES

531 Cakes
532 Cookies
533 Pies
534 Cobblers, eclairs, turnovers, other pastries
535 Danish, breakfast pastries, doughnuts, granola bars
536 Coffee cake, not yeast

54 CRACKERS AND SALTY SNACKS FROM GRAIN PRODUCTS

541 Sweet crackers
542 Low sodium crackers
543 Nonsweet crackers
544 Salty snacks from grain products

55 PANCAKES, WAFFLES, FRENCH TOAST, OTHER GRAIN PRODUCTS

551 Pancakes
552 Waffles
553 French toast
554 Crepes
555 Flour-water patties
556 Flour-milk patties
557 Rice flour cakes
558 Funnel cakes

56 PASTAS, COOKED CEREALS, RICE

561 Pastas
562 Cooked cereals, rice

57 CEREALS, NOT COOKED OR NS AS TO COOKED

570 Cereal, not specified as to cooked
571-574 Ready-to-eat cereals
576 Cereal grains, not cooked
578 Cereals baby food

58 GRAIN MIXTURES, FROZEN PLATE MEALS, SOUPS

581 Grain mixtures
583 Frozen plate meals with grain mixture as major ingredient
584 Soups with grain product as major ingredient
585 Grain mixtures baby food

61 CITRUS FRUITS, JUICES

611 Citrus fruits
612 Citrus fruit juices

62 DRIED FRUITS

621 Dried fruits

63 OTHER FRUITS

631 Fruits, excluding berries
632 Berries
633 Mixtures of two or more fruits
634 Mixtures of fruits and nonfruit items

64 FRUIT JUICES AND NECTARS EXCLUDING CITRUS

641 Fruit juices, excluding citrus
642 Nectars
644 Vinegar

67 FRUITS AND JUICES BABY FOOD

671 Fruits and fruit mixtures baby food
672 Fruit juice baby food
673 Fruits with cereal baby food
674 Fruit desserts and fruit-flavored puddings and yogurt baby food

71 WHITE POTATOES AND PUERTO RICAN STARCHY VEGETABLES

710 White potatoes, NFS
711 White potatoes, baked and boiled
712 White potatoes, chips and sticks
713 White potatoes, creamed, scalloped, au gratin
714 White potatoes, fried
715 White potatoes, mashed, stuffed, puffs
716 Potato salad
717 Potato recipes
718 Potato soups
719 Puerto Rican starchy vegetables

72 DARK-GREEN VEGETABLES

721 Dark-green leafy vegetables

722 Dark-green nonleafy vegetables
723 Dark-green vegetable soups

73 DEEP-YELLOW VEGETABLES

731 Carrots
732 Pumpkin
733 Squash, winter
734 Sweetpotatoes
735 Deep-yellow vegetable soups

74 TOMATOES AND TOMATO MIXTURES

741 Tomatoes, raw
742 Tomatoes, cooked
743 Tomato juices
744 Tomato sauces
745 Tomato mixtures
746 Tomato soups
747 Tomato sandwiches

75 OTHER VEGETABLES

751 Other vegetables, raw
752 Other vegetables, cooked
753 Other vegetables mixtures, cooked
754 Other cooked vegetables, cooked with sauces, batters, casseroles
755 Olives, pickles, relishes (excluding tomatoes)
756 Vegetable soups
761 Dark-green vegetables baby food
762 Deep-yellow vegetables baby food
764 Vegetables other than dark-green, deep-yellow, and tomato baby food
766 Vegetables with meat baby food
767 Vegetables with liver baby food

77 VEGETABLES WITH MEAT, POULTRY, FISH

771 White potato with meat, poultry, fish (mixtures)
772 Puerto Rican starchy vegetable (viandas) mixtures
773 Other vegetable mixtures
775 Puerto Rican stews or soups with starchy vegetables (viandas)

81 FATS

811 Table fats
812 Cooking fats
813 Other fats

82 OILS

821 Vegetable oils

83 SALAD DRESSINGS

831 Regular salad dressings

832 Low-calorie salad dressings

91 SUGARS AND SWEETS

911 Sugars
912 Sugar replacements or substitute
913 Syrups, honey, molasses, sweet toppings
914 Jellies, jams, preserves
915 Gelatin desserts or salads
916 Ices or popsicles
917 Candies
918 Chewing gums

92 NONALCOHOLIC BEVERAGES

921 Coffee
922 Coffee substitutes
923 Tea
924 Soft drinks
925 Fruitades and drinks
926 Beverages, nonfruit
927 Beverages, noncarbonated, without vitamin C, made from powdered mixes
928 Nonalcoholic beers, wines, cocktails
929 Beverage concentrates, dry, not reconstituted

93 ALCOHOLIC BEVERAGES

931 Beers and ales
932 Cordials and liqueurs
933 Cocktails
934 Wines
935 Distilled liquors

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APPENDIX C3
Proportion of Indirect Water per 100 grams of USDA 1994–96 CSFII Foods

Food code	Modcode	Start date	End date	G_i
11114200	0	01/01/94	12/31/96	0.8920
11120000	0	01/01/94	12/31/96	0.9071
11121100	0	01/01/94	12/31/96	0.8702
11121210	0	01/01/94	12/31/96	0.9061
11121300	0	01/01/94	12/31/96	0.9071
11122000	0	01/01/94	12/31/96	0.9021
11210000	0	01/01/94	12/31/96	0.4847
11210200	0	01/01/94	12/31/96	0.4847
11211000	0	01/01/94	12/31/96	0.4847
11211200	0	01/01/94	12/31/96	0.4847
11211600	0	01/01/94	12/31/96	0.4763
11212000	0	01/01/94	12/31/96	0.4807
11212200	0	01/01/94	12/31/96	0.4807
11213000	0	01/01/94	12/31/96	0.8625
11213050	0	01/01/94	12/31/96	0.7330
11213200	0	01/01/94	12/31/96	0.8625
11220200	0	01/01/94	12/31/96	0.4365
11512500	0	01/01/94	12/31/96	0.4335
11514100	0	01/01/94	12/31/96	0.8623
11514300	0	01/01/94	12/31/96	0.9221
11514500	0	01/01/94	12/31/96	0.9386
11515400	0	01/01/94	12/31/96	0.9029
11518000	0	01/01/94	12/31/96	0.8969
11518050	0	01/01/94	12/31/96	0.8846
11518100	0	01/01/94	12/31/96	0.8965
11541000	0	01/01/94	12/31/96	0.0633
11541100	0	01/01/94	12/31/96	0.1307
11541400	0	01/01/94	12/31/96	0.0646
11541400	101023	01/01/94	12/31/96	0.0646
11542000	0	01/01/94	12/31/96	0.5100
11551100	0	01/01/94	12/31/96	0.3154
11552200	0	01/01/94	12/31/96	0.2732
11561010	0	01/01/94	12/31/96	0.4606
11651010	0	01/01/94	12/31/96	0.8826
11710102	0	01/01/94	12/31/96	0.4887
11710103	0	01/01/94	12/31/96	0.8771
11710112	0	01/01/94	12/31/96	0.4887
11710113	0	01/01/94	12/31/96	0.8745
11710122	0	01/01/94	12/31/96	0.4887
11710123	0	01/01/94	12/31/96	0.8745
11710202	0	01/01/94	12/31/96	0.4887
11710203	0	01/01/94	12/31/96	0.8720
11710402	0	01/01/94	12/31/96	0.4887
11710403	0	01/01/94	12/31/96	0.8720
11710502	0	01/01/94	12/31/96	0.4887
11710503	0	01/01/94	12/31/96	0.8758
11710552	0	01/01/94	12/31/96	0.4887
11710553	0	01/01/94	12/31/96	0.8758
11710602	0	01/01/94	12/31/96	0.4887
11710603	0	01/01/94	12/31/96	0.8771
11710603	101078	01/01/94	12/31/96	0.9345
11710712	0	01/01/94	12/31/96	0.4927
11710713	0	01/01/94	12/31/96	0.8771
11710713	100584	01/01/94	12/31/96	0.9081
11710902	0	01/01/94	12/31/96	0.4887
11710903	0	01/01/94	12/31/96	0.8720
11710903	101155	01/01/94	12/31/96	0.8882
11710952	0	01/01/94	12/31/96	0.4887
11710952	100302	01/01/94	12/31/96	0.7414
11710953	0	01/01/94	12/31/96	0.8631
11720052	0	01/01/94	12/31/96	0.4927
11720053	0	01/01/94	12/31/96	0.8732
11720202	0	01/01/94	12/31/96	0.4887
11720203	0	01/01/94	12/31/96	0.8720
11720302	0	01/01/94	12/31/96	0.4887
11720303	0	01/01/94	12/31/96	0.8732
11720402	0	01/01/94	12/31/96	0.4887
11720402	101098	01/01/94	12/31/96	0.6565
11720403	0	01/01/94	12/31/96	0.8720
11720403	100669	01/01/94	12/31/96	0.8949
11720452	0	01/01/94	12/31/96	0.4887
11720502	0	01/01/94	12/31/96	0.4887

11720503	0	01/01/94	12/31/96	0.8732
11720602	0	01/01/94	12/31/96	0.4887
11720603	0	01/01/94	12/31/96	0.8732
11740103	0	01/01/94	12/31/96	0.8606
11740302	0	01/01/94	12/31/96	0.4919
11740303	0	01/01/94	12/31/96	0.8606
11740403	0	01/01/94	12/31/96	0.8707
11740503	0	01/01/94	12/31/96	0.8732
11740603	0	01/01/94	12/31/96	0.8631
13210150	0	01/01/94	12/31/96	0.0023
13210160	0	01/01/94	12/31/96	0.0020
13210180	0	01/01/94	12/31/96	0.2519
13210190	0	01/01/94	12/31/96	0.2486
13210300	0	01/01/94	12/31/96	0.0019
13210300	200045	01/01/94	12/31/96	0.0019
13210300	201627	01/01/94	12/31/96	0.0019
13210300	201916	01/01/94	12/31/96	0.0019
13210300	202337	01/01/94	12/31/96	0.0018
13210300	202532	01/01/94	12/31/96	0.0019
13210350	0	01/01/94	12/31/96	0.5940
13210350	202228	01/01/94	12/31/96	0.0659
13210350	202769	01/01/94	12/31/96	0.0658
13210410	0	01/01/94	12/31/96	0.1399
13210410	100370	01/01/94	12/31/96	0.1387
13210410	100396	01/01/94	12/31/96	0.1512
13210410	100923	01/01/94	12/31/96	0.1350
13210410	200118	01/01/94	12/31/96	0.1399
13210410	200423	01/01/94	12/31/96	0.1413
13210410	201036	01/01/94	12/31/96	0.1394
13210410	202246	01/01/94	12/31/96	0.1403
13210410	202515	01/01/94	12/31/96	0.1364
13210410	202676	01/01/94	12/31/96	0.1403
13210410	202760	01/01/94	12/31/96	0.1387
13210410	203005	01/01/94	12/31/96	0.1387
13210500	0	01/01/94	12/31/96	0.0071
13210500	201871	01/01/94	12/31/96	0.0071
13210500	202999	01/01/94	12/31/96	0.0070
13210500	203651	01/01/94	12/31/96	0.0071
13210520	0	01/01/94	12/31/96	0.0083
13210520	100720	01/01/94	12/31/96	0.0083
13210520	200727	01/01/94	12/31/96	0.0083
13210520	201398	01/01/94	12/31/96	0.0083
13210520	201921	01/01/94	12/31/96	0.0083
13210810	0	01/01/94	12/31/96	0.0041
13250100	0	01/01/94	12/31/96	0.0781
13250200	0	01/01/94	12/31/96	0.0400
13252100	0	01/01/94	12/31/96	0.0424
13252200	0	01/01/94	12/31/96	0.1271
14610200	0	01/01/94	12/31/96	0.3874
14610210	0	01/01/94	12/31/96	0.2610
14610210	100313	01/01/94	12/31/96	0.2544
14610250	0	01/01/94	12/31/96	0.2484
14650160	0	01/01/95	12/31/96	0.8068
14710200	0	01/01/94	12/31/96	0.2200
22210310	0	01/01/94	12/31/96	0.0125
23220020	0	01/01/94	12/31/96	0.0503
23220030	0	01/01/94	12/31/96	0.0111
24158200	0	01/01/94	12/31/96	0.2033
24158210	0	01/01/94	12/31/96	0.2033
24158220	0	01/01/94	12/31/96	0.3377
24301210	0	01/01/94	12/31/96	0.0726
24302010	0	01/01/94	12/31/96	0.2064
25110170	0	01/01/94	12/31/96	0.0694
25110410	0	01/01/94	12/31/96	0.0725
25110410	201803	01/01/94	12/31/96	0.0725
25160130	0	01/01/94	12/31/96	0.3166
25221710	0	01/01/94	12/31/96	0.1800
26100150	0	01/01/94	12/31/96	0.1264
26107150	0	01/01/94	12/31/96	0.1474
26107150	201662	01/01/94	12/31/96	0.1474
26107150	202685	01/01/94	12/31/96	0.1474
26107150	203695	01/01/94	12/31/96	0.1474
26109150	0	01/01/94	12/31/96	0.1310
26109150	101070	01/01/94	12/31/96	0.1310
26109150	203652	01/01/94	12/31/96	0.1310
26109180	0	01/01/94	12/31/96	0.7150
26115150	0	01/01/94	12/31/96	0.1256
26115150	201594	01/01/94	12/31/96	0.1256
26117150	0	01/01/94	12/31/96	0.1304
26117150	201691	01/01/94	12/31/96	0.1304
26125150	0	01/01/94	12/31/96	0.1254

26127150	0	01/01/94	12/31/96	0.1300
26127150	100862	01/01/94	12/31/96	0.1300
26127150	202977	01/01/94	12/31/96	0.1300
26129150	0	01/01/94	12/31/96	0.1255
26131150	0	01/01/94	12/31/96	0.1217
26133150	0	01/01/94	12/31/96	0.1526
26133150	101117	01/01/94	12/31/96	0.1526
26137150	0	01/01/94	12/31/96	0.1243
26145150	0	01/01/94	12/31/96	0.1503
26151150	0	01/01/94	12/31/96	0.1262
26151150	202740	01/01/94	12/31/96	0.1262
26157150	0	01/01/94	12/31/96	0.1306
26157150	100778	01/01/94	12/31/96	0.1306
26157150	203463	01/01/94	12/31/96	0.1306
26304150	0	01/01/94	12/31/96	0.1336
26311150	0	01/01/94	12/31/96	0.1242
27111000	0	01/01/94	12/31/96	0.0400
27111000	100297	01/01/94	12/31/96	0.0401
27111000	200853	01/01/94	12/31/96	0.0401
27111000	203703	01/01/94	12/31/96	0.0403
27111050	0	01/01/94	12/31/96	0.1100
27111050	100766	01/01/94	12/31/96	0.1059
27111050	100885	01/01/94	12/31/96	0.1086
27111050	100986	01/01/94	12/31/96	0.1066
27111050	200854	01/01/94	12/31/96	0.1090
27111050	200866	01/01/94	12/31/96	0.1090
27111050	200925	01/01/94	12/31/96	0.1100
27111050	201010	01/01/94	12/31/96	0.1070
27111050	201056	01/01/94	12/31/96	0.1092
27111050	202053	01/01/94	12/31/96	0.1093
27111050	202297	01/01/94	12/31/96	0.1099
27111050	202965	01/01/94	12/31/96	0.1123
27111050	203655	01/01/94	12/31/96	0.1090
27111100	0	01/01/94	12/31/96	0.0760
27111300	0	01/01/94	12/31/96	0.1138
27111300	100794	01/01/94	12/31/96	0.1163
27111300	203223	01/01/94	12/31/96	0.1138
27111310	0	01/01/94	12/31/96	0.0885
27111310	100552	01/01/94	12/31/96	0.0885
27112000	0	01/01/94	12/31/96	0.1703
27112010	0	01/01/94	12/31/96	0.0543
27112010	202333	01/01/94	12/31/96	0.0541
27112010	202838	01/01/94	12/31/96	0.0537
27112100	0	01/01/94	12/31/96	0.0843
27113300	0	01/01/94	12/31/96	0.1493
27113300	203077	01/01/94	12/31/96	0.1487
27113300	203529	01/01/94	12/31/96	0.1489
27115000	0	01/01/94	12/31/96	0.4101
27115000	100322	01/01/94	12/31/96	0.4101
27116300	0	01/01/94	12/31/96	0.4674
27116350	0	01/01/94	12/31/96	0.1706
27118130	0	01/01/94	12/31/96	0.1709
27118140	0	01/01/94	12/31/96	0.1107
27118180	0	01/01/94	12/31/96	0.4050
27120020	0	01/01/94	12/31/96	0.4707
27120060	0	01/01/94	12/31/96	0.4726
27120130	0	01/01/94	12/31/96	0.1418
27120150	0	01/01/94	12/31/96	0.2554
27130040	0	01/01/94	12/31/96	0.1101
27130050	0	01/01/94	12/31/96	0.0737
27130100	0	01/01/94	12/31/96	0.2895
27135020	0	01/01/94	12/31/96	0.0330
27135030	0	01/01/94	12/31/96	0.2413
27141030	0	01/01/94	12/31/96	0.1107
27141050	0	01/01/94	12/31/96	0.2727
27141050	203594	01/01/94	12/31/96	0.2727
27142100	0	01/01/94	12/31/96	0.5454
27146100	0	01/01/94	12/31/96	0.2261
27146350	0	01/01/94	12/31/96	0.0894
27150140	0	01/01/94	12/31/96	0.1645
27150140	100425	01/01/94	12/31/96	0.1637
27150160	0	01/01/94	12/31/96	0.2504
27150190	0	01/01/94	12/31/96	0.4780
27151070	0	01/01/94	12/31/96	0.2566
27160100	0	01/01/94	12/31/96	0.2278
27162050	0	01/01/94	12/31/96	0.1147
27162050	100647	01/01/94	12/31/96	0.1200
27162050	100648	01/01/94	12/31/96	0.1165
27162050	202285	01/01/94	12/31/96	0.1140
27162050	202430	01/01/94	12/31/96	0.1141
27162050	202757	01/01/94	12/31/96	0.1140

27162050	202919	01/01/94	12/31/96	0.1140
27162050	203445	01/01/94	12/31/96	0.1140
27162500	0	01/01/94	12/31/96	0.1722
27211100	0	01/01/94	12/31/96	0.1351
27211110	0	01/01/94	12/31/96	0.1273
27211110	201614	01/01/94	12/31/96	0.1273
27211150	0	01/01/94	12/31/96	0.0998
27211150	201699	01/01/94	12/31/96	0.1028
27211200	0	01/01/94	12/31/96	0.2468
27211250	0	01/01/94	12/31/95	0.0152
27211550	0	01/01/94	12/31/96	0.1311
27212000	0	01/01/94	12/31/96	0.3462
27212000	100398	01/01/94	12/31/96	0.3464
27212000	202194	01/01/94	12/31/96	0.3464
27212000	202607	01/01/94	12/31/96	0.3517
27212050	0	01/01/94	12/31/96	0.3803
27212050	100452	01/01/94	12/31/96	0.5348
27212050	200689	01/01/94	12/31/96	0.3792
27212050	201369	01/01/94	12/31/96	0.3798
27212050	202710	01/01/94	12/31/96	0.3799
27212050	202712	01/01/94	12/31/96	0.3792
27212050	202917	01/01/94	12/31/96	0.3801
27212050	202928	01/01/94	12/31/96	0.3800
27212050	203016	01/01/94	12/31/96	0.3799
27212100	0	01/01/94	12/31/96	0.1724
27212100	200857	01/01/94	12/31/96	0.1772
27212100	201557	01/01/94	12/31/96	0.1772
27212100	203466	01/01/94	12/31/96	0.1772
27212120	0	01/01/94	12/31/96	0.1286
27212120	202357	01/01/94	12/31/96	0.1287
27212150	0	01/01/94	12/31/96	0.2889
27212150	100331	01/01/94	12/31/96	0.2972
27212150	202399	01/01/94	12/31/96	0.2889
27212200	0	01/01/94	12/31/96	0.1756
27212300	0	01/01/94	12/31/96	0.1313
27212350	0	01/01/94	12/31/96	0.2425
27212350	100922	01/01/94	12/31/96	0.2424
27212350	202851	01/01/94	12/31/96	0.2420
27212350	203035	01/01/94	12/31/96	0.2465
27212350	203057	01/01/94	12/31/96	0.2425
27212350	203328	01/01/94	12/31/96	0.2414
27212400	0	01/01/94	12/31/96	0.1663
27213000	0	01/01/94	12/31/96	0.4529
27213000	202307	01/01/94	12/31/96	0.4619
27213000	203476	01/01/94	12/31/96	0.4529
27213100	0	01/01/94	12/31/96	0.1754
27213100	100812	01/01/94	12/31/96	0.1749
27213120	0	01/01/94	12/31/96	0.2129
27213120	100170	01/01/94	12/31/96	0.2130
27213120	202876	01/01/94	12/31/96	0.2134
27213150	0	01/01/94	12/31/96	0.2634
27213200	0	01/01/94	12/31/96	0.2791
27213300	0	01/01/94	12/31/96	0.2507
27213400	0	01/01/94	12/31/96	0.1781
27213400	203055	01/01/94	12/31/96	0.1761
27213420	0	01/01/94	12/31/96	0.2129
27213420	100726	01/01/94	12/31/96	0.2140
27213420	100727	01/01/94	12/31/96	0.2134
27213500	0	01/01/94	12/31/96	0.2530
27214300	0	01/01/94	12/31/96	0.0277
27218110	0	01/01/94	12/31/96	0.0511
27218210	0	01/01/94	12/31/96	0.2784
27218310	0	01/01/94	12/31/96	0.0676
27220020	0	01/01/94	12/31/96	0.1482
27220030	0	01/01/94	12/31/96	0.1862
27220050	0	01/01/94	12/31/96	0.2092
27220110	0	01/01/94	12/31/96	0.3077
27220120	0	01/01/94	12/31/96	0.2955
27220150	0	01/01/94	12/31/96	0.1953
27220150	101169	01/01/94	12/31/96	0.2690
27220170	0	01/01/94	12/31/96	0.1972
27220190	0	01/01/94	12/31/96	0.3122
27220210	0	01/01/94	12/31/96	0.4035
27220310	0	01/01/94	12/31/96	0.3955
27220310	100231	01/01/94	12/31/96	0.3958
27220310	100543	01/01/94	12/31/96	0.3958
27220310	201569	01/01/94	12/31/96	0.3958
27220310	202971	01/01/94	12/31/96	0.3962
27220510	0	01/01/94	12/31/96	0.2464
27221100	0	01/01/94	12/31/96	0.4788
27221150	0	01/01/94	12/31/96	0.1273

27231000	0	01/01/94	12/31/96	0.2467
27232000	0	01/01/94	12/31/96	0.0670
27233000	0	01/01/94	12/31/96	0.5782
27235750	0	01/01/94	12/31/96	0.1292
27236000	0	01/01/94	12/31/96	0.1191
27241010	0	01/01/94	12/31/96	0.3455
27242000	0	01/01/94	12/31/96	0.4044
27242000	100384	01/01/94	12/31/96	0.4037
27242000	202117	01/01/94	12/31/96	0.4036
27242200	0	01/01/94	12/31/96	0.5680
27242250	0	01/01/94	12/31/96	0.2456
27242300	0	01/01/94	12/31/96	0.2362
27242300	101104	01/01/94	12/31/96	0.2362
27242300	202554	01/01/94	12/31/96	0.2361
27242300	202806	01/01/94	12/31/96	0.2361
27242310	0	01/01/94	12/31/96	0.2484
27242350	0	01/01/94	12/31/96	0.2967
27242400	0	01/01/94	12/31/96	0.2416
27242400	200456	01/01/94	12/31/96	0.2433
27242400	202541	01/01/94	12/31/96	0.2520
27242400	203638	01/01/94	12/31/96	0.2410
27243000	0	01/01/94	12/31/96	0.4256
27243000	202616	01/01/94	12/31/96	0.4251
27243000	202782	01/01/94	12/31/96	0.4252
27243000	203479	01/01/94	12/31/96	0.4251
27243300	0	01/01/94	12/31/96	0.2229
27243500	0	01/01/94	12/31/96	0.1747
27243600	0	01/01/94	12/31/96	0.1286
27243700	0	01/01/94	12/31/96	0.3186
27246100	0	01/01/94	12/31/96	0.2841
27246100	101060	01/01/94	12/31/96	0.2838
27246100	203394	01/01/94	12/31/96	0.2835
27246100	203741	01/01/94	12/31/96	0.2838
27246200	0	01/01/94	12/31/96	0.1299
27250060	0	01/01/94	12/31/96	0.0096
27250110	0	01/01/94	12/31/96	0.1292
27250130	0	01/01/94	12/31/96	0.1295
27250130	203697	01/01/94	12/31/96	0.1296
27250500	0	01/01/94	12/31/96	0.1689
27250520	0	01/01/94	12/31/96	0.1689
27250610	0	01/01/94	12/31/96	0.1823
27250610	100389	01/01/94	12/31/96	0.1823
27250610	200943	01/01/94	12/31/96	0.1822
27250610	202688	01/01/94	12/31/96	0.1821
27250610	203555	01/01/94	12/31/96	0.1926
27250630	0	01/01/94	12/31/96	0.1814
27250630	201273	01/01/94	12/31/96	0.1814
27250630	202216	01/01/94	12/31/96	0.2883
27250630	202584	01/01/94	12/31/96	0.1814
27250630	202593	01/01/94	12/31/96	0.1863
27250630	202723	01/01/94	12/31/96	0.1814
27250630	203749	01/01/94	12/31/96	0.1863
27250710	0	01/01/94	12/31/96	0.1761
27250810	0	01/01/94	12/31/96	0.1802
27250820	0	01/01/94	12/31/96	0.1801
27250830	0	01/01/94	12/31/96	0.1801
27250830	100966	01/01/94	12/31/96	0.1794
27250900	0	01/01/94	12/31/96	0.1788
27250950	0	01/01/94	12/31/96	0.3523
27251010	0	01/01/94	12/31/96	0.0510
27260500	0	01/01/94	12/31/96	0.0968
27260550	0	01/01/94	12/31/96	0.3400
27261500	0	01/01/94	12/31/96	0.1450
27311310	0	01/01/94	12/31/96	0.2961
27311310	201760	01/01/94	12/31/96	0.2948
27311320	0	01/01/94	12/31/96	0.3221
27311410	0	01/01/94	12/31/96	0.3511
27311420	0	01/01/94	12/31/96	0.3743
27313010	0	01/01/94	12/31/96	0.2261
27313020	0	01/01/94	12/31/96	0.2270
27313110	0	01/01/94	12/31/96	0.0578
27313150	0	01/01/94	12/31/96	0.3392
27313160	0	01/01/94	12/31/96	0.3484
27313210	0	01/01/94	12/31/96	0.2737
27313220	0	01/01/94	12/31/96	0.2677
27313310	0	01/01/94	12/31/96	0.2345
27313320	0	01/01/94	12/31/96	0.2359
27313320	100704	01/01/94	12/31/96	0.2343
27313410	0	01/01/94	12/31/96	0.1236
27313410	202662	01/01/94	12/31/96	0.1226
27313420	0	01/01/94	12/31/96	0.1223

27315010	0	01/01/94	12/31/96	0.2208
27315020	0	01/01/94	12/31/96	0.2217
27315210	0	01/01/94	12/31/96	0.2708
27315220	0	01/01/94	12/31/96	0.2520
27315250	0	01/01/94	12/31/96	0.0730
27315250	202831	01/01/94	12/31/96	0.0730
27315270	0	01/01/94	12/31/96	0.0713
27315270	202980	01/01/94	12/31/96	0.0712
27315310	0	01/01/94	12/31/96	0.1878
27315320	0	01/01/94	12/31/96	0.1890
27315510	0	01/01/94	12/31/96	0.1688
27315520	0	01/01/94	12/31/96	0.1835
27315520	100251	01/01/94	12/31/96	0.1718
27317010	0	01/01/94	12/31/96	0.3236
27320020	0	01/01/94	12/31/96	0.0390
27320030	0	01/01/94	12/31/96	0.0939
27320070	0	01/01/94	12/31/96	0.0988
27320080	0	01/01/94	12/31/96	0.2055
27320090	0	01/01/94	12/31/96	0.2020
27320140	0	01/01/94	12/31/96	0.3322
27320150	0	01/01/94	12/31/96	0.3271
27320310	0	01/01/94	12/31/96	0.0578
27320340	0	01/01/94	12/31/96	0.1549
27320350	0	01/01/94	12/31/96	0.1677
27320500	0	01/01/94	12/31/96	0.5261
27330050	0	01/01/94	12/31/96	0.1595
27330060	0	01/01/94	12/31/96	0.1589
27330080	0	01/01/94	12/31/96	0.4760
27330170	0	01/01/94	12/31/96	0.0767
27331150	0	01/01/94	12/31/96	0.0319
27332100	0	01/01/94	12/31/96	0.3256
27332110	0	01/01/94	12/31/96	0.3223
27335100	0	01/01/94	12/31/96	0.4671
27336100	0	01/01/94	12/31/96	0.1515
27336150	0	01/01/94	12/31/96	0.1544
27336200	0	01/01/94	12/31/96	0.2615
27336250	0	01/01/94	12/31/96	0.2850
27336300	0	01/01/94	12/31/96	0.3448
27336310	0	01/01/94	12/31/96	0.3540
27341310	0	01/01/94	12/31/96	0.2581
27341320	0	01/01/94	12/31/96	0.2532
27343010	0	01/01/94	12/31/96	0.2672
27343010	100206	01/01/94	12/31/96	0.2669
27343010	100696	01/01/94	12/31/96	0.2695
27343020	0	01/01/94	12/31/96	0.2622
27343410	0	01/01/94	12/31/96	0.4426
27343420	0	01/01/94	12/31/96	0.4270
27343470	0	01/01/94	12/31/96	0.1892
27343480	0	01/01/94	12/31/96	0.1892
27343510	0	01/01/94	12/31/96	0.3395
27343520	0	01/01/94	12/31/96	0.3395
27343910	0	01/01/94	12/31/96	0.2221
27343910	100678	01/01/94	12/31/96	0.2208
27343950	0	01/01/94	12/31/96	0.1421
27343960	0	01/01/94	12/31/96	0.1486
27343970	0	01/01/94	12/31/96	0.2020
27343980	0	01/01/94	12/31/96	0.2044
27345010	0	01/01/94	12/31/96	0.2387
27345020	0	01/01/94	12/31/96	0.2094
27345210	0	01/01/94	12/31/96	0.1919
27345220	0	01/01/94	12/31/96	0.2029
27345310	0	01/01/94	12/31/96	0.4203
27345320	0	01/01/94	12/31/96	0.4204
27345410	0	01/01/94	12/31/96	0.1855
27345420	0	01/01/94	12/31/96	0.1841
27345440	0	01/01/94	12/31/96	0.1260
27345450	0	01/01/94	12/31/96	0.1680
27345450	202243	01/01/94	12/31/96	0.1689
27345510	0	01/01/94	12/31/96	0.2110
27345520	0	01/01/94	12/31/96	0.2027
27347100	0	01/01/94	12/31/96	0.1133
27347100	100318	01/01/94	12/31/96	0.1586
27347210	0	01/01/94	12/31/96	0.1011
27350020	0	01/01/94	12/31/96	0.3884
27350030	0	01/01/94	12/31/96	0.0819
27350040	0	01/01/94	12/31/96	0.1557
27350050	0	01/01/94	12/31/96	0.2358
27350060	0	01/01/94	12/31/96	0.1993
27350070	0	01/01/94	12/31/96	0.1179
27350080	0	01/01/94	12/31/96	0.1609
27350080	100388	01/01/94	12/31/96	0.1609

27350090	0	01/01/94	12/31/96	0.1506
27350100	0	01/01/94	12/31/96	0.1556
27350200	0	01/01/94	12/31/96	0.0156
27350310	0	01/01/94	12/31/96	0.0830
27350310	100142	01/01/94	12/31/96	0.0819
27350410	0	01/01/94	12/31/96	0.1700
27350410	200066	01/01/94	12/31/96	0.1700
27350410	203442	01/01/94	12/31/96	0.1700
27351030	0	01/01/94	12/31/96	0.1102
27360000	0	01/01/94	12/31/96	0.3048
27360010	0	01/01/94	12/31/96	0.0998
27360050	0	01/01/94	12/31/96	0.3342
27360080	0	01/01/94	12/31/96	0.0580
27360090	0	01/01/94	12/31/96	0.4143
27360120	0	01/01/94	12/31/96	0.0579
27361010	0	01/01/94	12/31/96	0.1619
27362000	0	01/01/94	12/31/96	0.8430
27363000	0	01/01/94	12/31/96	0.4019
27363100	0	01/01/94	12/31/96	0.2003
27363100	100483	01/01/94	12/31/96	0.2073
27363100	100715	01/01/94	12/31/96	0.2009
27363100	203056	01/01/94	12/31/96	0.2105
27411100	0	01/01/94	12/31/96	0.2927
27411120	0	01/01/94	12/31/96	0.1310
27415150	0	01/01/94	12/31/96	0.0621
27415200	0	01/01/94	12/31/96	0.1190
27415200	201673	01/01/94	12/31/96	0.1191
27416100	0	01/01/94	12/31/96	0.1027
27416150	0	01/01/94	12/31/96	0.1133
27416150	201515	01/01/94	12/31/96	0.1132
27416150	202456	01/01/94	12/31/96	0.1138
27416150	202798	01/01/94	12/31/96	0.1217
27416400	0	01/01/94	12/31/96	0.0481
27416450	0	01/01/94	12/31/96	0.3346
27416500	0	01/01/94	12/31/96	0.2928
27418210	0	01/01/94	12/31/96	0.2500
27418310	0	01/01/94	12/31/96	0.0939
27420110	0	01/01/94	12/31/96	0.0903
27420170	0	01/01/94	12/31/96	0.0947
27420390	0	01/01/94	12/31/96	0.0625
27420390	202995	01/01/94	12/31/96	0.0662
27420500	0	01/01/94	12/31/96	0.1075
27420510	0	01/01/94	12/31/96	0.1190
27420510	101044	01/01/94	12/31/96	0.1191
27420510	202101	01/01/94	12/31/96	0.1191
27430500	0	01/01/94	12/31/96	0.0684
27430510	0	01/01/94	12/31/96	0.0707
27442110	0	01/01/94	12/31/96	0.2972
27442120	0	01/01/94	12/31/96	0.2866
27443110	0	01/01/94	12/31/96	0.0555
27443110	202753	01/01/94	12/31/96	0.0558
27443110	203512	01/01/94	12/31/96	0.0555
27443120	0	01/01/94	12/31/96	0.0556
27443150	0	01/01/94	12/31/96	0.0500
27443150	100515	01/01/94	12/31/96	0.0500
27445110	0	01/01/94	12/31/96	0.0966
27445110	100305	01/01/94	12/31/96	0.0971
27445110	100475	01/01/94	12/31/96	0.1060
27445110	200379	01/01/94	12/31/96	0.0966
27445110	202131	01/01/94	12/31/96	0.0977
27445110	202476	01/01/94	12/31/96	0.0966
27445110	203473	01/01/94	12/31/96	0.0973
27445120	0	01/01/94	12/31/96	0.0945
27445150	0	01/01/94	12/31/96	0.2870
27445250	0	01/01/94	12/31/96	0.2884
27445250	100500	01/01/94	12/31/96	0.2860
27446100	0	01/01/94	12/31/96	0.2294
27446100	201686	01/01/94	12/31/96	0.2295
27450040	0	01/01/94	12/31/96	0.2411
27450410	0	01/01/94	12/31/96	0.0873
27450410	100694	01/01/94	12/31/96	0.0873
27450410	100865	01/01/94	12/31/96	0.0873
27450410	203621	01/01/94	12/31/96	0.0930
27450420	0	01/01/94	12/31/96	0.0909
27450600	0	01/01/94	12/31/96	0.0741
27450610	0	01/01/94	12/31/96	0.0748
27451010	0	01/01/94	12/31/96	0.0768
27460010	0	01/01/94	12/31/96	0.0625
27462000	0	01/01/94	12/31/96	0.0848
27464000	0	01/01/94	12/31/96	0.3401
27464000	100414	01/01/94	12/31/96	0.3402

28310150	0	01/01/94	12/31/96	0.8412
28310160	0	01/01/94	12/31/96	0.8475
28310170	0	01/01/94	12/31/96	0.9590
28310210	0	01/01/94	12/31/96	0.6188
28310220	0	01/01/94	12/31/96	0.1328
28310230	0	01/01/94	12/31/96	0.5319
28310320	0	01/01/94	12/31/96	0.4583
28310330	0	01/01/94	12/31/96	0.4447
28310420	0	01/01/94	12/31/96	0.4583
28311010	0	01/01/94	12/31/96	0.6466
28315110	0	01/01/94	12/31/96	0.1130
28315130	0	01/01/94	12/31/96	0.0440
28315140	0	01/01/94	12/31/96	0.6138
28315150	0	01/01/94	12/31/96	0.5864
28315150	100209	01/01/94	12/31/96	0.5838
28315150	203577	01/01/94	12/31/96	0.5787
28320110	0	01/01/94	12/31/96	0.6503
28320110	100172	01/01/94	12/31/96	0.6503
28320120	0	01/01/94	12/31/96	0.5894
28320130	0	01/01/94	12/31/96	0.5711
28320140	0	01/01/94	12/31/96	0.4377
28320150	0	01/01/94	12/31/96	0.0782
28320300	0	01/01/94	12/31/96	0.6083
28321130	0	01/01/94	12/31/96	0.3203
28330110	0	01/01/94	12/31/96	0.7045
28331110	0	01/01/94	12/31/96	0.4215
28340110	0	01/01/94	12/31/96	0.8628
28340120	0	01/01/94	12/31/96	0.9145
28340130	0	01/01/94	12/31/96	0.7701
28340150	0	01/01/94	12/31/96	0.5226
28340210	0	01/01/94	12/31/96	0.4834
28340220	0	01/01/94	12/31/96	0.5071
28340310	0	01/01/94	12/31/96	0.7332
28340530	0	01/01/94	12/31/96	0.8327
28340530	100843	01/01/94	12/31/96	0.9163
28340550	0	01/01/94	12/31/96	0.5923
28340580	0	01/01/94	12/31/96	0.6490
28340590	0	01/01/94	12/31/96	0.1843
28340620	0	01/01/94	12/31/96	0.6324
28340660	0	01/01/94	12/31/96	0.3706
28340660	100205	01/01/94	12/31/96	0.3689
28340660	100245	01/01/94	12/31/96	0.3656
28340670	0	01/01/94	12/31/96	0.4762
28340700	0	01/01/94	12/31/96	0.6438
28340750	0	01/01/94	12/31/96	0.5645
28340750	202236	01/01/94	12/31/96	0.5656
28340800	0	01/01/94	12/31/96	0.4433
28345010	0	01/01/95	12/31/96	0.2410
28345030	0	01/01/95	12/31/96	0.4857
28345110	0	01/01/94	12/31/96	0.2410
28345130	0	01/01/94	12/31/96	0.4857
28345130	100883	01/01/94	12/31/96	0.6538
28345130	100982	01/01/94	12/31/96	0.3207
28345170	0	01/01/94	12/31/96	0.4560
28350040	0	01/01/94	12/31/96	0.9617
28350050	0	01/01/94	12/31/96	0.1465
28350050	203441	01/01/94	12/31/96	0.1454
28350120	0	01/01/94	12/31/96	0.3069
28350210	0	01/01/94	12/31/96	0.1670
28350220	0	01/01/94	12/31/96	0.2300
28351160	0	01/01/94	12/31/96	0.5379
28351170	0	01/01/94	12/31/96	0.5408
28355130	0	01/01/94	12/31/96	0.4446
28355210	0	01/01/94	12/31/96	0.1229
28355210	202154	01/01/94	12/31/96	0.1229
28355260	0	01/01/94	12/31/96	0.0804
28355350	0	01/01/94	12/31/96	0.2014
28355410	0	01/01/94	12/31/96	0.3746
28355430	0	01/01/94	12/31/96	0.9000
28355440	0	01/01/94	12/31/96	0.0792
28355450	0	01/01/94	12/31/96	0.4418
28355450	101018	01/01/94	12/31/96	0.4402
28355460	0	01/01/94	12/31/96	0.4812
28355470	0	01/01/94	12/31/96	0.4425
28355480	0	01/01/94	12/31/96	0.4458
28360210	0	01/01/94	12/31/96	0.2781
28400000	0	01/01/94	12/31/96	0.9764
28400200	0	01/01/94	12/31/96	1.0000
28401010	0	01/01/94	12/31/96	0.9200
28401200	0	01/01/94	12/31/96	0.9405
28500100	0	01/01/94	12/31/96	0.8257

28500150	0	01/01/94	12/31/96	0.9280
28510020	0	01/01/94	12/31/96	0.7240
28510030	0	01/01/94	12/31/96	0.6893
28520000	0	01/01/94	12/31/96	0.7641
28520100	0	01/01/94	12/31/96	0.7247
28522000	0	01/01/94	12/31/96	0.5058
32101500	0	01/01/94	12/31/96	0.2302
32104100	0	01/01/94	12/31/96	0.6668
32105010	100342	01/01/94	12/31/96	0.2155
32105010	100479	01/01/94	12/31/96	0.2159
32105010	201026	01/01/94	12/31/96	0.2155
32105010	201077	01/01/94	12/31/96	0.2160
32105010	201087	01/01/94	12/31/96	0.2154
32105010	201300	01/01/94	12/31/96	0.2222
32105010	201377	01/01/94	12/31/96	0.2159
32105010	202084	01/01/94	12/31/96	0.2155
32105010	202144	01/01/94	12/31/96	0.2156
32105010	202308	01/01/94	12/31/96	0.2156
32105010	202370	01/01/94	12/31/96	0.2155
32105010	202379	01/01/94	12/31/96	0.2159
32105010	202465	01/01/94	12/31/96	0.2220
32105010	202640	01/01/94	12/31/96	0.2161
32105010	202770	01/01/94	12/31/96	0.2158
32105010	202834	01/01/94	12/31/96	0.2226
32105010	203054	01/01/94	12/31/96	0.2221
32105010	203093	01/01/94	12/31/96	0.2164
32105010	203327	01/01/94	12/31/96	0.2165
32105010	203437	01/01/94	12/31/96	0.2225
32105030	100179	01/01/94	12/31/96	0.1851
32105030	100643	01/01/94	12/31/96	0.1900
32105030	202907	01/01/94	12/31/96	0.1851
32105040	202212	01/01/94	12/31/96	0.2127
32105050	101094	01/01/94	12/31/96	0.2130
32105050	201117	01/01/94	12/31/96	0.2128
32105050	201720	01/01/94	12/31/96	0.2129
32105050	201839	01/01/94	12/31/96	0.2128
32105050	201934	01/01/94	12/31/96	0.2129
32105050	202955	01/01/94	12/31/96	0.2149
32105060	100221	01/01/94	12/31/96	0.1941
32105060	100250	01/01/94	12/31/96	0.1896
32105060	100422	01/01/94	12/31/96	0.1893
32105060	202591	01/01/94	12/31/96	0.1890
32105060	203602	01/01/94	12/31/96	0.1890
32105070	202668	01/01/94	12/31/96	0.2119
32105080	100325	01/01/94	12/31/96	0.1842
32105080	100353	01/01/94	12/31/96	0.1842
32105080	100363	01/01/94	12/31/96	0.1844
32105080	201197	01/01/94	12/31/96	0.1892
32105080	201264	01/01/94	12/31/96	0.1890
32105080	201633	01/01/94	12/31/96	0.1843
32105080	202237	01/01/94	12/31/96	0.1832
32105080	202650	01/01/94	12/31/96	0.1846
32105080	202671	01/01/94	12/31/96	0.1844
32105080	203286	01/01/94	12/31/96	0.1843
32105080	203736	01/01/94	12/31/96	0.1843
32105100	101100	01/01/94	12/31/96	0.1482
32105100	201733	01/01/94	12/31/96	0.1483
32105100	201898	01/01/94	12/31/96	0.1483
32105110	101047	01/01/94	12/31/96	0.2182
32105120	203688	01/01/94	12/31/96	0.2148
32105121	101145	01/01/94	12/31/96	0.2053
32105121	202659	01/01/94	12/31/96	0.1941
32105121	203459	01/01/94	12/31/96	0.2026
32105122	100876	01/01/94	12/31/96	0.1862
32105122	203219	01/01/94	12/31/96	0.1859
32105130	201090	01/01/94	12/31/96	0.1215
32105130	202343	01/01/94	12/31/96	0.1301
32105130	203465	01/01/94	12/31/96	0.1216
32105150	100992	01/01/94	12/31/96	0.1921
32105160	100186	01/01/94	12/31/96	0.2190
32105160	203704	01/01/94	12/31/96	0.2258
32120100	0	01/01/94	12/31/96	0.1206
32300100	0	01/01/94	12/31/96	0.7765
32301100	0	01/01/94	12/31/96	0.6606
33102010	0	01/01/94	12/31/96	0.6604
33102010	201085	01/01/94	12/31/96	0.6601
33201010	100728	01/01/94	12/31/96	0.2377
33201010	202167	01/01/94	12/31/96	0.2300
33201010	202410	01/01/94	12/31/96	0.2257
33201010	203207	01/01/94	12/31/96	0.2299
33201010	203499	01/01/94	12/31/96	0.2299

33201500	202680	01/01/94	12/31/96	0.2176
33301010	202478	01/01/94	12/31/96	0.2257
33301010	203044	01/01/94	12/31/96	0.2330
41101000	0	01/01/94	12/31/96	0.2856
41101010	0	01/01/94	12/31/96	0.2851
41101010	101150	01/01/94	12/31/96	0.2898
41101010	202020	01/01/94	12/31/96	0.2898
41101010	202535	01/01/94	12/31/96	0.2898
41101020	0	01/01/94	12/31/96	0.3102
41101100	0	01/01/94	12/31/96	0.2672
41101110	0	01/01/94	12/31/96	0.2672
41101110	100099	01/01/94	12/31/96	0.2715
41101110	100504	01/01/94	12/31/96	0.2715
41101110	200155	01/01/94	12/31/96	0.2715
41101110	200187	01/01/94	12/31/96	0.2715
41101110	200804	01/01/94	12/31/96	0.2715
41101110	201291	01/01/94	12/31/96	0.2715
41101110	202299	01/01/94	12/31/96	0.2715
41101110	202672	01/01/94	12/31/96	0.2715
41101120	0	01/01/94	12/31/96	0.2901
41102000	0	01/01/94	12/31/96	0.3021
41102010	0	01/01/94	12/31/96	0.3030
41102010	100139	01/01/94	12/31/96	0.3079
41102010	100162	01/01/94	12/31/96	0.3079
41102010	200502	01/01/94	12/31/96	0.3079
41102010	201473	01/01/94	12/31/96	0.3079
41102010	202265	01/01/94	12/31/96	0.3079
41102020	0	01/01/94	12/31/96	0.3292
41102200	0	01/01/94	12/31/96	0.3111
41102210	0	01/01/94	12/31/96	0.3111
41102210	202958	01/01/94	12/31/96	0.3161
41102220	0	01/01/94	12/31/96	0.3381
41103000	0	01/01/94	12/31/96	0.3038
41103010	0	01/01/94	12/31/96	0.3038
41103010	200622	01/01/94	12/31/96	0.3087
41103010	200691	01/01/94	12/31/96	0.3087
41103010	201459	01/01/94	12/31/96	0.3087
41103010	201625	01/01/94	12/31/96	0.3087
41103010	201719	01/01/94	12/31/96	0.3087
41103010	201795	01/01/94	12/31/96	0.3087
41103010	202637	01/01/94	12/31/96	0.3087
41103010	202696	01/01/94	12/31/96	0.3087
41103020	0	01/01/94	12/31/96	0.3299
41103050	0	01/01/94	12/31/96	0.2603
41103060	0	01/01/94	12/31/96	0.2829
41103070	0	01/01/94	12/31/96	0.2603
41103070	201313	01/01/94	12/31/96	0.2645
41103070	201819	01/01/94	12/31/96	0.2645
41103070	203096	01/01/94	12/31/96	0.2645
41104000	0	01/01/94	12/31/96	0.3055
41104010	0	01/01/94	12/31/96	0.3055
41104010	100416	01/01/94	12/31/96	0.3104
41104010	100471	01/01/94	12/31/96	0.3104
41104010	100850	01/01/94	12/31/96	0.3104
41104010	101097	01/01/94	12/31/96	0.3104
41104010	200165	01/01/94	12/31/96	0.3104
41104010	200227	01/01/94	12/31/96	0.3104
41104010	200246	01/01/94	12/31/96	0.3104
41104010	200347	01/01/94	12/31/96	0.3104
41104010	200350	01/01/94	12/31/96	0.3104
41104010	200613	01/01/94	12/31/96	0.3104
41104010	200693	01/01/94	12/31/96	0.3104
41104010	200724	01/01/94	12/31/96	0.3104
41104010	200961	01/01/94	12/31/96	0.3104
41104010	201593	01/01/94	12/31/96	0.3104
41104010	202226	01/01/94	12/31/96	0.3104
41104010	202549	01/01/94	12/31/96	0.3104
41104010	203588	01/01/94	12/31/96	0.3104
41104020	0	01/01/94	12/31/96	0.3319
41106000	0	01/01/94	12/31/96	0.2862
41106010	0	01/01/94	12/31/96	0.2862
41106010	100477	01/01/94	12/31/96	0.2909
41106010	201294	01/01/94	12/31/96	0.2909
41106010	201611	01/01/94	12/31/96	0.2909
41106010	202260	01/01/94	12/31/96	0.2909
41106010	202261	01/01/94	12/31/96	0.2909
41106010	202809	01/01/94	12/31/96	0.2909
41106010	203484	01/01/94	12/31/96	0.2909
41106020	0	01/01/94	12/31/96	0.3108
41107000	0	01/01/94	12/31/96	0.2935
41108000	0	01/01/94	12/31/96	0.3357

41108010	0	01/01/94	12/31/96	0.3282
41108010	202471	01/01/94	12/31/96	0.3285
41108020	0	01/01/94	12/31/96	0.3282
41201010	0	01/01/94	12/31/96	0.2406
41203020	0	01/01/94	12/31/96	0.1885
41203020	100328	01/01/94	12/31/96	0.0964
41203020	101108	01/01/94	12/31/96	0.1879
41203020	200744	01/01/94	12/31/96	0.1918
41203020	202004	01/01/94	12/31/96	0.1878
41203020	202008	01/01/94	12/31/96	0.2196
41204020	0	01/01/94	12/31/96	0.2406
41205010	0	01/01/94	12/31/96	0.2179
41205010	200060	01/01/94	12/31/96	0.2167
41205010	201326	01/01/94	12/31/96	0.2167
41205010	201510	01/01/94	12/31/96	0.2167
41205010	201638	01/01/94	12/31/96	0.2181
41205010	202005	01/01/94	12/31/96	0.2177
41205010	203432	01/01/94	12/31/96	0.2167
41205050	0	01/01/94	12/31/96	0.2650
41205100	0	01/01/94	12/31/96	0.3075
41207030	0	01/01/94	12/31/96	0.2178
41207030	100247	01/01/94	12/31/96	0.0988
41208100	0	01/01/94	12/31/96	0.2624
41208100	100351	01/01/94	12/31/96	0.2702
41209000	0	01/01/94	12/31/96	0.1435
41209000	201792	01/01/94	12/31/96	0.1435
41210000	0	01/01/94	12/31/96	0.1075
41210090	0	01/01/94	12/31/96	0.3012
41210100	0	01/01/94	12/31/96	0.2097
41210100	100811	01/01/94	12/31/96	0.2093
41210110	0	01/01/94	12/31/96	0.3519
41210120	0	01/01/94	12/31/96	0.3197
41210150	0	01/01/94	12/31/96	0.3452
41210150	201880	01/01/94	12/31/96	0.3512
41210160	0	01/01/94	12/31/96	0.1997
41210170	0	01/01/94	12/31/96	0.1998
41210180	0	01/01/94	12/31/96	0.1997
41210190	0	01/01/94	12/31/96	0.1980
41210200	0	01/01/94	12/31/96	0.2908
41301000	0	01/01/94	12/31/96	0.3017
41301010	0	01/01/94	12/31/96	0.3017
41301010	100534	01/01/94	12/31/96	0.3065
41301010	200985	01/01/94	12/31/96	0.3065
41301010	200996	01/01/94	12/31/96	0.3065
41301010	202460	01/01/94	12/31/96	0.3065
41301010	202519	01/01/94	12/31/96	0.3065
41301020	0	01/01/94	12/31/96	0.3279
41302000	0	01/01/94	12/31/96	0.2301
41302010	0	01/01/94	12/31/96	0.2300
41302010	101172	01/01/94	12/31/96	0.2337
41302010	201458	01/01/94	12/31/96	0.2337
41302010	202959	01/01/94	12/31/96	0.2337
41302020	0	01/01/94	12/31/96	0.2499
41303000	0	01/01/94	12/31/96	0.3261
41303010	0	01/01/94	12/31/96	0.3192
41303010	100253	01/01/94	12/31/96	0.3187
41303010	203626	01/01/94	12/31/96	0.3184
41303020	0	01/01/94	12/31/96	0.3192
41303500	0	01/01/94	12/31/96	0.2801
41303550	0	01/01/94	12/31/96	0.1981
41304030	0	01/01/94	12/31/96	0.3000
41304130	0	01/01/94	12/31/96	0.2211
41304980	0	01/01/94	12/31/96	0.3196
41304990	0	01/01/94	12/31/96	0.3196
41304990	100223	01/01/94	12/31/96	0.3198
41304990	100485	01/01/94	12/31/96	0.3198
41304990	100950	01/01/94	12/31/96	0.3199
41304990	202969	01/01/94	12/31/96	0.3198
41305000	0	01/01/94	12/31/96	0.3271
41306000	0	01/01/94	12/31/96	0.2514
41310100	0	01/01/94	12/31/96	0.2396
41310150	0	01/01/94	12/31/96	0.3666
41310160	0	01/01/94	12/31/96	0.2503
41310200	0	01/01/94	12/31/96	0.1953
41310210	0	01/01/94	12/31/96	0.2070
41310220	0	01/01/94	12/31/96	0.1917
41310310	0	01/01/94	12/31/96	0.2787
41421020	0	01/01/94	12/31/96	0.0126
41601010	0	01/01/94	12/31/96	0.6979
41601020	0	01/01/94	12/31/96	0.4691
41601020	100996	01/01/94	12/31/96	0.3064

41601030	0	01/01/94	12/31/96	0.6279
41601040	0	01/01/94	12/31/96	0.6421
41601050	0	01/01/94	12/31/96	0.3852
41601060	0	01/01/94	12/31/96	0.7251
41601070	0	01/01/94	12/31/96	0.5964
41601070	203549	01/01/94	12/31/96	0.6003
41601080	0	01/01/94	12/31/96	0.6490
41601090	0	01/01/94	12/31/96	0.5360
41601100	0	01/01/94	12/31/96	0.5645
41601130	0	01/01/94	12/31/96	1.0159
41601130	201247	01/01/94	12/31/96	1.0159
41601130	202700	01/01/94	12/31/96	1.0193
41601140	0	01/01/94	12/31/96	0.6948
41601140	100243	01/01/94	12/31/96	0.5155
41601140	100263	01/01/94	12/31/96	0.5356
41601170	0	01/01/94	12/31/96	0.5384
41601180	0	01/01/96	12/31/96	0.3644
41602020	0	01/01/94	12/31/96	0.6444
41602040	0	01/01/94	12/31/96	0.7777
41602050	0	01/01/94	12/31/96	0.4874
41602060	0	01/01/94	12/31/96	0.4313
41603010	0	01/01/94	12/31/96	0.6408
41603010	101157	01/01/94	12/31/96	0.6575
41603010	201651	01/01/94	12/31/96	0.6349
41603010	203557	01/01/94	12/31/96	0.6396
41603010	203716	01/01/94	12/31/96	0.6396
41610100	0	01/01/94	12/31/96	0.5625
41811950	0	01/01/94	12/31/96	0.1084
41812400	0	01/01/94	12/31/96	0.1159
41812450	0	01/01/94	12/31/96	0.1074
41812800	0	01/01/94	12/31/96	0.3339
41812900	0	01/01/94	12/31/96	0.1682
42204050	0	01/01/94	12/31/96	0.2387
42204100	0	01/01/94	12/31/96	0.7247
51134000	0	01/01/94	12/31/96	0.1123
51165060	0	01/01/94	12/31/96	0.0397
51182010	0	01/01/94	12/31/96	0.6231
51182010	100524	01/01/94	12/31/96	0.6287
51182010	200427	01/01/94	12/31/96	0.6236
51182010	200492	01/01/94	12/31/96	0.6231
51182010	202256	01/01/94	12/31/96	0.6278
51182010	203007	01/01/94	12/31/96	0.6289
51201060	0	01/01/94	12/31/96	0.1885
51220030	0	01/01/94	12/31/96	0.2343
51220040	0	01/01/94	12/31/96	0.1913
51300140	0	01/01/94	12/31/96	0.2668
51300150	0	01/01/94	12/31/96	0.2668
51300180	0	01/01/94	12/31/96	0.2761
51301040	0	01/01/94	12/31/96	0.2656
51301050	0	01/01/94	12/31/96	0.2047
51301540	0	01/01/94	12/31/96	0.2653
51301550	0	01/01/94	12/31/96	0.2046
51320040	0	01/01/94	12/31/96	0.2357
52101040	0	01/01/94	12/31/96	0.4550
52101050	0	01/01/94	12/31/96	0.4550
52207010	0	01/01/94	12/31/96	0.4411
52207010	203253	01/01/94	12/31/96	0.4411
52208010	0	01/01/94	12/31/96	0.4621
52208020	0	01/01/94	12/31/96	0.4361
52208750	0	01/01/94	12/31/96	0.2176
52208760	0	01/01/94	12/31/96	0.1919
52209010	0	01/01/94	12/31/96	0.1857
52211010	0	01/01/94	12/31/96	0.0100
52220110	0	01/01/94	12/31/96	0.0501
52306500	0	01/01/94	12/31/96	0.0268
52308010	0	01/01/94	12/31/96	0.1181
52404060	0	01/01/94	12/31/96	0.0299
53100050	0	01/01/94	12/31/96	0.1064
53100070	0	01/01/94	12/31/96	0.2360
53101000	0	01/01/94	12/31/96	0.2992
53101100	0	01/01/94	12/31/96	0.2992
53101200	0	01/01/94	12/31/96	0.2422
53101250	0	01/01/94	12/31/96	0.1388
53101300	0	01/01/94	12/31/96	0.2991
53102500	0	01/01/94	12/31/96	0.0270
53102700	0	01/01/94	12/31/96	0.0270
53103500	0	01/01/94	12/31/96	0.0884
53103550	0	01/01/94	12/31/96	0.1339
53103600	0	01/01/94	12/31/96	0.0884
53104400	0	01/01/94	12/31/96	0.0282
53104900	0	01/01/94	12/31/96	0.1039

53104920	0	01/01/94	12/31/96	0.1833
53104950	0	01/01/94	12/31/96	0.1039
53105000	0	01/01/94	12/31/96	0.1181
53105100	0	01/01/94	12/31/96	0.1940
53105200	0	01/01/94	12/31/96	0.1181
53105300	0	01/01/94	12/31/96	0.1377
53105600	0	01/01/94	12/31/96	0.1831
53105700	0	01/01/94	12/31/96	1.0000
53105750	0	01/01/94	12/31/96	0.1957
53105900	0	01/01/94	12/31/96	0.1387
53106000	0	01/01/94	12/31/96	0.2089
53106050	0	01/01/94	12/31/96	0.1387
53106100	0	01/01/94	12/31/96	0.2259
53107100	0	01/01/94	12/31/96	0.0049
53107200	0	01/01/94	12/31/96	0.0022
53108000	0	01/01/94	12/31/96	0.1076
53108100	0	01/01/94	12/31/96	0.1778
53109000	0	01/01/94	12/31/96	0.1120
53109100	0	01/01/94	12/31/96	0.1911
53109300	0	01/01/94	12/31/96	0.0194
53111000	0	01/01/94	12/31/96	0.2507
53113950	0	01/01/94	12/31/96	0.1979
53114000	0	01/01/94	12/31/96	0.1315
53114100	0	01/01/94	12/31/96	0.1184
53115000	0	01/01/94	12/31/96	0.1129
53115100	0	01/01/94	12/31/96	0.1690
53115200	0	01/01/94	12/31/96	0.1129
53115300	0	01/01/94	12/31/96	0.1967
53115310	0	01/01/94	12/31/96	0.1546
53115320	0	01/01/94	12/31/96	0.2315
53116000	0	01/01/94	12/31/96	0.0006
53116500	0	01/01/94	12/31/96	0.0608
53116550	0	01/01/94	12/31/96	0.1341
53116560	0	01/01/94	12/31/96	0.1147
53117000	0	01/01/94	12/31/96	0.1464
53117100	0	01/01/94	12/31/96	0.1679
53117200	0	01/01/94	12/31/96	0.1627
53118410	0	01/01/94	12/31/96	0.1382
53118600	0	01/01/94	12/31/96	0.0848
53118700	0	01/01/94	12/31/96	0.1031
53118800	0	01/01/94	12/31/96	0.0824
53120000	0	01/01/94	12/31/96	0.0760
53120100	0	01/01/94	12/31/96	0.1929
53120200	0	01/01/94	12/31/96	0.2398
53120300	0	01/01/94	12/31/96	0.1328
53120330	0	01/01/94	12/31/96	0.1998
53120350	0	01/01/94	12/31/96	0.1328
53121000	0	01/01/94	12/31/96	0.1279
53121100	0	01/01/94	12/31/96	0.2123
53121200	0	01/01/94	12/31/96	0.1279
53121280	0	01/01/94	12/31/96	0.1275
53121300	0	01/01/94	12/31/96	0.1917
53121330	0	01/01/94	12/31/96	0.1275
53202000	0	01/01/94	12/31/96	0.0016
53204000	0	01/01/94	12/31/96	0.1327
53204000	100462	01/01/94	12/31/96	0.1320
53204500	0	01/01/94	12/31/96	0.0819
53206550	0	01/01/94	12/31/96	0.0021
53215500	0	01/01/94	12/31/96	0.0028
53216000	0	01/01/94	12/31/96	0.0028
53228000	0	01/01/94	12/31/96	0.0032
53231000	0	01/01/94	12/31/96	0.0156
53236100	0	01/01/94	12/31/96	0.0019
53246000	0	01/01/94	12/31/96	0.0028
53300170	0	01/01/94	12/31/96	0.1200
53301070	0	01/01/94	12/31/96	0.1289
53301500	0	01/01/94	12/31/96	0.1377
53302000	0	01/01/94	12/31/96	0.0420
53302070	0	01/01/94	12/31/96	0.0474
53302080	0	01/01/94	12/31/96	0.0151
53303000	0	01/01/94	12/31/96	0.0750
53303070	0	01/01/94	12/31/96	0.0689
53303500	0	01/01/94	12/31/96	0.0824
53303510	0	01/01/94	12/31/96	0.0489
53303570	0	01/01/94	12/31/96	0.0751
53304050	0	01/01/94	12/31/96	0.0273
53304070	0	01/01/94	12/31/96	0.0686
53305010	0	01/01/94	12/31/96	0.0248
53305070	0	01/01/94	12/31/96	0.0553
53305700	0	01/01/94	12/31/96	0.0301
53305720	0	01/01/94	12/31/96	0.0335

53305750	0	01/01/94	12/31/96	0.2391
53306000	0	01/01/94	12/31/96	0.0872
53306070	0	01/01/94	12/31/96	0.3017
53307000	0	01/01/94	12/31/96	0.2769
53307050	0	01/01/94	12/31/96	0.0242
53307070	0	01/01/94	12/31/96	0.0460
53307080	0	01/01/94	12/31/96	0.0147
53307500	0	01/01/94	12/31/96	0.1165
53307570	0	01/01/94	12/31/96	0.1067
53308000	0	01/01/94	12/31/96	0.1349
53308070	0	01/01/94	12/31/96	0.1313
53308300	0	01/01/94	12/31/96	0.0392
53308500	0	01/01/94	12/31/96	0.0332
53309000	0	01/01/94	12/31/96	0.3844
53309070	0	01/01/94	12/31/96	0.3280
53310000	0	01/01/94	12/31/96	0.0721
53310050	0	01/01/94	12/31/96	0.1591
53311000	0	01/01/94	12/31/96	0.0820
53311050	0	01/01/94	12/31/96	0.0725
53311070	0	01/01/94	12/31/96	0.0840
53312000	0	01/01/94	12/31/96	0.0311
53313000	0	01/01/94	12/31/96	0.0635
53314000	0	01/01/94	12/31/96	0.0401
53340000	0	01/01/94	12/31/96	0.0220
53340500	0	01/01/94	12/31/96	0.0126
53341000	0	01/01/94	12/31/96	0.0316
53341070	0	01/01/94	12/31/96	0.0299
53341500	0	01/01/94	12/31/96	0.0176
53341750	0	01/01/94	12/31/96	0.0322
53342000	0	01/01/94	12/31/96	0.0353
53342000	201424	01/01/94	12/31/96	0.0354
53342070	0	01/01/94	12/31/96	0.0416
53343070	0	01/01/94	12/31/96	0.0298
53344070	0	01/01/94	12/31/96	0.0319
53345000	0	01/01/94	12/31/96	0.0173
53345070	0	01/01/94	12/31/96	0.0240
53346000	0	01/01/94	12/31/96	0.0166
53346500	0	01/01/94	12/31/96	0.1436
53347070	0	01/01/94	12/31/96	0.0275
53347100	0	01/01/94	12/31/96	0.0194
53347500	0	01/01/94	12/31/96	0.0354
53347600	0	01/01/94	12/31/96	0.0203
53348000	0	01/01/94	12/31/96	0.3692
53348070	0	01/01/94	12/31/96	0.1745
53360000	0	01/01/94	12/31/96	0.0180
53365000	0	01/01/94	12/31/96	0.0315
53370000	0	01/01/94	12/31/96	0.1074
53371000	0	01/01/94	12/31/96	0.1766
53371100	0	01/01/94	12/31/96	0.0939
53373000	0	01/01/94	12/31/96	0.0339
53381070	0	01/01/94	12/31/96	0.3141
53385070	0	01/01/94	12/31/96	0.0432
53385500	0	01/01/94	12/31/96	0.0190
53386000	0	01/01/94	12/31/96	0.0338
53387000	0	01/01/94	12/31/96	0.0134
53390000	0	01/01/94	12/31/96	0.2380
53400200	0	01/01/94	12/31/96	0.0747
53400200	202289	01/01/94	12/31/96	0.0746
53410100	0	01/01/94	12/31/96	0.0959
53410860	0	01/01/94	12/31/96	0.1074
53415100	0	01/01/94	12/31/96	0.0468
53420000	0	01/01/94	12/31/96	0.1570
53420100	0	01/01/94	12/31/96	0.1445
53420200	0	01/01/94	12/31/96	0.1570
53420300	0	01/01/94	12/31/96	0.2262
53420310	0	01/01/94	12/31/96	0.1751
53420400	0	01/01/94	12/31/96	0.2437
53420410	0	01/01/94	12/31/96	0.1802
53430250	0	01/01/94	12/31/96	0.0506
53430700	0	01/01/94	12/31/96	0.3313
53430750	0	01/01/94	12/31/96	0.2223
53441210	0	01/01/94	12/31/96	0.0499
53450300	0	01/01/94	12/31/96	0.0492
53450500	0	01/01/94	12/31/96	0.0434
53450800	0	01/01/94	12/31/96	0.5987
53451000	0	01/01/94	12/31/96	0.0502
53451500	0	01/01/94	12/31/96	0.1663
53451750	0	01/01/94	12/31/96	0.0334
53452100	0	01/01/94	12/31/96	0.0321
53452150	0	01/01/94	12/31/96	0.3907
53452450	0	01/01/94	12/31/96	0.2301

53453150	0	01/01/94	12/31/96	0.0601
53453170	0	01/01/94	12/31/96	0.1506
53520200	0	01/01/94	12/31/96	0.1885
53521300	0	01/01/94	12/31/96	0.1038
53521400	0	01/01/94	12/31/96	0.1949
53610000	0	01/01/94	12/31/96	0.1964
53610100	0	01/01/94	12/31/96	0.1964
53610200	0	01/01/94	12/31/96	0.1627
55105100	0	01/01/94	12/31/96	0.3144
55105300	0	01/01/94	12/31/96	0.4498
55310100	0	01/01/94	12/31/96	0.1405
55501000	0	01/01/94	12/31/96	0.4325
55502000	0	01/01/94	12/31/96	0.7799
55701000	0	01/01/94	12/31/96	0.7390
55702000	0	01/01/94	12/31/96	0.3202
55703000	0	01/01/94	12/31/96	0.5753
56101000	0	01/01/94	12/31/96	0.6161
56101010	0	01/01/94	12/31/96	0.6161
56101030	0	01/01/94	12/31/96	0.5965
56101030	100587	01/01/94	12/31/96	0.5963
56101030	100687	01/01/94	12/31/96	0.5972
56101030	100848	01/01/94	12/31/96	0.5964
56101030	200303	01/01/94	12/31/96	0.5972
56101030	200582	01/01/94	12/31/96	0.5974
56101030	200676	01/01/94	12/31/96	0.5964
56101030	200710	01/01/94	12/31/96	0.5972
56101030	201261	01/01/94	12/31/96	0.5960
56101030	201700	01/01/94	12/31/96	0.5972
56101030	203004	01/01/94	12/31/96	0.5963
56102000	0	01/01/94	12/31/96	0.6416
56102010	0	01/01/94	12/31/96	0.6416
56102020	0	01/01/94	12/31/96	0.6213
56103000	0	01/01/94	12/31/96	0.6300
56103010	0	01/01/94	12/31/96	0.6300
56103020	0	01/01/94	12/31/96	0.6081
56104000	0	01/01/94	12/31/96	0.6537
56104010	0	01/01/94	12/31/96	0.6537
56104020	0	01/01/94	12/31/96	0.6316
56104020	101158	01/01/94	12/31/96	0.6316
56104020	203201	01/01/94	12/31/96	0.6316
56112000	0	01/01/94	12/31/96	0.6489
56112010	0	01/01/94	12/31/96	0.6489
56112030	0	01/01/94	12/31/96	0.6313
56112030	100345	01/01/94	12/31/96	0.6307
56112030	100795	01/01/94	12/31/96	0.6328
56112030	101042	01/01/94	12/31/96	0.6328
56112030	200030	01/01/94	12/31/96	0.6312
56112030	200078	01/01/94	12/31/96	0.6308
56112030	200103	01/01/94	12/31/96	0.6320
56112030	200201	01/01/94	12/31/96	0.6319
56112030	200319	01/01/94	12/31/96	0.6329
56112030	202024	01/01/94	12/31/96	0.6319
56112030	202044	01/01/94	12/31/96	0.6310
56112030	202090	01/01/94	12/31/96	0.6319
56112030	202921	01/01/94	12/31/96	0.6319
56112030	203069	01/01/94	12/31/96	0.6312
56113000	0	01/01/94	12/31/96	0.6551
56113010	0	01/01/94	12/31/96	0.6416
56113990	0	01/01/94	12/31/96	0.6477
56114000	0	01/01/94	12/31/96	0.6726
56114020	0	01/01/94	12/31/96	0.6301
56114020	201735	01/01/94	12/31/96	0.6300
56114020	201736	01/01/94	12/31/96	0.6298
56116990	0	01/01/94	12/31/96	0.7600
56117000	0	01/01/94	12/31/96	0.7600
56117010	0	01/01/94	12/31/96	0.7374
56117010	101115	01/01/94	12/31/96	0.7374
56117090	0	01/01/94	12/31/96	1.4126
56117100	0	01/01/94	12/31/96	1.4126
56117110	0	01/01/94	12/31/96	1.3722
56117110	203714	01/01/94	12/31/96	1.3722
56117110	203715	01/01/94	12/31/96	1.3722
56130000	0	01/01/94	12/31/96	0.6174
56130010	0	01/01/94	12/31/96	0.6174
56131000	0	01/01/94	12/31/96	0.5978
56131000	100075	01/01/94	12/31/96	0.5984
56131000	100104	01/01/94	12/31/96	0.5984
56131000	100124	01/01/94	12/31/96	0.5984
56131000	100646	01/01/94	12/31/96	0.5994
56131000	100765	01/01/94	12/31/96	0.5984
56131000	100889	01/01/94	12/31/96	0.5986

56131000	200049	01/01/94	12/31/96	0.5984
56131000	200239	01/01/94	12/31/96	0.5986
56131000	200374	01/01/94	12/31/96	0.5972
56131000	200797	01/01/94	12/31/96	0.5984
56131000	201426	01/01/94	12/31/96	0.5977
56131000	202235	01/01/94	12/31/96	0.5975
56131000	203018	01/01/94	12/31/96	0.5994
56131000	203312	01/01/94	12/31/96	0.5984
56132000	0	01/01/94	12/31/96	0.5564
56132990	0	01/01/94	12/31/96	0.6416
56133000	0	01/01/94	12/31/96	0.6416
56133010	0	01/01/94	12/31/96	0.6213
56139990	0	01/01/94	12/31/96	0.6460
56140000	0	01/01/94	12/31/96	0.6490
56200300	0	01/01/94	12/31/96	0.8369
56200350	0	01/01/94	12/31/96	0.8401
56200390	0	01/01/94	12/31/96	0.6499
56200400	0	01/01/94	12/31/96	0.6499
56200490	0	01/01/94	12/31/96	0.7312
56200500	0	01/01/94	12/31/96	0.7312
56200510	0	01/01/94	12/31/96	0.6979
56200990	0	01/01/94	12/31/96	0.8758
56201000	0	01/01/94	12/31/96	0.8787
56201010	0	01/01/94	12/31/96	0.8758
56201020	0	01/01/94	12/31/96	0.8409
56201020	200206	01/01/94	12/31/96	0.8407
56201020	200510	01/01/94	12/31/96	0.8419
56201020	200701	01/01/94	12/31/96	0.8430
56201030	0	01/01/94	12/31/96	0.8787
56201040	0	01/01/94	12/31/96	0.8409
56201040	202296	01/01/94	12/31/96	0.8407
56201060	0	01/01/94	12/31/96	0.7852
56201110	0	01/01/94	12/31/96	0.8401
56201120	0	01/01/94	12/31/96	0.8007
56201120	200697	01/01/94	12/31/96	0.8004
56201120	202470	01/01/94	12/31/96	0.8020
56201120	203248	01/01/94	12/31/96	0.8007
56201120	203354	01/01/94	12/31/96	0.8048
56201130	0	01/01/94	12/31/96	0.8438
56201210	0	01/01/94	12/31/95	0.8375
56201210	0	01/01/96	12/31/96	0.8375
56201220	0	01/01/94	12/31/95	0.7853
56201220	0	01/01/96	12/31/96	0.7853
56201220	101118	01/01/94	12/31/96	0.7845
56201220	200611	01/01/94	12/31/96	0.7850
56201220	202125	01/01/94	12/31/96	0.7869
56201220	202127	01/01/94	12/31/96	0.7869
56201230	0	01/01/94	12/31/95	0.8375
56201230	0	01/01/96	12/31/96	0.8375
56201240	0	01/01/94	12/31/96	0.8095
56201240	202401	01/01/94	12/31/96	0.0006
56201250	0	01/01/94	12/31/96	0.7607
56201250	100871	01/01/94	12/31/96	0.0006
56201250	201828	01/01/94	12/31/96	0.7604
56201260	0	01/01/94	12/31/96	0.8095
56201510	0	01/01/94	12/31/96	0.7577
56201520	0	01/01/94	12/31/96	0.6398
56201540	0	01/01/94	12/31/96	0.4968
56201600	0	01/01/94	12/31/96	0.7415
56201990	0	01/01/94	12/31/96	0.6840
56202000	0	01/01/94	12/31/96	0.6840
56202100	0	01/01/94	12/31/96	0.6491
56202500	0	01/01/94	12/31/96	0.7292
56202960	0	01/01/94	12/31/96	0.8369
56202970	0	01/01/94	12/31/96	0.8369
56202980	0	01/01/94	12/31/96	0.8369
56203000	0	01/01/94	12/31/96	0.8369
56203010	0	01/01/94	12/31/96	0.8369
56203020	0	01/01/94	12/31/96	0.8369
56203030	0	01/01/94	12/31/96	0.7381
56203040	0	01/01/94	12/31/96	0.8067
56203050	0	01/01/94	12/31/96	0.8067
56203050	200205	01/01/94	12/31/96	0.8065
56203050	200546	01/01/94	12/31/96	0.8077
56203050	202566	01/01/94	12/31/96	0.8071
56203050	202886	01/01/94	12/31/96	0.8096
56203050	203497	01/01/94	12/31/96	0.8065
56203060	0	01/01/94	12/31/96	0.8067
56203060	100692	01/01/94	12/31/96	0.8071
56203060	201878	01/01/94	12/31/96	0.8065
56203060	202188	01/01/94	12/31/96	0.8065

56203070	0	01/01/94	12/31/96	0.6925
56203070	200148	01/01/94	12/31/96	0.6922
56203080	0	01/01/94	12/31/96	0.7381
56203090	0	01/01/94	12/31/96	0.6695
56203100	0	01/01/94	12/31/96	0.6200
56203100	201498	01/01/94	12/31/96	0.6198
56203110	0	01/01/94	12/31/96	0.8076
56203120	0	01/01/94	12/31/96	0.7611
56203140	0	01/01/94	12/31/96	0.8452
56203200	0	01/01/94	12/31/96	0.7731
56203540	0	01/01/94	12/31/96	0.4016
56203600	0	01/01/95	12/31/96	0.8401
56203610	0	01/01/95	12/31/96	0.8099
56203620	0	01/01/95	12/31/96	0.8138
56204980	0	01/01/94	12/31/96	0.6879
56204990	0	01/01/94	12/31/96	0.6369
56205000	0	01/01/94	12/31/96	0.6369
56205010	0	01/01/94	12/31/96	0.6369
56205020	0	01/01/94	12/31/96	0.6958
56205030	0	01/01/94	12/31/96	0.6958
56205040	0	01/01/94	12/31/96	0.6879
56205050	0	01/01/94	12/31/96	0.8583
56205070	0	01/01/94	12/31/96	0.5979
56205080	0	01/01/94	12/31/96	0.3974
56205090	0	01/01/94	12/31/96	0.9587
56205110	0	01/01/94	12/31/96	0.6944
56205120	0	01/01/94	12/31/96	0.6944
56205130	0	01/01/94	12/31/96	0.7112
56205150	0	01/01/94	12/31/96	0.7290
56205170	0	01/01/94	12/31/96	0.7112
56205170	100065	01/01/94	12/31/96	0.7113
56205170	200798	01/01/94	12/31/96	0.7113
56205170	200826	01/01/94	12/31/96	0.7113
56205170	201429	01/01/94	12/31/96	0.7111
56205190	0	01/01/94	12/31/96	0.7390
56205210	0	01/01/94	12/31/96	0.7109
56205240	0	01/01/94	12/31/96	0.5010
56205300	0	01/01/94	12/31/96	0.7291
56205310	0	01/01/94	12/31/96	0.7284
56205320	0	01/01/94	12/31/96	0.7110
56205320	101133	01/01/94	12/31/96	0.7110
56205330	0	01/01/94	12/31/96	0.7110
56205340	0	01/01/94	12/31/96	0.7104
56205350	0	01/01/94	12/31/96	0.7104
56205400	0	01/01/94	12/31/96	0.6014
56205400	100098	01/01/94	12/31/96	0.6012
56205400	200334	01/01/94	12/31/96	0.6025
56205400	200590	01/01/94	12/31/96	0.6045
56205400	202789	01/01/94	12/31/96	0.6028
56205410	0	01/01/94	12/31/96	0.4930
56205420	0	01/01/94	12/31/96	0.6014
56205420	100525	01/01/94	12/31/96	0.6028
56205420	200056	01/01/94	12/31/96	0.6012
56205420	200124	01/01/94	12/31/96	0.6043
56205420	200263	01/01/94	12/31/96	0.6028
56205420	200333	01/01/94	12/31/96	0.6025
56205420	200371	01/01/94	12/31/96	0.6025
56205420	200424	01/01/94	12/31/96	0.6009
56205420	200575	01/01/94	12/31/96	0.6025
56205420	200926	01/01/94	12/31/96	0.6043
56205420	201116	01/01/94	12/31/96	0.6025
56205420	201193	01/01/94	12/31/96	0.6009
56205420	201246	01/01/94	12/31/96	0.6045
56205420	201315	01/01/94	12/31/96	0.6005
56205420	201329	01/01/94	12/31/96	0.6045
56205420	201888	01/01/94	12/31/96	0.6012
56205420	202219	01/01/94	12/31/96	0.6043
56205420	202524	01/01/94	12/31/96	0.6045
56205420	202596	01/01/94	12/31/96	0.6003
56205420	202629	01/01/94	12/31/96	0.6025
56205430	0	01/01/94	12/31/96	0.6586
56205430	100022	01/01/94	12/31/96	0.6584
56205430	100731	01/01/94	12/31/96	0.6616
56205430	200369	01/01/94	12/31/96	0.6581
56205430	201200	01/01/94	12/31/96	0.6584
56205430	201727	01/01/94	12/31/96	0.6601
56205430	201979	01/01/94	12/31/96	0.6598
56205430	203217	01/01/94	12/31/96	0.6598
56205430	203757	01/01/94	12/31/96	0.6576
56205440	0	01/01/94	12/31/96	0.6531
56205440	100296	01/01/94	12/31/96	0.6522

56205440	100497	01/01/94	12/31/96	0.6542
56205440	100900	01/01/94	12/31/96	0.6542
56205440	200204	01/01/94	12/31/96	0.6529
56205440	201739	01/01/94	12/31/96	0.6526
56205440	201931	01/01/94	12/31/96	0.6545
56205440	203203	01/01/94	12/31/96	0.6559
56205510	0	01/01/94	12/31/96	0.6627
56205510	100484	01/01/94	12/31/96	0.6637
56205510	100725	01/01/94	12/31/96	0.6653
56205510	200358	01/01/94	12/31/96	0.6655
56205510	200373	01/01/94	12/31/96	0.6637
56205510	200470	01/01/94	12/31/96	0.6625
56205510	200581	01/01/94	12/31/96	0.6637
56205510	200836	01/01/94	12/31/96	0.6640
56205510	201205	01/01/94	12/31/96	0.6623
56205510	202170	01/01/94	12/31/96	0.6617
56205530	0	01/01/94	12/31/96	0.6625
56205540	0	01/01/94	12/31/96	0.6944
56205550	0	01/01/94	12/31/96	0.6625
56206970	0	01/01/94	12/31/96	0.8774
56206980	0	01/01/94	12/31/96	0.8806
56206990	0	01/01/94	12/31/96	0.8774
56207000	0	01/01/94	12/31/96	0.8774
56207010	0	01/01/94	12/31/96	0.8806
56207020	0	01/01/94	12/31/96	0.8774
56207030	0	01/01/94	12/31/96	0.8445
56207050	0	01/01/94	12/31/96	0.3977
56207060	0	01/01/94	12/31/96	0.8042
56207060	203174	01/01/94	12/31/96	0.8039
56207070	0	01/01/94	12/31/96	0.8445
56207080	0	01/01/94	12/31/96	0.8425
56207100	0	01/01/94	12/31/96	0.8621
56207110	0	01/01/94	12/31/96	0.5151
56207120	0	01/01/94	12/31/96	0.4818
56207130	0	01/01/94	12/31/96	0.5151
56207140	0	01/01/94	12/31/96	0.8633
56207150	0	01/01/94	12/31/96	0.6967
56207160	0	01/01/94	12/31/96	0.6967
56207180	0	01/01/94	12/31/96	0.6573
56207180	100633	01/01/94	12/31/96	0.6573
56207180	203150	01/01/94	12/31/96	0.6591
56207190	0	01/01/94	12/31/96	0.8633
56207200	0	01/01/94	12/31/96	0.8633
56207210	0	01/01/94	12/31/96	0.8293
56207210	202982	01/01/94	12/31/96	0.8302
56207220	0	01/01/94	12/31/96	0.8454
56207220	200495	01/01/94	12/31/96	0.8455
56207220	202361	01/01/94	12/31/96	0.8452
56207230	0	01/01/94	12/31/96	0.8425
56207230	201794	01/01/94	12/31/96	0.8423
56207290	0	01/01/94	12/31/96	0.8385
56207300	0	01/01/94	12/31/96	0.7934
56207310	0	01/01/94	12/31/96	0.8633
56207330	0	01/01/94	12/31/96	0.7646
56207340	0	01/01/94	12/31/96	0.7934
56207360	0	01/01/94	12/31/96	0.8438
56207370	0	01/01/94	12/31/96	0.8438
56208000	0	01/01/94	12/31/96	0.7540
56208010	0	01/01/94	12/31/96	0.9579
56208020	0	01/01/94	12/31/96	0.9579
56208500	0	01/01/94	12/31/96	0.8624
56208510	0	01/01/94	12/31/96	0.8285
56208520	0	01/01/94	12/31/96	0.8624
56208600	0	01/01/94	12/31/96	0.8069
56209000	0	01/01/94	12/31/96	0.8790
56210000	0	01/01/94	12/31/96	0.7878
58100300	0	01/01/94	12/31/96	0.1563
58100330	0	01/01/94	12/31/96	0.0207
58100330	100624	01/01/94	12/31/96	0.0227
58100360	0	01/01/94	12/31/96	0.3344
58100370	0	01/01/94	12/31/96	0.3954
58101820	0	01/01/94	12/31/96	0.0415
58101830	0	01/01/94	12/31/96	0.0466
58101910	0	01/01/94	12/31/96	0.0393
58101910	201254	01/01/94	12/31/96	0.0393
58103110	0	01/01/94	12/31/96	0.2891
58103110	100141	01/01/94	12/31/96	0.2891
58103110	100743	01/01/94	12/31/96	0.2891
58103110	200132	01/01/94	12/31/96	0.2891
58103250	0	01/01/94	12/31/96	0.4716
58103310	0	01/01/94	12/31/96	0.4674

58103310	101032	01/01/94	12/31/96	0.4666
58103310	101166	01/01/94	12/31/96	0.4669
58104600	0	01/01/94	12/31/96	0.1274
58106210	0	01/01/94	12/31/96	0.1215
58106210	100946	01/01/94	12/31/96	0.1037
58106310	0	01/01/94	12/31/96	0.1009
58106320	0	01/01/94	12/31/96	0.1009
58106320	100123	01/01/94	12/31/96	0.0888
58106320	100226	01/01/94	12/31/96	0.1008
58106360	0	01/01/94	12/31/96	0.1471
58106510	0	01/01/94	12/31/96	0.1039
58106520	0	01/01/94	12/31/96	0.1039
58106520	100072	01/01/94	12/31/96	0.1076
58106520	100184	01/01/94	12/31/96	0.0905
58106710	0	01/01/94	12/31/96	0.0893
58106710	100942	01/01/94	12/31/96	0.0796
58106720	0	01/01/94	12/31/96	0.0893
58106720	100362	01/01/94	12/31/96	0.0796
58106740	0	01/01/94	12/31/96	0.0907
58106750	0	01/01/94	12/31/96	0.0907
58106760	0	01/01/94	12/31/96	0.1310
58106900	0	01/01/94	12/31/96	0.1343
58106910	0	01/01/94	12/31/96	0.1343
58106920	0	01/01/94	12/31/96	0.1618
58107050	0	01/01/94	12/31/96	0.1578
58107210	0	01/01/94	12/31/96	0.1377
58107220	0	01/01/94	12/31/96	0.1377
58107230	0	01/01/94	12/31/96	0.1447
58108030	0	01/01/94	12/31/96	0.2539
58108040	0	01/01/94	12/31/96	0.2559
58110110	0	01/01/94	12/31/96	0.3761
58110120	0	01/01/94	12/31/96	0.3874
58110130	0	01/01/94	12/31/96	0.3612
58110130	201535	01/01/94	12/31/96	0.3612
58110130	202786	01/01/94	12/31/96	0.3610
58110170	0	01/01/94	12/31/96	0.4310
58111200	0	01/01/94	12/31/96	0.0873
58112110	0	01/01/94	12/31/96	0.0612
58112510	0	01/01/94	12/31/96	0.0946
58112510	100999	01/01/94	12/31/96	0.0946
58113110	0	01/01/94	12/31/96	0.0650
58115110	0	01/01/94	12/31/96	0.2065
58115210	0	01/01/94	12/31/96	0.0643
58116210	0	01/01/94	12/31/96	0.0223
58116310	0	01/01/94	12/31/96	0.1577
58116410	0	01/01/94	12/31/96	0.3076
58117110	0	01/01/94	12/31/96	0.4952
58117210	0	01/01/94	12/31/96	0.2008
58117310	0	01/01/94	12/31/96	0.3453
58120120	0	01/01/94	12/31/96	0.0863
58121410	0	01/01/94	12/31/96	0.4696
58121510	0	01/01/94	12/31/96	0.0689
58121510	100364	01/01/94	12/31/96	0.0655
58121510	202857	01/01/94	12/31/96	0.0655
58122210	0	01/01/94	12/31/96	0.3408
58123110	0	01/01/94	12/31/96	0.3274
58123120	0	01/01/94	12/31/96	0.1756
58124110	0	01/01/94	12/31/96	0.1930
58125110	0	01/01/94	12/31/96	0.0291
58125110	100851	01/01/94	12/31/96	0.0296
58125120	0	01/01/94	12/31/96	0.0214
58125120	200843	01/01/94	12/31/96	0.0214
58125120	203099	01/01/94	12/31/96	0.0217
58125180	0	01/01/94	12/31/96	0.0284
58126000	0	01/01/94	12/31/96	0.1810
58126110	0	01/01/94	12/31/96	0.0710
58126120	0	01/01/94	12/31/96	0.0466
58126120	100768	01/01/94	12/31/96	0.0457
58126140	0	01/01/94	12/31/96	0.1264
58126180	0	01/01/94	12/31/96	0.0546
58126270	0	01/01/94	12/31/96	0.0637
58126310	0	01/01/94	12/31/96	0.0430
58128110	0	01/01/94	12/31/96	0.3901
58128120	0	01/01/94	12/31/96	0.0705
58128210	0	01/01/94	12/31/96	0.1132
58128220	0	01/01/94	12/31/96	0.1286
58128250	0	01/01/94	12/31/96	0.1215
58128250	203763	01/01/94	12/31/96	0.1215
58130010	0	01/01/94	12/31/96	0.2351
58130010	100225	01/01/94	12/31/96	0.2348
58130010	100323	01/01/94	12/31/96	0.2357

58130010	100456	01/01/94	12/31/96	0.2332
58130010	100468	01/01/94	12/31/96	0.2353
58130010	100600	01/01/94	12/31/96	0.2340
58130010	100631	01/01/94	12/31/96	0.2343
58130010	100681	01/01/94	12/31/96	0.2349
58130010	200987	01/01/94	12/31/96	0.2351
58130010	201239	01/01/94	12/31/96	0.2356
58130010	201716	01/01/94	12/31/96	0.2355
58130010	201991	01/01/94	12/31/96	0.2350
58130010	202083	01/01/94	12/31/96	0.2355
58130010	202087	01/01/94	12/31/96	0.2353
58130010	202145	01/01/94	12/31/96	0.2346
58130010	202580	01/01/94	12/31/96	0.2338
58130010	202687	01/01/94	12/31/96	0.2342
58130010	202998	01/01/94	12/31/96	0.2352
58130010	203295	01/01/94	12/31/96	0.2358
58130010	203398	01/01/94	12/31/96	0.2359
58130010	203672	01/01/94	12/31/96	0.2329
58130020	0	01/01/94	12/31/96	0.2171
58130150	0	01/01/94	12/31/96	0.2170
58130310	0	01/01/94	12/31/96	0.2630
58130310	200077	01/01/94	12/31/96	0.2636
58130320	0	01/01/94	12/31/96	0.2406
58130320	100909	01/01/94	12/31/96	0.2408
58130320	202985	01/01/94	12/31/96	0.2412
58130610	0	01/01/94	12/31/96	0.2445
58130810	0	01/01/94	12/31/96	0.2735
58131100	0	01/01/94	12/31/96	0.0280
58131110	0	01/01/94	12/31/96	0.0891
58131310	0	01/01/94	12/31/96	0.0260
58131310	202452	01/01/94	12/31/96	0.0260
58131310	203158	01/01/94	12/31/96	0.0260
58131320	0	01/01/94	12/31/96	0.0854
58131320	201272	01/01/94	12/31/96	0.0854
58131320	202035	01/01/94	12/31/96	0.0854
58131510	0	01/01/94	12/31/96	0.0294
58131510	201301	01/01/94	12/31/96	0.0313
58131520	0	01/01/94	12/31/96	0.0914
58131530	0	01/01/94	12/31/96	0.0846
58131600	0	01/01/94	12/31/96	0.0196
58132110	0	01/01/94	12/31/96	0.2625
58132310	0	01/01/94	12/31/96	0.1603
58132310	100548	01/01/94	12/31/96	0.1602
58132310	100742	01/01/94	12/31/96	0.1603
58132310	101011	01/01/94	12/31/96	0.1601
58132310	200434	01/01/94	12/31/96	0.1603
58132310	200855	01/01/94	12/31/96	0.1603
58132310	201455	01/01/94	12/31/96	0.1602
58132310	202057	01/01/94	12/31/96	0.1602
58132350	0	01/01/94	12/31/96	0.2728
58132360	0	01/01/94	12/31/96	0.1665
58132710	0	01/01/94	12/31/96	0.2132
58132800	0	01/01/94	12/31/96	0.4172
58132810	0	01/01/94	12/31/96	0.3284
58132820	0	01/01/94	12/31/96	0.4172
58132820	101043	01/01/94	12/31/96	0.4155
58132910	0	01/01/94	12/31/96	0.2131
58133110	0	01/01/94	12/31/96	0.0370
58133120	0	01/01/94	12/31/96	0.1898
58133120	101079	01/01/94	12/31/96	0.1914
58133130	0	01/01/94	12/31/96	0.1776
58133130	202209	01/01/94	12/31/96	0.1760
58133140	0	01/01/94	12/31/96	0.1898
58134110	0	01/01/94	12/31/96	0.0421
58134120	0	01/01/94	12/31/96	0.2060
58134120	100340	01/01/94	12/31/96	0.2060
58134130	0	01/01/94	12/31/96	0.1920
58134160	0	01/01/94	12/31/96	0.0520
58134210	0	01/01/94	12/31/96	0.1051
58134310	0	01/01/94	12/31/96	0.1053
58134610	0	01/01/94	12/31/96	0.3901
58134620	0	01/01/94	12/31/96	0.0920
58134640	0	01/01/94	12/31/96	0.1247
58134650	0	01/01/94	12/31/96	0.0261
58134660	0	01/01/94	12/31/96	0.0911
58134710	0	01/01/94	12/31/96	0.3901
58134720	0	01/01/94	12/31/96	0.0306
58134810	0	01/01/94	12/31/96	0.1112
58135110	0	01/01/94	12/31/96	0.0713
58135110	202655	01/01/94	12/31/96	0.0711
58136110	0	01/01/94	12/31/96	0.1464

58136110	100830	01/01/94	12/31/96	0.1463
58136110	101024	01/01/94	12/31/96	0.1464
58136110	202455	01/01/94	12/31/96	0.1463
58136110	203157	01/01/94	12/31/96	0.1464
58136120	0	01/01/94	12/31/96	0.2821
58136130	0	01/01/94	12/31/96	0.1289
58140110	0	01/01/94	12/31/96	0.2838
58140310	0	01/01/94	12/31/96	0.2641
58145110	0	01/01/94	12/31/96	0.2527
58145110	100035	01/01/94	12/31/96	0.2639
58145110	100038	01/01/94	12/31/96	0.2525
58145110	100067	01/01/94	12/31/96	0.2526
58145110	100074	01/01/94	12/31/96	0.2526
58145110	100081	01/01/94	12/31/96	0.2471
58145110	100100	01/01/94	12/31/96	0.2523
58145110	100111	01/01/94	12/31/96	0.2641
58145110	100298	01/01/94	12/31/96	0.2525
58145110	100374	01/01/94	12/31/96	0.2535
58145110	100914	01/01/94	12/31/96	0.2636
58145110	100958	01/01/94	12/31/96	0.2640
58145110	101056	01/01/94	12/31/96	0.2525
58145110	101149	01/01/94	12/31/96	0.2647
58145110	101168	01/01/94	12/31/96	0.2636
58145110	200082	01/01/94	12/31/96	0.2528
58145110	200304	01/01/94	12/31/96	0.2552
58145110	200518	01/01/94	12/31/96	0.2526
58145110	200648	01/01/94	12/31/96	0.2642
58145110	200700	01/01/94	12/31/96	0.2524
58145110	200712	01/01/94	12/31/96	0.2529
58145110	200718	01/01/94	12/31/96	0.2527
58145110	200741	01/01/94	12/31/96	0.2644
58145110	200776	01/01/94	12/31/96	0.2520
58145110	200784	01/01/94	12/31/96	0.2521
58145110	200998	01/01/94	12/31/96	0.2528
58145110	201004	01/01/94	12/31/96	0.2533
58145110	201270	01/01/94	12/31/96	0.2522
58145110	201287	01/01/94	12/31/96	0.2639
58145110	201514	01/01/94	12/31/96	0.2529
58145110	201556	01/01/94	12/31/96	0.2530
58145110	201602	01/01/94	12/31/96	0.2524
58145110	201667	01/01/94	12/31/96	0.2640
58145110	201884	01/01/94	12/31/96	0.2633
58145110	201909	01/01/94	12/31/96	0.2635
58145110	201943	01/01/94	12/31/96	0.2532
58145110	202062	01/01/94	12/31/96	0.2633
58145110	202143	01/01/94	12/31/96	0.2522
58145110	202175	01/01/94	12/31/96	0.2634
58145110	202234	01/01/94	12/31/96	0.2525
58145110	202506	01/01/94	12/31/96	0.2524
58145110	202522	01/01/94	12/31/96	0.2522
58145110	202617	01/01/94	12/31/96	0.2523
58145110	202705	01/01/94	12/31/96	0.2532
58145110	202856	01/01/94	12/31/96	0.2530
58145110	202862	01/01/94	12/31/96	0.2531
58145110	202899	01/01/94	12/31/96	0.2632
58145110	202927	01/01/94	12/31/96	0.2637
58145110	202967	01/01/94	12/31/96	0.2638
58145110	203052	01/01/94	12/31/96	0.2629
58145110	203124	01/01/94	12/31/96	0.2522
58145110	203126	01/01/94	12/31/96	0.2532
58145110	203131	01/01/94	12/31/96	0.2637
58145110	203141	01/01/94	12/31/96	0.2523
58145110	203155	01/01/94	12/31/96	0.2524
58145110	203186	01/01/94	12/31/96	0.2658
58145110	203200	01/01/94	12/31/96	0.2529
58145110	203265	01/01/94	12/31/96	0.2530
58145110	203446	01/01/94	12/31/96	0.2649
58145110	203576	01/01/94	12/31/96	0.2527
58145110	203666	01/01/94	12/31/96	0.2522
58145110	203751	01/01/94	12/31/96	0.2518
58145110	203754	01/01/94	12/31/96	0.2540
58145114	0	01/01/94	12/31/96	0.4547
58145114	100040	01/01/94	12/31/96	0.4547
58145114	100042	01/01/94	12/31/96	0.4547
58145114	100079	01/01/94	12/31/96	0.4544
58145114	100090	01/01/94	12/31/96	0.4545
58145114	100092	01/01/94	12/31/96	0.5014
58145114	100094	01/01/94	12/31/96	0.5558
58145114	100106	01/01/94	12/31/96	0.5014
58145114	100126	01/01/94	12/31/96	0.6110
58145114	100158	01/01/94	12/31/96	0.4546

58145114	100232	01/01/94	12/31/96	0.5014
58145114	100268	01/01/94	12/31/96	0.5014
58145114	100294	01/01/94	12/31/96	0.5541
58145114	100380	01/01/94	12/31/96	0.5537
58145114	100583	01/01/94	12/31/96	0.4562
58145114	101077	01/01/94	12/31/96	0.4543
58145114	200445	01/01/94	12/31/96	0.4541
58145114	200473	01/01/94	12/31/96	0.4545
58145114	200503	01/01/94	12/31/96	0.4547
58145114	200541	01/01/94	12/31/96	0.4545
58145114	200808	01/01/94	12/31/96	0.4545
58145114	201100	01/01/94	12/31/96	0.4545
58145114	201129	01/01/94	12/31/96	0.4545
58145114	201179	01/01/94	12/31/96	0.5011
58145114	201232	01/01/94	12/31/96	0.4546
58145114	201519	01/01/94	12/31/96	0.4545
58145114	201584	01/01/94	12/31/96	0.4541
58145114	201592	01/01/94	12/31/96	0.4543
58145114	201666	01/01/94	12/31/96	0.4546
58145114	201972	01/01/94	12/31/96	0.4545
58145114	201973	01/01/94	12/31/96	0.4551
58145114	202001	01/01/94	12/31/96	0.4541
58145114	202050	01/01/94	12/31/96	0.4539
58145114	202355	01/01/94	12/31/96	0.4541
58145114	202639	01/01/94	12/31/96	0.4562
58145114	202765	01/01/94	12/31/96	0.4547
58145114	203339	01/01/94	12/31/96	0.5532
58145114	203438	01/01/94	12/31/96	0.4545
58145114	203477	01/01/94	12/31/96	0.4545
58145114	203547	01/01/94	12/31/96	0.5011
58145115	0	01/01/94	12/31/96	0.5345
58145120	0	01/01/94	12/31/96	0.2214
58145120	100521	01/01/94	12/31/96	0.2214
58145120	200545	01/01/94	12/31/96	0.2214
58145120	201431	01/01/94	12/31/96	0.2215
58145120	203026	01/01/94	12/31/96	0.2214
58145130	0	01/01/94	12/31/96	0.1785
58145130	202681	01/01/94	12/31/96	0.1785
58145140	0	01/01/94	12/31/96	0.3546
58145150	0	01/01/94	12/31/96	0.2193
58145150	100993	01/01/94	12/31/96	0.2193
58145160	0	01/01/94	12/31/96	0.2034
58145160	200679	01/01/94	12/31/96	0.2032
58145170	0	01/01/94	12/31/96	0.2443
58145170	100204	01/01/94	12/31/96	0.2440
58145170	100218	01/01/94	12/31/96	0.2546
58145170	100413	01/01/94	12/31/96	0.2544
58145170	100469	01/01/94	12/31/96	0.2542
58145170	100487	01/01/94	12/31/96	0.2444
58145170	100652	01/01/94	12/31/96	0.2443
58145170	100709	01/01/94	12/31/96	0.2418
58145170	100881	01/01/94	12/31/96	0.2437
58145170	100967	01/01/94	12/31/96	0.2544
58145170	100988	01/01/94	12/31/96	0.2570
58145170	201233	01/01/94	12/31/96	0.2444
58145170	201430	01/01/94	12/31/96	0.2540
58145170	201771	01/01/94	12/31/96	0.2442
58145170	201821	01/01/94	12/31/96	0.2436
58145170	201925	01/01/94	12/31/96	0.2550
58145170	202126	01/01/94	12/31/96	0.2441
58145170	202155	01/01/94	12/31/96	0.2540
58145170	202543	01/01/94	12/31/96	0.2442
58145170	202746	01/01/94	12/31/96	0.2443
58145170	202785	01/01/94	12/31/96	0.2547
58145170	202792	01/01/94	12/31/96	0.2439
58145170	202864	01/01/94	12/31/96	0.2439
58145170	202922	01/01/94	12/31/96	0.2443
58145170	203457	01/01/94	12/31/96	0.2440
58146100	0	01/01/94	12/31/96	0.4528
58146120	0	01/01/94	12/31/96	0.0786
58146120	100541	01/01/94	12/31/96	0.0788
58146120	100744	01/01/94	12/31/96	0.0780
58146120	202202	01/01/94	12/31/96	0.0787
58146130	0	01/01/94	12/31/96	0.4447
58146150	0	01/01/94	12/31/96	0.4403
58146150	100169	01/01/94	12/31/96	0.4407
58146150	201033	01/01/94	12/31/96	0.4405
58146150	202459	01/01/94	12/31/96	0.4405
58146300	0	01/01/94	12/31/96	0.3437
58146310	0	01/01/94	12/31/96	0.3769
58147100	0	01/01/94	12/31/96	0.4150

58147110	0	01/01/94	12/31/96	0.1537
58147310	0	01/01/94	12/31/96	0.3040
58147310	100089	01/01/94	12/31/96	0.3039
58147310	100315	01/01/94	12/31/96	0.3079
58147310	100420	01/01/94	12/31/96	0.3035
58147310	100861	01/01/94	12/31/96	0.3071
58147310	200615	01/01/94	12/31/96	0.3046
58147310	200861	01/01/94	12/31/96	0.3039
58147310	200878	01/01/94	12/31/96	0.3040
58147310	203041	01/01/94	12/31/96	0.3039
58147310	203303	01/01/94	12/31/96	0.3035
58147330	0	01/01/94	12/31/96	0.4667
58147330	101093	01/01/94	12/31/96	0.4667
58147330	201847	01/01/94	12/31/96	0.4657
58147330	203187	01/01/94	12/31/96	0.4675
58147350	0	01/01/94	12/31/96	0.2326
58148110	0	01/01/94	12/31/96	0.3669
58148110	100320	01/01/94	12/31/96	0.3701
58148110	100558	01/01/94	12/31/96	0.3669
58148110	200748	01/01/94	12/31/96	0.3675
58148110	200749	01/01/94	12/31/96	0.3669
58148110	202756	01/01/94	12/31/96	0.3677
58148110	202859	01/01/94	12/31/96	0.3625
58148110	203088	01/01/94	12/31/96	0.3637
58148110	203450	01/01/94	12/31/96	0.3637
58148120	0	01/01/94	12/31/96	0.2876
58148120	100730	01/01/94	12/31/96	0.2902
58148120	100815	01/01/94	12/31/96	0.2881
58148120	200326	01/01/94	12/31/96	0.2840
58148120	201672	01/01/94	12/31/96	0.2876
58148120	202619	01/01/94	12/31/96	0.2881
58148130	0	01/01/94	12/31/96	0.3116
58148130	202070	01/01/94	12/31/96	0.3139
58148130	202491	01/01/94	12/31/96	0.3120
58148140	0	01/01/94	12/31/96	0.3175
58148140	100659	01/01/94	12/31/96	0.3183
58148140	200570	01/01/94	12/31/96	0.3148
58148140	201317	01/01/94	12/31/96	0.3199
58148140	203037	01/01/94	12/31/96	0.3203
58148150	0	01/01/94	12/31/96	0.3197
58148150	100831	01/01/94	12/31/96	0.3221
58148160	0	01/01/94	12/31/96	0.2394
58148160	201511	01/01/94	12/31/96	0.2412
58148170	0	01/01/94	12/31/96	0.2196
58148170	100460	01/01/94	12/31/96	0.2212
58148170	100461	01/01/94	12/31/96	0.2198
58148170	100921	01/01/94	12/31/96	0.2197
58148170	203444	01/01/94	12/31/96	0.2162
58148180	0	01/01/94	12/31/96	0.2513
58148180	100446	01/01/94	12/31/96	0.2499
58148180	200459	01/01/94	12/31/96	0.2486
58148180	202350	01/01/94	12/31/96	0.2499
58148500	0	01/01/94	12/31/96	0.3173
58148500	100215	01/01/94	12/31/96	0.3212
58148500	100561	01/01/94	12/31/96	0.3182
58148500	200916	01/01/94	12/31/96	0.3217
58148500	202199	01/01/94	12/31/96	0.3173
58148500	202293	01/01/94	12/31/96	0.3173
58148500	202464	01/01/94	12/31/96	0.3208
58148500	202538	01/01/94	12/31/96	0.3162
58148500	202652	01/01/94	12/31/96	0.3139
58148500	203139	01/01/94	12/31/96	0.3173
58148500	203163	01/01/94	12/31/96	0.3150
58148500	203166	01/01/94	12/31/96	0.3126
58148550	0	01/01/94	12/31/96	0.3017
58148550	100301	01/01/94	12/31/96	0.3030
58148550	100359	01/01/94	12/31/96	0.3006
58148550	100383	01/01/94	12/31/96	0.3017
58148550	100961	01/01/94	12/31/96	0.3017
58148550	101031	01/01/94	12/31/96	0.2989
58148550	101089	01/01/94	12/31/96	0.3014
58148550	200900	01/01/94	12/31/96	0.3041
58148550	202947	01/01/94	12/31/96	0.3051
58148550	203165	01/01/94	12/31/96	0.3016
58148550	203271	01/01/94	12/31/96	0.3027
58148600	0	01/01/94	12/31/96	0.7035
58149110	0	01/01/94	12/31/96	0.4146
58150110	0	01/01/94	12/31/96	0.3896
58150110	101037	01/01/94	12/31/96	0.4168
58150110	101111	01/01/94	12/31/96	0.3893
58150110	201383	01/01/94	12/31/96	0.3896

58150110	202499	01/01/94	12/31/96	0.3896
58150110	203232	01/01/94	12/31/96	0.3896
58150310	0	01/01/94	12/31/96	0.3930
58150310	100227	01/01/94	12/31/96	0.3931
58150310	100457	01/01/94	12/31/96	0.3928
58150310	100533	01/01/94	12/31/96	0.3959
58150310	100629	01/01/94	12/31/96	0.3853
58150310	100839	01/01/94	12/31/96	0.3929
58150310	201013	01/01/94	12/31/96	0.3931
58150310	201798	01/01/94	12/31/96	0.3937
58150310	202426	01/01/94	12/31/96	0.3930
58150510	0	01/01/94	12/31/96	0.3956
58151100	0	01/01/94	12/31/96	0.3523
58151110	0	01/01/94	12/31/96	0.4771
58151120	0	01/01/94	12/31/96	0.3453
58151130	0	01/01/94	12/31/96	0.3054
58151130	100733	01/01/94	12/31/96	0.3046
58151140	0	01/01/94	12/31/96	0.4725
58151160	0	01/01/94	12/31/96	0.2136
58155110	0	01/01/94	12/31/96	0.2150
58155210	0	01/01/94	12/31/96	0.1644
58155310	0	01/01/94	12/31/96	0.0919
58155320	0	01/01/94	12/31/96	0.1307
58155410	0	01/01/94	12/31/96	0.5247
58155510	0	01/01/94	12/31/96	0.4073
58155610	0	01/01/94	12/31/96	0.0156
58155810	0	01/01/94	12/31/96	0.3919
58155910	0	01/01/94	12/31/96	0.1648
58156110	0	01/01/94	12/31/96	0.1263
58156210	0	01/01/94	12/31/96	0.2554
58156310	0	01/01/94	12/31/96	0.2422
58156410	0	01/01/94	12/31/96	0.2099
58156510	0	01/01/94	12/31/96	0.4271
58156610	0	01/01/94	12/31/96	0.4435
58156610	100252	01/01/94	12/31/96	0.4435
58156710	0	01/01/94	12/31/96	0.4112
58157110	0	01/01/94	12/31/96	0.6419
58157210	0	01/01/94	12/31/96	0.0135
58160110	0	01/01/94	12/31/96	0.5751
58160110	100109	01/01/94	12/31/96	0.2891
58160110	100495	01/01/94	12/31/96	0.3057
58160110	100707	01/01/94	12/31/96	0.2743
58160110	100756	01/01/94	12/31/96	0.2883
58160110	100782	01/01/94	12/31/96	0.2643
58160110	101016	01/01/94	12/31/96	0.5763
58160110	101153	01/01/94	12/31/96	0.2706
58160110	202579	01/01/94	12/31/96	0.5765
58160110	202636	01/01/94	12/31/96	0.3241
58160110	202795	01/01/94	12/31/96	0.3047
58160110	202997	01/01/94	12/31/96	0.6071
58160110	203028	01/01/94	12/31/96	0.3084
58160110	203062	01/01/94	12/31/96	0.3056
58160110	203184	01/01/94	12/31/96	0.2923
58160110	203294	01/01/94	12/31/96	0.5751
58160110	203487	01/01/94	12/31/96	0.2749
58160120	0	01/01/94	12/31/96	0.4303
58160120	100705	01/01/94	12/31/96	0.2148
58160120	100736	01/01/94	12/31/96	0.2152
58160120	100870	01/01/94	12/31/96	0.2156
58160120	202564	01/01/94	12/31/96	0.2170
58160120	202581	01/01/94	12/31/96	0.2152
58160120	203349	01/01/94	12/31/96	0.2170
58160130	0	01/01/94	12/31/96	0.3710
58160130	203680	01/01/94	12/31/96	0.4139
58160130	203689	01/01/94	12/31/96	0.2088
58160140	0	01/01/94	12/31/96	0.4862
58160140	203766	01/01/94	12/31/96	0.4736
58160150	0	01/01/94	12/31/96	0.2145
58160150	201187	01/01/94	12/31/96	0.2158
58160150	202203	01/01/94	12/31/96	0.2158
58160150	202717	01/01/94	12/31/96	0.2158
58160150	202814	01/01/94	12/31/96	0.2158
58160150	203010	01/01/94	12/31/96	0.2212
58160150	203198	01/01/94	12/31/96	0.2158
58161300	0	01/01/94	12/31/96	0.4149
58161300	100214	01/01/94	12/31/96	0.4203
58161300	200211	01/01/94	12/31/96	0.4151
58161300	201024	01/01/94	12/31/96	0.4151
58161300	201263	01/01/94	12/31/96	0.4154
58161300	201635	01/01/94	12/31/96	0.4151
58161300	201663	01/01/94	12/31/96	0.4154

58161310	0	01/01/94	12/31/96	0.4842
58161310	203490	01/01/94	12/31/96	0.4897
58161310	203773	01/01/94	12/31/96	0.4844
58161510	0	01/01/94	12/31/96	0.1610
58161710	0	01/01/94	12/31/96	0.3636
58162110	0	01/01/94	12/31/96	0.1120
58162110	100814	01/01/94	12/31/96	0.1121
58162110	201757	01/01/94	12/31/96	0.1132
58162110	202071	01/01/94	12/31/96	0.1124
58162110	203103	01/01/94	12/31/96	0.1130
58162110	203578	01/01/94	12/31/96	0.1124
58162120	0	01/01/94	12/31/96	0.1715
58162130	0	01/01/94	12/31/96	0.1372
58162140	0	01/01/94	12/31/96	0.2061
58162310	0	01/01/94	12/31/96	0.5615
58162310	100991	01/01/94	12/31/96	0.5841
58162310	200250	01/01/94	12/31/96	0.5613
58162310	202300	01/01/94	12/31/96	0.5620
58162310	202704	01/01/94	12/31/96	0.5618
58162310	203379	01/01/94	12/31/96	0.5616
58163110	0	01/01/94	12/31/96	0.4659
58163130	0	01/01/94	12/31/96	0.5482
58163130	203618	01/01/94	12/31/96	0.5479
58163130	203683	01/01/94	12/31/96	0.5482
58163130	203755	01/01/94	12/31/96	0.5546
58163210	0	01/01/94	12/31/96	0.4569
58163310	0	01/01/94	12/31/96	0.6929
58163310	201500	01/01/94	12/31/96	0.6933
58163310	202911	01/01/94	12/31/96	0.6927
58163310	203023	01/01/94	12/31/96	0.7178
58163310	203045	01/01/94	12/31/96	0.6930
58163330	0	01/01/94	12/31/96	0.7954
58163330	201015	01/01/94	12/31/96	0.7953
58163350	0	01/01/94	12/31/96	0.7458
58163350	100786	01/01/94	12/31/96	0.7606
58163350	201427	01/01/94	12/31/96	0.7457
58163350	202689	01/01/94	12/31/96	0.7462
58163360	0	01/01/94	12/31/96	0.7219
58163360	100356	01/01/94	12/31/96	0.7218
58163360	202875	01/01/94	12/31/96	0.7406
58163360	203149	01/01/94	12/31/96	0.7226
58163380	0	01/01/94	12/31/96	0.7288
58163380	100105	01/01/94	12/31/96	0.7287
58163380	201491	01/01/94	12/31/96	0.7290
58163380	202152	01/01/94	12/31/96	0.7293
58163380	202160	01/01/94	12/31/96	0.7298
58163380	202594	01/01/94	12/31/96	0.7299
58163380	202867	01/01/94	12/31/96	0.7539
58163380	203039	01/01/94	12/31/96	0.7305
58163400	0	01/01/94	12/31/96	0.7312
58163410	0	01/01/94	12/31/96	0.2159
58163410	100085	01/01/94	12/31/96	0.2159
58163410	100182	01/01/94	12/31/96	0.2159
58163410	100192	01/01/94	12/31/96	0.2160
58163410	200460	01/01/94	12/31/96	0.2159
58163410	201421	01/01/94	12/31/96	0.2159
58163410	201485	01/01/94	12/31/96	0.2184
58163410	201842	01/01/94	12/31/96	0.2159
58163410	203302	01/01/94	12/31/96	0.2162
58163410	203507	01/01/94	12/31/96	0.2160
58163410	203674	01/01/94	12/31/96	0.2160
58163450	0	01/01/94	12/31/96	0.1313
58163510	0	01/01/94	12/31/96	0.6056
58163510	100651	01/01/94	12/31/96	0.6055
58163610	0	01/01/94	12/31/96	0.5090
58163610	101005	01/01/94	12/31/96	0.5094
58163610	101076	01/01/94	12/31/96	0.5092
58163610	202136	01/01/94	12/31/96	0.5092
58163610	203276	01/01/94	12/31/96	0.5089
58164110	0	01/01/94	12/31/96	0.5703
58164210	0	01/01/94	12/31/96	0.2110
58175110	0	01/01/94	12/31/96	0.3002
58400000	0	01/01/94	12/31/96	0.6620
58400100	0	01/01/94	12/31/96	0.7494
58400200	0	01/01/94	12/31/96	0.8423
58401200	0	01/01/94	12/31/96	0.6971
58402010	0	01/01/94	12/31/96	0.4857
58402010	100776	01/01/94	12/31/96	0.3207
58402020	0	01/01/94	12/31/96	0.5104
58402030	0	01/01/94	12/31/96	0.0839
58402100	0	01/01/94	12/31/96	0.4914

58403010	0	01/01/94	12/31/96	0.4915
58403010	100046	01/01/94	12/31/96	0.3258
58403010	100165	01/01/94	12/31/96	0.5471
58403010	100609	01/01/94	12/31/96	0.6590
58403010	100737	01/01/94	12/31/96	0.4202
58403010	100877	01/01/94	12/31/96	0.3918
58403010	100936	01/01/94	12/31/96	0.1946
58403010	101065	01/01/94	12/31/96	0.1620
58403040	0	01/01/94	12/31/96	0.5032
58403100	0	01/01/94	12/31/96	0.4740
58404010	0	01/01/94	12/31/96	0.4915
58404010	100101	01/01/94	12/31/96	0.6170
58404010	100578	01/01/94	12/31/96	0.3258
58404010	100617	01/01/94	12/31/96	0.6590
58404030	0	01/01/94	12/31/96	0.6339
58404040	0	01/01/94	12/31/96	0.4500
58404100	0	01/01/94	12/31/96	0.6314
58404500	0	01/01/94	12/31/96	0.7650
58404510	0	01/01/94	12/31/96	0.6349
58404520	0	01/01/94	12/31/96	0.4424
58406010	0	01/01/94	12/31/96	0.4371
58406020	0	01/01/94	12/31/96	0.4922
58407010	0	01/01/94	12/31/96	0.9457
58407020	0	01/01/94	12/31/96	0.4500
58407030	0	01/01/94	12/31/96	0.8478
58407030	100550	01/01/94	12/31/96	0.9070
58407030	100575	01/01/94	12/31/96	0.7358
58407030	203653	01/01/94	12/31/96	0.9176
58407040	0	01/01/94	12/31/96	0.8423
58407050	0	01/01/94	12/31/96	0.6786
58408010	0	01/01/94	12/31/96	0.6153
58408010	100177	01/01/94	12/31/96	0.6153
58408010	100858	01/01/94	12/31/96	0.6153
58408500	0	01/01/94	12/31/96	0.7249
58408500	100417	01/01/94	12/31/96	0.5926
58409000	0	01/01/94	12/31/96	0.6076
58410100	0	01/01/94	12/31/96	0.8833
58421000	0	01/01/94	12/31/96	0.2639
58421010	0	01/01/94	12/31/96	0.2714
58421020	0	01/01/94	12/31/96	0.6868
58421020	203031	01/01/94	12/31/96	0.6868
58421060	0	01/01/94	12/31/96	0.2568
58421080	0	01/01/94	12/31/96	0.6060
58450300	0	01/01/94	12/31/96	0.0836
61201620	0	01/01/94	12/31/96	0.7204
61201630	0	01/01/94	12/31/96	0.7065
61210000	0	01/01/94	12/31/96	0.7146
61210620	0	01/01/94	12/31/96	0.7146
61210620	100058	01/01/94	12/31/96	0.7695
61210620	100592	01/01/94	12/31/96	0.7578
61210620	100593	01/01/94	12/31/96	0.6253
61210620	100636	01/01/94	12/31/96	0.8165
61210620	100653	01/01/94	12/31/96	0.7450
61210620	100718	01/01/94	12/31/96	0.7897
61210620	100747	01/01/94	12/31/96	0.8067
61210620	100825	01/01/94	12/31/96	0.6760
61210620	100838	01/01/94	12/31/96	0.7306
61210620	203539	01/01/94	12/31/96	0.8335
61210630	0	01/01/94	12/31/96	0.7037
61210820	0	01/01/94	12/31/96	0.7138
61210820	101163	01/01/94	12/31/96	0.7442
61216620	0	01/01/94	12/31/96	0.7175
61222600	0	01/01/94	12/31/96	0.7160
61225600	0	01/01/94	12/31/96	0.7131
61225600	101004	01/01/94	12/31/96	0.7885
61225600	101128	01/01/94	12/31/96	0.6509
61225600	203063	01/01/94	12/31/96	0.7682
62125110	0	01/01/94	12/31/96	0.3651
63411010	0	01/01/94	12/31/96	0.1514
63415000	0	01/01/94	12/31/96	0.4666
63415100	0	01/01/94	12/31/96	0.5980
64104010	100010	01/01/94	12/31/96	0.1071
64104010	100107	01/01/94	12/31/96	0.1935
64104010	100128	01/01/94	12/31/96	0.4186
64104010	100828	01/01/94	12/31/96	0.3243
64104050	100284	01/01/94	12/31/96	0.1935
64104050	100285	01/01/94	12/31/96	0.3242
64104050	100717	01/01/94	12/31/96	0.2646
64104050	101171	01/01/94	12/31/96	0.6478
64104450	100639	01/01/94	12/31/96	0.3243
64104500	100278	01/01/94	12/31/96	0.4186

64104500	101143	01/01/94	12/31/96	0.1525
64116010	100454	01/01/94	12/31/96	0.1935
64116030	100135	01/01/94	12/31/96	0.1071
64116100	100488	01/01/94	12/31/96	0.1935
64116100	101099	01/01/94	12/31/96	0.4185
64116150	101110	01/01/94	12/31/96	0.1071
64124060	101167	01/01/94	12/31/96	0.9343
64124200	100638	01/01/94	12/31/96	0.3243
64125000	100312	01/01/94	12/31/96	0.1935
71501040	0	01/01/94	12/31/96	0.5987
71501040	100887	01/01/94	12/31/96	0.5987
71501040	200091	01/01/94	12/31/96	0.5987
71501040	200154	01/01/94	12/31/96	0.5984
71501040	200400	01/01/94	12/31/96	0.5987
71501040	200588	01/01/94	12/31/96	0.5987
71501040	200728	01/01/94	12/31/96	0.5984
71501040	200880	01/01/94	12/31/96	0.5987
71501040	201066	01/01/94	12/31/96	0.5981
71501040	201328	01/01/94	12/31/96	0.5984
71501040	201337	01/01/94	12/31/96	0.5981
71501040	201365	01/01/94	12/31/96	0.5979
71501040	201376	01/01/94	12/31/96	0.5980
71501040	201380	01/01/94	12/31/96	0.5984
71501040	201449	01/01/94	12/31/96	0.5987
71501040	201544	01/01/94	12/31/96	0.5987
71501040	201756	01/01/94	12/31/96	0.5981
71501040	201782	01/01/94	12/31/96	0.5987
71501040	201856	01/01/94	12/31/96	0.5998
71501040	202031	01/01/94	12/31/96	0.5974
71501040	202301	01/01/94	12/31/96	0.5987
71501040	202321	01/01/94	12/31/96	0.6010
71501040	202324	01/01/94	12/31/96	0.5980
71501040	202567	01/01/94	12/31/96	0.5981
71501040	202788	01/01/94	12/31/96	0.5987
71501040	202827	01/01/94	12/31/96	0.5998
71501040	202976	01/01/94	12/31/96	0.5987
71501040	203160	01/01/94	12/31/96	0.5984
71501090	0	01/01/94	12/31/96	0.6327
71501090	100160	01/01/94	12/31/96	0.6327
71501090	201137	01/01/94	12/31/96	0.6327
71501090	201194	01/01/94	12/31/96	0.6312
71501090	202764	01/01/94	12/31/96	0.6327
71501200	0	01/01/94	12/31/96	0.7536
71501300	0	01/01/94	12/31/96	0.5262
71703040	0	01/01/94	12/31/96	0.1750
71704000	0	01/01/94	12/31/96	0.2413
71704000	100443	01/01/94	12/31/96	0.2414
71704000	100789	01/01/94	12/31/96	0.2419
71704000	101009	01/01/94	12/31/96	0.2413
71704000	203049	01/01/94	12/31/96	0.2520
71801000	0	01/01/94	12/31/96	0.2410
71801020	0	01/01/94	12/31/96	0.4857
71801040	0	01/01/94	12/31/96	0.9200
71801100	0	01/01/94	12/31/96	0.1038
71801100	101170	01/01/94	12/31/96	0.1039
71801100	203642	01/01/94	12/31/96	0.1037
71801100	203644	01/01/94	12/31/96	0.1038
71802010	0	01/01/94	12/31/96	0.1116
71803010	0	01/01/94	12/31/96	0.2008
71803010	100369	01/01/94	12/31/96	0.2006
71901110	0	01/01/94	12/31/96	0.1972
71901110	200360	01/01/94	12/31/96	0.1972
71901110	202259	01/01/94	12/31/96	0.1972
71905210	0	01/01/94	12/31/96	0.0363
71931010	0	01/01/94	12/31/96	0.0823
72202010	0	01/01/94	12/31/96	0.3013
72202020	0	01/01/94	12/31/96	0.1859
72202020	201220	01/01/94	12/31/96	0.1860
72202020	203164	01/01/94	12/31/96	0.1707
72202020	203240	01/01/94	12/31/96	0.1859
72302000	202861	01/01/94	12/31/96	0.6191
72306000	0	01/01/94	12/31/96	0.7985
72308000	0	01/01/94	12/31/96	0.6466
72308500	0	01/01/94	12/31/96	0.8140
72308500	100393	01/01/94	12/31/96	0.8134
73210110	0	01/01/94	12/31/96	0.0028
73211110	0	01/01/94	12/31/96	0.0149
73501000	0	01/01/94	12/31/96	0.6048
73501000	101063	01/01/94	12/31/96	0.6053
73501000	101148	01/01/94	12/31/96	0.6048
73501010	0	01/01/94	12/31/96	0.6254

74402110	0	01/01/94	12/31/96	0.2976
74402200	0	01/01/94	12/31/96	0.1707
74402200	100649	01/01/94	12/31/96	0.1712
74402310	0	01/01/94	12/31/96	0.2204
74501010	0	01/01/94	12/31/96	0.0943
74601000	0	01/01/94	12/31/96	0.3279
74601010	101021	01/01/94	12/31/96	0.2467
74602010	0	01/01/94	12/31/96	0.4857
74602010	100088	01/01/94	12/31/96	0.3863
74602010	100683	01/01/94	12/31/96	0.5862
74602010	100759	01/01/94	12/31/96	0.6538
74602010	101040	01/01/94	12/31/96	0.2394
74602010	101096	01/01/94	12/31/96	0.3207
74602050	0	01/01/94	12/31/96	0.8037
74602100	0	01/01/94	12/31/96	0.4553
74603010	0	01/01/94	12/31/96	0.5998
74604010	0	01/01/94	12/31/96	0.5998
74604500	0	01/01/94	12/31/96	0.4743
74604600	0	01/01/94	12/31/96	0.0823
74605010	0	01/01/94	12/31/96	0.4320
74606010	0	01/01/94	12/31/96	0.7167
74606020	0	01/01/94	12/31/96	0.5466
75302030	0	01/01/94	12/31/96	0.1284
75302070	0	01/01/94	12/31/96	0.1299
75340160	0	01/01/94	12/31/96	0.0663
75412010	0	01/01/94	12/31/96	0.1177
75412010	200522	01/01/94	12/31/96	0.1177
75412010	200773	01/01/94	12/31/96	0.1177
75412010	203569	01/01/94	12/31/96	0.1177
75412060	0	01/01/94	12/31/96	0.0685
75412060	202021	01/01/94	12/31/96	0.0685
75412060	203584	01/01/94	12/31/96	0.0685
75418030	0	01/01/94	12/31/96	0.1286
75439500	0	01/01/94	12/31/96	0.2894
75440100	0	01/01/94	12/31/96	0.0377
75440110	0	01/01/94	12/31/96	0.0311
75440170	0	01/01/94	12/31/96	0.0539
75440200	0	01/01/94	12/31/96	0.2261
75440400	0	01/01/94	12/31/96	0.5022
75460700	0	01/01/94	12/31/96	0.1535
75460710	0	01/01/94	12/31/96	0.1552
75460800	0	01/01/94	12/31/96	0.2126
75460810	0	01/01/94	12/31/96	0.2046
75601000	0	01/01/94	12/31/96	0.2410
75601020	0	01/01/94	12/31/96	0.4857
75601200	0	01/01/94	12/31/96	0.5430
75601210	0	01/01/94	12/31/96	0.4557
75601210	100783	01/01/94	12/31/96	0.4566
75603000	0	01/01/94	12/31/96	0.2410
75603020	0	01/01/94	12/31/96	0.4857
75604020	0	01/01/94	12/31/96	0.2500
75607000	0	01/01/94	12/31/96	0.6644
75607020	0	01/01/94	12/31/96	0.4857
75607020	100562	01/01/94	12/31/96	0.3207
75607040	0	01/01/94	12/31/96	0.4857
75607060	0	01/01/94	12/31/96	0.2410
75607090	0	01/01/94	12/31/96	0.2410
75607130	0	01/01/94	12/31/96	0.9139
75607140	0	01/01/94	12/31/96	0.4857
75607140	100935	01/01/94	12/31/96	0.3207
75608100	0	01/01/94	12/31/96	0.6640
75608200	0	01/01/94	12/31/96	0.9614
75609000	0	01/01/94	12/31/96	0.4874
75609020	0	01/01/94	12/31/96	0.5415
75609050	0	01/01/94	12/31/96	0.5682
75646010	0	01/01/94	12/31/96	0.8283
75649010	0	01/01/94	12/31/96	0.4915
75649010	100127	01/01/94	12/31/96	0.3258
75649010	100326	01/01/94	12/31/96	0.4202
75649010	100724	01/01/94	12/31/96	0.6590
75649010	101131	01/01/94	12/31/96	0.1946
75649030	0	01/01/94	12/31/96	0.5000
75649050	0	01/01/94	12/31/96	0.9347
75649100	0	01/01/94	12/31/96	0.8050
75649110	0	01/01/94	12/31/96	0.4909
75649110	202546	01/01/94	12/31/96	0.4911
75649110	203553	01/01/94	12/31/96	0.5019
75649150	0	01/01/94	12/31/96	0.5564
75651000	0	01/01/94	12/31/96	0.5563
75651000	100341	01/01/94	12/31/96	0.5591
75651000	100357	01/01/94	12/31/96	0.5591

75651010	0	01/01/94	12/31/96	0.4915
75651020	0	01/01/94	12/31/96	0.4857
75651020	100002	01/01/94	12/31/96	0.5862
75651020	100061	01/01/94	12/31/96	0.3207
75651030	0	01/01/94	12/31/96	0.5000
75651040	0	01/01/94	12/31/96	0.4915
75651040	100117	01/01/94	12/31/96	0.3258
75651050	0	01/01/94	12/31/96	0.4915
75651050	100236	01/01/94	12/31/96	0.5471
75651070	0	01/01/94	12/31/96	0.4220
75651080	0	01/01/94	12/31/96	0.6773
75651110	0	01/01/94	12/31/96	0.7678
75651120	0	01/01/94	12/31/96	0.4915
75651140	0	01/01/94	12/31/96	0.5558
75652010	0	01/01/94	12/31/96	0.4162
75652040	0	01/01/94	12/31/96	0.4380
75652050	0	01/01/94	12/31/96	0.4291
75654010	0	01/01/94	12/31/96	0.4915
75654010	100621	01/01/94	12/31/96	0.3258
75656010	0	01/01/94	12/31/96	0.4132
75657000	0	01/01/94	12/31/96	0.9494
77141010	0	01/01/94	12/31/96	0.0280
77272010	0	01/01/94	12/31/96	0.0745
77316010	0	01/01/94	12/31/96	0.1172
77316010	201336	01/01/94	12/31/96	0.1200
77316510	0	01/01/94	12/31/96	0.2446
77513010	0	01/01/94	12/31/96	0.4132
77563010	0	01/01/94	12/31/96	0.4018
77563010	202963	01/01/94	12/31/96	0.3932
81302010	0	01/01/94	12/31/96	0.1786
81302020	0	01/01/94	12/31/96	0.1523
81302030	0	01/01/94	12/31/96	0.5117
83101500	0	01/01/94	12/31/96	0.0343
83105100	0	01/01/94	12/31/96	0.2434
83111000	0	01/01/94	12/31/96	0.0006
91301100	0	01/01/94	12/31/96	0.6747
91301200	0	01/01/94	12/31/96	0.6776
91304050	0	01/01/94	12/31/96	0.0773
91361010	0	01/01/94	12/31/96	0.5378
91361030	0	01/01/94	12/31/96	0.6957
91361040	0	01/01/94	12/31/96	0.6962
91405500	0	01/01/94	12/31/96	0.1247
91407150	0	01/01/94	12/31/96	0.2233
91501010	0	01/01/94	12/31/96	0.8393
91501020	0	01/01/94	12/31/96	0.5454
91501020	100027	01/01/94	12/31/96	0.2199
91501020	100358	01/01/94	12/31/96	0.5518
91501020	100610	01/01/94	12/31/96	0.5320
91501020	202715	01/01/94	12/31/96	0.5859
91501020	203421	01/01/94	12/31/96	0.5392
91501020	203486	01/01/94	12/31/96	0.5368
91501030	0	01/01/94	12/31/96	0.7785
91501030	202037	01/01/94	12/31/96	0.7785
91501040	0	01/01/94	12/31/96	0.5021
91501040	100903	01/01/94	12/31/96	0.4866
91501050	0	01/01/94	12/31/96	0.7780
91501060	0	01/01/94	12/31/96	0.6536
91501070	0	01/01/94	12/31/96	0.1792
91501070	100448	01/01/94	12/31/96	0.1792
91501090	0	01/01/94	12/31/96	0.5169
91501100	0	01/01/94	12/31/96	0.6879
91501110	0	01/01/94	12/31/96	0.4866
91501110	100348	01/01/94	12/31/96	0.4866
91501110	100840	01/01/94	12/31/96	0.4759
91501110	100965	01/01/94	12/31/96	0.4638
91501120	0	01/01/94	12/31/96	0.4950
91511010	0	01/01/94	12/31/96	0.9785
91511030	0	01/01/94	12/31/96	0.9213
91511050	0	01/01/94	12/31/96	0.8462
91511060	0	01/01/94	12/31/96	0.7706
91511070	0	01/01/94	12/31/96	0.1787
91511080	0	01/01/94	12/31/96	0.5411
91511090	0	01/01/94	12/31/96	0.5627
91511100	0	01/01/94	12/31/96	0.8091
91511110	0	01/01/94	12/31/96	0.5728
91512010	0	01/01/94	12/31/96	0.5104
91520100	0	01/01/94	12/31/96	0.4736
91550100	0	01/01/94	12/31/96	0.1384
91580000	0	01/01/94	12/31/96	1.0000
92100000	0	01/01/94	12/31/96	1.0000
92100500	0	01/01/94	12/31/96	1.0000

92101000	0	01/01/94	12/31/96	1.0000
92101500	0	01/01/94	12/31/96	1.0000
92101600	0	01/01/94	12/31/96	0.9044
92101640	0	01/01/94	12/31/96	1.0000
92101650	0	01/01/94	12/31/96	0.9289
92101660	0	01/01/94	12/31/96	1.0000
92101670	0	01/01/94	12/31/96	0.9289
92101700	0	01/01/94	12/31/96	1.0000
92101800	0	01/01/94	12/31/96	0.9289
92101900	0	01/01/94	12/31/96	0.3567
92101900	201503	01/01/94	12/31/96	0.3558
92101900	203108	01/01/94	12/31/96	0.3567
92103000	0	01/01/94	12/31/96	0.9909
92104000	0	01/01/94	12/31/96	1.0000
92105000	0	01/01/94	12/31/96	0.8000
92105010	0	01/01/94	12/31/96	0.9702
92106000	0	01/01/94	12/31/96	0.9909
92111000	0	01/01/94	12/31/96	0.9909
92111010	0	01/01/94	12/31/96	1.0000
92114000	0	01/01/94	12/31/96	0.9909
92121000	0	01/01/94	12/31/96	0.9328
92121010	0	01/01/94	12/31/96	0.9546
92121020	0	01/01/94	12/31/96	0.9392
92121030	0	01/01/94	12/31/96	0.9684
92121040	0	01/01/94	12/31/96	0.9328
92130000	0	01/01/94	12/31/96	0.9332
92130010	0	01/01/94	12/31/96	0.9678
92130020	0	01/01/94	12/31/96	0.9546
92150000	0	01/01/94	12/31/96	0.9909
92151000	0	01/01/94	12/31/96	0.9909
92151100	0	01/01/94	12/31/96	0.9909
92152000	0	01/01/94	12/31/96	1.0000
92153000	0	01/01/94	12/31/96	0.9909
92153100	0	01/01/94	12/31/96	0.9909
92161000	0	01/01/94	12/31/96	0.4917
92161000	202295	01/01/94	12/31/96	0.4907
92201010	0	01/01/94	12/31/96	0.9740
92202010	0	01/01/94	12/31/96	0.9905
92203000	0	01/01/94	12/31/96	0.9872
92203110	0	01/01/94	12/31/96	0.9872
92204000	0	01/01/94	12/31/96	0.9499
92301000	0	01/01/94	12/31/96	0.1000
92301100	0	01/01/94	12/31/96	0.1000
92301130	0	01/01/94	12/31/96	0.0950
92301190	0	01/01/94	12/31/96	0.0950
92302000	0	01/01/94	12/31/96	1.0000
92302200	0	01/01/94	12/31/96	0.9499
92302300	0	01/01/94	12/31/96	0.9958
92302400	0	01/01/94	12/31/96	0.9499
92302500	0	01/01/94	12/31/96	1.0000
92302600	0	01/01/94	12/31/96	0.9499
92302700	0	01/01/94	12/31/96	0.9958
92302800	0	01/01/94	12/31/96	0.9499
92304000	0	01/01/94	12/31/96	1.0000
92304700	0	01/01/94	12/31/96	0.9958
92305000	0	01/01/94	12/31/96	0.9122
92305010	0	01/01/94	12/31/96	0.9941
92305040	0	01/01/94	12/31/96	0.9734
92305050	0	01/01/94	12/31/96	0.9734
92305090	0	01/01/94	12/31/96	0.9934
92305110	0	01/01/94	12/31/96	0.9934
92305180	0	01/01/94	12/31/96	0.9941
92305800	0	01/01/94	12/31/96	0.9734
92306000	0	01/01/94	12/31/96	1.0000
92306050	0	01/01/94	12/31/96	1.0000
92306700	0	01/01/94	12/31/96	1.0000
92510170	100213	01/01/94	12/31/96	0.6064
92510170	100303	01/01/94	12/31/96	0.6872
92510610	100385	01/01/94	12/31/96	0.1935
92511010	0	01/01/94	12/31/96	0.7786
92511010	100545	01/01/94	12/31/96	0.8665
92511010	100913	01/01/94	12/31/96	0.8296
92511010	101121	01/01/94	12/31/96	0.7645
92511020	0	01/01/94	12/31/96	0.7092
92511110	0	01/01/94	12/31/96	0.7094
92511250	0	01/01/94	12/31/96	0.7163
92511250	100960	01/01/94	12/31/96	0.7710
92511260	100797	01/01/94	12/31/96	0.6935
92511350	101061	01/01/94	12/31/96	0.4474
92512050	0	01/01/94	12/31/96	1.5428
92530510	101073	01/01/94	12/31/96	0.1935

92530520	100166	01/01/94	12/31/96	0.1935
92530520	101152	01/01/94	12/31/96	0.5454
92530610	100656	01/01/94	12/31/96	0.3243
92530610	100796	01/01/94	12/31/96	0.1935
92530910	0	01/01/94	12/31/96	0.7089
92530910	100424	01/01/94	12/31/96	0.7645
92530910	100655	01/01/94	12/31/96	0.7851
92530910	203128	01/01/94	12/31/96	0.8503
92531020	0	01/01/94	12/31/96	0.7128
92531020	100998	01/01/94	12/31/96	0.7433
92541010	0	01/01/94	12/31/96	0.9081
92541010	100274	01/01/94	12/31/96	0.9772
92541010	101001	01/01/94	12/31/96	0.9518
92541010	101126	01/01/94	12/31/96	0.9674
92541020	0	01/01/94	12/31/96	0.9046
92541020	100860	01/01/94	12/31/96	0.9499
92541040	0	01/01/94	12/31/96	0.9938
92541100	0	01/01/94	12/31/96	0.9081
92541100	100761	01/01/94	12/31/96	0.8316
92542000	0	01/01/94	12/31/96	0.8716
92542000	100878	01/01/94	12/31/96	0.9532
92542000	101019	01/01/94	12/31/96	0.9314
92544000	0	01/01/94	12/31/96	0.9024
92544000	100183	01/01/94	12/31/96	0.8740
92544000	100229	01/01/94	12/31/96	0.8222
92544000	100230	01/01/94	12/31/96	0.9204
92544000	100276	01/01/94	12/31/96	0.9475
92544000	100287	01/01/94	12/31/96	0.9244
92544000	100306	01/01/94	12/31/96	0.8240
92544000	100463	01/01/94	12/31/96	0.7581
92544000	100751	01/01/94	12/31/96	0.9636
92544000	100898	01/01/94	12/31/96	0.9233
92544000	100915	01/01/94	12/31/96	0.9718
92544000	101141	01/01/94	12/31/96	0.8726
92544000	101164	01/01/94	12/31/96	0.9002
92544000	201653	01/01/94	12/31/96	0.8614
92544000	202341	01/01/94	12/31/96	0.9319
92552000	0	01/01/94	12/31/96	0.9883
92610010	0	01/01/94	12/31/96	0.7868
92611010	0	01/01/94	12/31/96	0.8874
92611100	0	01/01/94	12/31/96	0.4223
92611510	0	01/01/94	12/31/96	0.8932
92612010	0	01/01/94	12/31/96	0.7400
92613010	0	01/01/94	12/31/96	0.4182
92613510	0	01/01/94	12/31/96	0.3876
92731000	0	01/01/94	12/31/96	0.9081
92741000	0	01/01/94	12/31/96	0.9950
92751000	0	01/01/94	12/31/96	0.9079
93301120	0	01/01/94	12/31/96	0.0758
93301180	0	01/01/94	12/31/96	0.6379
93301180	100804	01/01/94	12/31/96	0.6379
93301400	0	01/01/94	12/31/96	0.6618
93302000	0	01/01/94	12/31/96	0.5911
93302100	0	01/01/94	12/31/96	0.0253
93404600	0	01/01/94	12/31/96	0.3613
93504100	0	01/01/94	12/31/96	0.4340
94000000	0	01/01/94	12/31/96	1.0000

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APPENDIX D

STATISTICAL METHODS AND SAMPLE DESIGN

This appendix describes the statistical methods used to generate point and interval estimates of daily average per capita water ingestion. Point estimates include the mean, 1st, 5th, 10th, 25th, 50th, 75th, 90th, 95th, and 99th percentiles. Mean estimates were generated using ratio estimation techniques. Empirical percentiles were estimated using nonparametric techniques. All estimates incorporated CSFII survey weights to project a sampled individual's consumption to the population.

The majority of the per capita water ingestion estimates in this report are presented for specific subpopulations and water source. The design of the CSFII survey did not always support estimation of the variance when subpopulations were evaluated. Without a variance estimate, confidence intervals about the mean or bootstrap intervals about percentile estimates cannot be produced. Therefore, the tabulated presentations in Appendix E include only point estimates. However, the survey did support variance, and thus interval estimation, for some subpopulations. These estimates are presented in the key figures of Chapter 4 augmenting tabulated estimates for all individuals.

When a variance was estimated for the mean per capita ingestion, we estimated the variance of the mean using a Taylor series approximation of the deviation of estimates from their expected values. The Taylor series approximations were applied to ultimate clusters, which resulted in an overall estimate of the variance instead of estimating variance components due to sample–design stages. We include the statistical formulae for generating both the mean estimate and the estimate of the confidence interval about the mean. We also provide the method for generating percentile estimates and estimates of 90% bootstrap intervals about the percentile estimates.

The primary sampling stage of this CSFII divided the 50 United States and the District of Columbia into 1,404 primary sampling units (PSUs). A Metropolitan Statistical Area (MSA), a fraction of an MSA, counties, or groups of counties comprised a PSU. The federal Office of Management and Budget defines an MSA as "a geographic area consisting of a large population nucleus together with adjacent communities that have a high degree of economic and social integration with the nucleus" (CSFII survey documentation, p. 14–4).

In general, an MSA constituted a single PSU for the 1994–1996 CSFII. There were three exceptions: New York, Los Angeles, and Chicago. The New York MSA was divided into three PSUs while the other two exceptions each comprised two PSUs. From the 1,404 PSUs constituting the United States, the primary stage CSFII sample selected 62 PSUs. The 24 largest of the 1,404 PSUs were included in the CSFII with certainty. The remaining 1,380 PSUs were assigned to one of 38 strata based on their 1990 population, percentage of black and Hispanic populations, and per capita income. One PSU was then selected from each of the 38 strata with selection probability proportional to the 1990 population. Of the 62 PSUs resulting from the first stage, 50 were MSAs and 12 were non–MSAs.

Then, each of the 62 sampled PSUs was divided into 36 area segments consisting of blocks or groups of blocks. Twelve area segments were sampled each year of the survey with three segments sampled during each quarter of the given year. From a sampled area segment, households were drawn from dwelling unit listings, and individuals were then selected from the sampled household. Individual selection occurred to ensure specified estimation criteria for given sex–age categories based on screening questionnaire results.

To facilitate variance estimation, PSUs were assigned to variance estimation strata (VES). Two PSUs, referred to in the CSFII documentation as variance estimation units (VEU), were assigned to a variance estimation stratum. The 38 PSUs sampled were paired with adjacent PSUs to form 19 VES. The 24 PSUs that were sampled with certainty formed 24 VES. Each PSU that was sampled with certainty had one half of its area segments assigned to a VEU within the VES. The remaining area segments from the PSU were assigned to the second VEU within the area segment. Therefore, the 1994–96 CSFII is comprised of 43 VES. Variance estimation was not supported for several subpopulations evaluated in this report because data must be available from each VEU to generate a variance for a VES. When samples at the subpopulation level are small, this is not the case.

For this report, an ultimate cluster is considered the aggregate of the sampled individuals within a VEU. The ultimate cluster method is supported by the survey design. It is also necessary for estimating the variance of the mean estimate. Because the sample design contains multiple levels, such as VES and VEU, specific information is necessary to partition the variance–of–the–mean estimate into components. That is, specification of the sample size and population size within each level of sampling is required. However, this information is not inherent in the CSFII data. Rather, the CSFII reports an adjusted sample weight for each individual who reported 2 nonconsecutive days of consumption data during the survey. Given that only the adjusted weight was available, and not the specific sample and population size in each phase, it was necessary to estimate the mean using ratio estimation techniques and the variance of the mean using the ultimate cluster methodology, which does not partition the variance into sample design components.

All estimates presented in this report incorporate three–year, two–day survey weights. These weights were constructed in two phases. First, an annual set of survey weights for two–day respondents was built using the sampling fraction for the year. This sampling fraction is the product of the probability of selecting the PSU, the area segment within the PSU, the household within the segment, and then selecting an eligible individual within the household. These weights were adjusted for nonresponse and calibrated using the "raking ratio weighting" process, which allows the sum of the final yearly weights to equal the March Current Population Survey (CPS) population within 16 sociodemographic cells. Annual weights were combined using the same iterative raking weighting procedure to match cell totals for the three consecutive years (CSFII survey documentation, p. 5–6). These adjusted sample weights, which are recorded in the CSFII data in the variable SAM_WT, record the number of individuals the sampled person represents in the population. For example, a sample weight valued as 22 projects the data from the individual with that sample weight to 22 individuals in the population of the 50 United States and the District of Columbia.

The mean, daily average per capita ingestion for a given commodity type was estimated as the ratio of total consumption ingested by the United States population or subpopulation, divided by the estimate of the total number of individuals in the population or subpopulation.

Let R_t designate the mean, daily average per capita ingestion for the t^{th} water source and subpopulation category. R_t is then estimated as

$$\hat{R}_t = \frac{\hat{Y}_t}{\hat{X}} .$$

To estimate the numerator,

$$\hat{Y}_t ,$$

or the total daily average consumption for the t^{th} type, let

h=variance estimation stratum (VES)	h=1...43
i=variance estimation units (VEU)	i=1,2
j=individual	$j=1,2,3,...,n_{hi}$

and y_{thij} be the daily average consumption in milliliters from the t^{th} source by the j^{th} individual sampled from the i^{th} variance estimation unit in the h^{th} variance estimation stratum. The survey weight for the j^{th} individual in the i^{th} VEU from the h^{th} VES is designated w_{hij}.

To estimate

$$\hat{X} ,$$

the total number of individuals in the population or subpopulation, the variable x_{hij} is valued as 1 if the j^{th} person is in the i^{th} VEU in the h^{th} VES. Otherwise, x_{hij} is valued as zero.

Then

$$\hat{Y}_t = \sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij} y_{thij}$$

and

$$\hat{X} = \sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij} x_{hij} \ .$$

To estimate the variance of the mean ($V(R_t)$), first define the linearized variable

$$\hat{Z}_{thij}$$

as

$$\hat{Z}_{thij} = \frac{w_{hij}(y_{thij} - \hat{R}_t)}{\hat{X}} \ .$$

Thus, the value

$$\hat{Z}_{thij}$$

is the weighted difference between the daily average consumption for the j[th] individual and the estimated mean, daily average per capita ingestion for the population.

Then, as the first component of the cluster, the values of

$$\hat{z}_{thij}$$

are summed across the n_{thi} sampled individuals in the i[th] VEU from the h[th] VES. That is,

$$\hat{Z}_{thi} = \sum_{j=1}^{n_{thi}} \hat{z}_{thij} \ .$$

This calculation was performed for each of the two VEUs comprising a given VES. The mean of the VEU weighted deviations for each VES was then determined as

$$\bar{Z}_{th} = \frac{\hat{Z}_{th1} + \hat{Z}_{th2}}{2} \ .$$

The ultimate cluster variance of the mean was calculated as

$$V(\hat{R}_t) \approx V(\hat{Z}_t)) = \sum_{h=1}^{43} 2[(\hat{Z}_{th1} - \bar{Z}_{th})^2 + (\hat{Z}_{th2} - \bar{Z}_{th})^2].$$

A 90–percent confidence interval about the estimated mean, daily average per capita ingestion was estimated as

$$C.I._{90} = \hat{R}_t \pm 1.645 * (V(\hat{R}_t))^{½} .$$

To demonstrate that the variance of the mean was estimated using a Taylor Series approximation applied to ultimate clusters, define the function g(X,Y) as Y/X, where Y is the estimated total of the daily average consumption by the population in the 50 United States and the District of Columbia, and X is the estimated population in the 50 United States and the District of Columbia. Notice that the function g(X,Y) is the estimator for the mean, daily average per capita ingestion, as defined above. Let μ_y and μ_x, respectively, be the expected values of the variables Y and X. Then, the function F(X,Y) can be expanded in a Taylor series about these expected values such that

$$F(X,Y) = F(\mu_x,\mu_y) + \partial F_x(\mu_x,\mu_y)(X-\mu_x) + \partial F_y(\mu_x,\mu_y)(Y-\mu_y) + \textit{higher order terms.}$$

$\partial F_x(\mu_x,\mu_y)$ is the first order partial derivative of F with respect to X evaluated at the expected value of X, and $\partial F_y(\mu_x,\mu_y)$ is the first order partial derivative of F with respect to Y evaluated at the expected value of Y. If F(X,Y) is defined as E(g(X,Y)), then

$$E(\frac{\hat{Y}}{\hat{X}}) = \frac{\mu_y}{\mu_x}$$

since $E(X-\mu_x)=0$ and $E(Y-\mu_y)=0$. Therefore, if the higher order terms of the series are considered negligible, the mean estimator is unbiased.

Define the variance of the estimated mean as V(F(X,Y)). If F(X,Y) is defined as E(g(X,Y)), then

$$V(F(X,Y)) = E[F(X,Y) - F(\mu_x,\mu_y)]^2.$$

Thus, the variance of the mean can be calculated as

$$V(F(X,Y)) = (\partial F_x)^2 E(X-\mu_x)^2 + (\partial F_y)^2 E(Y-\mu_y)^2 + 2(\partial F_x)(\partial F_y)E(X-\mu_x)(Y-\mu_y) ,$$

which is equivalent to

$$V(F(X,Y)) = (\partial F_x)^2 V(X) + (\partial F_y)^2 V(Y) + 2(\partial F_x)(\partial F_y) Cov(X,Y) \ .$$

Based on a method suggested by Woodruff (Woodruff 1971), which creates a synthetic variable from the variable portion of the Taylor series variance estimate, the Taylor series variance estimate can be approximated as

$$V(F(X,Y)) = V(Z_i) \ ,$$

where the synthetic variable is

$$Z_i = \partial F_x(X,Y) x_i + \partial F_y(X,Y) y_i \ .$$

If F(X,Y) is defined as E(g(X,Y)), which in this case is

$$E\left(\frac{\hat{Y}_t}{\hat{X}}\right) = \frac{\sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij} Y_{thij}}{\sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij} X_{hij}} \ ,$$

then Z_i becomes Z_{thij} in keeping with the sample design, and

$$Z_{thij} = \frac{-\left(\sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij} Y_{thij}\right) * w_{hij} X_{hij}}{\left(\sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij} X_{hij}\right)^2} + \frac{w_{hij} Y_{thij}}{\sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij} X_{hij}} .$$

After collecting like terms and substituting the estimators for the summations as they are defined previously, the equation becomes

$$\hat{Z}_{thij} = \frac{w_{hij}(y_{thij} - \hat{R}_t x_{hij})}{\hat{X}} \ .$$

Since X_{hij} is 1 if the j[th] individual is in the sample, and 0 otherwise, the estimator for Z_{thij} can be expressed as

$$\hat{Z}_{thij} = \frac{w_{hij}(y_{thij} - \hat{R}_t)}{\hat{X}} \ .$$

Notice that this expression of

$$\hat{Z}_{thij}$$

is the weighted difference between the daily average consumption for the j th individual and the estimated mean, daily average per capita ingestion for the population, as defined earlier.

Estimates presented in this report were generated by coding the estimation formulae in SAS ®, the statistical computing language. The linear approximation to the Taylor series estimate of the variance was the method of choice because estimates were verified using SUDAAN, a commercially available software package based on the same approach (Shah 1996).

Using the same synthetic variable Z, the procedure invoked by SUDAAN, when there is sampling with replacement at the first stage of the sample design (DESIGN = WR), estimates the variance as

$$Var(Z) = \sum_{h=1}^{H} n_h S^2{}_h$$

where

$$S^2{}_h = \sum_{i=1}^{n_h} [z_{hi} - \bar{z}_h]^2 / [n_h - 1]$$

with

$$z_{hi} = \sum_{j=1}^{m_{hi}} z_{hij}$$

and

$$\bar{z}_h = \sum_{i=1}^{n_h} z_{hi} / n_h \ .$$

Notice that if the value 2—for the two VEUs sampled from each VES with replacement—is substituted for n_h in the previous four equations, which are listed as written in the April 1996 technical manual for SUDAAN version 7.0, then the estimator becomes the ultimate cluster estimator listed in Section 3.1.1 (Shah 1996).

To generate percentile estimates, denote the p th percentile of the distribution F as θ_p. Define θ_p as

$$\theta_p = \inf\{F(Y) \geq p\}.$$

The cumulative distribution, F(Y), is estimated as

$$F(\hat{Y}) = \sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hi}} w_{hij}{}^{*} a_{hij}$$

with

$$w_{hij}{}^{*} = \frac{w_{hij}}{\sum_{h=1}^{43} \sum_{i=1}^{2} \sum_{j=1}^{n_{hij}} w_{hij}} = \frac{w_{hij}}{\hat{X}}$$

and $a_{hij} = 1$ if $y_{hij} \leq y$; 0 otherwise.

Thus, the p th percentile is estimated as

$$\hat{F}^{-1}(p),\ 0<p<1 \ .$$

Computationally, y_{hij} is arranged in ascending order across all values of the indices. The survey weights associated with the arranged y_{hij} are summed until the first instance when the value of p is exceeded.

In addition to percentiles from the empirical distributions of daily average water intake, tables in Chapter 4 reports 90–percent interval estimates for the 90th, 95th, and 99th percentiles. Reported interval estimates are nonparametric estimates resulting from bootstrapping techniques reported by Efron (Efron 1982).

The reported bootstrap intervals do not result from direct estimates of the standard deviation of the point estimate. Rather, the bootstrap estimates result from the percentile method, which estimates the lower and upper bounds for the interval estimate by the 100α percentile and 100(1–α) percentile estimates from the nonparametric distribution of the given point estimate. This distribution of the observed values of the given point estimate is determined from repeated resampling of the empirical data.

Resampling was conducted, with replacement, in accordance with the structure of the sampling data. That is, sampling was conducted at the Variance Estimation Unit (VEU) level. For each bootstrap sampling iteration, the n_{hij} daily average intake values in a VEU were resampled with replacement until the resample contained n_{hij} observations. The frequency of a given consumption value from the VEU in the resample is determined by either a Poisson or binomial random number generator. If the number of observations remaining to be drawn for the resample at the k^{th} draw, where $0<k\leq n_{hij}$, is greater than 50, and the ratio of the number of observations remaining to be drawn to the number of draws remaining is less than five, then the random number for the frequency the given observation appears in the resample results from a Poisson distribution. The mean of the Poisson distribution is the ratio of the number of observations remaining to be drawn to the number of draws remaining. If the number of observations remaining to be included in the resample is less than or equal to 50, the frequency for the given observation results from a binomial random number generator. The binomial distribution for the random generator has an n equal to the number of remaining draws and a p of one divided by the number of remaining draws. This method is an adaptation of a method provided by Ahrens and Dieter (Kennedy 1980).

As an illustration of the resampling algorithm, suppose there are 129 observations in a given VEU. At the initiation of the bootstrap resampling, the ratio of the number of observations remaining to be drawn in the resample to the number of draws remaining is 1. Therefore, a number is generated from a Poisson random number generator with the mean of 1. The number from the random generator determines the number of times the value of the first observation from the original sample is included in the bootstrap resample. Further, suppose that after the 99th draw from the sample, 101 observations were included in the bootstrap resample. For the 100th draw, there are 28 (129–101) observations remaining to be included in the resample. After the 99th draw, there are 30 draws remaining to be conducted. Therefore, the frequency with which the 100th observation in the original sample will appear in the resample is determined from a binomial random generator with n=28 and p=1/30.

One thousand resamples were drawn from each VEU. For each complete set of VEUs, the given point estimate was calculated. Therefore, if $(x^*_1, x^*_2, x^*_3, ..., x^*_{1000})$ represents the 1,000 bootstrap resamples, then let $(p^*_1, p^*_2, p^*_3, ..., p^*_{1000})$ represent the resulting estimates of the p^{th} percentile from the 1,000 resamples. The value of the 5th percentile of the empirical distribution of the given percentile estimate from the bootstrap resamples $(p^*_{5\%})$ is the lower bound for the 90–percent bootstrap interval estimate. Likewise, the value of the 95th percentile from the distribution of bootstrap estimates $(p^*_{95\%})$ is the upper bound estimate for the 90–percent interval estimate. The central point of the estimated 90–percent interval is not necessarily the reported value of the p^{th} percentile estimate; this is due to the asymmetry of the distribution of the percentile estimates.

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Appendix E
Per Capita Water Ingestion Estimates

Tabulated estimates of per capita water ingestion are presented in four parts. Each part includes estimates of the mean and empirical percentiles from the empirical distribution of daily average per capita ingestion and contains five sets of tables which differ by water source. These sources are community water, bottled water, water from other sources, missing source, and total water. Units are milliliters/person/day for Parts I and III, and milliliters/kilogram of body weight/day for Parts II and IV.

For a given source of water, tables of estimates are presented by type of ingestion. Direct ingestion estimates are reported first. Direct ingestion is defined as plain water ingested as a beverage. Estimates of indirect ingestion—water ingested through foods with water added at the final phase of preparation, at home or locally—follow the estimates of directly ingested water. The third set of estimates is total ingestion, which is direct and indirect water ingested from that given source.

All water source and type of ingestion estimates are presented for three sociodemographic subsets. These sociodemographic subsets are as follows:

Gender and Broad Age Categories
Fine Age Categories
Pregnant, Lactating, and Childbearing Aged Women

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APPENDIX E
Tables of Estimated Water Ingestion

Part I:
Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
All Individuals
Milliliters/Person/Day

Table **Page**

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Part II:
Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
All Individuals
Milliliters/Kilograms of body weight/Day

Table **Page**

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Part III:
Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
Consumers Only
Milliliters/Person/Day

Table **Page**

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Part IV:
Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
Consumers Only
Milliliters/Kilograms of body weight/Day

Table **Page**

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Table A1. Community Water: Gender by Broad Age Categories

All Individuals

Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
a. Female													
Direct	< 1	185	1,925,330	57	-	-	-	-	-	55	175	257*	474*
	1-10	1,968	19,495,194	259	-	-	-	-	147	350	653	917	1,445
	11-19	825	16,496,841	407	-	-	-	-	230	582	1,057	1,443	2,241*
	20 +	4,572	96,012,199	549	-	-	-	-	349	817	1,395	1,865	3,062
	All ages	7,550	133,929,564	482	-	-	-	-	262	701	1,213	1,655	2,836
Indirect	< 1	185	1,925,330	327	-	-	-	-	177	628	801	947*	1,245*
	1-10	1,968	19,495,194	135	-	-	-	12	83	205	354	444	704
	11-19	825	16,496,841	183	-	-	-	6	96	258	470	685	1,157*
	20 +	4,572	96,012,199	489	-	-	-	119	365	700	1,080	1,394	2,367
	All ages	7,550	133,929,564	398	-	-	-	58	258	585	949	1,273	2,093
Direct and Indirect	< 1	185	1,925,330	384	-	-	-	-	261	681	904	1,051*	1,533*
	1-10	1,968	19,495,194	394	-	-	14	117	295	552	915	1,091	1,784
	11-19	825	16,496,841	590	-	-	17	160	407	845	1,307	1,744	2,589*
	20 +	4,572	96,012,199	1,039	-	-	53	370	870	1,461	2,126	2,652	4,197
	All ages	7,550	133,929,564	880	-	-	29	249	675	1,258	1,941	2,419	3,802
b. Male													
Direct	< 1	174	1,846,966	60	-	-	-	-	-	53	209	295*	563*
	1-10	2,012	20,650,660	267	-	-	-	-	175	354	699	920	1,409
	11-19	816	17,070,644	544	-	-	-	68	348	702	1,277	1,638	3,637*
	20 +	4,751	88,399,426	600	-	-	-	-	352	865	1,450	1,891	3,773
	All ages	7,753	127,967,696	531	-	-	-	-	294	709	1,301	1,867	3,426
Indirect	< 1	174	1,846,966	238	-	-	-	-	41	419	779	878*	1,052*
	1-10	2,012	20,650,660	139	-	-	-	12	86	204	350	474	751
	11-19	816	17,070,644	228	-	-	-	11	128	303	568	820	1,377*
	20 +	4,751	88,399,426	562	-	-	-	122	412	785	1,210	1,597	3,094
	All ages	7,753	127,967,696	445	-	-	-	54	266	630	1,064	1,412	2,732
Direct and Indirect	< 1	174	1,846,966	298	-	-	-	-	60	572	868	945*	1,254*
	1-10	2,012	20,650,660	406	-	-	8	118	310	590	894	1,134	1,717
	11-19	816	17,070,644	772	-	-	54	233	549	1,018	1,658	2,016	3,943*
	20 +	4,751	88,399,426	1,162	-	-	89	465	982	1,584	2,337	2,935	4,910
	All ages	7,753	127,967,696	975	-	-	39	284	741	1,364	2,115	2,660	4,477

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A1. Community Water: Gender by Broad Age Categories

All Individuals

Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
c. Both sexes													
Direct	< 1	359	3,772,296	58	-	-	-	-	-	56	184	288	552*
	1-10	3,980	40,145,854	263	-	-	-	-	174	352	696	919	1,415
	11-19	1,641	33,567,485	477	-	-	-	41	282	638	1,162	1,536	3,046
	20 +	9,323	184,411,625	573	-	-	-	-	351	823	1,417	1,879	3,402
	All ages	15,303	261,897,260	506	-	-	-	-	290	707	1,270	1,769	3,240
Indirect	< 1	359	3,772,296	284	-	-	-	-	68	563	800	919	1,307*
	1-10	3,980	40,145,854	137	-	-	-	12	84	205	352	457	734
	11-19	1,641	33,567,485	206	-	-	-	8	111	287	511	770	1,314
	20 +	9,323	184,411,625	524	-	-	-	120	384	739	1,145	1,491	2,688
	All ages	15,303	261,897,260	421	-	-	-	56	262	605	1,008	1,334	2,373
Direct and Indirect	< 1	359	3,772,296	342	-	-	-	-	173	652	878	1,040	1,438*
	1-10	3,980	40,145,854	400	-	-	12	118	302	571	905	1,118	1,731
	11-19	1,641	33,567,485	683	-	-	26	191	473	937	1,533	1,946	3,671
	20 +	9,323	184,411,625	1,098	-	-	66	418	920	1,522	2,224	2,801	4,488
	All ages	15,303	261,897,260	927	-	-	32	264	710	1,313	2,016	2,544	4,242

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A2. Community Water: Fine Age Categories

All Individuals

	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
Direct	<0.5	199	2,004,144	25	-	-	-	-	-	-	94	117*	328*
	0.5-0.9	160	1,768,152	96	-	-	-	-	-	116	275	428*	613*
	1-3	1,834	12,262,345	184	-	-	-	-	103	259	472	677	1,050
	4-6	1,203	12,531,561	274	-	-	-	-	173	371	700	880	1,456*
	7-10	943	15,351,948	317	-	-	-	53	223	450	768	1,030	1,518*
	11-14	816	15,578,741	414	-	-	-	56	252	567	1,010	1,531	2,200*
	15-19	825	17,988,744	531	-	-	-	8	294	707	1,242	1,572	3,753*
	20-24	686	18,723,140	629	-	-	-	-	289	776	1,450	2,618	4,881*
	25-54	4,923	113,455,262	561	-	-	-	-	342	816	1,414	1,885	3,388
	55-64	1,544	21,190,446	561	-	-	-	-	365	826	1,402	1,760	2,744
	65 +	2,170	31,042,777	593	-	-	-	26	463	919	1,409	1,805	2,477
	All ages	15,303	261,897,260	506	-	-	-	-	290	707	1,270	1,769	3,240
Indirect	<0.5	199	2,004,144	255	-	-	-	-	-	537	842	933*	1,086*
	0.5-0.9	160	1,768,152	316	-	-	-	14	155	614	759	841*	1,257*
	1-3	1,834	12,262,345	129	-	-	-	20	85	189	308	432	704
	4-6	1,203	12,531,561	145	-	-	-	16	92	221	360	458	774*
	7-10	943	15,351,948	136	-	-	-	4	76	203	366	482	747*
	11-14	816	15,578,741	180	-	-	-	6	103	254	449	629	1,147*
	15-19	825	17,988,744	229	-	-	-	12	116	310	590	853	1,500*
	20-24	686	18,723,140	345	-	-	-	59	237	501	823	1,141	1,780*
	25-54	4,923	113,455,262	541	-	-	-	118	382	750	1,190	1,567	2,957
	55-64	1,544	21,190,446	581	-	-	-	183	487	801	1,197	1,548	2,544
	65 +	2,170	31,042,777	534	-	-	-	195	472	770	1,076	1,317	2,061
	All ages	15,303	261,897,260	421	-	-	-	56	262	605	1,008	1,334	2,373
Direct and Indirect	<0.5	199	2,004,144	280	-	-	-	-	35	552	861	945*	1,286*
	0.5-0.9	160	1,768,152	412	-	-	-	36	322	712	884	1,101*	1,493*
	1-3	1,834	12,262,345	313	-	-	-	74	236	469	691	942	1,358
	4-6	1,203	12,531,561	420	-	-	22	133	330	591	917	1,165	1,902*
	7-10	943	15,351,948	453	-	-	29	139	355	671	978	1,219	1,914*
	11-14	816	15,578,741	594	-	-	27	181	435	801	1,365	1,722	2,541*
	15-19	825	17,988,744	760	-	-	25	201	540	1,030	1,610	2,062	3,830*
	20-24	686	18,723,140	974	-	-	65	296	676	1,185	2,036	3,041	5,320*
	25-54	4,923	113,455,262	1,102	-	-	82	414	892	1,516	2,271	2,863	4,672
	55-64	1,544	21,190,446	1,142	-	-	32	469	1,023	1,597	2,247	2,679	4,183
	65 +	2,170	31,042,777	1,127	-	-	16	545	1,067	1,601	2,139	2,551	3,661
	All ages	15,303	261,897,260	927	-	-	32	264	710	1,313	2,016	2,544	4,242

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:42 M:\PW\OSTWATER\REQ002\R002_E2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A3. Community Water: Pregnant, Lactating, and Childbearing Age Women Categories
All Individuals

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		70	1,751,888	505	-	-	-	-	147	903	1,405*	1,720*	2,207*
Indirect		70	1,751,888	314	-	-	-	27	193	371	785*	1,202*	1,451*
Direct and Indirect		70	1,751,888	819	-	-	13*	71	521	1,331	1,816*	2,501*	3,433*
b. Lactating													
Direct		41	1,171,868	907*	-	-	-	-	336*	1,680*	2,230*	2,793*	3,575*
Indirect		41	1,171,868	472*	-	-	-	12*	300*	568*	1,045*	1,669*	2,593*
Direct and Indirect		41	1,171,868	1,379*	-	-	-	116*	1,226*	2,263*	2,872*	3,434*	4,024*
c. Women Age 15-44													
Direct		2,332	58,978,782	518	-	-	-	-	261	705	1,360	1,869	3,602
Indirect		2,332	58,978,782	404	-	-	-	66	266	573	972	1,307	2,332
Direct and Indirect		2,332	58,978,782	922	-	-	43	281	696	1,272	2,008	2,604	4,330

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:43 M:\PW\OSTWATER\REQ002\R002_E3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table B1. Bottled Water: Gender by Broad Age Categories

All Individuals

Gender	Age	Sampsize	Population	Milliliters/Person/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	185	1,925,330	20	-	-	-	-	-	-	54	125*	257*
	1-10	1,968	19,495,194	65	-	-	-	-	-	-	235	450	887
	11-19	825	16,496,841	104	-	-	-	-	-	-	345	650	1,465*
	20 +	4,572	96,012,199	165	-	-	-	-	-	-	660	993	1,881
	All ages	7,550	133,929,564	140	-	-	-	-	-	-	521	933	1,865
Indirect	< 1	185	1,925,330	75	-	-	-	-	-	-	358	607*	883*
	1-10	1,968	19,495,194	11	-	-	-	-	-	-	-	45	360
	11-19	825	16,496,841	10	-	-	-	-	-	-	-	-	292*
	20 +	4,572	96,012,199	34	-	-	-	-	-	-	-	237	803
	All ages	7,550	133,929,564	28	-	-	-	-	-	-	-	175	722
Direct and Indirect	< 1	185	1,925,330	95	-	-	-	-	-	-	520	656*	898*
	1-10	1,968	19,495,194	76	-	-	-	-	-	-	292	478	994
	11-19	825	16,496,841	114	-	-	-	-	-	-	414	702	1,548*
	20 +	4,572	96,012,199	198	-	-	-	-	-	-	799	1,205	2,103
	All ages	7,550	133,929,564	168	-	-	-	-	-	-	665	1,065	1,952
b. Male													
Direct	< 1	174	1,846,966	24	-	-	-	-	-	-	78	109*	238*
	1-10	2,012	20,650,660	57	-	-	-	-	-	-	230	395	800
	11-19	816	17,070,644	105	-	-	-	-	-	-	323	765	1,547*
	20 +	4,751	88,399,426	147	-	-	-	-	-	-	527	942	1,891
	All ages	7,753	127,967,696	125	-	-	-	-	-	-	462	837	1,780
Indirect	< 1	174	1,846,966	105	-	-	-	-	-	-	428	800*	1,012*
	1-10	2,012	20,650,660	9	-	-	-	-	-	-	-	23	223
	11-19	816	17,070,644	14	-	-	-	-	-	-	-	52	403*
	20 +	4,751	88,399,426	34	-	-	-	-	-	-	-	162	854
	All ages	7,753	127,967,696	28	-	-	-	-	-	-	-	116	774
Direct and Indirect	< 1	174	1,846,966	129	-	-	-	-	-	60	521	800*	1,141*
	1-10	2,012	20,650,660	66	-	-	-	-	-	-	237	460	837
	11-19	816	17,070,644	119	-	-	-	-	-	-	402	871	1,715*
	20 +	4,751	88,399,426	182	-	-	-	-	-	-	673	1,178	2,365
	All ages	7,753	127,967,696	154	-	-	-	-	-	-	530	1,006	2,112

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table B1. Bottled Water: Gender by Broad Age Categories

All Individuals

Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
c. Both sexes													
Direct	< 1	359	3,772,296	22	-	-	-	-	-	-	73	116	258*
	1-10	3,980	40,145,854	61	-	-	-	-	-	-	232	431	815
	11-19	1,641	33,567,485	104	-	-	-	-	-	-	345	680	1,516
	20 +	9,323	184,411,625	156	-	-	-	-	-	-	589	970	1,890
	All ages	15,303	261,897,260	133	-	-	-	-	-	-	471	883	1,847
Indirect	< 1	359	3,772,296	90	-	-	-	-	-	-	366	745	932*
	1-10	3,980	40,145,854	10	-	-	-	-	-	-	-	31	294
	11-19	1,641	33,567,485	12	-	-	-	-	-	-	-	11	379
	20 +	9,323	184,411,625	34	-	-	-	-	-	-	-	230	825
	All ages	15,303	261,897,260	28	-	-	-	-	-	-	-	137	738
Direct and Indirect	< 1	359	3,772,296	111	-	-	-	-	-	23	522	793	1,083*
	1-10	3,980	40,145,854	71	-	-	-	-	-	-	264	472	906
	11-19	1,641	33,567,485	116	-	-	-	-	-	-	414	764	1,648
	20 +	9,323	184,411,625	190	-	-	-	-	-	-	754	1,183	2,155
	All ages	15,303	261,897,260	161	-	-	-	-	-	-	591	1,036	2,005

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Part I: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion

Table B2. Bottled Water: Fine Age Categories

All Individuals

				Milliliters/Person/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	199	2,004,144	18	-	-	-	-	-	-	76	98*	178*
	0.5-0.9	160	1,768,152	26	-	-	-	-	-	-	57	205*	329*
	1-3	1,834	12,262,345	52	-	-	-	-	-	-	209	345	658
	4-6	1,203	12,531,561	65	-	-	-	-	-	-	235	459	875*
	7-10	943	15,351,948	65	-	-	-	-	-	-	219	456	822*
	11-14	816	15,578,741	86	-	-	-	-	-	-	289	530	1,330*
	15-19	825	17,988,744	120	-	-	-	-	-	-	438	818	1,579*
	20-24	686	18,723,140	196	-	-	-	-	-	66	679	1,277	2,586*
	25-54	4,923	113,455,262	170	-	-	-	-	-	-	630	1,001	1,891
	55-64	1,544	21,190,446	124	-	-	-	-	-	-	446	877	1,673
	65 +	2,170	31,042,777	105	-	-	-	-	-	-	350	814	1,418
	All ages	15,303	261,897,260	133	-	-	-	-	-	-	471	883	1,847
Indirect	<0.5	199	2,004,144	93	-	-	-	-	-	-	414	744*	952*
	0.5-0.9	160	1,768,152	86	-	-	-	-	-	-	359	714*	805*
	1-3	1,834	12,262,345	11	-	-	-	-	-	-	-	52	292
	4-6	1,203	12,531,561	7	-	-	-	-	-	-	-	-	207*
	7-10	943	15,351,948	11	-	-	-	-	-	-	-	44	375*
	11-14	816	15,578,741	14	-	-	-	-	-	-	-	56	478*
	15-19	825	17,988,744	10	-	-	-	-	-	-	-	-	258*
	20-24	686	18,723,140	18	-	-	-	-	-	-	-	107	346*
	25-54	4,923	113,455,262	36	-	-	-	-	-	-	-	235	882
	55-64	1,544	21,190,446	38	-	-	-	-	-	-	-	314	885
	65 +	2,170	31,042,777	31	-	-	-	-	-	-	-	237	727
	All ages	15,303	261,897,260	28	-	-	-	-	-	-	-	137	738
Direct and Indirect	<0.5	199	2,004,144	110	-	-	-	-	-	38	519	809*	1,045*
	0.5-0.9	160	1,768,152	113	-	-	-	-	-	5	496	727*	1,006*
	1-3	1,834	12,262,345	62	-	-	-	-	-	-	235	411	820
	4-6	1,203	12,531,561	73	-	-	-	-	-	-	279	521	915*
	7-10	943	15,351,948	76	-	-	-	-	-	-	271	497	917*
	11-14	816	15,578,741	100	-	-	-	-	-	-	344	679	1,415*
	15-19	825	17,988,744	130	-	-	-	-	-	-	468	867	1,775*
	20-24	686	18,723,140	214	-	-	-	-	-	111	727	1,299	2,816*
	25-54	4,923	113,455,262	206	-	-	-	-	-	24	801	1,210	2,129
	55-64	1,544	21,190,446	162	-	-	-	-	-	-	588	1,183	2,277
	65 +	2,170	31,042,777	136	-	-	-	-	-	-	591	1,038	1,957
	All ages	15,303	261,897,260	161	-	-	-	-	-	-	591	1,036	2,005

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:42 M:\PW\OSTWATER\REQ002\R002_E2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table B3. Bottled Water: Pregnant, Lactating, and Childbearing Age Women Categories
All Individuals

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		70	1,751,888	300	-	-	-	-	-	301	1,282*	1,485*	1,800*
Indirect		70	1,751,888	55	-	-	-	-	-	-	105*	440*	772*
Direct and Indirect		70	1,751,888	355	-	-	-	-	-	393	1,286*	1,829*	1,976*
b. Lactating													
Direct		41	1,171,868	85*	-	-	-	-	-	-	164*	529*	1,151*
Indirect		41	1,171,868	93*	-	-	-	-	-	-	265*	802*	918*
Direct and Indirect		41	1,171,868	178*	-	-	-	-	-	-	780*	1,031*	1,235*
c. Women Age 15-44													
Direct		2,332	58,978,782	182	-	-	-	-	-	103	691	1,045	1,891
Indirect		2,332	58,978,782	29	-	-	-	-	-	-	-	178	758
Direct and Indirect		2,332	58,978,782	212	-	-	-	-	-	117	828	1,183	2,059

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:43 M:\PW\OSTWATER\REQ002\R002_E3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table C1. Other Sources: Gender by Broad Age Categories

All Individuals

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	185	1,925,330	5	-	-	-	-	-	-	-	-	176*
	1-10	1,968	19,495,194	31	-	-	-	-	-	-	-	224	755
	11-19	825	16,496,841	74	-	-	-	-	-	-	207	499	1,182*
	20 +	4,572	96,012,199	64	-	-	-	-	-	-	58	484	1,310
	All ages	7,550	133,929,564	60	-	-	-	-	-	-	59	466	1,184
Indirect	< 1	185	1,925,330	16	-	-	-	-	-	-	-	5*	451*
	1-10	1,968	19,495,194	15	-	-	-	-	-	-	-	99	376
	11-19	825	16,496,841	25	-	-	-	-	-	-	39	173	496*
	20 +	4,572	96,012,199	65	-	-	-	-	-	-	89	503	1,232
	All ages	7,550	133,929,564	52	-	-	-	-	-	-	36	355	1,074
Direct and Indirect	< 1	185	1,925,330	21	-	-	-	-	-	-	-	249*	468*
	1-10	1,968	19,495,194	46	-	-	-	-	-	-	88	395	899
	11-19	825	16,496,841	99	-	-	-	-	-	-	310	707	1,846*
	20 +	4,572	96,012,199	130	-	-	-	-	-	-	389	1,111	2,073
	All ages	7,550	133,929,564	112	-	-	-	-	-	-	281	928	1,893
b. Male													
Direct	< 1	174	1,846,966	5	-	-	-	-	-	-	-	13*	126*
	1-10	2,012	20,650,660	36	-	-	-	-	-	-	21	271	743
	11-19	816	17,070,644	52	-	-	-	-	-	-	-	337	1,135*
	20 +	4,751	88,399,426	90	-	-	-	-	-	-	200	641	1,664
	All ages	7,753	127,967,696	75	-	-	-	-	-	-	114	516	1,428
Indirect	< 1	174	1,846,966	21	-	-	-	-	-	-	-	89*	519*
	1-10	2,012	20,650,660	17	-	-	-	-	-	-	4	106	407
	11-19	816	17,070,644	31	-	-	-	-	-	-	-	230	713*
	20 +	4,751	88,399,426	89	-	-	-	-	-	-	178	706	1,589
	All ages	7,753	127,967,696	69	-	-	-	-	-	-	86	506	1,392
Direct and Indirect	< 1	174	1,846,966	26	-	-	-	-	-	-	10	148*	556*
	1-10	2,012	20,650,660	53	-	-	-	-	-	-	119	414	1,012
	11-19	816	17,070,644	83	-	-	-	-	-	-	211	632	1,432*
	20 +	4,751	88,399,426	180	-	-	-	-	-	-	651	1,413	2,800
	All ages	7,753	127,967,696	144	-	-	-	-	-	-	395	1,120	2,389

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table C1. Other Sources: Gender by Broad Age Categories
All Individuals

Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
c. Both sexes													
Direct	< 1	359	3,772,296	5	-	-	-	-	-	-	-	-	161*
	1-10	3,980	40,145,854	33	-	-	-	-	-	-	-	234	750
	11-19	1,641	33,567,485	63	-	-	-	-	-	-	137	434	1,172
	20 +	9,323	184,411,625	77	-	-	-	-	-	-	118	585	1,418
	All ages	15,303	261,897,260	67	-	-	-	-	-	-	92	472	1,407
Indirect	< 1	359	3,772,296	18	-	-	-	-	-	-	-	81	556*
	1-10	3,980	40,145,854	16	-	-	-	-	-	-	-	105	385
	11-19	1,641	33,567,485	28	-	-	-	-	-	-	33	206	669
	20 +	9,323	184,411,625	77	-	-	-	-	-	-	122	594	1,421
	All ages	15,303	261,897,260	60	-	-	-	-	-	-	60	418	1,240
Direct and Indirect	< 1	359	3,772,296	23	-	-	-	-	-	-	-	148	556*
	1-10	3,980	40,145,854	50	-	-	-	-	-	-	103	405	920
	11-19	1,641	33,567,485	90	-	-	-	-	-	-	286	666	1,710
	20 +	9,323	184,411,625	154	-	-	-	-	-	-	532	1,243	2,373
	All ages	15,303	261,897,260	128	-	-	-	-	-	-	343	1,007	2,152

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Part I: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion

Table C2. Other Sources: Fine Age Categories

All Individuals

	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
Direct	<0.5	199	2,004,144	3	-	-	-	-	-	-	-	-	112*
	0.5-0.9	160	1,768,152	8	-	-	-	-	-	-	-	14*	198*
	1-3	1,834	12,262,345	23	-	-	-	-	-	-	-	141	554
	4-6	1,203	12,531,561	29	-	-	-	-	-	-	-	188	654*
	7-10	943	15,351,948	46	-	-	-	-	-	-	87	338	825*
	11-14	816	15,578,741	70	-	-	-	-	-	-	170	523	1,157*
	15-19	825	17,988,744	56	-	-	-	-	-	-	119	353	1,211*
	20-24	686	18,723,140	42	-	-	-	-	-	-	-	235	1,071*
	25-54	4,923	113,455,262	73	-	-	-	-	-	-	112	505	1,415
	55-64	1,544	21,190,446	103	-	-	-	-	-	-	344	701	1,617
	65 +	2,170	31,042,777	96	-	-	-	-	-	-	311	799	1,552
	All ages	15,303	261,897,260	67	-	-	-	-	-	-	92	472	1,407
Indirect	<0.5	199	2,004,144	15	-	-	-	-	-	-	-	-	411*
	0.5-0.9	160	1,768,152	22	-	-	-	-	-	-	-	84*	554*
	1-3	1,834	12,262,345	12	-	-	-	-	-	-	-	89	279
	4-6	1,203	12,531,561	14	-	-	-	-	-	-	-	90	324*
	7-10	943	15,351,948	22	-	-	-	-	-	-	16	147	420*
	11-14	816	15,578,741	35	-	-	-	-	-	-	77	233	756*
	15-19	825	17,988,744	21	-	-	-	-	-	-	4	150	422*
	20-24	686	18,723,140	20	-	-	-	-	-	-	-	103	605*
	25-54	4,923	113,455,262	81	-	-	-	-	-	-	118	595	1,516
	55-64	1,544	21,190,446	108	-	-	-	-	-	-	411	799	1,538
	65 +	2,170	31,042,777	75	-	-	-	-	-	-	208	667	1,213
	All ages	15,303	261,897,260	60	-	-	-	-	-	-	60	418	1,240
Direct and Indirect	<0.5	199	2,004,144	18	-	-	-	-	-	-	-	86*	468*
	0.5-0.9	160	1,768,152	30	-	-	-	-	-	-	23	202*	554*
	1-3	1,834	12,262,345	35	-	-	-	-	-	-	8	295	710
	4-6	1,203	12,531,561	43	-	-	-	-	-	-	32	322	830*
	7-10	943	15,351,948	67	-	-	-	-	-	-	206	554	1,049*
	11-14	816	15,578,741	106	-	-	-	-	-	-	341	800	1,811*
	15-19	825	17,988,744	77	-	-	-	-	-	-	234	552	1,411*
	20-24	686	18,723,140	62	-	-	-	-	-	-	-	459	1,304*
	25-54	4,923	113,455,262	153	-	-	-	-	-	-	503	1,215	2,428
	55-64	1,544	21,190,446	211	-	-	-	-	-	-	885	1,466	2,786
	65 +	2,170	31,042,777	171	-	-	-	-	-	-	697	1,416	2,269
	All ages	15,303	261,897,260	128	-	-	-	-	-	-	343	1,007	2,152

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:42 M:\PW\OSTWATER\REQ002\R002_E2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table C3. Other Sources: Pregnant, Lactating, and Childbearing Age Women Categories

All Individuals

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		70	1,751,888	62	-	-	-	-	-	-	-	141*	1,289*
Indirect		70	1,751,888	41	-	-	-	-	-	-	-	225*	858*
Direct and Indirect		70	1,751,888	103	-	-	-	-	-	-	-	613*	1,666*
b. Lactating													
Direct		41	1,171,868	106*	-	-	-	-	-	-	237*	609*	1,511*
Indirect		41	1,171,868	88*	-	-	-	-	-	-	213*	699*	1,060*
Direct and Indirect		41	1,171,868	194*	-	-	-	-	-	-	446*	1,624*	2,336*
c. Women Age 15-44													
Direct		2,332	58,978,782	54	-	-	-	-	-	-	-	354	1,172
Indirect		2,332	58,978,782	50	-	-	-	-	-	-	-	271	1,134
Direct and Indirect		2,332	58,978,782	104	-	-	-	-	-	-	176	778	1,970

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:43 M:\PW\OSTWATER\REQ002\R002_E3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table D1. Missing Source: Gender by Broad Age Categories

All Individuals

Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
a. Female													
Direct	< 1	185	1,925,330	1	-	-	-	-	-	-	-	-	9*
	1-10	1,968	19,495,194	7	-	-	-	-	-	-	-	-	222
	11-19	825	16,496,841	18	-	-	-	-	-	-	-	-	356*
	20 +	4,572	96,012,199	13	-	-	-	-	-	-	-	-	368
	All ages	7,550	133,929,564	13	-	-	-	-	-	-	-	-	345
Indirect	< 1	185	1,925,330	3	-	-	-	-	-	-	-	-	-
	1-10	1,968	19,495,194	1	-	-	-	-	-	-	-	-	-
	11-19	825	16,496,841	1	-	-	-	-	-	-	-	-	-
	20 +	4,572	96,012,199	4	-	-	-	-	-	-	-	-	-
	All ages	7,550	133,929,564	3	-	-	-	-	-	-	-	-	-
Direct and Indirect	< 1	185	1,925,330	3	-	-	-	-	-	-	-	-	29*
	1-10	1,968	19,495,194	8	-	-	-	-	-	-	-	-	237
	11-19	825	16,496,841	18	-	-	-	-	-	-	-	-	387*
	20 +	4,572	96,012,199	17	-	-	-	-	-	-	-	-	502
	All ages	7,550	133,929,564	15	-	-	-	-	-	-	-	-	465
b. Male													
Direct	< 1	174	1,846,966	1	-	-	-	-	-	-	-	-	31*
	1-10	2,012	20,650,660	6	-	-	-	-	-	-	-	-	147
	11-19	816	17,070,644	13	-	-	-	-	-	-	-	-	353*
	20 +	4,751	88,399,426	14	-	-	-	-	-	-	-	-	468
	All ages	7,753	127,967,696	12	-	-	-	-	-	-	-	-	350
Indirect	< 1	174	1,846,966	10	-	-	-	-	-	-	-	-	-
	1-10	2,012	20,650,660	2	-	-	-	-	-	-	-	-	-
	11-19	816	17,070,644	3	-	-	-	-	-	-	-	-	7*
	20 +	4,751	88,399,426	6	-	-	-	-	-	-	-	-	12
	All ages	7,753	127,967,696	5	-	-	-	-	-	-	-	-	1
Direct and Indirect	< 1	174	1,846,966	11	-	-	-	-	-	-	-	-	43*
	1-10	2,012	20,650,660	7	-	-	-	-	-	-	-	-	236
	11-19	816	17,070,644	16	-	-	-	-	-	-	-	-	462*
	20 +	4,751	88,399,426	19	-	-	-	-	-	-	-	-	571
	All ages	7,753	127,967,696	17	-	-	-	-	-	-	-	-	476

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table D1. Missing Source: Gender by Broad Age Categories

All Individuals

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	359	3,772,296	1	-	-	-	-	-	-	-	-	27*
	1-10	3,980	40,145,854	6	-	-	-	-	-	-	-	-	179
	11-19	1,641	33,567,485	15	-	-	-	-	-	-	-	-	354
	20 +	9,323	184,411,625	13	-	-	-	-	-	-	-	-	442
	All ages	15,303	261,897,260	12	-	-	-	-	-	-	-	-	351
Indirect	< 1	359	3,772,296	6	-	-	-	-	-	-	-	-	-
	1-10	3,980	40,145,854	1	-	-	-	-	-	-	-	-	-
	11-19	1,641	33,567,485	2	-	-	-	-	-	-	-	-	-
	20 +	9,323	184,411,625	5	-	-	-	-	-	-	-	-	-
	All ages	15,303	261,897,260	4	-	-	-	-	-	-	-	-	-
Direct and Indirect	< 1	359	3,772,296	7	-	-	-	-	-	-	-	-	43*
	1-10	3,980	40,145,854	8	-	-	-	-	-	-	-	-	237
	11-19	1,641	33,567,485	17	-	-	-	-	-	-	-	-	457
	20 +	9,323	184,411,625	18	-	-	-	-	-	-	-	-	556
	All ages	15,303	261,897,260	16	-	-	-	-	-	-	-	-	471

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table D2. Missing Source: Fine Age Categories

All Individuals

				Milliliters/Person/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	199	2,004,144	1	-	-	-	-	-	-	-	-	29*
	0.5-0.9	160	1,768,152	1	-	-	-	-	-	-	-	-	25*
	1-3	1,834	12,262,345	4	-	-	-	-	-	-	-	-	115
	4-6	1,203	12,531,561	8	-	-	-	-	-	-	-	-	230*
	7-10	943	15,351,948	7	-	-	-	-	-	-	-	-	210*
	11-14	816	15,578,741	10	-	-	-	-	-	-	-	-	319*
	15-19	825	17,988,744	20	-	-	-	-	-	-	-	-	489*
	20-24	686	18,723,140	18	-	-	-	-	-	-	-	-	579*
	25-54	4,923	113,455,262	14	-	-	-	-	-	-	-	-	466
	55-64	1,544	21,190,446	10	-	-	-	-	-	-	-	-	267
	65 +	2,170	31,042,777	9	-	-	-	-	-	-	-	-	171
	All ages	15,303	261,897,260	12	-	-	-	-	-	-	-	-	351
Indirect	<0.5	199	2,004,144	1	-	-	-	-	-	-	-	-	-
	0.5-0.9	160	1,768,152	13	-	-	-	-	-	-	-	-	484*
	1-3	1,834	12,262,345	3	-	-	-	-	-	-	-	-	35
	4-6	1,203	12,531,561	1	-	-	-	-	-	-	-	-	-
	7-10	943	15,351,948	1	-	-	-	-	-	-	-	-	-
	11-14	816	15,578,741	1	-	-	-	-	-	-	-	-	-
	15-19	825	17,988,744	3	-	-	-	-	-	-	-	-	6*
	20-24	686	18,723,140	3	-	-	-	-	-	-	-	-	-
	25-54	4,923	113,455,262	4	-	-	-	-	-	-	-	-	-
	55-64	1,544	21,190,446	4	-	-	-	-	-	-	-	-	-
	65 +	2,170	31,042,777	8	-	-	-	-	-	-	-	-	118
	All ages	15,303	261,897,260	4	-	-	-	-	-	-	-	-	-
Direct and Indirect	<0.5	199	2,004,144	1	-	-	-	-	-	-	-	-	32*
	0.5-0.9	160	1,768,152	14	-	-	-	-	-	-	-	-	499*
	1-3	1,834	12,262,345	7	-	-	-	-	-	-	-	-	173
	4-6	1,203	12,531,561	8	-	-	-	-	-	-	-	-	255*
	7-10	943	15,351,948	8	-	-	-	-	-	-	-	-	240*
	11-14	816	15,578,741	12	-	-	-	-	-	-	-	-	350*
	15-19	825	17,988,744	22	-	-	-	-	-	-	-	-	635*
	20-24	686	18,723,140	21	-	-	-	-	-	-	-	-	682*
	25-54	4,923	113,455,262	19	-	-	-	-	-	-	-	-	530
	55-64	1,544	21,190,446	14	-	-	-	-	-	-	-	-	438
	65 +	2,170	31,042,777	17	-	-	-	-	-	-	-	-	477
	All ages	15,303	261,897,260	16	-	-	-	-	-	-	-	-	471

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:42 M:\PW\OSTWATER\REQ002\R002_E2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Part I: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion

Table D3. Missing Source: Pregnant, Lactating, and Childbearing Age Women Categories

All Individuals

Women Categories	Age	Sampsize	Population	Milliliters/Person/Day Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		70	1,751,888	42	-	-	-	-	-	-	-	-	1,081*
Indirect		70	1,751,888	-	-	-	-	-	-	-	-	-	-
Direct and Indirect		70	1,751,888	42	-	-	-	-	-	-	-	-	1,081*
b. Lactating													
Direct		41	1,171,868	51*	-	-	-	-	-	-	-	326*	1,000*
Indirect		41	1,171,868	3*	-	-	-	-	-	-	-	-	65*
Direct and Indirect		41	1,171,868	55*	-	-	-	-	-	-	-	326*	1,025*
c. Women Age 15-44													
Direct		2,332	58,978,782	17	-	-	-	-	-	-	-	-	410
Indirect		2,332	58,978,782	2	-	-	-	-	-	-	-	-	-
Direct and Indirect		2,332	58,978,782	18	-	-	-	-	-	-	-	-	572

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:43 M:\PW\OSTWATER\REQ002\R002_E3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E1. All Sources: Gender by Broad Age Categories

All Individuals

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	185	1,925,330	83	-	-	-	-	9	111	223	341*	597*
	1-10	1,968	19,495,194	362	-	-	-	113	258	470	797	1,035	1,710
	11-19	825	16,496,841	602	-	-	45	207	447	814	1,322	1,731	3,064*
	20 +	4,572	96,012,199	791	-	-	77	286	591	1,057	1,643	1,942	3,657
	All ages	7,550	133,929,564	695	-	-	26	226	497	939	1,487	1,881	3,291
Indirect	< 1	185	1,925,330	421	-	-	-	57	400	671	884	968*	1,286*
	1-10	1,968	19,495,194	162	-	-	2	38	111	232	383	486	733
	11-19	825	16,496,841	219	-	-	-	36	130	304	544	757	1,161*
	20 +	4,572	96,012,199	592	-	14	78	237	487	803	1,204	1,519	2,450
	All ages	7,550	133,929,564	481	-	-	24	124	355	684	1,067	1,365	2,293
Direct and Indirect	< 1	185	1,925,330	503	-	-	-	198	493	748	949	1,104*	1,648*
	1-10	1,968	19,495,194	524	5	82	137	253	440	706	993	1,224	2,031
	11-19	825	16,496,841	821	-	100	206	357	651	1,109	1,637	1,949	3,076*
	20 +	4,572	96,012,199	1,383	59	316	476	792	1,216	1,775	2,413	2,925	4,506
	All ages	7,550	133,929,564	1,176	13	177	286	564	1,012	1,573	2,215	2,698	4,250
b. Male													
Direct	< 1	174	1,846,966	90	-	-	-	-	30	109	268	341*	608*
	1-10	2,012	20,650,660	365	-	-	-	113	282	498	786	945	1,529
	11-19	816	17,070,644	714	-	-	63	228	494	923	1,472	1,946	3,793*
	20 +	4,751	88,399,426	851	-	-	42	285	642	1,113	1,864	2,349	4,154
	All ages	7,753	127,967,696	743	-	-	4	226	524	961	1,643	2,116	3,800
Indirect	< 1	174	1,846,966	374	-	-	-	13	334	699	897	984*	1,238*
	1-10	2,012	20,650,660	167	-	-	1	32	113	236	385	525	859
	11-19	816	17,070,644	276	-	-	-	54	191	370	661	895	1,426*
	20 +	4,751	88,399,426	691	-	2	58	243	538	932	1,412	1,849	3,556
	All ages	7,753	127,967,696	547	-	-	15	127	371	755	1,211	1,597	3,072
Direct and Indirect	< 1	174	1,846,966	464	-	-	-	89	413	730	963	1,276*	1,502*
	1-10	2,012	20,650,660	532	3	74	130	256	449	719	1,024	1,253	1,814
	11-19	816	17,070,644	990	-	137	236	442	754	1,302	1,895	2,425	4,008*
	20 +	4,751	88,399,426	1,542	48	296	510	833	1,327	1,968	2,738	3,517	5,522
	All ages	7,753	127,967,696	1,290	7	148	276	582	1,065	1,710	2,482	3,138	5,186

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E1. All Sources: Gender by Broad Age Categories

All Individuals

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	359	3,772,296	86	-	-	-	-	17	110	232	348	598*
	1-10	3,980	40,145,854	364	-	-	-	113	264	472	792	994	1,538
	11-19	1,641	33,567,485	659	-	-	50	224	467	866	1,416	1,841	3,728
	20 +	9,323	184,411,625	820	-	-	54	285	617	1,062	1,760	2,124	3,835
	All ages	15,303	261,897,260	719	-	-	17	226	520	943	1,535	1,897	3,775
Indirect	< 1	359	3,772,296	398	-	-	-	28	366	680	887	984	1,390*
	1-10	3,980	40,145,854	164	-	-	1	35	111	232	385	500	778
	11-19	1,641	33,567,485	248	-	-	-	44	152	337	594	819	1,365
	20 +	9,323	184,411,625	640	-	9	67	241	510	857	1,302	1,657	2,927
	All ages	15,303	261,897,260	513	-	-	20	126	359	715	1,135	1,481	2,651
Direct and Indirect	< 1	359	3,772,296	484	-	-	-	124	449	747	949	1,182	1,645*
	1-10	3,980	40,145,854	528	4	75	133	254	444	710	1,001	1,242	1,891
	11-19	1,641	33,567,485	907	-	118	219	395	715	1,188	1,780	2,185	3,805
	20 +	9,323	184,411,625	1,460	55	302	492	817	1,271	1,863	2,549	3,194	5,155
	All ages	15,303	261,897,260	1,232	9	163	283	573	1,037	1,633	2,341	2,908	4,805

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:40 M:\PW\OSTWATER\REQ002\R002_E1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E2. All Sources: Fine Age Categories

All Individuals

	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
Direct	<0.5	199	2,004,144	46	-	-	-	-	-	77	116	164*	334*
	0.5-0.9	160	1,768,152	132	-	-	-	-	56	203	345	448*	741*
	1-3	1,834	12,262,345	263	-	-	-	59	194	352	584	772	1,160
	4-6	1,203	12,531,561	376	-	-	-	117	288	521	772	984	1,645*
	7-10	943	15,351,948	434	-	-	57	168	342	586	923	1,122	1,721*
	11-14	816	15,578,741	580	-	-	65	223	442	708	1,280	1,673	2,844*
	15-19	825	17,988,744	726	-	-	-	214	519	934	1,479	1,986	3,804*
	20-24	686	18,723,140	884	-	-	-	212	579	1,059	1,872	2,938	5,489*
	25-54	4,923	113,455,262	818	-	-	37	260	590	1,062	1,817	2,233	3,790
	55-64	1,544	21,190,446	798	-	-	80	314	633	1,092	1,631	1,883	2,816
	65 +	2,170	31,042,777	802	-	-	118	352	702	1,062	1,586	1,858	2,659
	All ages	15,303	261,897,260	719	-	-	17	226	520	943	1,535	1,897	3,775
Indirect	<0.5	199	2,004,144	363	-	-	-	-	317	679	889	957*	1,143*
	0.5-0.9	160	1,768,152	437	-	1*	15	89	381	677	841	1,001*	1,394*
	1-3	1,834	12,262,345	155	-	-	7	42	111	218	355	483	735
	4-6	1,203	12,531,561	168	-	-	4	40	116	236	373	494	905*
	7-10	943	15,351,948	170	-	-	-	29	107	246	412	521	767*
	11-14	816	15,578,741	231	-	-	-	46	150	312	556	787	1,178*
	15-19	825	17,988,744	264	-	-	-	42	156	354	653	896	1,500*
	20-24	686	18,723,140	386	-	-	4	91	273	538	877	1,191	1,856*
	25-54	4,923	113,455,262	662	-	7	57	235	505	889	1,368	1,804	3,194
	55-64	1,544	21,190,446	732	-	82	186	358	607	944	1,366	1,734	2,733
	65 +	2,170	31,042,777	648	-	82	171	342	582	857	1,163	1,435	2,168
	All ages	15,303	261,897,260	513	-	-	20	126	359	715	1,135	1,481	2,651
Direct and Indirect	<0.5	199	2,004,144	409	-	-	-	2	394	696	903	969*	1,307*
	0.5-0.9	160	1,768,152	569	-	30*	86	248	548	771	1,126	1,272*	1,671*
	1-3	1,834	12,262,345	417	1	46	90	196	346	580	805	993	1,393
	4-6	1,203	12,531,561	544	4*	87	147	276	462	719	1,017	1,267	2,026*
	7-10	943	15,351,948	604	6*	115	174	305	512	808	1,130	1,422	2,170*
	11-14	816	15,578,741	811	10*	119	209	382	643	1,066	1,623	1,960	3,025*
	15-19	825	17,988,744	990	-	108	231	407	768	1,276	1,891	2,387	4,020*
	20-24	686	18,723,140	1,271	1*	117	237	554	1,000	1,577	2,506	3,608	5,796*
	25-54	4,923	113,455,262	1,480	41	301	473	798	1,272	1,893	2,631	3,333	5,244
	55-64	1,544	21,190,446	1,529	118	473	652	946	1,378	1,952	2,557	2,997	4,393
	65 +	2,170	31,042,777	1,451	245	531	651	935	1,344	1,832	2,323	2,708	3,747
	All ages	15,303	261,897,260	1,232	9	163	283	573	1,037	1,633	2,341	2,908	4,805

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:42 M:\PW\OSTWATER\REQ002\R002_E2.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E3. All Sources: Pregnant, Lactating, and Childbearing Age Women Categories

All Individuals

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		70	1,751,888	909	-	-	-	225	841	1,403	1,687*	1,885*	2,269*
Indirect		70	1,751,888	410	-	6*	49*	128	279	594	1,027*	1,202*	1,451*
Direct and Indirect		70	1,751,888	1,318	-	181*	370*	745	1,228	1,776	2,339*	2,674*	3,557*
b. Lactating													
Direct		41	1,171,868	1,149*	-	-	-	184*	902*	1,772*	2,336*	2,801*	3,575*
Indirect		41	1,171,868	657*	-	7*	76*	213*	424*	915*	1,317*	1,708*	2,904*
Direct and Indirect		41	1,171,868	1,806*	-	359*	491*	1,068*	1,498*	2,474*	3,021*	3,767*	4,024*
c. Women Age 15-44													
Direct		2,332	58,978,782	771	-	-	-	229	572	990	1,655	2,111	3,892
Indirect		2,332	58,978,782	485	-	-	24	124	344	664	1,113	1,429	2,388
Direct and Indirect		2,332	58,978,782	1,256	13	201	326	608	1,064	1,617	2,366	2,948	4,816

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:43 M:\PW\OSTWATER\REQ002\R002_E3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A1. Community Water: Gender by Broad Age Categories

All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	174	1,851,027	7	-	-	-	-	-	7	22	27*	67*
	1-10	1,843	18,169,754	13	-	-	-	-	7	18	32	43	75
	11-19	805	16,192,004	7	-	-	-	-	5	10	19	25	42*
	20 +	4,437	93,104,821	8	-	-	-	-	5	12	21	27	47
	All ages	7,259	129,317,606	9	-	-	-	-	5	12	22	30	52
Indirect	< 1	174	1,851,027	43	-	-	-	-	21	76	118	139*	176*
	1-10	1,843	18,169,754	7	-	-	-	1	4	10	18	23	41
	11-19	805	16,192,004	3	-	-	-	-	2	5	9	12	21*
	20 +	4,437	93,104,821	8	-	-	-	2	6	11	17	22	37
	All ages	7,259	129,317,606	7	-	-	-	1	5	10	17	22	47
Direct and Indirect	< 1	174	1,851,027	49	-	-	-	-	31	82	126	157*	198*
	1-10	1,843	18,169,754	20	-	-	1	5	15	27	44	59	96
	11-19	805	16,192,004	11	-	-	-	3	8	15	25	32	47*
	20 +	4,437	93,104,821	16	-	-	1	6	13	22	33	40	62
	All ages	7,259	129,317,606	16	-	-	1	5	12	22	34	44	75
b. Male													
Direct	< 1	170	1,824,866	8	-	-	-	-	-	7	27	38*	81*
	1-10	1,901	19,635,340	12	-	-	-	-	7	17	31	40	72
	11-19	801	16,825,363	9	-	-	-	1	6	12	19	26	65*
	20 +	4,724	87,950,403	7	-	-	-	-	5	10	18	25	45
	All ages	7,596	126,235,972	8	-	-	-	-	5	11	21	29	52
Indirect	< 1	170	1,824,866	35	-	-	-	-	5	55	114	141*	205*
	1-10	1,901	19,635,340	7	-	-	-	-	4	9	17	23	42
	11-19	801	16,825,363	4	-	-	-	-	2	5	9	13	25*
	20 +	4,724	87,950,403	7	-	-	-	1	5	10	15	20	39
	All ages	7,596	126,235,972	7	-	-	-	1	4	9	15	20	46
Direct and Indirect	< 1	170	1,824,866	43	-	-	-	-	7	79	134	155*	205*
	1-10	1,901	19,635,340	19	-	-	-	5	14	27	41	53	87
	11-19	801	16,825,363	13	-	-	1	4	9	17	26	36	67*
	20 +	4,724	87,950,403	14	-	-	1	6	12	20	29	37	61
	All ages	7,596	126,235,972	15	-	-	1	5	12	20	31	41	79

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table A1. Community Water: Gender by Broad Age Categories
All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	344	3,675,893	7	-	-	-	-	-	7	24	38	81*
	1-10	3,744	37,805,094	12	-	-	-	-	7	18	32	42	73
	11-19	1,606	33,017,367	8	-	-	-	1	5	11	19	26	52
	20 +	9,161	181,055,224	8	-	-	-	-	5	11	19	26	46
	All ages	14,855	255,553,578	8	-	-	-	-	5	12	21	29	52
Indirect	< 1	344	3,675,893	39	-	-	-	-	8	71	118	140	204*
	1-10	3,744	37,805,094	7	-	-	-	-	4	10	17	23	42
	11-19	1,606	33,017,367	4	-	-	-	-	2	5	9	13	24
	20 +	9,161	181,055,224	7	-	-	-	2	5	10	16	21	37
	All ages	14,855	255,553,578	7	-	-	-	1	5	10	16	21	47
Direct and Indirect	< 1	344	3,675,893	46	-	-	-	-	19	82	127	156	205*
	1-10	3,744	37,805,094	19	-	-	-	5	15	27	42	56	91
	11-19	1,606	33,017,367	12	-	-	1	3	9	16	26	33	59
	20 +	9,161	181,055,224	15	-	-	1	6	12	21	31	39	62
	All ages	14,855	255,553,578	16	-	-	1	5	12	21	33	43	77

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table A2. Community Water: Fine Age Categories

All Individuals

				Milliliters/Kg of Body Weight/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	191	1,952,311	4	-	-	-	-	-	-	16	21*	44*
	0.5-0.9	153	1,723,582	11	-	-	-	-	-	13	35	41*	89*
	1-3	1,752	11,722,107	13	-	-	-	-	7	20	35	45	84
	4-6	1,113	11,650,111	14	-	-	-	-	9	20	35	45	82*
	7-10	879	14,432,876	10	-	-	-	2	7	15	25	32	51*
	11-14	790	15,190,405	8	-	-	-	1	5	12	19	27	49*
	15-19	816	17,826,962	8	-	-	-	1	5	11	18	24	56*
	20-24	676	18,402,877	9	-	-	-	-	5	11	21	31	73*
	25-54	4,830	111,382,877	7	-	-	-	-	4	11	19	26	45
	55-64	1,516	20,691,260	7	-	-	-	-	5	11	19	24	36
	65 +	2,139	30,578,210	8	-	-	-	-	6	13	20	24	34
	All ages	14,855	255,553,578	8	-	-	-	-	5	12	21	29	52
Indirect	<0.5	191	1,952,311	43	-	-	-	-	-	79	135	168*	207*
	0.5-0.9	153	1,723,582	34	-	-	-	1	17	57	91	105*	132*
	1-3	1,752	11,722,107	10	-	-	-	1	6	13	24	31	62
	4-6	1,113	11,650,111	7	-	-	-	1	5	10	18	22	38*
	7-10	879	14,432,876	4	-	-	-	-	3	6	13	16	25*
	11-14	790	15,190,405	4	-	-	-	-	2	6	9	12	24*
	15-19	816	17,826,962	4	-	-	-	-	2	5	9	13	23*
	20-24	676	18,402,877	5	-	-	-	1	3	7	13	16	25*
	25-54	4,830	111,382,877	7	-	-	-	2	5	10	17	22	41
	55-64	1,516	20,691,260	8	-	-	-	3	6	10	16	21	37
	65 +	2,139	30,578,210	8	-	-	-	3	7	11	15	20	32
	All ages	14,855	255,553,578	7	-	-	-	1	5	10	16	21	47
Direct and Indirect	<0.5	191	1,952,311	47	-	-	-	-	5	90	139	170*	217*
	0.5-0.9	153	1,723,582	45	-	-	-	4	36	79	103	122*	169*
	1-3	1,752	11,722,107	23	-	-	-	6	17	33	51	67	109
	4-6	1,113	11,650,111	21	-	-	1	6	16	29	44	64	91*
	7-10	879	14,432,876	15	-	-	1	5	11	21	32	39	60*
	11-14	790	15,190,405	12	-	-	1	4	9	17	26	34	54*
	15-19	816	17,826,962	12	-	-	-	3	9	16	25	32	61*
	20-24	676	18,402,877	14	-	-	1	4	10	17	31	38	79*
	25-54	4,830	111,382,877	15	-	-	1	5	12	21	31	40	64
	55-64	1,516	20,691,260	15	-	-	-	6	13	22	31	38	57
	65 +	2,139	30,578,210	16	-	-	-	7	15	23	31	37	52
	All ages	14,855	255,553,578	16	-	-	1	5	12	21	33	43	77

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:47 M:\PW\OSTWATER\REQ002\R002_F2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Part II: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion

Table A3. Community Water: Pregnant, Lactating, and Childbearing Age Women Categories

All Individuals

			Milliliters/Kg of Body Weight/Day									
Pregnant and Lactating Women Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant												
Direct	69	1,729,947	8	-	-	-	-	3	17	25*	28*	33*
Indirect	69	1,729,947	5	-	-	-	-	3	7	13*	17*	19*
Direct and Indirect	69	1,729,947	13	-	-	-	1	8	22	32*	43*	46*
b. Lactating												
Direct	40	1,141,186	13*	-	-	-	-	4*	28*	34*	45*	51*
Indirect	40	1,141,186	8*	-	-	-	-	3*	9*	14*	21*	55*
Direct and Indirect	40	1,141,186	21*	-	-	-	1*	14*	39*	53*	55*	57*
c. Women Age 15-44												
Direct	2,275	57,564,838	8	-	-	-	-	4	11	20	28	51
Indirect	2,275	57,564,838	6	-	-	-	1	4	9	16	20	35
Direct and Indirect	2,275	57,564,838	14	-	-	1	4	11	20	32	39	66

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:48 M:\PW\OSTWATER\REQ002\R002_F3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table B1. Bottled Water: Gender by Broad Age Categories
All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	174	1,851,027	3	-	-	-	-	-	-	8	25*	37*
	1-10	1,843	18,169,754	3	-	-	-	-	-	-	11	20	43
	11-19	805	16,192,004	2	-	-	-	-	-	-	7	11	25*
	20 +	4,437	93,104,821	3	-	-	-	-	-	-	10	16	30
	All ages	7,259	129,317,606	3	-	-	-	-	-	-	9	16	31
Indirect	< 1	174	1,851,027	13	-	-	-	-	-	-	53	126*	158*
	1-10	1,843	18,169,754	1	-	-	-	-	-	-	-	2	15
	11-19	805	16,192,004	-	-	-	-	-	-	-	-	-	6*
	20 +	4,437	93,104,821	1	-	-	-	-	-	-	-	4	12
	All ages	7,259	129,317,606	1	-	-	-	-	-	-	-	3	14
Direct and Indirect	< 1	174	1,851,027	16	-	-	-	-	-	-	74	128*	168*
	1-10	1,843	18,169,754	4	-	-	-	-	-	-	13	22	51
	11-19	805	16,192,004	2	-	-	-	-	-	-	8	12	28*
	20 +	4,437	93,104,821	3	-	-	-	-	-	-	12	19	34
	All ages	7,259	129,317,606	3	-	-	-	-	-	-	12	19	37
b. Male													
Direct	< 1	170	1,824,866	4	-	-	-	-	-	-	13	20*	43*
	1-10	1,901	19,635,340	3	-	-	-	-	-	-	9	18	42
	11-19	801	16,825,363	2	-	-	-	-	-	-	6	11	27*
	20 +	4,724	87,950,403	2	-	-	-	-	-	-	7	12	23
	All ages	7,596	126,235,972	2	-	-	-	-	-	-	7	13	28
Indirect	< 1	170	1,824,866	14	-	-	-	-	-	-	62	98*	147*
	1-10	1,901	19,635,340	1	-	-	-	-	-	-	-	1	14
	11-19	801	16,825,363	-	-	-	-	-	-	-	-	-	6*
	20 +	4,724	87,950,403	-	-	-	-	-	-	-	-	2	11
	All ages	7,596	126,235,972	1	-	-	-	-	-	-	-	2	13
Direct and Indirect	< 1	170	1,824,866	18	-	-	-	-	-	8	74	100*	167*
	1-10	1,901	19,635,340	3	-	-	-	-	-	-	11	22	47
	11-19	801	16,825,363	2	-	-	-	-	-	-	6	13	28*
	20 +	4,724	87,950,403	2	-	-	-	-	-	-	8	14	31
	All ages	7,596	126,235,972	3	-	-	-	-	-	-	8	16	37

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table B1. Bottled Water: Gender by Broad Age Categories

All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	344	3,675,893	3	-	-	-	-	-	-	12	24	40*
	1-10	3,744	37,805,094	3	-	-	-	-	-	-	10	20	43
	11-19	1,606	33,017,367	2	-	-	-	-	-	-	6	11	26
	20 +	9,161	181,055,224	2	-	-	-	-	-	-	8	14	27
	All ages	14,855	255,553,578	2	-	-	-	-	-	-	8	14	29
Indirect	< 1	344	3,675,893	14	-	-	-	-	-	-	55	104	161*
	1-10	3,744	37,805,094	1	-	-	-	-	-	-	-	2	14
	11-19	1,606	33,017,367	-	-	-	-	-	-	-	-	-	6
	20 +	9,161	181,055,224	-	-	-	-	-	-	-	-	3	12
	All ages	14,855	255,553,578	1	-	-	-	-	-	-	-	3	13
Direct and Indirect	< 1	344	3,675,893	17	-	-	-	-	-	5	76	123	169*
	1-10	3,744	37,805,094	3	-	-	-	-	-	-	12	22	49
	11-19	1,606	33,017,367	2	-	-	-	-	-	-	7	13	28
	20 +	9,161	181,055,224	3	-	-	-	-	-	-	10	17	33
	All ages	14,855	255,553,578	3	-	-	-	-	-	-	10	17	37

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table B2. Bottled Water: Fine Age Categories

All Individuals

	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	191	1,952,311	3	-	-	-	-	-	-	13	16*	38*
	0.5-0.9	153	1,723,582	3	-	-	-	-	-	-	6	26*	42*
	1-3	1,752	11,722,107	4	-	-	-	-	-	-	15	25	51
	4-6	1,113	11,650,111	3	-	-	-	-	-	-	12	21	46*
	7-10	879	14,432,876	2	-	-	-	-	-	-	7	13	25*
	11-14	790	15,190,405	2	-	-	-	-	-	-	6	11	27*
	15-19	816	17,826,962	2	-	-	-	-	-	-	7	11	25*
	20-24	676	18,402,877	3	-	-	-	-	-	-	10	17	35*
	25-54	4,830	111,382,877	2	-	-	-	-	-	-	9	14	27
	55-64	1,516	20,691,260	2	-	-	-	-	-	-	6	12	23
	65 +	2,139	30,578,210	2	-	-	-	-	-	-	6	13	23
	All ages	14,855	255,553,578	2	-	-	-	-	-	-	8	14	29
Indirect	<0.5	191	1,952,311	16	-	-	-	-	-	-	67	138*	163*
	0.5-0.9	153	1,723,582	11	-	-	-	-	-	-	45	85*	104*
	1-3	1,752	11,722,107	1	-	-	-	-	-	-	-	4	21
	4-6	1,113	11,650,111	-	-	-	-	-	-	-	-	-	12*
	7-10	879	14,432,876	-	-	-	-	-	-	-	-	-	12*
	11-14	790	15,190,405	-	-	-	-	-	-	-	-	-	9*
	15-19	816	17,826,962	-	-	-	-	-	-	-	-	-	6*
	20-24	676	18,402,877	-	-	-	-	-	-	-	-	2	5*
	25-54	4,830	111,382,877	1	-	-	-	-	-	-	-	3	13
	55-64	1,516	20,691,260	1	-	-	-	-	-	-	-	4	13
	65 +	2,139	30,578,210	-	-	-	-	-	-	-	-	3	11
	All ages	14,855	255,553,578	1	-	-	-	-	-	-	-	3	13
Direct and Indirect	<0.5	191	1,952,311	20	-	-	-	-	-	6	81	152*	170*
	0.5-0.9	153	1,723,582	14	-	-	-	-	-	2	51	92*	125*
	1-3	1,752	11,722,107	5	-	-	-	-	-	-	17	30	61
	4-6	1,113	11,650,111	4	-	-	-	-	-	-	13	24	49*
	7-10	879	14,432,876	2	-	-	-	-	-	-	8	14	26*
	11-14	790	15,190,405	2	-	-	-	-	-	-	7	13	27*
	15-19	816	17,826,962	2	-	-	-	-	-	-	7	12	28*
	20-24	676	18,402,877	3	-	-	-	-	-	1	12	18	35*
	25-54	4,830	111,382,877	3	-	-	-	-	-	-	11	17	34
	55-64	1,516	20,691,260	2	-	-	-	-	-	-	8	16	32
	65 +	2,139	30,578,210	2	-	-	-	-	-	-	9	15	27
	All ages	14,855	255,553,578	3	-	-	-	-	-	-	10	17	37

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:47 M:\PW\OSTWATER\REQ002\R002_F2.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table B3. Bottled Water: Pregnant, Lactating, and Childbearing Age Women Categories

All Individuals

			Milliliters/Kg of Body Weight/Day									
Pregnant and Lactating Women Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant												
Direct	69	1,729,947	5	-	-	-	-	-	4	21*	22*	30*
Indirect	69	1,729,947	1	-	-	-	-	-	-	2*	6*	11*
Direct and Indirect	69	1,729,947	5	-	-	-	-	-	6	21*	29*	31*
b. Lactating												
Direct	40	1,141,186	1*	-	-	-	-	-	-	3*	8*	11*
Indirect	40	1,141,186	2*	-	-	-	-	-	-	4*	14*	17*
Direct and Indirect	40	1,141,186	3*	-	-	-	-	-	-	14*	16*	18*
c. Women Age 15-44												
Direct	2,275	57,564,838	3	-	-	-	-	-	1	11	17	31
Indirect	2,275	57,564,838	-	-	-	-	-	-	-	-	3	12
Direct and Indirect	2,275	57,564,838	3	-	-	-	-	-	2	13	20	34

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:48 M:\PW\OSTWATER\REQ002\R002_F3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table C1. Other Sources: Gender by Broad Age Categories

All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	174	1,851,027	1	-	-	-	-	-	-	-	-	18*
	1-10	1,843	18,169,754	1	-	-	-	-	-	-	-	10	30
	11-19	805	16,192,004	1	-	-	-	-	-	-	4	10	23*
	20 +	4,437	93,104,821	1	-	-	-	-	-	-	1	7	20
	All ages	7,259	129,317,606	1	-	-	-	-	-	-	2	8	22
Indirect	< 1	174	1,851,027	2	-	-	-	-	-	-	-	1*	67*
	1-10	1,843	18,169,754	1	-	-	-	-	-	-	-	6	18
	11-19	805	16,192,004	-	-	-	-	-	-	-	1	3	10*
	20 +	4,437	93,104,821	1	-	-	-	-	-	-	1	8	20
	All ages	7,259	129,317,606	1	-	-	-	-	-	-	1	6	19
Direct and Indirect	< 1	174	1,851,027	3	-	-	-	-	-	-	-	16*	67*
	1-10	1,843	18,169,754	2	-	-	-	-	-	-	4	18	40
	11-19	805	16,192,004	2	-	-	-	-	-	-	6	12	30*
	20 +	4,437	93,104,821	2	-	-	-	-	-	-	6	17	33
	All ages	7,259	129,317,606	2	-	-	-	-	-	-	6	16	35
b. Male													
Direct	< 1	170	1,824,866	1	-	-	-	-	-	-	-	2*	17*
	1-10	1,901	19,635,340	2	-	-	-	-	-	-	1	13	33
	11-19	801	16,825,363	1	-	-	-	-	-	-	-	6	23*
	20 +	4,724	87,950,403	1	-	-	-	-	-	-	2	8	21
	All ages	7,596	126,235,972	1	-	-	-	-	-	-	2	8	23
Indirect	< 1	170	1,824,866	3	-	-	-	-	-	-	-	11*	60*
	1-10	1,901	19,635,340	1	-	-	-	-	-	-	-	6	20
	11-19	801	16,825,363	1	-	-	-	-	-	-	-	4	11*
	20 +	4,724	87,950,403	1	-	-	-	-	-	-	2	8	20
	All ages	7,596	126,235,972	1	-	-	-	-	-	-	1	7	20
Direct and Indirect	< 1	170	1,824,866	3	-	-	-	-	-	-	2	21*	63*
	1-10	1,901	19,635,340	2	-	-	-	-	-	-	4	19	43
	11-19	801	16,825,363	1	-	-	-	-	-	-	3	10	27*
	20 +	4,724	87,950,403	2	-	-	-	-	-	-	7	17	33
	All ages	7,596	126,235,972	2	-	-	-	-	-	-	7	17	35

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table C1. Other Sources: Gender by Broad Age Categories

All Individuals

Gender	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	344	3,675,893	1	-	-	-	-	-	-	-	-	22*
	1-10	3,744	37,805,094	2	-	-	-	-	-	-	-	11	32
	11-19	1,606	33,017,367	1	-	-	-	-	-	-	2	7	23
	20 +	9,161	181,055,224	1	-	-	-	-	-	-	2	8	21
	All ages	14,855	255,553,578	1	-	-	-	-	-	-	2	8	22
Indirect	< 1	344	3,675,893	3	-	-	-	-	-	-	-	9	66*
	1-10	3,744	37,805,094	1	-	-	-	-	-	-	-	6	19
	11-19	1,606	33,017,367	1	-	-	-	-	-	-	1	3	10
	20 +	9,161	181,055,224	1	-	-	-	-	-	-	2	8	20
	All ages	14,855	255,553,578	1	-	-	-	-	-	-	1	7	19
Direct and Indirect	< 1	344	3,675,893	3	-	-	-	-	-	-	-	21	66*
	1-10	3,744	37,805,094	2	-	-	-	-	-	-	5	18	43
	11-19	1,606	33,017,367	2	-	-	-	-	-	-	5	11	29
	20 +	9,161	181,055,224	2	-	-	-	-	-	-	7	17	33
	All ages	14,855	255,553,578	2	-	-	-	-	-	-	6	16	35

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table C2. Other Sources: Fine Age Categories
All Individuals

	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	191	1,952,311	-	-	-	-	-	-	-	-	-	14*
	0.5-0.9	153	1,723,582	1	-	-	-	-	-	-	-	2*	21*
	1-3	1,752	11,722,107	2	-	-	-	-	-	-	-	12	37
	4-6	1,113	11,650,111	1	-	-	-	-	-	-	-	10	35*
	7-10	879	14,432,876	1	-	-	-	-	-	-	3	13	28*
	11-14	790	15,190,405	1	-	-	-	-	-	-	4	10	23*
	15-19	816	17,826,962	1	-	-	-	-	-	-	2	6	20*
	20-24	676	18,402,877	1	-	-	-	-	-	-	-	4	14*
	25-54	4,830	111,382,877	1	-	-	-	-	-	-	1	7	20
	55-64	1,516	20,691,260	1	-	-	-	-	-	-	4	9	23
	65 +	2,139	30,578,210	1	-	-	-	-	-	-	5	12	22
	All ages	14,855	255,553,578	1	-	-	-	-	-	-	2	8	22
Indirect	<0.5	191	1,952,311	3	-	-	-	-	-	-	-	-	85*
	0.5-0.9	153	1,723,582	3	-	-	-	-	-	-	-	10*	60*
	1-3	1,752	11,722,107	1	-	-	-	-	-	-	-	6	23
	4-6	1,113	11,650,111	1	-	-	-	-	-	-	-	5	15*
	7-10	879	14,432,876	1	-	-	-	-	-	-	1	6	17*
	11-14	790	15,190,405	1	-	-	-	-	-	-	1	4	15*
	15-19	816	17,826,962	-	-	-	-	-	-	-	-	2	6*
	20-24	676	18,402,877	-	-	-	-	-	-	-	-	1	8*
	25-54	4,830	111,382,877	1	-	-	-	-	-	-	2	8	21
	55-64	1,516	20,691,260	1	-	-	-	-	-	-	5	11	21
	65 +	2,139	30,578,210	1	-	-	-	-	-	-	3	9	19
	All ages	14,855	255,553,578	1	-	-	-	-	-	-	1	7	19
Direct and Indirect	<0.5	191	1,952,311	3	-	-	-	-	-	-	-	15*	86*
	0.5-0.9	153	1,723,582	3	-	-	-	-	-	-	5	24*	63*
	1-3	1,752	11,722,107	3	-	-	-	-	-	-	2	21	48
	4-6	1,113	11,650,111	2	-	-	-	-	-	-	2	15	42*
	7-10	879	14,432,876	2	-	-	-	-	-	-	7	18	37*
	11-14	790	15,190,405	2	-	-	-	-	-	-	7	16	36*
	15-19	816	17,826,962	1	-	-	-	-	-	-	4	9	21*
	20-24	676	18,402,877	1	-	-	-	-	-	-	-	7	20*
	25-54	4,830	111,382,877	2	-	-	-	-	-	-	6	16	33
	55-64	1,516	20,691,260	3	-	-	-	-	-	-	13	20	39
	65 +	2,139	30,578,210	2	-	-	-	-	-	-	10	20	35
	All ages	14,855	255,553,578	2	-	-	-	-	-	-	6	16	35

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:47 M:\PW\OSTWATER\REQ002\R002_F2.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Part II: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
Table C3. Other Sources: Pregnant, Lactating, and Childbearing Age Women Categories
All Individuals

			Milliliters/Kg of Body Weight/Day									
Pregnant and Lactating Women Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant												
Direct	69	1,729,947	1	-	-	-	-	-	-	-	2*	14*
Indirect	69	1,729,947	1	-	-	-	-	-	-	-	2*	14*
Direct and Indirect	69	1,729,947	1	-	-	-	-	-	-	-	9*	21*
b. Lactating												
Direct	40	1,141,186	2*	-	-	-	-	-	-	5*	13*	25*
Indirect	40	1,141,186	2*	-	-	-	-	-	-	4*	12*	21*
Direct and Indirect	40	1,141,186	4*	-	-	-	-	-	-	8*	28*	42*
c. Women Age 15-44												
Direct	2,275	57,564,838	1	-	-	-	-	-	-	-	6	19
Indirect	2,275	57,564,838	1	-	-	-	-	-	-	-	4	19
Direct and Indirect	2,275	57,564,838	2	-	-	-	-	-	-	3	12	31

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:48 M:\PW\OSTWATER\REQ002\R002_F3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table D1. Missing Source: Gender by Broad Age Categories

All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	174	1,851,027	-	-	-	-	-	-	-	-	-	-
	1-10	1,843	18,169,754	-	-	-	-	-	-	-	-	-	11
	11-19	805	16,192,004	-	-	-	-	-	-	-	-	-	10*
	20 +	4,437	93,104,821	-	-	-	-	-	-	-	-	-	6
	All ages	7,259	129,317,606	-	-	-	-	-	-	-	-	-	7
Indirect	< 1	174	1,851,027	-	-	-	-	-	-	-	-	-	-
	1-10	1,843	18,169,754	-	-	-	-	-	-	-	-	-	-
	11-19	805	16,192,004	-	-	-	-	-	-	-	-	-	-
	20 +	4,437	93,104,821	-	-	-	-	-	-	-	-	-	-
	All ages	7,259	129,317,606	-	-	-	-	-	-	-	-	-	-
Direct and Indirect	< 1	174	1,851,027	-	-	-	-	-	-	-	-	-	1*
	1-10	1,843	18,169,754	-	-	-	-	-	-	-	-	-	11
	11-19	805	16,192,004	-	-	-	-	-	-	-	-	-	10*
	20 +	4,437	93,104,821	-	-	-	-	-	-	-	-	-	7
	All ages	7,259	129,317,606	-	-	-	-	-	-	-	-	-	8
b. Male													
Direct	< 1	170	1,824,866	-	-	-	-	-	-	-	-	-	4*
	1-10	1,901	19,635,340	-	-	-	-	-	-	-	-	-	8
	11-19	801	16,825,363	-	-	-	-	-	-	-	-	-	8*
	20 +	4,724	87,950,403	-	-	-	-	-	-	-	-	-	5
	All ages	7,596	126,235,972	-	-	-	-	-	-	-	-	-	6
Indirect	< 1	170	1,824,866	1	-	-	-	-	-	-	-	-	-
	1-10	1,901	19,635,340	-	-	-	-	-	-	-	-	-	-
	11-19	801	16,825,363	-	-	-	-	-	-	-	-	-	-
	20 +	4,724	87,950,403	-	-	-	-	-	-	-	-	-	-
	All ages	7,596	126,235,972	-	-	-	-	-	-	-	-	-	-
Direct and Indirect	< 1	170	1,824,866	1	-	-	-	-	-	-	-	-	5*
	1-10	1,901	19,635,340	-	-	-	-	-	-	-	-	-	10
	11-19	801	16,825,363	-	-	-	-	-	-	-	-	-	8*
	20 +	4,724	87,950,403	-	-	-	-	-	-	-	-	-	7
	All ages	7,596	126,235,972	-	-	-	-	-	-	-	-	-	8

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Part II: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
Table D1. Missing Source: Gender by Broad Age Categories
All Individuals

Gender	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	344	3,675,893	-	-	-	-	-	-	-	-	-	3*
	1-10	3,744	37,805,094	-	-	-	-	-	-	-	-	-	9
	11-19	1,606	33,017,367	-	-	-	-	-	-	-	-	-	8
	20 +	9,161	181,055,224	-	-	-	-	-	-	-	-	-	6
	All ages	14,855	255,553,578	-	-	-	-	-	-	-	-	-	7
Indirect	< 1	344	3,675,893	1	-	-	-	-	-	-	-	-	-
	1-10	3,744	37,805,094	-	-	-	-	-	-	-	-	-	-
	11-19	1,606	33,017,367	-	-	-	-	-	-	-	-	-	-
	20 +	9,161	181,055,224	-	-	-	-	-	-	-	-	-	-
	All ages	14,855	255,553,578	-	-	-	-	-	-	-	-	-	-
Direct and Indirect	< 1	344	3,675,893	1	-	-	-	-	-	-	-	-	5*
	1-10	3,744	37,805,094	-	-	-	-	-	-	-	-	-	10
	11-19	1,606	33,017,367	-	-	-	-	-	-	-	-	-	9
	20 +	9,161	181,055,224	-	-	-	-	-	-	-	-	-	7
	All ages	14,855	255,553,578	-	-	-	-	-	-	-	-	-	8

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table D2. Missing Source: Fine Age Categories

All Individuals

	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	191	1,952,311	-	-	-	-	-	-	-	-	-	4*
	0.5-0.9	153	1,723,582	-	-	-	-	-	-	-	-	-	2*
	1-3	1,752	11,722,107	-	-	-	-	-	-	-	-	-	8
	4-6	1,113	11,650,111	-	-	-	-	-	-	-	-	-	8*
	7-10	879	14,432,876	-	-	-	-	-	-	-	-	-	9*
	11-14	790	15,190,405	-	-	-	-	-	-	-	-	-	8*
	15-19	816	17,826,962	-	-	-	-	-	-	-	-	-	8*
	20-24	676	18,402,877	-	-	-	-	-	-	-	-	-	8*
	25-54	4,830	111,382,877	-	-	-	-	-	-	-	-	-	6
	55-64	1,516	20,691,260	-	-	-	-	-	-	-	-	-	4
	65 +	2,139	30,578,210	-	-	-	-	-	-	-	-	-	3
	All ages	14,855	255,553,578	-	-	-	-	-	-	-	-	-	7
Indirect	<0.5	191	1,952,311	-	-	-	-	-	-	-	-	-	-
	0.5-0.9	153	1,723,582	1	-	-	-	-	-	-	-	-	57*
	1-3	1,752	11,722,107	-	-	-	-	-	-	-	-	-	2
	4-6	1,113	11,650,111	-	-	-	-	-	-	-	-	-	-
	7-10	879	14,432,876	-	-	-	-	-	-	-	-	-	-
	11-14	790	15,190,405	-	-	-	-	-	-	-	-	-	-
	15-19	816	17,826,962	-	-	-	-	-	-	-	-	-	-
	20-24	676	18,402,877	-	-	-	-	-	-	-	-	-	-
	25-54	4,830	111,382,877	-	-	-	-	-	-	-	-	-	-
	55-64	1,516	20,691,260	-	-	-	-	-	-	-	-	-	-
	65 +	2,139	30,578,210	-	-	-	-	-	-	-	-	-	2
	All ages	14,855	255,553,578	-	-	-	-	-	-	-	-	-	-
Direct and Indirect	<0.5	191	1,952,311	-	-	-	-	-	-	-	-	-	4*
	0.5-0.9	153	1,723,582	1	-	-	-	-	-	-	-	-	57*
	1-3	1,752	11,722,107	-	-	-	-	-	-	-	-	-	11
	4-6	1,113	11,650,111	-	-	-	-	-	-	-	-	-	9*
	7-10	879	14,432,876	-	-	-	-	-	-	-	-	-	9*
	11-14	790	15,190,405	-	-	-	-	-	-	-	-	-	8*
	15-19	816	17,826,962	-	-	-	-	-	-	-	-	-	8*
	20-24	676	18,402,877	-	-	-	-	-	-	-	-	-	10*
	25-54	4,830	111,382,877	-	-	-	-	-	-	-	-	-	7
	55-64	1,516	20,691,260	-	-	-	-	-	-	-	-	-	5
	65 +	2,139	30,578,210	-	-	-	-	-	-	-	-	-	7
	All ages	14,855	255,553,578	-	-	-	-	-	-	-	-	-	8

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:47 M:\PW\OSTWATER\REQ002\R002_F2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table D3. Missing Source: Pregnant, Lactating, and Childbearing Age Women Categories

All Individuals

			Milliliters/Kg of Body Weight/Day									
Pregnant and Lactating Women Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant												
Direct	69	1,729,947	1	-	-	-	-	-	-	-	-	19*
Indirect	69	1,729,947	-	-	-	-	-	-	-	-	-	-
Direct and Indirect	69	1,729,947	1	-	-	-	-	-	-	-	-	19*
b. Lactating												
Direct	40	1,141,186	1*	-	-	-	-	-	-	-	5*	15*
Indirect	40	1,141,186	-	-	-	-	-	-	-	-	-	1*
Direct and Indirect	40	1,141,186	1*	-	-	-	-	-	-	-	5*	15*
c. Women Age 15-44												
Direct	2,275	57,564,838	-	-	-	-	-	-	-	-	-	7
Indirect	2,275	57,564,838	-	-	-	-	-	-	-	-	-	-
Direct and Indirect	2,275	57,564,838	-	-	-	-	-	-	-	-	-	8

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:48 M:\PW\OSTWATER\REQ002\R002_F3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table E1. All Sources: Gender by Broad Age Categories

All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	174	1,851,027	10	-	-	-	-	2	14	29	39*	75*
	1-10	1,843	18,169,754	17	-	-	-	6	13	23	38	48	83
	11-19	805	16,192,004	11	-	-	1	4	8	15	23	30	55*
	20 +	4,437	93,104,821	12	-	-	1	4	9	16	25	31	50
	All ages	7,259	129,317,606	12	-	-	1	4	9	17	26	33	60
Indirect	< 1	174	1,851,027	59	-	-	-	7	53	88	135	157*	188*
	1-10	1,843	18,169,754	8	-	-	-	2	5	12	19	25	46
	11-19	805	16,192,004	4	-	-	-	1	2	6	10	14	22*
	20 +	4,437	93,104,821	9	-	-	1	3	7	13	18	24	39
	All ages	7,259	129,317,606	9	-	-	1	3	6	12	18	25	55
Direct and Indirect	< 1	174	1,851,027	69	-	-	-	24	62	101	148	170*	198*
	1-10	1,843	18,169,754	26	-	4	6	12	21	33	50	65	103
	11-19	805	16,192,004	15	-	2	4	7	13	19	29	36	56*
	20 +	4,437	93,104,821	21	1	5	7	12	18	27	37	45	69
	All ages	7,259	129,317,606	22	-	4	6	11	18	27	39	50	88
b. Male													
Direct	< 1	170	1,824,866	12	-	-	-	-	5	16	35	42*	83*
	1-10	1,901	19,635,340	17	-	-	-	6	12	23	35	45	77
	11-19	801	16,825,363	12	-	-	1	4	9	15	24	34	65*
	20 +	4,724	87,950,403	10	-	-	1	3	8	14	22	29	49
	All ages	7,596	126,235,972	12	-	-	-	4	8	15	25	34	61
Indirect	< 1	170	1,824,866	52	-	-	-	1	34	86	134	155*	205*
	1-10	1,901	19,635,340	8	-	-	-	2	5	11	19	27	46
	11-19	801	16,825,363	5	-	-	-	1	3	6	10	15	25*
	20 +	4,724	87,950,403	9	-	-	1	3	7	11	18	23	43
	All ages	7,596	126,235,972	9	-	-	-	2	6	11	18	24	57
Direct and Indirect	< 1	170	1,824,866	65	-	-	-	10	51	100	157	169*	230*
	1-10	1,901	19,635,340	25	-	4	6	11	20	33	48	62	91
	11-19	801	16,825,363	16	-	3	4	7	12	20	32	42	68*
	20 +	4,724	87,950,403	19	-	4	6	10	16	24	34	43	67
	All ages	7,596	126,235,972	20	-	3	6	10	16	25	38	49	86

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table E1. All Sources: Gender by Broad Age Categories
All Individuals

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	344	3,675,893	11	-	-	-	-	3	15	32	41	81*
	1-10	3,744	37,805,094	17	-	-	-	6	13	23	37	46	80
	11-19	1,606	33,017,367	11	-	-	1	4	9	15	24	32	59
	20 +	9,161	181,055,224	11	-	-	1	4	9	15	24	30	50
	All ages	14,855	255,553,578	12	-	-	-	4	9	16	26	34	60
Indirect	< 1	344	3,675,893	56	-	-	-	3	45	86	134	163	204*
	1-10	3,744	37,805,094	8	-	-	-	2	5	11	19	26	46
	11-19	1,606	33,017,367	4	-	-	-	1	3	6	10	14	25
	20 +	9,161	181,055,224	9	-	-	1	3	7	12	18	23	41
	All ages	14,855	255,553,578	9	-	-	-	2	6	11	18	25	56
Direct and Indirect	< 1	344	3,675,893	67	-	-	-	16	57	101	156	170	218*
	1-10	3,744	37,805,094	25	-	4	6	12	21	33	49	64	98
	11-19	1,606	33,017,367	16	-	2	4	7	13	20	30	39	64
	20 +	9,161	181,055,224	20	1	4	6	11	17	26	35	44	68
	All ages	14,855	255,553,578	21	-	4	6	10	17	26	38	50	87

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:45 M:\PW\OSTWATER\REQ002\R002_F1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table E2. All Sources: Fine Age Categories

All Individuals

	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	191	1,952,311	8	-	-	-	-	-	12	21	26*	62*
	0.5-0.9	153	1,723,582	15	-	-	-	-	7	24	38	47*	91*
	1-3	1,752	11,722,107	19	-	-	-	6	14	27	42	54	89
	4-6	1,113	11,650,111	19	-	-	-	7	14	26	41	52	86*
	7-10	879	14,432,876	14	-	-	3	6	11	19	29	36	52*
	11-14	790	15,190,405	12	-	-	1	4	9	15	24	33	51*
	15-19	816	17,826,962	11	-	-	-	3	8	15	23	30	62*
	20-24	676	18,402,877	12	-	-	-	3	8	15	26	37	75*
	25-54	4,830	111,382,877	11	-	-	1	4	8	15	24	31	49
	55-64	1,516	20,691,260	11	-	-	1	4	8	15	22	27	38
	65 +	2,139	30,578,210	11	-	-	2	5	10	16	22	27	38
	All ages	14,855	255,553,578	12	-	-	-	4	9	16	26	34	60
Indirect	<0.5	191	1,952,311	62	-	-	-	-	48	116	155	170*	207*
	0.5-0.9	153	1,723,582	49	-	-	2	10	45	74	100	125*	139*
	1-3	1,752	11,722,107	12	-	-	-	3	8	15	27	35	65
	4-6	1,113	11,650,111	8	-	-	-	2	6	12	18	24	41*
	7-10	879	14,432,876	6	-	-	-	1	4	8	14	18	27*
	11-14	790	15,190,405	5	-	-	-	1	3	7	11	15	25*
	15-19	816	17,826,962	4	-	-	-	1	2	5	10	14	23*
	20-24	676	18,402,877	6	-	-	-	1	4	8	14	17	26*
	25-54	4,830	111,382,877	9	-	-	1	3	7	12	19	25	46
	55-64	1,516	20,691,260	10	-	1	2	5	8	13	18	25	38
	65 +	2,139	30,578,210	9	-	1	2	5	8	12	17	21	33
	All ages	14,855	255,553,578	9	-	-	-	2	6	11	18	25	56
Direct and Indirect	<0.5	191	1,952,311	69	-	-	-	-	57	123	163	174*	229*
	0.5-0.9	153	1,723,582	64	-	3*	9	25	57	88	119	163*	184*
	1-3	1,752	11,722,107	31	-	3	7	14	26	40	60	74	118
	4-6	1,113	11,650,111	27	-	4	7	14	23	36	51	68	97*
	7-10	879	14,432,876	19	-	4	6	10	17	26	36	44	69*
	11-14	790	15,190,405	16	-	3	4	8	14	21	32	40	60*
	15-19	816	17,826,962	15	-	2	4	6	12	19	29	38	66*
	20-24	676	18,402,877	18	-	1	3	8	14	22	34	44	85*
	25-54	4,830	111,382,877	20	-	4	6	11	17	26	37	46	68
	55-64	1,516	20,691,260	20	2	6	8	12	18	26	35	42	59
	65 +	2,139	30,578,210	21	3	7	9	13	19	27	34	39	54
	All ages	14,855	255,553,578	21	-	4	6	10	17	26	38	50	87

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:47 M:\PW\OSTWATER\REQ002\R002_F2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table E3. All Sources: Pregnant, Lactating, and Childbearing Age Women Categories
All Individuals

			Milliliters/Kg of Body Weight/Day									
Pregnant and Lactating Women Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant												
Direct	69	1,729,947	14	-	-	-	4	14	22	29*	31*	33*
Indirect	69	1,729,947	6	-	-	1*	2	4	9	16*	17*	19*
Direct and Indirect	69	1,729,947	21	-	3*	5*	10	19	29	39*	44*	61*
b. Lactating												
Direct	40	1,141,186	17*	-	-	-	4*	11*	28*	38*	45*	51*
Indirect	40	1,141,186	11*	-	-	1*	3*	7*	13*	23*	26*	63*
Direct and Indirect	40	1,141,186	28*	-	6*	9*	12*	25*	41*	53*	57*	70*
c. Women Age 15-44												
Direct	2,275	57,564,838	12	-	-	-	4	9	16	26	32	60
Indirect	2,275	57,564,838	8	-	-	-	2	5	11	17	23	38
Direct and Indirect	2,275	57,564,838	19	-	3	5	9	16	25	36	46	77

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:48 M:\PW\OSTWATER\REQ002\R002_F3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table A1. Community Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	67	748,519	146	-	-	-	46	105	176	290*	444*	608*
	1-10	1,381	14,100,005	358	27	56	67	117	235	463	774	1,032	1,696
	11-19	615	12,066,783	556	36*	57	111	189	383	706	1,186	1,536	2,406*
	20 +	3,282	68,559,294	769	42	111	141	289	580	946	1,615	1,944	3,650
	All ages	5,345	95,474,601	677	29	81	114	232	470	890	1,416	1,876	3,248
Indirect	< 1	120	1,264,586	498	5*	17*	55*	213	536	686	905*	1,032*	1,298*
	1-10	1,646	16,011,313	164	2	6	15	47	113	231	377	474	719
	11-19	651	12,924,377	234	2*	7	17	56	145	312	534	770	1,305*
	20 +	4,064	85,855,345	547	3	28	71	205	435	750	1,127	1,436	2,379
	All ages	6,481	116,055,621	459	3	16	40	123	332	641	1,019	1,316	2,251
Direct and Indirect	< 1	128	1,320,308	560	10*	51*	86	246	542	760	967*	1,122*	1,584*
	1-10	1,807	18,020,621	426	6	30	61	151	329	592	940	1,109	2,014
	11-19	768	15,249,740	638	7*	43	89	219	457	902	1,382	1,774	2,598*
	20 +	4,227	89,385,243	1,116	11	84	192	494	943	1,514	2,165	2,711	4,268
	All ages	6,930	123,975,912	951	9	59	118	341	747	1,316	2,005	2,482	3,863
b. Male													
Direct	< 1	58	582,634	190	9*	21*	31*	56	109	269	367*	502*	919*
	1-10	1,367	14,755,961	374	20	53	59	129	266	489	785	972	1,462
	11-19	650	13,501,612	688	29*	66	115	228	472	820	1,395	1,772	3,965*
	20 +	3,416	64,456,588	822	45	111	118	294	590	1,059	1,736	2,243	4,036
	All ages	5,491	93,296,795	728	29	76	116	235	473	944	1,529	1,987	3,785
Indirect	< 1	108	1,108,046	397	1*	11*	28*	61	343	716	853*	939*	1,163*
	1-10	1,643	16,760,814	171	2	7	15	50	117	234	376	520	769
	11-19	658	13,738,319	283	3*	8	18	72	193	365	639	895	1,658*
	20 +	4,137	77,525,839	641	6	32	74	235	494	849	1,294	1,679	3,288
	All ages	6,546	109,133,018	521	4	15	42	133	352	711	1,131	1,490	2,923
Direct and Indirect	< 1	118	1,191,526	462	1*	16*	30*	79	441	736	881*	1,121*	1,281*
	1-10	1,812	18,847,070	444	4	30	60	155	355	618	934	1,155	1,731
	11-19	768	15,923,625	828	7*	67	118	299	595	1,059	1,673	2,058	3,984*
	20 +	4,384	82,703,542	1,242	15	118	233	563	1,038	1,644	2,387	3,016	4,939
	All ages	7,082	118,665,763	1,052	11	72	139	383	814	1,426	2,164	2,733	4,616

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A1. Community Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	125	1,331,153	165	8*	12*	21*	54	107	232	346*	460*	626*
	1-10	2,748	28,855,966	366	26	56	65	118	261	469	778	1,000	1,598
	11-19	1,265	25,568,395	626	36*	59	115	223	467	767	1,298	1,672	3,548*
	20 +	6,698	133,015,882	795	43	111	130	292	589	1,024	1,646	2,117	3,792
	All ages	10,836	188,771,396	702	29	82	116	233	472	943	1,467	1,888	3,660
Indirect	< 1	228	2,372,632	451	2*	15*	37	106	428	693	857	1,002*	1,349*
	1-10	3,289	32,772,127	168	2	7	15	48	115	232	377	492	759
	11-19	1,309	26,662,696	260	2	7	18	64	167	339	585	825	1,380
	20 +	8,201	163,381,184	592	4	29	74	219	472	795	1,202	1,549	2,778
	All ages	13,027	225,188,639	489	3	15	41	128	341	676	1,071	1,412	2,543
Direct and Indirect	< 1	246	2,511,834	513	2*	30*	51	175	496	747	950	1,121*	1,544*
	1-10	3,619	36,867,691	435	5	30	61	154	341	605	937	1,137	1,765
	11-19	1,536	31,173,365	735	7	58	106	248	532	967	1,566	1,972	3,686
	20 +	8,611	172,088,785	1,176	13	103	208	524	995	1,572	2,284	2,848	4,631
	All ages	14,012	242,641,675	1,000	9	65	130	355	785	1,375	2,069	2,600	4,273

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A2. Community Water: Fine Age Categories

Consumers Only

	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
				Milliliters/Person/Day									
Direct	<0.5	50	490,176	102	-	-	-	30*	71	114*	176*	309*	431*
	0.5-0.9	75	840,977	202	8*	23*	43*	57	129	258	434*	530*	819*
	1-3	1,136	7,660,920	295	26*	43	57	114	223	365	584	814	1,220*
	4-6	864	9,088,991	378	19*	49	78	137	281	466	779	985	1,664*
	7-10	748	12,106,055	402	20*	53	82	144	286	563	903	1,056	1,592*
	11-14	634	12,056,016	535	28*	58	86	175	383	695	1,168	1,612	2,521*
	15-19	631	13,512,379	706	38*	76	116	229	492	886	1,403	1,835	3,801*
	20-24	492	13,470,713	875	-	79	114	233	506	946	1,880	3,165	5,124*
	25-54	3,478	80,890,736	787	41	96	117	282	578	1,005	1,682	2,219	3,781
	55-64	1,114	15,334,153	776	56*	113	163	325	587	1,038	1,594	1,871	2,799*
	65 +	1,614	23,320,280	789	52	116	205	349	696	1,054	1,534	1,858	2,588
	All ages	10,836	188,771,396	702	29	82	116	233	472	943	1,467	1,888	3,660
Indirect	<0.5	100	987,615	518	4*	28*	46*	172	538	805	935*	1,012*	1,225*
	0.5-0.9	128	1,385,017	403	1*	14*	25	87	365	669	782*	963*	1,288*
	1-3	1,524	10,295,268	154	2	8	17	48	111	215	340	460	715
	4-6	1,020	10,566,421	172	2*	7	15	50	120	240	372	479	865*
	7-10	745	11,910,438	175	1*	6	14	46	115	240	402	517	760*
	11-14	645	12,272,170	228	2*	7	14	61	152	306	495	779	1,184*
	15-19	664	14,390,526	286	3*	10	20	65	178	367	672	898	1,577*
	20-24	591	16,211,641	398	2*	11	32	118	284	537	865	1,200	1,801*
	25-54	4,349	100,921,430	608	4	28	69	201	464	807	1,277	1,639	3,074
	55-64	1,364	18,901,985	651	7	44	117	271	546	847	1,248	1,639	2,599
	65 +	1,897	27,346,128	606	8	60	134	294	533	813	1,113	1,390	2,136
	All ages	13,027	225,188,639	489	3	15	41	128	341	676	1,071	1,412	2,543
Direct and Indirect	<0.5	111	1,062,136	529	4*	32*	49*	179	543	809	943*	1,064*	1,366*
	0.5-0.9	135	1,449,698	502	1*	30*	52	129	465	746	950	1,122*	1,529*
	1-3	1,625	10,934,001	351	3	23	48	120	267	497	719	952	1,387
	4-6	1,110	11,586,632	454	5*	38	75	173	363	606	940	1,213	1,985*
	7-10	884	14,347,058	485	6*	37	74	175	377	708	995	1,241	1,999*
	11-14	759	14,437,898	641	7*	59	115	235	473	832	1,415	1,742	2,564*
	15-19	777	16,735,467	817	7*	51	99	266	603	1,065	1,669	2,159	3,863*
	20-24	644	17,658,027	1,033	10*	68	122	359	711	1,218	2,175	3,082	5,356*
	25-54	4,599	106,779,569	1,171	14	100	201	503	965	1,561	2,326	2,926	4,735
	55-64	1,410	19,484,112	1,242	11	115	237	651	1,111	1,657	2,297	2,721	4,222
	65 +	1,958	28,167,077	1,242	24	155	310	704	1,149	1,657	2,190	2,604	3,668
	All ages	14,012	242,641,675	1,000	9	65	130	355	785	1,375	2,069	2,600	4,273

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:22 M:\PW\OSTWATER\REQ002\R002_C2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A3. Community Water: Pregnant, Lactating, and Childbearing Age Women Categories

Consumers Only

Women Categories	Age	Sampsize	Population	Milliliters/Person/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		42	1,105,462	800*	-	34*	57*	172*	576*	1,365*	1,420*	1,927*	2,255*
Indirect		63	1,554,460	353	-	12*	20*	64	230	455	821*	1,238*	1,463*
Direct and Indirect		65	1,645,565	872	-	14*	29*	116	553	1,424	1,844*	2,588*	3,448*
b. Lactating													
Direct		27	716,055	1,484*	-	67*	104*	584*	1,587*	1,875*	2,630*	2,837*	3,611*
Indirect		32	928,855	596*	-	11*	103*	187*	445*	621*	1,131*	1,904*	2,643*
Direct and Indirect		34	971,057	1,665*	-	11*	158*	488*	1,646*	2,417*	2,959*	3,588*	4,098*
c. Women Age 15-44													
Direct		1,605	40,717,042	750	41	85	116	234	512	935	1,627	2,193	3,837
Indirect		2,031	51,767,722	460	3	15	40	125	325	620	1,041	1,354	2,367
Direct and Indirect		2,176	55,251,477	984	9	58	125	355	756	1,314	2,044	2,722	4,397

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:23 M:\PW\OSTWATER\REQ002\R002_C3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table B1. Bottled Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	29	284,883	136*	-	-	-	48*	101*	189*	246*	264*	566*
	1-10	342	3,633,658	347	-	43	61	117	252	462	678	914	1,262*
	11-19	165	3,396,721	503	-	56*	99	175	341	635	963	1,448*	3,154*
	20 +	952	22,196,372	712	39*	105	119	263	555	940	1,434	1,874	2,730*
	All ages	1,488	29,511,634	637	28	78	114	232	469	834	1,406	1,768	2,708
Indirect	< 1	25	271,444	531*	-	156*	195*	351*	426*	757*	862*	897*	1,103*
	1-10	120	1,220,539	172	-	11*	22*	60	112	217	421*	504*	631*
	11-19	40	785,299	216*	-	19*	44*	74*	120*	257*	576*	697*	755*
	20 +	342	7,624,946	423	8*	58	105	177	350	583	901	1,116	1,658*
	All ages	527	9,902,228	378	7*	37	78	118	273	517	806	1,007	1,568*
Direct and Indirect	< 1	40	419,351	436*	-	-	25*	84*	428*	624*	895*	896*	1,301*
	1-10	369	3,922,610	375	18*	51	85	161	289	473	765	993	1,347*
	11-19	167	3,455,377	544	31*	78*	115	177	357	698	1,116	1,537*	3,143*
	20 +	997	23,221,076	819	39*	115	146	353	690	1,065	1,747	1,975	3,060*
	All ages	1,573	31,018,414	727	30	86	117	266	532	947	1,542	1,893	3,031
b. Male													
Direct	< 1	37	414,687	105*	-	-	22*	46*	73*	104*	207*	234*	459*
	1-10	355	3,563,001	332	21*	39	59	115	235	440	692	809	1,441*
	11-19	136	2,822,430	633	-	71*	98	218	430	886	1,374	1,752*	2,814*
	20 +	888	18,086,181	720	45*	113	134	260	522	939	1,419	1,890	3,360*
	All ages	1,416	24,886,299	645	28	84	114	232	467	873	1,409	1,826	2,927
Indirect	< 1	26	338,581	574*	-	-	265*	311*	541*	801*	901*	1,025*	1,287*
	1-10	121	1,096,973	174	-	18*	28*	75	123	198	375*	523*	697*
	11-19	44	935,308	256*	-	11*	57*	118*	150*	342*	563*	660*	894*
	20 +	286	5,328,324	567	6*	53	114	233	355	679	1,202	1,578	3,863*
	All ages	477	7,699,186	474	5*	27	89	148	295	591	975	1,431	2,756*
Direct and Indirect	< 1	48	575,019	414	-	29*	46*	79*	317	688*	805*	1,012*	1,397*
	1-10	376	3,755,220	365	21*	37	73	143	266	474	767	847	1,685*
	11-19	144	2,969,950	682	35*	118*	118	237	464	940	1,423	1,822*	2,802*
	20 +	937	18,998,203	845	47*	116	152	337	592	1,096	1,774	2,303	3,855*
	All ages	1,505	26,298,392	749	29	90	118	251	523	991	1,626	2,097	3,781

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table B1. Bottled Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	66	699,570	117	-	-	-	50	79	118	229*	261*	638*
	1-10	697	7,196,659	340	20*	41	59	116	236	451	684	825	1,409*
	11-19	301	6,219,151	562	-	69	104	198	376	702	1,274	1,535	2,884*
	20 +	1,840	40,282,553	716	47	112	123	263	528	941	1,429	1,889	2,857
	All ages	2,904	54,397,933	641	29	83	114	232	468	855	1,408	1,774	2,834
Indirect	< 1	51	610,025	555	-	148*	223*	314*	428	800*	897*	981*	1,256*
	1-10	241	2,317,512	173	3*	12*	26	72	114	204	405	513*	652*
	11-19	84	1,720,607	238	3*	16*	57*	96	140	314	587*	701*	826*
	20 +	628	12,953,270	482	7*	59	108	195	355	592	972	1,360	2,396*
	All ages	1,004	17,601,414	420	6*	32	81	133	284	558	886	1,164	1,959*
Direct and Indirect	< 1	88	994,370	423	-	22*	45*	81	362	686	894*	941*	1,432*
	1-10	745	7,677,830	371	21*	56	83	147	280	473	768	912	1,455*
	11-19	311	6,425,327	608	32*	89	118	227	438	794	1,333	1,679	2,876*
	20 +	1,934	42,219,279	831	45	116	148	351	649	1,068	1,773	2,101	3,525
	All ages	3,078	57,316,806	737	30	89	118	266	532	975	1,568	1,967	3,316

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table B2. Bottled Water: Fine Age Categories

Consumers Only

				Milliliters/Person/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	40	406,064	87*	-	24*	29*	46*	76*	98*	117*	178*	243*
	0.5-0.9	26	293,506	159*	-	-	-	25*	100*	218*	274*	342*	739*
	1-3	344	2,371,802	268	-	28	46	99	222	346	577	665	1,167*
	4-6	202	2,239,071	365	-	53*	80	165	276	483	685	913*	1,305*
	7-10	151	2,585,786	383	-	45*	78	116	263	511	776	845*	1,534*
	11-14	143	2,772,279	482	-	58*	102	182	335	584	1,043	1,363*	2,128*
	15-19	158	3,446,872	627	30*	72*	100	208	452	823	1,399	1,598*	2,970*
	20-24	169	4,861,349	754	30*	77*	107	217	478	996	1,536	2,259*	2,942*
	25-54	1,122	27,222,087	708	50*	112	121	255	522	938	1,431	1,889	3,207*
	55-64	268	3,848,813	680	82*	113	127	258	516	929	1,410	1,727	2,377*
	65 +	281	4,350,304	751	34*	114	196	338	620	1,055	1,371	1,626	2,445*
	All ages	2,904	54,397,933	641	29	83	114	232	468	855	1,408	1,774	2,834
Indirect	<0.5	29	310,776	597*	-	162*	206*	314*	577*	843*	903*	992*	1,170*
	0.5-0.9	22	299,249	511*	-	-	262*	309*	370*	782*	803*	806*	1,266*
	1-3	128	843,208	155	-	14*	25	45	112	190	365*	465*	612*
	4-6	60	577,698	163	-	24*	29*	82	110	199	332*	451*	636*
	7-10	53	896,606	197	-	6*	12*	83	135	221	422*	515*	749*
	11-14	47	896,029	249*	-	11*	42*	88*	148*	364*	584*	680*	786*
	15-19	37	824,578	227*	-	38*	68*	118*	133*	236*	587*	687*	880*
	20-24	43	1,117,572	300*	-	37*	101*	111*	166*	249*	643*	969*	1,863*
	25-54	346	8,172,124	505	9*	49	108	207	355	592	1,022	1,473	2,655*
	55-64	111	1,605,870	505	-	71*	112*	237	434	693	981*	1,151*	1,361*
	65 +	128	2,057,704	471	7*	44*	114	238	424	626	820*	1,095*	1,293*
	All ages	1,004	17,601,414	420	6*	32	81	133	284	558	886	1,164	1,959*
Direct and Indirect	<0.5	51	538,267	411	23*	33*	45*	76*	349	656*	896*	951*	1,193*
	0.5-0.9	37	456,103	437*	-	-	16*	85*	361*	689*	802*	808*	1,578*
	1-3	368	2,532,201	302	15*	30	57	115	232	389	649	819	1,175*
	4-6	213	2,336,873	390	24*	46*	86	175	315	527	794	922*	1,319*
	7-10	164	2,808,756	416	16*	58*	96	163	323	523	828	985*	1,767*
	11-14	148	2,896,893	538	33*	87*	115	212	361	696	1,099	1,420*	2,192*
	15-19	163	3,528,434	665	31*	98*	118	227	468	872	1,503	1,777*	3,149*
	20-24	179	5,089,216	786	31*	79*	116	262	532	1,065	1,640	2,343*	3,126*
	25-54	1,174	28,487,354	822	45*	115	167	330	621	1,062	1,773	1,981	3,786*
	55-64	279	3,987,578	860	75*	114	152	325	685	1,189	1,833	2,306	2,839*
	65 +	302	4,655,131	910	37*	122	234	465	785	1,182	1,766	2,074	2,548*
	All ages	3,078	57,316,806	737	30	89	118	266	532	975	1,568	1,967	3,316

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:22 M:\PW\OSTWATER\REQ002\R002_C2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table B3. Bottled Water: Pregnant, Lactating, and Childbearing Age Women Categories

Consumers Only

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		25	652,988	805*	-	46*	103*	206*	600*	1,297*	1,556*	1,720*	1,858*
Indirect		9	274,679	352*	-	-	16*	75*	205*	580*	635*	824*	974*
Direct and Indirect		27	698,645	891*	-	52*	145*	288*	683*	1,288*	1,910*	1,957*	2,198*
b. Lactating													
Direct		6	198,034	501*	-	-	-	76*	225*	655*	1,047*	1,174*	1,276*
Indirect		4	164,884	662*	-	-	-	253*	705*	845*	906*	927*	943*
Direct and Indirect		7	278,308	749*	-	-	-	225*	608*	1,005*	1,144*	1,223*	1,286*
c. Women Age 15-44													
Direct		587	15,624,697	689	38*	87	116	233	476	935	1,470	1,861	2,783*
Indirect		172	4,631,149	370	2*	38*	86	118	237	509	811	959*	1,460*
Direct and Indirect		611	16,279,438	766	35*	92	118	292	592	1,025	1,598	1,922	3,093*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:23 M:\PW\OSTWATER\REQ002\R002_C3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table C1. Other Sources: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	4	59,663	168*	-	-	-	29*	143*	190*	218*	227*	235*
	1-10	179	1,799,716	337	24*	45*	66	114	234	461	766	862*	1,090*
	11-19	108	2,258,831	540	-	55*	129*	204	353	702	1,114*	1,510*	2,528*
	20 +	514	9,840,416	629	41*	111	134	243	472	877	1,299	1,626	2,113*
	All ages	805	13,958,626	575	28*	83	116	232	418	799	1,177	1,495	2,125*
Indirect	< 1	12	110,865	273*	-	-	-	-	263*	399*	543*	591*	762*
	1-10	181	1,824,025	164	4*	9*	14	48	112	240	383	432*	583*
	11-19	102	2,072,992	195	-	5*	18*	67	118	257	416*	734*	787*
	20 +	552	10,707,161	585	6*	35	89	207	421	767	1,140	1,502	2,715*
	All ages	847	14,715,043	476	4*	22	40	118	311	651	1,036	1,337	2,528*
Direct and Indirect	< 1	13	117,254	344*	-	-	114*	249*	256*	408*	537*	579*	759*
	1-10	218	2,180,680	416	8*	34*	82	180	352	625	865	1,039*	1,165*
	11-19	127	2,604,579	624	-	84*	143*	235	406	826	1,394*	1,873*	2,489*
	20 +	616	11,910,701	1,046	24*	124	237	498	941	1,439	1,925	2,371	3,123*
	All ages	974	16,813,214	894	11*	89	167	352	710	1,256	1,826	2,225	3,035*
b. Male													
Direct	< 1	10	129,158	76*	-	-	-	-	50*	89*	136*	146*	305*
	1-10	203	2,084,816	354	21*	54*	58	114	269	473	742	813*	1,162*
	11-19	81	1,563,190	565	-	92*	128*	191	373	782	1,156*	1,556*	2,157*
	20 +	637	10,552,786	758	25*	73	117	236	518	1,021	1,557	1,892	3,266*
	All ages	931	14,329,950	672	24*	58	112	224	468	907	1,414	1,859	3,125*
Indirect	< 1	11	152,538	252*	-	63*	69*	83*	101*	415*	537*	598*	807*
	1-10	227	2,169,448	164	-	4*	8	32	102	235	398	551*	819*
	11-19	88	1,708,077	310	-	10*	45*	108	230	392	713*	940*	1,014*
	20 +	675	11,132,716	708	9*	26	85	230	556	993	1,475	1,886	3,288*
	All ages	1,001	15,162,779	581	4*	17	44	133	401	802	1,281	1,723	2,928*
Direct and Indirect	< 1	16	198,829	243*	-	-	-	86*	148*	379*	554*	567*	773*
	1-10	259	2,566,652	426	1*	27	57	145	320	656	884	1,077	1,630*
	11-19	103	2,011,715	702	2*	59*	177*	311	564	941	1,366*	1,753*	2,787*
	20 +	777	13,103,334	1,212	24*	118	221	530	1,001	1,660	2,286	3,017	4,883*
	All ages	1,155	17,880,530	1,031	13*	88	146	346	785	1,420	2,107	2,821	4,734*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table C1. Other Sources: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	14	188,821	105*	-	-	-	-	56*	141*	205*	227*	313*
	1-10	382	3,884,532	346	24*	56	59	114	244	471	755	825	1,094*
	11-19	189	3,822,021	550	15*	79*	130	202	354	727	1,157	1,565*	2,542*
	20 +	1,151	20,393,202	696	27*	88	124	241	496	936	1,414	1,851	2,954*
	All ages	1,736	28,288,576	624	25	67	114	231	466	827	1,375	1,728	2,914
Indirect	< 1	23	263,403	261*	-	-	-	77*	118*	408*	562*	616*	828*
	1-10	408	3,993,473	164	3*	5	13	38	106	236	385	499	734*
	11-19	190	3,781,069	247	2*	6*	28	88	178	326	627	756*	1,009*
	20 +	1,227	21,839,877	648	7*	31	88	218	483	873	1,319	1,774	2,924*
	All ages	1,848	29,877,822	529	4	20	42	126	355	740	1,177	1,525	2,783
Direct and Indirect	< 1	29	316,083	280*	-	-	55*	127*	225*	415*	559*	569*	810*
	1-10	477	4,747,332	421	8*	30	59	158	339	631	877	1,055	1,353*
	11-19	230	4,616,294	658	4*	87*	147	274	445	855	1,372	1,877*	2,776*
	20 +	1,393	25,014,035	1,133	24	118	236	503	969	1,532	2,148	2,728	4,619
	All ages	2,129	34,693,744	965	13	89	148	349	739	1,345	1,971	2,475	3,820

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table C2. Other Sources: Fine Age Categories

Consumers Only

				Milliliters/Person/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	6	61,330	92*	-	-	-	29*	77*	123*	138*	143*	147*
	0.5-0.9	8	127,491	112*	-	-	-	-	46*	154*	213*	233*	327*
	1-3	158	953,255	295	17*	29*	56	104	228	415	583	728*	1,027*
	4-6	108	1,078,663	337	-	33*	52*	138	256	476	662*	701*	812*
	7-10	116	1,852,614	377	-	50*	69*	117	255	564	817*	871*	1,094*
	11-14	100	1,882,552	581	-	79*	121*	213	417	763	1,122*	1,239*	2,962*
	15-19	89	1,939,469	520	-	69*	129*	185	352	640	1,205*	1,552*	2,451*
	20-24	53	1,480,096	525	-	72*	113*	214	310	741	1,122*	1,492*	1,860*
	25-54	577	12,281,111	672	-	74	116	234	470	931	1,410	1,832	2,927*
	55-64	237	3,004,802	724	-	112*	137	330	524	926	1,416	1,865*	3,348*
	65 +	284	3,627,193	820	29*	139	230	386	700	1,031	1,434	1,856	3,039*
	All ages	1,736	28,288,576	624	25	67	114	231	466	827	1,375	1,728	2,914
Indirect	<0.5	13	94,224	321*	-	-	71*	103*	186*	401*	685*	777*	886*
	0.5-0.9	10	169,179	227*	-	-	-	53*	85*	414*	555*	561*	567*
	1-3	182	1,091,562	137	2*	7*	19	43	93	202	283	416*	539*
	4-6	112	1,133,993	154	-	4*	8*	41	100	226	324*	497*	836*
	7-10	114	1,767,918	187	-	5*	13*	30	115	285	400*	573*	762*
	11-14	106	1,922,240	286	-	6*	29*	89	199	341	753*	962*	1,024*
	15-19	84	1,858,829	206	-	8*	21*	67	146	291	405*	585*	728*
	20-24	46	1,259,298	302*	-	13*	22*	94*	151*	406*	732*	1,034*	1,303*
	25-54	637	13,547,384	675	5*	27	76	197	477	886	1,423	1,950	3,006*
	55-64	249	3,227,334	712	15*	101*	196	326	556	945	1,408	1,590*	2,906*
	65 +	295	3,805,861	614	5*	60	122	271	574	883	1,097	1,332	1,981*
	All ages	1,848	29,877,822	529	4	20	42	126	355	740	1,177	1,525	2,783
Direct and Indirect	<0.5	15	117,444	306*	-	47*	66*	130*	188*	411*	637*	754*	878*
	0.5-0.9	14	198,639	265*	-	-	-	93*	172*	407*	552*	560*	567*
	1-3	206	1,243,498	347	5*	26*	43	132	291	481	710	761*	1,190*
	4-6	137	1,382,002	390	-	10*	33	142	285	518	778	1,057*	1,332*
	7-10	134	2,121,832	485	20*	60*	104	194	399	714	992	1,093*	1,623*
	11-14	121	2,243,452	733	2*	81*	172*	309	553	994	1,561*	1,884*	3,086*
	15-19	109	2,372,842	587	9*	89*	144*	236	395	798	1,221*	1,721*	2,409*
	20-24	67	1,809,825	640	30*	50*	94*	230	472	912	1,305*	1,648*	1,937*
	25-54	731	15,480,754	1,124	22*	118	213	474	917	1,537	2,175	2,834	4,728*
	55-64	272	3,504,576	1,276	82*	264	354	706	1,110	1,582	2,365	2,916	5,152*
	65 +	323	4,218,880	1,259	59*	214	360	680	1,188	1,660	2,136	2,470	3,707*
	All ages	2,129	34,693,744	965	13	89	148	349	739	1,345	1,971	2,475	3,820

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:22 M:\PW\OSTWATER\REQ002\R002_C2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table C3. Other Sources: Pregnant, Lactating, and Childbearing Age Women Categories

Consumers Only

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		5	130,533	827*	-	-	-	120*	243*	872*	1,412*	2,000*	3,239*
Indirect		6	151,464	473*	-	-	-	91*	238*	541*	895*	1,012*	1,107*
Direct and Indirect		7	168,433	1,066*	-	-	-	211*	660*	1,318*	1,676*	1,807*	3,374*
b. Lactating													
Direct		6	159,015	783*	-	-	-	-	563*	968*	1,448*	1,567*	1,662*
Indirect		7	182,414	565*	-	-	96*	168*	268*	955*	1,030*	1,072*	1,106*
Direct and Indirect		7	182,414	1,248*	-	-	-	348*	915*	1,667*	2,148*	2,410*	2,620*
c. Women Age 15-44													
Direct		228	5,545,321	569	31*	59*	115	231	392	707	1,217	1,640*	2,355*
Indirect		240	5,900,845	501	4*	24*	36	112	270	622	1,134	1,507*	2,820*
Direct and Indirect		283	6,759,992	904	12*	88	145	320	666	1,208	1,863	2,319	3,056*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:23 M:\PW\OSTWATER\REQ002\R002_C3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table D1. Missing Source: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	2	24,350	57*	-	-	-	-	-	51*	87*	99*	109*
	1-10	56	598,191	230	-	24*	35*	60	115	303	538*	654*	897*
	11-19	32	741,763	393*	-	25*	40*	94*	165*	329*	1,277*	1,417*	1,933*
	20 +	139	2,877,197	432	15*	51*	80	125	230	477	937	1,321*	2,114*
	All ages	229	4,241,501	395	12*	43*	56	114	208	457	894	1,362*	2,049*
Indirect	< 1	2	10,850	478*	-	-	-	-	374*	466*	522*	540*	555*
	1-10	15	133,918	109*	-	-	-	24*	54*	122*	224*	322*	428*
	11-19	6	151,402	83*	-	-	-	11*	17*	64*	118*	136*	643*
	20 +	45	836,217	412*	-	28*	60*	118*	288*	554*	836*	1,412*	1,474*
	All ages	68	1,132,387	333	-	16*	19*	64	167	478	825*	1,141*	1,445*
Direct and Indirect	< 1	4	35,200	187*	-	-	-	-	45*	227*	439*	499*	547*
	1-10	65	671,246	227	-	17*	27*	56	118	280	559*	721*	949*
	11-19	33	747,478	407*	-	27*	45*	107*	189*	349*	1,263*	1,417*	1,932*
	20 +	166	3,334,525	476	22*	51*	78	123	237	624	1,058	1,570*	2,261*
	All ages	268	4,788,449	428	13*	40	57	118	228	512	1,029	1,446	2,189*
b. Male													
Direct	< 1	5	59,261	30*	-	-	8*	13*	21*	33*	40*	42*	44*
	1-10	62	677,364	172	17*	22*	28*	57	114	191	324*	646*	697*
	11-19	27	690,503	323*	-	49*	60*	157*	260*	353*	625*	676*	954*
	20 +	144	2,834,667	423	-	33*	54	116	229	526	946	1,403*	2,038*
	All ages	238	4,261,795	362	22*	28*	56	113	210	468	833	1,220*	1,869*
Indirect	< 1	1	16,693	1,140*	-	-	-	-	-	-	-	-	-
	1-10	22	183,244	205*	-	-	-	26*	117*	317*	369*	486*	914*
	11-19	8	185,437	298*	-	-	-	92*	238*	485*	504*	546*	591*
	20 +	50	896,412	578	7*	48*	105*	195*	352	728*	1,362*	1,529*	2,127*
	All ages	81	1,281,786	492	3*	23*	50*	124	325	645	1,158*	1,410*	1,982*
Direct and Indirect	< 1	6	75,954	274*	-	-	9*	15*	28*	43*	641*	891*	1,090*
	1-10	75	784,182	196	-	26*	28*	56	117	237	396*	656*	1,051*
	11-19	31	772,835	360*	-	42*	56*	118*	259*	419*	741*	1,028*	1,151*
	20 +	169	3,235,903	531	8*	37*	58	118	276	686	1,362	1,849*	2,719*
	All ages	281	4,868,874	446	9*	29	53	118	237	520	1,224	1,522	2,260*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table D1. Missing Source: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	7	83,611	38*	-	-	10*	16*	25*	35*	44*	78*	104*
	1-10	118	1,275,555	199	-	25*	32*	58	115	235	580*	654*	842*
	11-19	59	1,432,266	359	17*	56*	58*	109	231	352	671*	1,351*	1,805*
	20 +	283	5,711,864	428	13*	45	74	117	230	502	945	1,392	2,173*
	All ages	467	8,503,296	378	20*	38	57	114	209	468	886	1,291	2,024*
Indirect	< 1	3	27,543	879*	-	-	-	424*	660*	900*	1,044*	1,092*	1,130*
	1-10	37	317,162	164*	-	-	11*	31*	109*	256*	364*	458*	777*
	11-19	14	336,839	202*	-	2*	8*	16*	119*	289*	497*	535*	693*
	20 +	95	1,732,629	498	12*	44*	63*	119	325	671	1,200*	1,433*	1,812*
	All ages	149	2,414,173	417	3*	17*	33	118	285	561	969	1,371*	1,710*
Direct and Indirect	< 1	10	111,154	246*	-	8*	11*	20*	30*	109*	753*	946*	1,101*
	1-10	140	1,455,428	210	-	18*	28	57	118	256	539	664*	1,051*
	11-19	64	1,520,313	383	-	52*	58*	118	250	377	995*	1,319*	1,789*
	20 +	335	6,570,428	503	13*	46	78	118	266	668	1,249	1,663	2,364*
	All ages	549	9,657,323	437	13*	32	57	118	236	521	1,141	1,456	2,252*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table D2. Missing Source: Fine Age Categories

Consumers Only

				Milliliters/Person/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	2	28,108	40*	-	-	-	-	34*	39*	42*	43*	44*
	0.5-0.9	5	55,503	36*	-	-	8*	13*	20*	27*	57*	84*	105*
	1-3	49	349,799	140	-	19*	24*	41*	81	147*	292*	467*	668*
	4-6	34	393,325	239*	-	25*	37*	57*	134*	259*	621*	691*	882*
	7-10	35	532,431	208*	-	26*	42*	69*	115*	249*	491*	626*	728*
	11-14	29	618,858	258*	-	48*	61*	104*	186*	320*	486*	552*	749*
	15-19	30	813,408	437*	-	25*	40*	121*	239*	456*	1,182*	1,413*	1,920*
	20-24	27	706,427	470*	-	111*	115*	145*	317*	608*	919*	1,023*	1,530*
	25-54	166	3,724,898	437	10*	36*	67	118	233	498	979	1,399*	2,444*
	55-64	39	585,369	366*	-	42*	61*	117*	204*	456*	848*	964*	1,318*
	65 +	51	695,170	388	-	35*	45*	96*	148	490*	942*	1,294*	1,914*
	All ages	467	8,503,296	378	20*	38	57	114	209	468	886	1,291	2,024*
Indirect	<0.5	1	3,457	307*	-	-	-	-	-	-	-	-	-
	0.5-0.9	2	24,086	961*	-	-	-	-	720*	930*	1,056*	1,098*	1,131*
	1-3	23	149,703	216*	-	-	-	44*	108*	328*	458*	503*	949*
	4-6	8	68,497	142*	-	-	-	43*	68*	169*	357*	364*	369*
	7-10	6	98,962	101*	-	-	-	8*	34*	121*	200*	241*	274*
	11-14	6	129,089	155*	-	-	-	15*	18*	138*	396*	474*	747*
	15-19	8	207,750	231*	-	-	3*	62*	134*	268*	474*	540*	590*
	20-24	5	146,597	387*	-	-	-	118*	250*	289*	659*	784*	884*
	25-54	52	1,057,809	448	7*	30*	52*	129	326	597	932*	1,362*	1,779*
	55-64	11	139,095	646*	-	-	-	105*	710*	798*	1,168*	1,210*	1,372*
	65 +	27	389,128	624*	-	96*	118*	119*	321*	814*	1,449*	1,523*	2,815*
	All ages	149	2,414,173	417	3*	17*	33	118	285	561	969	1,371*	1,710*
Direct and Indirect	<0.5	3	31,565	69*	-	-	-	-	35*	41*	67*	187*	283*
	0.5-0.9	7	79,589	316*	-	-	9*	16*	26*	365*	863*	1,001*	1,112*
	1-3	63	430,474	189	-	27*	28*	44	85	227	411*	803*	1,110*
	4-6	39	426,396	243*	-	26*	29*	57*	140*	283*	603*	772*	927*
	7-10	38	598,558	202*	-	14*	19*	63*	115*	249*	547*	616*	754*
	11-14	31	646,015	278*	-	49*	76*	112*	223*	349*	503*	630*	935*
	15-19	33	874,298	461*	-	19*	37*	93*	251*	542*	1,208*	1,409*	1,908*
	20-24	29	746,436	521*	-	113*	118*	138*	290*	683*	1,242*	1,426*	1,610*
	25-54	192	4,209,407	499	10*	38*	72	126	285	616	1,242	1,669*	2,378*
	55-64	46	678,164	448*	-	45*	58*	118*	209*	698*	933*	1,519*	2,169*
	65 +	68	936,421	547	-	38*	52*	118	206	631	1,446*	1,904*	3,283*
	All ages	549	9,657,323	437	13*	32	57	118	236	521	1,141	1,456	2,252*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:22 M:\PW\OSTWATER\REQ002\R002_C2.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table D3. Missing Source: Pregnant, Lactating, and Childbearing Age Women Categories
Consumers Only

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		2	62,335	1,182*	-	-	-	-	632*	1,144*	1,451*	1,554*	1,636*
Direct and Indirect		2	62,335	1,182*	-	-	-	-	632*	1,144*	1,451*	1,554*	1,636*
b. Lactating													
Direct		4	81,473	739*	-	-	-	278*	593*	777*	1,092*	1,196*	1,280*
Indirect		2	58,554	64*	-	-	-	-	55*	63*	68*	70*	71*
Direct and Indirect		5	117,029	547*	-	-	-	-	327*	668*	1,026*	1,190*	1,321*
c. Women Age 15-44													
Direct		79	2,000,910	494	22*	53*	79*	125	227	620	1,310*	1,591*	2,346*
Indirect		18	406,206	243*	-	6*	24*	65*	134*	289*	553*	670*	1,245*
Direct and Indirect		86	2,139,248	508	24*	55*	76*	121	235	704	1,353*	1,644*	2,333*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:23 M:\PW\OSTWATER\REQ002\R002_C3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E1. All Sources: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	93	1,040,823	153	-	-	-	47	107	194	302*	430*	613*
	1-10	1,737	17,502,840	403	21	52	88	166	292	521	822	1,050	1,801
	11-19	753	15,074,715	659	29*	82	114	229	466	825	1,414	1,769	3,132*
	20 +	4,190	87,674,589	867	54	115	203	352	700	1,144	1,704	2,009	3,726
	All ages	6,773	121,292,967	768	39	106	142	289	584	971	1,538	1,888	3,514
Indirect	< 1	151	1,608,970	503	8*	14*	56	266	479	687	892	1,008*	1,304*
	1-10	1,817	17,739,130	178	2	8	20	52	125	243	394	494	750
	11-19	724	14,322,028	252	2*	13	24	71	162	339	578	780	1,226*
	20 +	4,437	93,102,380	610	5	50	111	262	504	816	1,226	1,535	2,469
	All ages	7,129	126,772,508	508	4	24	54	158	376	710	1,086	1,402	2,312
Direct and Indirect	< 1	159	1,680,410	577	24*	59*	129	284	559	775	950	1,131*	1,654*
	1-10	1,951	19,334,648	528	19	94	147	257	445	706	993	1,226	2,035
	11-19	817	16,313,787	830	23*	117	219	370	664	1,111	1,652	1,955	3,083*
	20 +	4,556	95,645,114	1,389	111	331	487	799	1,221	1,776	2,416	2,928	4,512
	All ages	7,483	132,973,959	1,185	50	194	296	576	1,021	1,581	2,221	2,703	4,252
b. Male													
Direct	< 1	98	1,075,483	154	-	-	19*	49	88	180	322*	428*	787*
	1-10	1,773	18,520,556	408	23	53	88	169	318	560	818	990	1,577
	11-19	755	15,627,938	780	49*	106	135	293	542	940	1,558	1,989	3,819*
	20 +	4,288	80,038,409	940	52	113	200	370	706	1,179	1,874	2,372	4,277
	All ages	6,914	115,262,386	825	40	106	136	294	587	1,054	1,679	2,167	3,899
Indirect	< 1	134	1,412,904	489	4*	27*	41	135	422	743	974	1,015*	1,315*
	1-10	1,833	18,621,257	185	2	8	17	57	130	253	409	540	907
	11-19	732	15,278,128	309	3*	10	30	101	217	395	708	897	1,536*
	20 +	4,567	84,354,879	725	7	51	114	281	562	950	1,434	1,870	3,612
	All ages	7,266	119,667,168	585	4	23	57	169	410	790	1,237	1,657	3,168
Direct and Indirect	< 1	151	1,560,310	549	7*	34*	89	188	538	790	1,121	1,278*	1,567*
	1-10	1,993	20,495,833	536	14	87	134	261	451	721	1,024	1,254	1,817
	11-19	809	16,887,932	1,001	28*	160	238	453	761	1,305	1,898	2,434	4,011*
	20 +	4,736	88,054,201	1,549	71	306	518	839	1,331	1,973	2,740	3,524	5,526
	All ages	7,689	126,998,276	1,300	40	174	296	591	1,070	1,716	2,483	3,149	5,212

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E1. All Sources: Gender by Broad Age Categories

Consumers Only

				Milliliters/Person/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	191	2,116,306	153	-	-	-	48	104	198	343	438*	681*
	1-10	3,510	36,023,396	405	22	53	88	168	295	528	819	1,036	1,642
	11-19	1,508	30,702,653	720	41	104	117	252	520	916	1,472	1,877	3,744
	20 +	8,478	167,712,998	902	53	114	202	354	703	1,172	1,824	2,229	3,997
	All ages	13,687	236,555,353	796	40	106	139	292	585	1,029	1,646	2,006	3,781
Indirect	< 1	285	3,021,874	497	7*	18	53	216	454	734	919	1,025	1,392*
	1-10	3,650	36,360,387	181	2	8	19	56	127	250	397	517	802
	11-19	1,456	29,600,156	281	3	11	27	86	199	370	654	867	1,376
	20 +	9,004	177,457,259	665	7	51	112	272	529	874	1,314	1,676	2,958
	All ages	14,395	246,439,676	545	4	24	56	164	392	745	1,163	1,516	2,708
Direct and Indirect	< 1	310	3,240,720	563	15*	53	90	249	548	789	968	1,236	1,656*
	1-10	3,944	39,830,481	532	15	89	139	258	449	711	1,004	1,242	1,901
	11-19	1,626	33,201,719	917	24	142	236	401	720	1,194	1,782	2,202	3,808
	20 +	9,292	183,699,315	1,465	94	323	502	825	1,272	1,867	2,551	3,195	5,159
	All ages	15,172	259,972,235	1,241	47	184	296	584	1,045	1,640	2,345	2,922	4,808

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:19 M:\PW\OSTWATER\REQ002\R002_C1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E2. All Sources: Fine Age Categories

Consumers Only

				Milliliters/Person/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	90	913,437	101	-	-	16*	38	83	114	169*	247*	395*
	0.5-0.9	101	1,202,869	193	-	-	-	54	116	256	413*	498*	848*
	1-3	1,556	10,421,967	309	18	46	55	115	229	408	611	814	1,228
	4-6	1,074	11,218,361	420	23*	56	105	176	342	562	804	1,042	1,652*
	7-10	880	14,383,068	464	29*	76	108	212	348	591	931	1,140	1,776*
	11-14	761	14,552,468	621	35*	80	112	234	465	753	1,313	1,708	2,898*
	15-19	747	16,150,185	809	46*	108	146	283	580	1,006	1,551	2,034	3,837*
	20-24	600	16,694,832	992	28*	96	114	343	661	1,187	1,907	3,291	5,589*
	25-54	4,433	102,627,289	905	51	114	178	350	701	1,162	1,870	2,340	3,894
	55-64	1,410	19,289,627	876	77	118	215	409	704	1,164	1,651	1,890	2,831
	65 +	2,035	29,101,250	856	78	168	233	444	709	1,146	1,609	1,865	2,735
	All ages	13,687	236,555,353	796	40	106	139	292	585	1,029	1,646	2,006	3,781
Indirect	<0.5	138	1,341,633	543	4*	51*	62	312	540	817	927	1,009*	1,203*
	0.5-0.9	147	1,680,241	460	9*	15*	31	113	399	683	884	1,014*	1,394*
	1-3	1,703	11,405,483	166	2	11	22	53	119	227	366	494	740
	4-6	1,111	11,513,422	182	2*	7	16	59	131	252	384	500	907*
	7-10	836	13,441,482	194	2*	7	17	56	139	271	431	528	785*
	11-14	737	13,976,521	257	2*	7	21	82	180	340	584	795	1,184*
	15-19	719	15,623,635	303	3*	15	29	89	210	387	685	903	1,566*
	20-24	623	17,079,600	423	3*	13	42	136	297	571	918	1,216	1,911*
	25-54	4,736	109,036,598	689	6	42	98	263	526	909	1,395	1,840	3,239
	55-64	1,521	20,887,210	742	19	118	216	379	617	947	1,379	1,735	2,743
	65 +	2,124	30,453,851	661	17	118	207	354	592	863	1,171	1,442	2,175
	All ages	14,395	246,439,676	545	4	24	56	164	392	745	1,163	1,516	2,708
Direct and Indirect	<0.5	156	1,507,727	544	12*	52*	85	217	545	805	947	1,078*	1,365*
	0.5-0.9	154	1,732,993	580	15*	52*	91	250	563	772	1,130	1,273*	1,672*
	1-3	1,814	12,143,483	422	12	57	98	203	351	582	807	993	1,393
	4-6	1,193	12,438,322	548	22*	95	151	282	468	721	1,019	1,268	2,031*
	7-10	937	15,248,676	608	14*	122	180	313	514	809	1,131	1,425	2,172*
	11-14	812	15,504,627	815	29*	129	214	383	651	1,068	1,625	1,962	3,033*
	15-19	814	17,697,092	1,006	22*	152	240	427	776	1,303	1,897	2,414	4,027*
	20-24	678	18,544,787	1,283	27*	120	248	579	1,013	1,589	2,508	3,632	5,801*
	25-54	4,906	113,011,204	1,486	79	323	483	801	1,273	1,894	2,638	3,337	5,259
	55-64	1,541	21,145,387	1,532	121	473	658	947	1,378	1,952	2,557	2,999	4,395
	65 +	2,167	30,997,937	1,453	273	532	651	939	1,345	1,833	2,324	2,708	3,750
	All ages	15,172	259,972,235	1,241	47	184	296	584	1,045	1,640	2,345	2,922	4,808

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:22 M:\PW\OSTWATER\REQ002\R002_C2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table E3. All Sources: Pregnant, Lactating, and Childbearing Age Women Categories
Consumers Only

				Milliliters/Person/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		62	1,569,473	1,014	-	103*	188*	400	952	1,413	1,798*	1,889*	2,283*
Indirect		67	1,684,668	426	-	22*	55*	139	280	602	1,055*	1,214*	1,455*
Direct and Indirect		70	1,751,888	1,318	-	181*	370*	745	1,228	1,776	2,339*	2,674*	3,557*
b. Lactating													
Direct		36	990,046	1,360*	-	79*	164*	526*	1,282*	1,827*	2,506*	2,819*	3,589*
Indirect		40	1,145,475	672*	-	13*	110*	228*	444*	939*	1,325*	1,725*	2,907*
Direct and Indirect		41	1,171,868	1,806*	-	359*	491*	1,068*	1,498*	2,474*	3,021*	3,767*	4,024*
c. Women Age 15-44													
Direct		2,069	52,640,976	863	51	104	167	343	653	1,062	1,769	2,223	4,166
Indirect		2,196	55,771,739	513	3	24	55	153	362	694	1,129	1,452	2,413
Direct and Indirect		2,314	58,549,659	1,265	43	223	345	616	1,065	1,621	2,366	2,952	4,821

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:23 M:\PW\OSTWATER\REQ002\R002_C3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

Table A1. Community Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	62	712,434	17	-	2*	2*	6	13	22	30*	46*	87*
	1-10	1,301	13,208,205	17	1	2	4	6	13	22	38	48	84
	11-19	603	11,915,618	10	1*	1	2	4	8	13	22	28	50*
	20 +	3,182	66,310,293	11	1	1	2	4	9	15	24	30	50
	All ages	5,148	92,146,550	12	1	2	2	4	9	16	26	33	57
Indirect	< 1	112	1,209,256	65	1*	2*	6*	28	58	91	135*	146*	195*
	1-10	1,537	14,853,747	9	-	-	1	2	6	12	19	25	46
	11-19	636	12,716,498	4	-	-	-	1	3	6	10	14	23*
	20 +	3,941	83,243,962	8	-	-	1	3	6	12	17	23	37
	All ages	6,226	112,023,463	9	-	-	1	2	6	11	17	24	51
Direct and Indirect	< 1	119	1,259,405	72	1*	7*	11*	28	69	102	139*	169*	203*
	1-10	1,688	16,731,906	21	-	2	3	7	17	29	45	61	98
	11-19	752	15,031,443	12	-	1	2	4	9	16	26	32	48*
	20 +	4,099	86,643,885	17	-	1	3	7	14	23	33	41	63
	All ages	6,658	119,666,639	17	-	1	3	7	14	23	35	45	77
b. Male													
Direct	< 1	55	571,397	25	1*	4*	5*	7	17	33	41*	77*	158*
	1-10	1,292	14,064,214	17	1	3	3	6	12	23	35	45	77
	11-19	642	13,374,583	11	1*	1	2	4	8	14	21	32	65*
	20 +	3,401	64,200,732	10	1	1	2	4	7	13	21	28	48
	All ages	5,390	92,210,926	11	1	1	2	4	8	14	24	32	59
Indirect	< 1	105	1,096,809	58	-	1*	3*	7	37	91	134*	169*	228*
	1-10	1,545	15,864,359	8	-	-	1	2	6	11	18	26	46
	11-19	646	13,574,491	5	-	-	-	1	3	6	10	15	25*
	20 +	4,114	77,152,431	8	-	-	1	3	6	11	16	21	40
	All ages	6,410	107,688,090	8	-	-	1	2	6	10	16	22	51
Direct and Indirect	< 1	115	1,180,289	66	-	2*	4*	8	60	101	139*	175*	235*
	1-10	1,705	17,865,064	21	-	1	3	8	16	28	43	55	87
	11-19	755	15,717,364	14	-	1	2	5	10	17	27	38	67*
	20 +	4,360	82,313,478	15	-	1	3	7	13	20	30	38	62
	All ages	6,935	117,076,195	16	-	1	3	7	13	21	32	43	81

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table A1. Community Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	117	1,283,831	21	1*	2*	4*	6	14	25	40*	66*	97*
	1-10	2,593	27,272,419	17	1	2	4	6	12	22	36	46	82
	11-19	1,245	25,290,201	11	1*	1	2	4	8	13	22	28	58*
	20 +	6,583	130,511,025	11	1	1	2	4	8	14	23	30	50
	All ages	10,538	184,357,476	12	1	1	2	4	8	15	25	33	59
Indirect	< 1	217	2,306,065	62	-	2*	4	11	53	92	135	156*	205*
	1-10	3,082	30,718,106	8	-	-	1	2	6	11	18	25	46
	11-19	1,282	26,290,989	5	-	-	-	1	3	6	10	14	25
	20 +	8,055	160,396,393	8	-	-	1	3	6	11	17	22	39
	All ages	12,636	219,711,553	8	-	-	1	2	6	11	17	23	51
Direct and Indirect	< 1	234	2,439,694	69	-	3*	6	20	62	103	139	170*	206*
	1-10	3,393	34,596,970	21	-	2	3	7	16	29	44	59	95
	11-19	1,507	30,748,807	13	-	1	2	4	10	17	26	34	60
	20 +	8,459	168,957,363	16	-	1	3	7	13	22	32	39	62
	All ages	13,593	236,742,834	17	-	1	3	7	13	22	33	44	79

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table A2. Community Water: Fine Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	47	476,543	16*	-	-	2*	5*	12*	20*	26*	39*	70*
	0.5-0.9	70	807,288	24	1*	3*	5*	6	14	30	42*	73*	146*
	1-3	1,087	7,333,772	21	2*	4	4	8	16	29	43	56	98*
	4-6	804	8,458,405	19	1*	3	4	7	14	26	40	52	92*
	7-10	702	11,480,242	13	1*	2	3	5	9	17	29	35	52*
	11-14	617	11,812,770	11	1*	1	2	4	8	13	22	32	51*
	15-19	628	13,477,431	11	1*	1	2	4	8	13	21	26	59*
	20-24	487	13,297,003	12	-	1	2	3	8	14	25	40	79*
	25-54	3,411	79,285,198	10	1	1	2	4	7	14	23	31	49
	55-64	1,095	14,975,376	10	1*	1	2	4	8	13	21	27	42*
	65 +	1,590	22,953,448	11	1	2	3	5	9	15	22	26	37
	All ages	10,538	184,357,476	12	1	1	2	4	8	15	25	33	59
Indirect	<0.5	96	965,618	86	1*	4*	6*	27	79	131	168*	202*	235*
	0.5-0.9	121	1,340,447	44	-	1*	3*	8	37	71	93*	117*	134*
	1-3	1,453	9,814,247	12	-	1	1	4	8	15	26	33	64
	4-6	941	9,798,343	8	-	-	1	2	6	12	18	23	41*
	7-10	688	11,105,516	6	-	-	-	2	4	8	13	17	26*
	11-14	623	11,978,961	5	-	-	-	1	3	6	10	13	24*
	15-19	659	14,312,028	4	-	-	-	1	3	6	10	15	26*
	20-24	584	15,979,741	6	-	-	1	2	4	8	14	17	26*
	25-54	4,268	99,105,440	8	-	-	1	3	6	11	18	23	43
	55-64	1,337	18,429,651	9	-	1	1	4	7	11	17	23	38
	65 +	1,866	26,881,561	9	-	1	2	4	8	12	16	21	33
	All ages	12,636	219,711,553	8	-	-	1	2	6	11	17	23	51
Direct and Indirect	<0.5	106	1,034,566	88	1*	5*	7*	27	85	131	169*	204*	240*
	0.5-0.9	128	1,405,128	56	-	3*	6	14	52	83	116*	127*	170*
	1-3	1,548	10,417,368	26	-	2	4	9	20	35	53	68	112
	4-6	1,025	10,751,616	23	-	2	4	9	18	31	45	65	95*
	7-10	820	13,427,986	16	-	1	3	6	12	22	33	39	60*
	11-14	736	14,102,256	13	-	1	2	5	10	17	27	36	54*
	15-19	771	16,646,551	12	-	1	1	4	9	16	26	32	62*
	20-24	637	17,426,127	15	-	1	2	5	11	18	31	39	80*
	25-54	4,512	104,816,948	16	-	1	3	7	13	21	32	40	65
	55-64	1,383	19,011,778	17	-	1	3	8	14	23	32	38	58
	65 +	1,927	27,702,510	18	-	2	5	10	16	24	32	37	53
	All ages	13,593	236,742,834	17	-	1	3	7	13	22	33	44	79

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:27 M:\PW\OSTWATER\REQ002\R002_D2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table A3. Community Water: Pregnant, Lactating, and Childbearing Age Women Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		42	1,105,462	13*	-	1*	1*	3*	9*	20*	27*	29*	33*
Indirect		63	1,554,460	5	-	-	-	1	3	8	13*	17*	20*
Direct and Indirect		65	1,645,565	14	-	-	-	2	9	22	33*	43*	47*
b. Lactating													
Direct		26	685,373	22*	-	-	2*	9*	23*	33*	41*	50*	52*
Indirect		31	898,173	10*	-	-	1*	3*	7*	11*	16*	38*	55*
Direct and Indirect		33	940,375	26*	-	-	2*	9*	20*	41*	54*	55*	57*
c. Women Age 15-44													
Direct		1,567	39,712,711	11	1	1	2	4	8	15	24	32	57
Indirect		1,985	50,599,021	7	-	-	1	2	5	10	17	21	37
Direct and Indirect		2,126	54,000,618	15	-	1	2	6	12	21	32	39	66

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:31 M:\PW\OSTWATER\REQ002\R002_D3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table B1. Bottled Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	27	274,189	19*	-	2*	2*	7*	12*	28*	35*	39*	57*
	1-10	312	3,327,723	16	1*	2	3	6	12	21	35	44	73*
	11-19	160	3,323,062	9	1*	1*	2	3	7	10	19	25*	49*
	20 +	926	21,577,149	11	1*	2	2	4	8	14	23	28	40*
	All ages	1,425	28,502,123	11	1	2	2	4	8	15	24	31	48
Indirect	< 1	25	271,444	91*	-	24*	32*	45*	68*	133*	153*	161*	181*
	1-10	109	1,109,864	9	-	-	1*	2	5	11	20*	28*	45*
	11-19	38	744,428	4*	-	-	1*	1*	2*	6*	9*	12*	16*
	20 +	332	7,443,482	7	-	1	2	3	5	9	14	17	29*
	All ages	504	9,569,218	9	-	1	1	2	5	10	16	24	125*
Direct and Indirect	< 1	38	408,657	73*	2*	2*	5*	12*	51*	125*	160*	168*	181*
	1-10	336	3,584,069	18	1*	2	4	8	13	22	37	51	80*
	11-19	162	3,381,718	10	1*	1*	2	3	8	12	21	28*	50*
	20 +	969	22,579,106	13	1*	2	2	5	10	17	27	32	45*
	All ages	1,505	29,953,550	14	1	2	2	5	10	17	28	36	65
b. Male													
Direct	< 1	36	403,824	16*	-	2*	5*	6*	12*	18*	27*	42*	74*
	1-10	328	3,328,070	16	1*	2	3	6	12	21	29	43	75*
	11-19	129	2,704,178	10	-	1*	2	4	7	13	24	29*	43*
	20 +	880	17,950,961	9	1*	1	2	3	7	12	18	22	40*
	All ages	1,373	24,387,033	10	1	1	2	4	7	13	21	28	46
Indirect	< 1	25	327,718	78*	-	-	24*	40*	68*	100*	142*	150*	182*
	1-10	114	1,036,771	10	-	1*	2*	3	7	13	19*	29*	47*
	11-19	39	857,865	4*	-	-	1*	2*	3*	6*	10*	13*	16*
	20 +	283	5,276,685	7	-	1	2	3	4	8	15	22	49*
	All ages	461	7,499,039	10	-	1	2	3	5	10	20	35	102*
Direct and Indirect	< 1	47	564,156	57*	1*	6*	6*	13*	36*	87*	142*	155*	193*
	1-10	348	3,508,201	18	1*	2	3	6	13	24	37	49	82*
	11-19	137	2,851,698	11	1*	1*	2	4	7	15	26	31*	44*
	20 +	929	18,862,983	10	1*	1	2	4	8	14	22	30	46*
	All ages	1,461	25,787,038	13	1	1	2	4	8	15	26	36	73

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table B1. Bottled Water: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	63	678,013	17	1*	2*	2*	6	12	25	35*	41*	70*
	1-10	640	6,655,793	16	1*	2	3	6	12	21	31	43	74*
	11-19	289	6,027,240	10	1*	1	2	3	7	12	22	27	46*
	20 +	1,806	39,528,110	10	1	1	2	4	7	13	21	27	40
	All ages	2,798	52,889,156	11	1	1	2	4	8	14	23	29	48
Indirect	< 1	50	599,162	84	-	24*	26*	43*	69	131*	153*	163*	189*
	1-10	223	2,146,635	9	-	-	1	3	6	12	19	29*	52*
	11-19	77	1,602,293	4	-	-	1*	2	2	6	10*	13*	17*
	20 +	615	12,720,167	7	-	1	2	3	5	9	15	19	30*
	All ages	965	17,068,257	10	-	1	1	3	5	10	17	28	111*
Direct and Indirect	< 1	85	972,813	64	1*	5*	6*	12	43	98	159*	166*	191*
	1-10	684	7,092,270	18	1*	2	3	7	13	23	37	50	82*
	11-19	299	6,233,416	10	1*	1	2	4	7	13	24	28	47*
	20 +	1,898	41,442,089	12	1	1	2	5	9	16	25	31	46
	All ages	2,966	55,740,588	13	1	2	2	5	9	16	27	36	72

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table B2. Bottled Water: Fine Age Categories

Consumers Only

	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	38	391,744	16*	-	5*	6*	8*	12*	16*	30*	38*	52*
	0.5-0.9	25	286,269	19*	-	2*	2*	3*	8*	28*	37*	43*	82*
	1-3	322	2,243,627	19	1*	2	4	8	15	26	41	52	75*
	4-6	182	2,070,523	18	1*	2*	4	7	13	23	37	46*	77*
	7-10	136	2,341,643	11	-	2*	3	4	9	15	22	25*	40*
	11-14	135	2,660,079	10	-	1*	2	4	7	12	23	28*	45*
	15-19	154	3,367,161	9	1*	1*	2	3	7	11	21	26*	50*
	20-24	162	4,633,496	11	1*	1*	2	3	8	14	23	32*	45*
	25-54	1,104	26,813,412	10	1*	1	2	4	7	13	21	26	40*
	55-64	264	3,797,637	9	1*	1	2	4	7	13	19	25	31*
	65 +	276	4,283,565	11	1*	2	3	5	9	15	20	24	38*
	All ages	2,798	52,889,156	11	1	1	2	4	8	14	23	29	48
Indirect	<0.5	28	299,913	106*	-	26*	34*	59*	125*	143*	160*	165*	180*
	0.5-0.9	22	299,249	62*	-	-	24*	32*	53*	86*	99*	104*	171*
	1-3	122	807,294	13	-	1*	2*	3	8	15	30*	41*	59*
	4-6	54	533,713	8	-	1*	2*	4	6	11	19*	24*	25*
	7-10	47	805,628	7*	-	-	-	2*	4*	8*	14*	19*	31*
	11-14	42	812,300	5*	-	-	1*	1*	3*	7*	12*	15*	16*
	15-19	35	789,993	4*	-	1*	1*	2*	2*	6*	6*	7*	14*
	20-24	41	1,056,161	5*	-	1*	2*	2*	3*	5*	10*	16*	20*
	25-54	339	8,053,196	7	-	1	2	3	5	8	16	22	34*
	55-64	109	1,588,766	7	-	1*	2*	3	6	10	14*	17*	22*
	65 +	126	2,022,044	7	-	1*	2*	3	6	10	12*	15*	18*
	All ages	965	17,068,257	10	-	1	1	3	5	10	17	28	111*
Direct and Indirect	<0.5	49	523,947	73	5*	6*	8*	13*	48	134*	163*	168*	180*
	0.5-0.9	36	448,866	54*	-	2*	2*	8*	43*	89*	100*	104*	199*
	1-3	345	2,400,366	22	1*	3	4	8	17	29	51	61	86*
	4-6	192	2,159,073	19	1*	2*	4	8	15	25	39	49*	79*
	7-10	147	2,532,831	13	1*	3*	3	5	9	16	23	29*	54*
	11-14	140	2,784,693	11	1*	2*	2	4	8	15	24	28*	45*
	15-19	159	3,448,723	10	1*	1*	2	3	7	12	25	28*	47*
	20-24	172	4,861,363	11	1*	1*	2	4	8	15	25	33*	48*
	25-54	1,155	28,066,423	11	1*	2	2	4	8	15	24	30	46*
	55-64	274	3,925,911	12	1*	1	2	4	8	17	27	33	41*
	65 +	297	4,588,392	13	-	2	3	7	12	17	26	30	42*
	All ages	2,966	55,740,588	13	1	2	2	5	9	16	27	36	72

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:27 M:\PW\OSTWATER\REQ002\R002_D2.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table B3. Bottled Water: Pregnant, Lactating, and Childbearing Age Women Categories
Consumers Only

				Milliliters/Kg of Body Weight/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		24	631,047	12*	-	-	2*	4*	8*	21*	26*	30*	31*
Indirect		9	274,679	5*	-	-	-	2*	3*	9*	10*	11*	12*
Direct and Indirect		26	676,704	14*	-	1*	2*	5*	8*	21*	30*	30*	35*
b. Lactating													
Direct		6	198,034	6*	-	-	-	1*	3*	9*	11*	11*	11*
Indirect		4	164,884	12*	-	-	-	4*	12*	15*	16*	17*	17*
Direct and Indirect		7	278,308	11*	-	-	-	3*	10*	16*	17*	18*	18*
c. Women Age 15-44													
Direct		571	15,161,746	11	1*	1	2	4	8	14	24	29	41*
Indirect		167	4,522,612	6	-	1*	1	2	4	7	13	16*	23*
Direct and Indirect		594	15,804,231	12	1*	1	2	5	9	16	26	31	49*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:31 M:\PW\OSTWATER\REQ002\R002_D3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table C1. Other Sources: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	4	59,663	19*	-	-	-	5*	13*	20*	23*	25*	26*
	1-10	175	1,747,307	15	-	2*	3	5	10	21	31	38*	70*
	11-19	106	2,233,118	10	-	1*	2*	4	6	12	22*	24*	43*
	20 +	500	9,565,631	10	1*	1	2	4	7	13	20	25	35*
	All ages	785	13,605,719	10	1*	2	2	4	7	14	22	28	39*
Indirect	< 1	12	110,865	41*	-	-	-	-	35*	66*	67*	116*	141*
	1-10	177	1,768,230	8	-	-	1	2	6	11	18	23*	35*
	11-19	100	2,047,279	4	-	-	-	1	2	4	9*	14*	17*
	20 +	540	10,446,166	9	-	1	1	3	6	12	19	25	45*
	All ages	829	14,372,540	9	-	-	1	2	6	11	19	24	50*
Direct and Indirect	< 1	13	117,254	48*	-	-	9*	18*	31*	66*	71*	114*	141*
	1-10	213	2,122,162	19	-	2*	3	8	14	28	38	43*	91*
	11-19	125	2,578,866	11	-	2*	3*	4	7	15	27*	33*	44*
	20 +	598	11,563,738	16	-	2	3	7	14	22	30	40	55*
	All ages	949	16,382,020	16	-	2	3	7	13	22	32	41	64*
b. Male													
Direct	< 1	10	129,158	10*	-	-	-	-	5*	12*	19*	21*	38*
	1-10	193	1,996,346	16	1*	2*	2	6	12	21	33	39*	65*
	11-19	80	1,553,881	10	-	1*	2*	3	7	16	23*	24*	37*
	20 +	633	10,493,999	9	-	1	1	3	6	12	19	26	37*
	All ages	916	14,173,384	10	-	1	2	3	7	14	22	29	46*
Indirect	< 1	11	152,538	32*	-	-	-	10*	11*	47*	62*	88*	137*
	1-10	217	2,076,929	8	-	-	-	2	5	11	20	25*	42*
	11-19	86	1,673,025	5	-	-	1*	2	4	6	11*	16*	22*
	20 +	672	11,084,391	8	-	-	1	3	7	12	17	23	39*
	All ages	986	14,986,883	8	-	-	1	2	6	11	17	23	41*
Direct and Indirect	< 1	16	198,829	31*	-	-	2*	10*	20*	40*	62*	80*	136*
	1-10	247	2,459,369	19	-	1*	3	7	14	28	43	54*	70*
	11-19	101	1,976,663	12	-	1*	2*	5	9	17	26*	35*	51*
	20 +	773	13,044,547	14	-	1	3	6	12	20	29	36	57*
	All ages	1,137	17,679,408	15	-	1	3	6	12	21	31	41	63*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table C1. Other Sources: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	14	188,821	13*	-	-	-	3*	8*	20*	25*	26*	37*
	1-10	368	3,743,653	15	1*	2	3	5	11	21	33	38	66*
	11-19	186	3,786,999	10	-	1*	2	3	7	13	22	25*	41*
	20 +	1,133	20,059,630	9	-	1	2	4	7	13	19	25	36*
	All ages	1,701	27,779,103	10	-	1	2	4	7	14	22	28	43
Indirect	< 1	23	263,403	36*	-	-	-	8*	16*	60*	67*	102*	152*
	1-10	394	3,845,159	8	-	-	-	2	6	11	19	24	39*
	11-19	186	3,720,304	4	-	-	-	1	3	5	10	15*	22*
	20 +	1,212	21,530,557	9	-	-	1	3	6	12	19	24	41*
	All ages	1,815	29,359,423	8	-	-	1	2	6	11	18	24	45
Direct and Indirect	< 1	29	316,083	38*	-	2*	8*	13*	24*	59*	68*	103*	149*
	1-10	460	4,581,531	19	-	1	3	7	14	28	41	47	72*
	11-19	226	4,555,529	12	-	1*	2	5	8	15	27	35*	52*
	20 +	1,371	24,608,285	15	-	1	3	6	13	21	30	39	58
	All ages	2,086	34,061,428	16	-	1	3	6	12	21	32	41	63

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table C2. Other Sources: Fine Age Categories

Consumers Only

	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	6	61,330	13*	-	-	-	5*	11*	16*	19*	20*	21*
	0.5-0.9	8	127,491	12*	-	-	-	-	5*	15*	23*	26*	39*
	1-3	155	940,166	22	1*	2*	4	8	17	29	40	63*	88*
	4-6	102	1,025,065	16	-	2*	3*	7	10	21	36*	39*	43*
	7-10	111	1,778,422	12	1*	2*	2*	4	9	16	28*	30*	37*
	11-14	98	1,865,461	11	-	1*	2*	4	8	16	23*	24*	39*
	15-19	88	1,921,538	8	-	1*	2*	3	6	11	19*	25*	38*
	20-24	53	1,480,096	7	-	1*	1*	3	4	9	16*	20*	27*
	25-54	564	12,034,902	9	-	1	2	3	6	12	19	25	36*
	55-64	233	2,929,131	9	-	1*	2	4	7	12	21	26*	38*
	65 +	283	3,615,501	11	-	2	4	5	10	16	21	27	35*
	All ages	1,701	27,779,103	10	-	1	2	4	7	14	22	28	43
Indirect	<0.5	13	94,224	55*	-	-	9*	11*	35*	71*	113*	140*	163*
	0.5-0.9	10	169,179	26*	-	-	-	6*	10*	44*	60*	64*	66*
	1-3	180	1,079,700	10	-	1*	1	3	7	13	23	30*	41*
	4-6	105	1,074,286	8	-	-	-	2	5	11	16*	24*	27*
	7-10	109	1,691,173	7	-	-	-	1	4	10	15*	21*	26*
	11-14	104	1,905,149	6	-	-	-	2	4	7	15*	18*	22*
	15-19	82	1,815,155	3	-	-	-	1	2	4	6*	9*	10*
	20-24	45	1,229,619	4*	-	-	-	1*	2*	5*	9*	18*	24*
	25-54	627	13,353,242	9	-	-	1	3	6	12	20	26	48*
	55-64	246	3,153,527	10	-	1*	2	4	8	13	18	23*	38*
	65 +	294	3,794,169	9	-	1	2	4	8	12	17	20	28*
	All ages	1,815	29,359,423	8	-	-	1	2	6	11	18	24	45
Direct and Indirect	<0.5	15	117,444	51*	-	9*	10*	20*	23*	69*	112*	134*	161*
	0.5-0.9	14	198,639	30*	-	-	2*	10*	20*	44*	62*	65*	66*
	1-3	202	1,226,545	25	-	2*	3	9	20	36	47	65*	97*
	4-6	130	1,322,295	19	-	-	2	6	13	25	40	54*	64*
	7-10	128	2,032,691	16	1*	2*	3	7	13	24	33*	38*	47*
	11-14	119	2,226,361	14	-	1*	3*	6	10	18	30*	37*	59*
	15-19	107	2,329,168	9	-	1*	2*	4	7	11	19*	27*	40*
	20-24	66	1,780,146	9	-	1*	1*	3	7	13	20*	23*	30*
	25-54	716	15,202,422	15	-	1	3	6	12	21	30	40	59*
	55-64	267	3,418,529	17	1*	3	5	9	15	21	31	39	52*
	65 +	322	4,207,188	18	1*	3	5	9	16	24	31	37	50*
	All ages	2,086	34,061,428	16	-	1	3	6	12	21	32	41	63

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:27 M:\PW\OSTWATER\REQ002\R002_D2.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Part IV: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
Table C3. Other Sources: Pregnant, Lactating, and Childbearing Age Women Categories
Consumers Only

				Milliliters/Kg of Body Weight/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		5	130,533	11*	-	-	-	2*	4*	11*	15*	26*	52*
Indirect		5	129,523	8*	-	-	-	1*	3*	10*	15*	17*	18*
Direct and Indirect		6	146,492	17*	-	-	-	7*	13*	20*	21*	27*	55*
b. Lactating													
Direct		6	159,015	14*	-	-	-	-	10*	17*	23*	25*	27*
Indirect		7	182,414	10*	-	-	2*	3*	4*	16*	20*	22*	24*
Direct and Indirect		7	182,414	22*	-	-	-	6*	16*	33*	42*	43*	44*
c. Women Age 15-44													
Direct		222	5,444,638	9	1*	1*	2	3	6	12	19	25*	37*
Indirect		235	5,797,693	8	-	-	1	2	4	10	19	26*	49*
Direct and Indirect		275	6,607,689	15	-	1	3	5	10	20	30	41	54*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:31 M:\PW\OSTWATER\REQ002\R002_D3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table D1. Missing Source: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	1	16,021	3*	-	-	-	-	-	-	-	-	-
	1-10	52	555,285	10	-	1*	2*	3	5	14	25*	31*	44*
	11-19	31	710,128	8*	-	-	1*	2*	3*	8*	22*	24*	36*
	20 +	136	2,784,243	6	-	1*	1	2	4	7	12	22*	28*
	All ages	220	4,065,677	7	-	1*	1	2	4	8	19	24*	39*
Indirect	< 1	1	7,393	62*	-	-	-	-	-	-	-	-	-
	1-10	10	106,167	4*	-	-	-	-	3*	5*	9*	9*	9*
	11-19	5	119,767	2*	-	-	-	-	1*	2*	2*	2*	10*
	20 +	42	768,037	6*	-	-	1*	1*	4*	8*	15*	18*	22*
	All ages	58	1,001,364	6	-	-	1*	1	3	6	15*	17*	26*
Direct and Indirect	< 1	2	23,414	21*	-	-	-	-	-	15*	43*	52*	60*
	1-10	57	604,404	10	-	1*	1*	3	5	13	25*	30*	47*
	11-19	32	715,843	8*	-	-	1*	2*	4*	9*	23*	24*	36*
	20 +	161	3,209,132	7	-	1*	1	2	4	9	17	22*	31*
	All ages	252	4,552,793	8	-	1*	1	2	4	9	21	25*	41*
b. Male													
Direct	< 1	5	59,261	3*	-	-	1*	2*	2*	4*	5*	5*	5*
	1-10	59	655,133	8	-	1*	2*	3	5	9	19*	26*	37*
	11-19	27	690,503	5*	-	1*	1*	3*	4*	8*	10*	11*	12*
	20 +	144	2,834,667	5	-	-	1	2	3	7	11	19*	28*
	All ages	235	4,239,564	6	-	1*	1	2	4	7	11	19*	30*
Indirect	< 1	1	16,693	87*	-	-	-	-	-	-	-	-	-
	1-10	20	174,895	14*	-	-	-	2*	7*	18*	29*	39*	90*
	11-19	8	185,437	5*	-	-	-	2*	3*	7*	8*	9*	10*
	20 +	49	885,950	7	-	-	1*	2*	4	9*	17*	20*	24*
	All ages	78	1,262,975	9	-	-	1*	2	5	9	19*	24*	75*
Direct and Indirect	< 1	6	75,954	22*	-	-	1*	2*	4*	5*	49*	68*	83*
	1-10	71	758,109	10	-	1*	1*	3	6	10	27*	31*	68*
	11-19	31	772,835	6*	-	1*	1*	3*	5*	8*	10*	14*	19*
	20 +	168	3,225,441	7	-	-	1	2	4	8	17	23*	38*
	All ages	276	4,832,339	7	-	-	1	2	4	8	17	24	47*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table D1. Missing Source: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	6	75,282	3*	-	-	1*	2*	3*	4*	5*	5*	5*
	1-10	111	1,210,418	9	-	1*	2*	3	5	11	23*	29*	43*
	11-19	58	1,400,631	7	-	1*	1*	2	4	8	11*	22*	33*
	20 +	280	5,618,910	6	-	1	1	2	3	7	12	22	28*
	All ages	455	8,305,241	6	-	1	1	2	4	8	15	23	39*
Indirect	< 1	2	24,086	79*	-	-	-	-	68*	78*	83*	85*	86*
	1-10	30	281,062	10*	-	-	-	2*	4*	8*	26*	32*	78*
	11-19	13	305,204	4*	-	-	-	1*	2*	5*	8*	9*	11*
	20 +	91	1,653,987	7	-	-	1*	2	5	9	16*	19*	24*
	All ages	136	2,264,339	7	-	-	1	2	4	9	17	20*	61*
Direct and Indirect	< 1	8	99,368	22*	-	1*	1*	2*	3*	5*	72*	79*	85*
	1-10	128	1,362,513	10	-	1*	1	3	5	12	27*	31*	54*
	11-19	63	1,488,678	7	-	1*	1*	2	4	8	17*	23*	33*
	20 +	329	6,434,573	7	-	1	1	2	4	9	17	23	34*
	All ages	528	9,385,132	7	-	1	1	2	4	9	19	24	46*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table D2. Missing Source: Fine Age Categories

Consumers Only

	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	2	28,108	5*	-	-	-	-	5*	5*	5*	5*	5*
	0.5-0.9	4	47,174	3*	-	-	1*	1*	2*	3*	3*	3*	3*
	1-3	47	339,587	10*	-	2*	2*	3*	6*	10*	24*	28*	39*
	4-6	32	375,239	12*	-	1*	2*	3*	7*	15*	29*	36*	44*
	7-10	32	495,592	7*	-	1*	1*	3*	4*	11*	16*	19*	22*
	11-14	28	587,223	6*	-	1*	1*	2*	5*	8*	10*	19*	21*
	15-19	30	813,408	7*	-	1*	1*	2*	4*	8*	14*	24*	36*
	20-24	27	706,427	6*	-	-	-	2*	4*	9*	11*	16*	26*
	25-54	163	3,631,944	6	-	-	1	2	3	7	13	22*	34*
	55-64	39	585,369	4*	-	1*	1*	2*	3*	6*	9*	11*	11*
	65 +	51	695,170	5	-	1*	1*	1*	2	7*	12*	17*	27*
	All ages	455	8,305,241	6	-	1	1	2	4	8	15	23	39*
Indirect	0.5-0.9	2	24,086	79*	-	-	-	-	68*	78*	83*	85*	86*
	1-3	19	129,946	17*	-	-	-	3*	6*	24*	33*	43*	95*
	4-6	5	52,154	6*	-	-	-	2*	3*	8*	10*	14*	17*
	7-10	6	98,962	3*	-	-	-	-	1*	4*	6*	7*	7*
	11-14	5	97,454	3*	-	-	-	-	1*	5*	7*	8*	12*
	15-19	8	207,750	4*	-	-	-	1*	2*	3*	8*	9*	10*
	20-24	5	146,597	5*	-	-	-	2*	3*	3*	8*	10*	11*
	25-54	49	987,029	6	-	-	1*	1*	4	8*	15*	19*	25*
	55-64	10	131,233	7*	-	-	-	2*	6*	9*	15*	16*	19*
	65 +	27	389,128	8*	-	1*	1*	2*	6*	14*	18*	20*	34*
	All ages	136	2,264,339	7	-	-	1	2	4	9	17	20*	61*
Direct and Indirect	<0.5	2	28,108	5*	-	-	-	-	5*	5*	5*	5*	5*
	0.5-0.9	6	71,260	28*	-	-	1*	2*	3*	53*	76*	81*	86*
	1-3	58	404,320	14	1*	2*	2*	3	7	14	29*	44*	91*
	4-6	35	396,474	12*	-	1*	2*	3*	7*	15*	30*	38*	48*
	7-10	35	561,719	7*	-	-	1*	2*	4*	9*	15*	20*	24*
	11-14	30	614,380	6*	-	1*	1*	2*	5*	8*	12*	19*	22*
	15-19	33	874,298	7*	-	1*	1*	1*	4*	8*	20*	24*	36*
	20-24	29	746,436	7*	-	-	-	2*	4*	10*	17*	18*	26*
	25-54	187	4,081,414	7	-	-	1	2	4	8	18	23*	34*
	55-64	45	670,302	5*	-	1*	1*	2*	3*	7*	11*	15*	20*
	65 +	68	936,421	7	-	1*	1*	1	3	9	19*	26*	44*
	All ages	528	9,385,132	7	-	1	1	2	4	9	19	24	46*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:27 M:\PW\OSTWATER\REQ002\R002_D2.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table D3. Missing Source: Pregnant, Lactating, and Childbearing Age Women Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		2	62,335	20*	-	-	-	-	11*	20*	25*	26*	28*
Direct and Indirect		2	62,335	20*	-	-	-	-	11*	20*	25*	26*	28*
b. Lactating													
Direct		4	81,473	11*	-	-	-	4*	8*	10*	16*	18*	20*
Indirect		2	58,554	1*	-	-	-	-	1*	1*	1*	1*	1*
Direct and Indirect		5	117,029	8*	-	-	-	-	5*	8*	15*	18*	21*
c. Women Age 15-44													
Direct		78	1,965,169	8	-	1*	1*	2	4	8	22*	27*	39*
Indirect		17	370,465	4*	-	-	-	1*	2*	5*	9*	10*	21*
Direct and Indirect		85	2,103,507	8	-	1*	1*	2	4	9	22*	27*	39*

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:31 M:\PW\OSTWATER\REQ002\R002_D3.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Table E1. All Sources: Gender by Broad Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
Gender	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Female													
Direct	< 1	86	994,044	19	2*	2*	2*	6	13	26	37*	44*	84*
	1-10	1,628	16,326,628	19	1	3	4	8	15	26	40	51	85
	11-19	734	14,799,070	12	1*	2	2	5	9	16	24	31	55*
	20 +	4,064	84,905,084	13	1	2	3	6	10	17	26	31	52
	All ages	6,512	117,024,826	14	1	2	3	6	11	18	27	35	61
Indirect	< 1	142	1,550,183	70	1*	1*	7	35	61	94	139	160*	192*
	1-10	1,702	16,544,839	9	-	-	1	3	6	12	20	26	48
	11-19	706	14,056,801	5	-	-	-	1	3	6	11	15	23*
	20 +	4,306	90,301,970	9	-	1	2	4	7	13	19	24	39
	All ages	6,856	122,453,793	10	-	1	1	3	7	12	19	26	57
Direct and Indirect	< 1	149	1,616,050	79	3*	8*	16	37	72	113	158	170*	200*
	1-10	1,826	18,009,208	26	1	4	7	13	21	33	50	66	104
	11-19	798	16,038,142	15	-	2	4	7	13	20	29	36	56*
	20 +	4,421	92,737,736	21	2	5	7	12	18	27	37	45	69
	All ages	7,194	128,401,136	22	1	4	6	11	18	28	39	50	88
b. Male													
Direct	< 1	94	1,053,383	21	1*	2*	4*	7	13	24	41*	67*	121*
	1-10	1,671	17,585,596	19	2	3	4	8	14	25	37	46	79
	11-19	740	15,382,657	13	1*	2	2	5	9	16	25	35	65*
	20 +	4,265	79,639,289	11	1	2	2	5	9	15	23	30	50
	All ages	6,770	113,660,925	13	1	2	3	5	10	16	26	35	64
Indirect	< 1	130	1,390,804	69	1*	3*	4	17	59	105	141	167*	213*
	1-10	1,726	17,651,589	9	-	-	1	3	6	12	20	28	47
	11-19	718	15,075,280	5	-	-	-	2	3	6	11	15	25*
	20 +	4,541	83,922,512	9	-	1	1	3	7	11	18	23	44
	All ages	7,115	118,040,185	9	-	-	1	3	6	11	18	25	59
Direct and Indirect	< 1	147	1,538,210	77	1*	4*	10	23	66	110	164	173*	233*
	1-10	1,882	19,480,513	25	1	4	6	12	20	33	48	62	91
	11-19	794	16,642,651	16	1*	3	4	8	13	21	32	42	69*
	20 +	4,709	87,605,178	19	1	4	6	10	16	24	34	43	67
	All ages	7,532	125,266,552	20	1	4	6	10	16	25	38	49	86

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table E1. All Sources: Gender by Broad Age Categories

Consumers Only

Gender	Age	Sampsize	Population	Milliliters/Kg of Body Weight/Day									
				Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
c. Both sexes													
Direct	< 1	180	2,047,427	20	1*	2*	2	7	13	26	40	56*	90*
	1-10	3,299	33,912,224	19	2	3	4	8	14	25	39	48	82
	11-19	1,474	30,181,727	12	1	2	2	5	9	16	24	32	59
	20 +	8,329	164,544,373	12	1	2	3	5	10	16	25	31	51
	All ages	13,282	230,685,751	13	1	2	3	5	10	17	27	35	63
Indirect	< 1	272	2,940,987	69	1*	2	5	26	60	104	141	164	204*
	1-10	3,428	34,196,428	9	-	-	1	3	6	12	20	27	48
	11-19	1,424	29,132,081	5	-	-	-	1	3	6	11	15	25
	20 +	8,847	174,224,482	9	-	1	1	4	7	12	18	24	41
	All ages	13,971	240,493,978	9	-	-	1	3	7	12	18	25	57
Direct and Indirect	< 1	296	3,154,260	78	2*	7	12	29	71	113	164	170	222*
	1-10	3,708	37,489,721	26	1	4	7	12	21	33	49	64	98
	11-19	1,592	32,680,793	16	-	3	4	7	13	20	31	39	64
	20 +	9,130	180,342,914	20	1	4	7	11	17	26	36	44	68
	All ages	14,726	253,667,688	21	1	4	6	11	17	26	38	50	87

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:25 M:\PW\OSTWATER\REQ002\R002_D1.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Table E2. All Sources: Fine Age Categories

Consumers Only

				Milliliters/Kg of Body Weight/Day									
	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
Direct	<0.5	85	885,484	17	-	-	4*	8	13	21	32*	39*	79*
	0.5-0.9	95	1,161,943	23	1*	2*	2*	6	14	31	42*	68*	110*
	1-3	1,487	9,980,093	22	2	4	5	9	17	30	44	59	91
	4-6	992	10,406,545	21	2*	3	5	9	16	28	43	53	92*
	7-10	820	13,525,586	15	1*	3	4	7	12	20	30	36	52*
	11-14	735	14,164,132	13	1*	2	3	5	10	16	25	34	51*
	15-19	739	16,017,595	12	1*	2	2	4	9	16	24	31	65*
	20-24	591	16,404,248	14	-	1	2	5	10	16	27	41	76*
	25-54	4,347	100,655,732	12	1	2	3	5	9	16	25	32	50
	55-64	1,384	18,808,794	12	1	2	3	5	9	16	23	28	39
	65 +	2,007	28,675,599	12	1	2	3	6	10	16	23	27	38
	All ages	13,282	230,685,751	13	1	2	3	5	10	17	27	35	63
Indirect	<0.5	132	1,305,316	92	1*	6*	9	47	83	134	164	190*	218*
	0.5-0.9	140	1,635,671	51	1*	2*	3	12	46	75	104	125*	139*
	1-3	1,626	10,889,009	13	-	1	2	4	9	17	28	36	65
	4-6	1,025	10,686,893	9	-	-	1	3	7	13	19	25	41*
	7-10	777	12,620,526	6	-	-	1	2	5	9	14	18	28*
	11-14	712	13,630,618	5	-	-	-	2	4	7	12	15	25*
	15-19	712	15,501,463	5	-	-	-	1	3	6	10	15	25*
	20-24	614	16,788,204	6	-	-	1	2	4	9	14	18	26*
	25-54	4,647	107,058,970	9	-	1	1	3	7	12	19	26	47
	55-64	1,493	20,388,024	10	-	2	3	5	8	13	18	25	38
	65 +	2,093	29,989,284	9	-	2	3	5	8	13	17	21	33
	All ages	13,971	240,493,978	9	-	-	1	3	7	12	18	25	57
Direct and Indirect	<0.5	149	1,465,837	92	2*	7*	14	31	87	139	169	196*	239*
	0.5-0.9	147	1,688,423	65	2*	6*	11	26	58	88	120	164*	185*
	1-3	1,732	11,603,245	31	1	4	7	15	26	40	60	74	118
	4-6	1,103	11,556,872	27	1*	5	8	14	23	36	51	68	97*
	7-10	873	14,329,604	20	1*	4	6	10	17	26	36	44	70*
	11-14	786	15,116,291	16	1*	3	4	8	14	21	33	40	60*
	15-19	806	17,564,502	15	-	2	4	7	12	19	29	38	66*
	20-24	668	18,224,524	18	-	2	4	8	14	22	34	44	86*
	25-54	4,813	110,938,819	20	1	4	6	11	17	26	37	46	69
	55-64	1,513	20,646,201	20	2	6	8	12	18	26	35	42	59
	65 +	2,136	30,533,370	21	4	7	9	13	19	27	34	39	54
	All ages	14,726	253,667,688	21	1	4	6	11	17	26	38	50	87

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:27 M:\PW\OSTWATER\REQ002\R002_D2.LST

Estimates are based on 2-day averages.

All estimates exclude commercial and biological water.

-: Means zero.

*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".

NOTE: 448 individuals did not report body weight. They represent 6,343,682 individuals in the population.

Part IV: Estimates of Direct, Indirect, and Both Direct and Indirect Water Ingestion
Table E3. All Sources: Pregnant, Lactating, and Childbearing Age Women Categories
Consumers Only

				Milliliters/Kg of Body Weight/Day									
Women Categories	Age	Sampsize	Population	Mean	P1	P5	P10	P25	P50	P75	P90	P95	P99
a. Pregnant													
Direct		61	1,547,532	16	-	2*	3*	7	16	23	29*	31*	33*
Indirect		66	1,662,727	7	-	-	1*	2	4	9	16*	17*	19*
Direct and Indirect		69	1,729,947	21	-	3*	5*	10	19	29	39*	44*	61*
b. Lactating													
Direct		35	959,364	20*	-	1*	4*	9*	17*	31*	39*	47*	52*
Indirect		39	1,114,793	12*	-	-	2*	3*	7*	13*	23*	26*	63*
Direct and Indirect		40	1,141,186	28*	-	6*	9*	12*	25*	41*	53*	57*	70*
c. Women Age 15-44													
Direct		2,017	51,325,362	13	1	2	3	5	10	17	27	33	63
Indirect		2,145	54,504,373	8	-	-	1	2	6	11	18	23	39
Direct and Indirect		2,258	57,164,907	20	1	3	5	9	16	25	36	46	77

Source of data: 1994-1996 USDA Continuing Survey of Food Intakes by Individuals(CSFII) 20MAR00 10:31 M:\PW\OSTWATER\REQ002\R002_D3.LST
Estimates are based on 2-day averages.
All estimates exclude commercial and biological water.
-: Means zero.
*: The sample size does not meet minimum reporting requirements as described in the "Third Report on Nutrition Monitoring in the United States, 1994-96".
NOTE: 57 individuals did not report body weight. They represent 1,413,944 individuals in the population.

Appendix F
SAB Report and EPA Response

Appendix F1 includes the results of a review of the July 1999 version of this report by the Drinking Water Intake Subcommittee (DWIS), a special subcommittee of the EPA SAB. The OST's response to this report follows in Appendix F2.

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Appendix F1: SAB Report

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United States Environmental Protection Agency
Science Advisory Board (1400A) Washington DC
EPA-SAB-EC-00-003
December 1999
www.epa.gov/sab

AN SAB REPORT ON EPA's *Per Capita* Water Ingestion Estimates for the United States

A Review by the Executive Committees' Drinking Water Ingestion Subcommittee

ABSTRACT

The Drinking Water Intake Subcommittee (DWIS) of the Science Advisory Board's (SAB) Executive Committee reviewed a report on the *Estimated Per Capita Water Consumption in the United States.* The document presents estimates of drinking water ingestion for the total U.S. population and a number of subgroups of interest. Estimates are given for many age, gender, and other descriptors. The Subcommittee was pleased with the report's use of a substantial existing data base to improve upon the current EPA estimates for drinking water ingestion. The current Report is largely descriptive and contains little discussion of factors embedded within the original survey and the Agency's analytical method for deriving estimates that inform the reader of important factors that should guide use of the estimates. The Subcommittee noted its desire to see a greater level of discussion on these elements so that unintended misuse of the data can be minimized.

Keywords: Drinking water ingestion, exposure factors, drinking water consumption, drinking water intake.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF THE ADMINISTRATOR
SCIENCE ADVISORY BOARD

December 20, 1999

EPA-SAB-EC-00-003

The Honorable Carol Browner
Administrator
United States Environmental Protection Agency
401 M Street, SW
Washington, DC 20460

Subject: An SAB Report on EPA's *Per Capita Water Ingestion in the United States*

Dear Ms. Browner:

This report presents the results of a review by the Drinking Water Intake Subcommittee, a special subcommittee established by the EPA Science Advisory Board (SAB) Executive Committee in response to a request from the Agency's Office of Water to review its report entitled *Estimated Per Capita Water Consumption in the United States*. The review was carried out during two meetings with representatives of the Agency during July 1999. The Subcommittee concluded that the EPA report will be an important reference with extensive utility both inside and outside the Environmental Protection Agency. In addition, the Subcommittee believes that the U.S. Department of Agriculture's (USDA) Continuing Survey of Food Intake by Individuals (CSFII) was the best available information source for the Agency to use in developing its estimates of drinking water ingestion by the U. S. population. The CSFII also provides a valid data set for estimating water ingestion for a limited number of subgroups within the population. However, the Subcommittee has concerns about the descriptive nature of the EPA report because it contains no explicit discussion of how these estimates might reasonably be used by the Agency in its scientific assessment and policy considerations.

Even though the report will be invaluable in providing information about the distribution of water consumption among the general population, it may be of limited value in providing information about the drinking water consumption of certain subpopulations that may be of interest to the Agency and to other users of the report. However, this limitation is due to the characteristics of the CSFII survey and not because of the Agency's analysis and interpretation of the data. The CSFII survey was aimed at characterizing the food intake of the general population and was not designed to gather information on specific subgroups or situations (e.g., very young children, Native Americans, individuals with diseases which impact their water consumption or workers in hot environments). As a result, although specific groups of interest are represented in the survey in proportion to their occurrence in the general population, the information needed to identify them may not be present and, even when it is, the sample sizes in the subgroups that can be identified are often too small to provide useful information on their water intake (e.g., for young children in certain ethnic or socioeconomic groups). Further, even though Native Americans are represented in the survey, the information gathered in CSFII does not allow one to differentiate which of the Native Americans who were included in the survey follow traditional Native American culture and lifestyle and which of them practice contemporary urban and suburban lifestyles.

Several approaches are possible if the Agency finds that it needs information on the distribution of water intake in subgroups, or for situations that are not adequately described by CSFII. One is to commission special surveys designed to gather the needed information about these groups. A second approach would be to rely on current understanding of the physiological need for water by individuals in different situations (e.g., developmental stages, physiological states, or environments) to characterize the likely water consumption and then to couple this information with survey information on the distribution of these developmental stages, physiological states, and environments in the population. Each approach has its strengths and weaknesses.

The draft report could be considerably strengthened, and the potential for misinterpretation of its findings could be reduced substantially, if the Agency provided information on the statistical significance of differences in water consumption between major subgroups of the population. Without such information, users of the report may be inclined to emphasize the differences in water consumption among subgroups which may in fact be artifacts of small sample sizes.

The SAB is prepared to provide additional review and assistance as EPA further develops these estimates. We look forward to the response to these comments from the Assistant Administrator for the Office of Water.

Sincerely,

Dr. Joan M. Daisey, Chair
Science Advisory Board

Dr. Henry Anderson, Cochairman
Drinking Water Intake Subcommittee
Science Advisory Board

Dr. Richard Bull, Cochairman
Drinking Water Intake Subcommittee
Science Advisory Board

NOTICE

This report has been written as part of the activities of the Science Advisory Board, a public advisory group providing extramural scientific information and advice to the Administrator and other officials of the Environmental Protection Agency. The Board is structured to provide balanced, expert assessment of scientific matters related to problems facing the Agency. This report has not been reviewed for approval by the Agency and, hence, the contents of this report do not necessarily represent the views and policies of the Environmental Protection Agency, nor of other agencies in the Executive Branch of the Federal government, nor does mention of trade names or commercial products constitute a recommendation for use.

Distribution and Availability: This Science Advisory Board report is provided to the EPA Administrator, senior Agency management, appropriate program staff, interested members of the public, and is posted on the SAB website (www.epa.gov/sab). Information on its availability is also provided in the SAB's monthly newsletter (*Happenings at the Science Advisory Board*). Additional copies and further information are available from the SAB staff.

U.S. Environmental Protection Agency
Science Advisory Board
Drinking Water Intake Subcommittee
Panel for Review of the EPA Report on Drinking Water Consumption
July 8 and 19-20, 1999

Co-Chairs

Dr. Henry A. Anderson, Wisconsin Bureau of Public Health, Madison, WI

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1. EXECUTIVE SUMMARY AND CONCLUSIONS

The U. S. Environmental Protection Agency's (EPA) Science Advisory Board (SAB) was asked to perform a peer review of the Agency report *Estimated Per Capita Water Consumption in the United States* (hereafter referred to as the Report). The SAB Executive Committee established the Drinking Water Intake Subcommittee (DWIS) to conduct this review. The DWIS reviewed the Report during two meetings: one, a telephone conference meeting, on July 8, 1999 and the other, a face-to-face meeting, on July 19 to 20, 1999. Major Subcommittee comments on the EPA Report are contained below in this SAB report. Specific responses to the 11 charge questions are provided in Appendix A to this SAB report.

EPA is commended for seeking out databases that can be used for estimating ingestion of drinking water on a national scale. The database selected as the analytic basis for the report, the U. S. Department of Agriculture's Continuing Survey of Food Intake by Individuals (hereafter, the CSFII or the Survey), is the best available and has critical attributes that allow advancement of our understanding of ingestion of water by the general population of the United States. The Agency's efforts to develop ingestion estimates from the CSFII survey data were significant.

The committee believes that the EPA Report will be an important reference resource with extensive utility both within and outside the Agency. However, the following issues must be considered if the Report is to achieve its full potential.

1.1 EPA's goals and objectives as stated for this Report, and the analyses it contains, were too limited.

The Subcommittee is concerned that the Report is only descriptive and that it does not explicitly discuss how the estimates might be reasonably used. The Agency has both scientific and policy reasons for estimating water ingestion for the overall population, and for subpopulations, that are not discussed in the report. Some of these respond to the statutory mandate in the Safe Drinking Water Act. But there are other needs for information on drinking water intake in risk assessment and regulation which involve establishing default values for water ingestion, estimation of risks to highly exposed and/or sensitive subpopulations, and characterization of the distribution of individual risks or the impacts of specific control strategies. Important implications to these uses are not discussed in the current report.

EPA often uses default values for water ingestion levels when it develops allowable concentrations for contaminants in drinking water. The Subcommittee is encouraged that this EPA report provides information that will permit analysts to use specific data for water ingestion in many future situations where allowable concentrations must be developed. For others, the Report will provide assistance for developing information on the distribution of drinking water ingestion by individuals that includes new information and the relationship of ingestion to factors such as age, gender, and disease status.

While the report does a good job of characterizing the distribution of drinking water consumption in the entire US population, and in the major subdivisions of the US population (i.e., by age, sex, race, and geographic region), it does not provide the information that some users may want on drinking water ingestion by smaller subpopulations. Further, certain groups may have higher than normal water ingestion levels or they may be more sensitive to the effects of contaminants in drinking water. Examples of these would include very young children and workers in hot and/or dry climates.

This limitation exists because the CSFII data upon which the Agency relied for generating its estimates were collected in an effort to characterize the patterns of food consumption in the general population. They did not target certain subgroups that are now of heightened interest to EPA. Therefore the samples in certain subgroups are so small that the CSFII estimates of water consumption in these groups may be quite imprecise. Compounding this problem is the Report's omission of statistical confidence intervals for most of the ingestion estimates among subgroups of the population. If legislative mandates or regulatory analysis require information on the water consumption of these subgroups, further studies will be needed.

Many of the results presented in the report may be sensitive to assumptions made during data analysis. Examples of such data analysis conventions include the choice of regional boundaries and the assignment of a principal source for ingested water. Currently the report does not include a section analyzing the sensitivity of key results to these assumptions. The Subcommittee urges the Agency to conduct a sensitivity analysis and to add a section to the report describing the key findings from the sensitivity analysis.

Another key issue influencing the interpretation of the CSFII data is the choice of averaging time. We know that in many other settings (e.g., air pollution exposure assessment) heterogeneity tends to decrease as averaging time increases. The exact nature of the relationship between averaging time and observed heterogeneity depends on the features of the data being explored. For certain purposes (e.g., cancer risk assessment) the population distributions of long term average exposures may be of interest. The current EPA report provides information about drinking water intake averaged over TWO days. Therefore, to minimize the potential for misuse of the data in the EPA Report, users might benefit if the Agency clearly stated the averaging time on all tables and graphs in the report. Further, it may be necessary to more fully explore the sensitivity of results to alternative choices of averaging time.

Therefore, the Subcommittee recommends that the EPA Report discuss the characteristics of the EPA methods for estimating ingestion, and the USDA method for conducting the CSFII, that have important implications for those who must use the ingestion data.

1.2 The EPA Report should state that EPA did not have information that would allow calculation of confidence intervals for sub-populations.

A discussion point for the subcommittee centered on the question of whether it was appropriate to provide data without meaningful confidence intervals. The design of the CSFII survey requires use of an ultimate cluster methodology which is an aggregate of sampled persons within each primary sampling unit. Smaller subpopulations within the sample (e.g., the less than one year olds) did not meet these criteria. This prevents the calculation of confidence intervals using the ultimate cluster methodology. It would be good to clarify this point for the readers of the report.

1.3 The Agency should develop a strategy for the analysis, presentation and interpretation of the Report's data that is consistent with the intended uses of the data.

The Agency has taken a purely descriptive approach to the analysis and presentation of data. This results in numerous tables containing drinking water ingestion estimates for many conceivable combinations of attributes examined (e.g., Native American males by age group and by geographic region, etc.). While this superficially exhaustive presentation of data may seem attractive, the Subcommittee is concerned that this strategy for analysis, interpretation, and presentation of the data is inadequate and potentially misleading. We urge the Agency to develop a strategy for data analysis which, at a minimum, provides only those estimates of drinking water intake for which estimates of uncertainty can also be developed, and preferably which includes formal hypothesis tests of the significance of differences in the water consumption of various groups. Further, the number of tables presented in the report should be substantially reduced and limited to only those which support Agency needs and for which valid estimates of precision can be provided. If the Agency feels that certain tables for which valid estimates of precision can not be produced are necessary, this fact should be prominently displayed on each such table.

2. INTRODUCTION AND CHARGE

The Drinking Water Intake Subcommittee was asked to conduct a peer review of the Agency Report that provides estimates of per capita water intake in the United States. The Report contains estimates of the amount of direct and indirect water consumption. Direct water consumption is defined as plain water consumed directly as a beverage. Indirect water is that water added to foods and beverages during final home or restaurant preparation.

Empirical distributions of estimated water consumption were generated by water source and by the respondent's demographic and physical characteristics. Water sources include: a) the community water supply, b) bottled water, c) other sources including the respondent's own well, rain cistern, spring, or public spring. Physical and demographics characteristics include: age, gender, race, socioeconomic status, and geographic region. Estimates were also generated separately for pregnant and lactating women.

The distributions of estimated water ingestion include point estimates of the mean and the following percentiles: 1st, 5th, 10th, 25th, 50th, 75th, 90th, 95th, and 99th. Confidence intervals for the mean and bootstrap intervals for the upper percentiles are provided for only the larger subpopulations.

The charge to the Drinking Water Intake Subcommittee from the Office of Science and Technology, US EPA Office of Water included the following questions:

a) The distributions of estimated water intake were generated using standard statistical methodology for surveys with complex designs such as the 1994-96 CSFII. Is the statistical methodology used to generate the estimates appropriate? Should we consider rounding?

b) We have limited the calculation of confidence intervals about the mean and boot strap intervals for percentiles to the distributions for the larger sub-populations. The complex sample design makes the calculation and interpretation of results for smaller sub-populations virtually impossible to calculate and interpret. Is this an appropriate decision?

c) The CSFII survey is based on short-term survey data. Upper percentile estimates may differ for short-term and long-term data because short-term survey data tends to be inherently more variable. Is it appropriate to report upper percentile estimates such as the 99th percentile?

d) Are the data conventions used to identify direct and indirect water appropriate?

e) Do the data support estimates of sub-population distributions?

f) We have provided distributions of estimated water intake for numerous sub-populations. Should any additional sub-populations be added? Should any be excluded? Specify sub-populations.

g) USDA has identified two types of indirect water in foods. They are:

   i. The amount of water in food as consumed.
   ii. The amount of water used to prepare food.

   The water intake report provides estimates of the amount of indirect water in food as consumed. If resources permit, we could expand our report as a future addendum to include estimates of the amount of indirect water used to prepare food. Would this be desirable?

h) Additional water intake estimates associated with types of food may be useful for specific risk-exposure analyses, e.g., cold beverage intake. Such analyses are feasible using the CSFII data. We could expand our report as a future addendum if resources permit. Are any such targeted analyses of significant interest at this time?

i) Intrinsic water is the water contained in foods and beverages at the time of market purchase. Intrinsic water includes commercial water (added to food products by food manufacturers) and biological water (found naturally in foods). Intrinsic water is not included in our current analysis. If resources permit, we could expand our report as a future addendum to includes estimates of intrinsic water. Would this be desirable?

j) What are the scientific limitations to the use of the water consumption estimates provided in this report (i.e., what other issues has the Subcommittee noted with the estimates that are not covered elsewhere)?

k) The water intake estimates provided in this report are based on all respondents, including those who did not report consuming water during the two survey days. If resources permit, we could also generate estimates of water consumption which exclude the zero consumers of water. We noticed that for some sub-populations, especially the less than one-year-old infants, a substantial proportion consumed zero or minimal amounts of tap water per day (presumably those who were breast fed or drank undiluted formula or milk); these zero consumers of water can contribute to lower estimates. Would this be desirable?

3. SUBCOMMITTEE COMMENTS

3.1 General Comments

The Drinking Water Intake Subcommittee (DWIS) of the EPA Science Advisory Board (SAB) has reviewed the Agency's report entitled *Estimated Per Capita Water Consumption in the United States* during two meetings: one on July 8, 1999 and the other on July 19 to 20, 1999. Specific responses to the Agency's charge questions are provided in Appendix A to this SAB report.

EPA used the Continuing Survey of Food Intake by Individuals (CSFII) as its data source for use in deriving its drinking water ingestion estimates. EPA is commended for seeking out databases that can be used for estimating drinking water ingestion for the population at a national scale. This was the best data source available and it had critical attributes that allow advancement of our understanding of drinking water ingestion in the general U. S. population and the Agency made good use of the data. Several strengths of the USDA 1994-96 CSFII database are worth highlighting.

a) The database is large, recent, and it is a population based survey.

b) The database permits the categorization of various sources of ingested water.

c) The convention used to estimate the fraction of water in each food as consumed was scientifically defensible.

d) The database permits a breakdown of the US population into some major groups based on age, gender, special populations of females, regions, and broad classifications of ingested water source.

The committee believes that the EPA Report will be an important source of information on drinking water ingestion. The report will enjoy extensive use as a reference resource for those within and outside of the Agency.

Even though this report will allow EPA to better understand contaminant exposures associated with drinking water ingestion it does not, nor was it intended to, provide insight into exposure to drinking water contaminants associated with dermal exposure (e.g., during bathing or showering). Further, even though it provides estimates for some combinations of attributes, many such attribute combinations are possible. Most of these are not included nor could all possible combinations of potential interest be covered (e.g., infants who live in hot climates and have health conditions which affect water intake). Therefore, to fully estimate contaminant exposures associated with drinking water, EPA will need to go beyond projections that are based solely on information contained in this specific Report.

Notwithstanding the strengths of the Survey and the EPA Report noted above, the Subcommittee does have a number of concerns with the Report. If the Report is to achieve its full potential there are a number of issues that require further attention. These are discussed in Sections 3.2 through 3.4 that follow.

3.2 EPA's goals and objectives as stated for this Report, and the analyses it contains, are too limited.

The report was constructed only as a descriptive report without an explicit discussion of how the estimates in the Report might reasonably be applied by users. The subcommittee has several recommendations for revision to address this current shortcoming:

a) The Report needs a prominent and early explanation of the logic used in the survey design and in the analyses used to develop the Agency's estimates. This explanation should be understandable by the educated layperson. This is not a criticism of the technical logic used in the analysis, rather, it simply recognizes that most users of these estimates will not have the specialized knowledge of statistics needed to understand fully the approach used.

b) The report must provide a much clearer indication of which estimates are reliable and which ones are not as reliable. The extensive tables of statistics that appear to break down the population to several subgroups provide potential users of the data with a false sense of security about the precision of the estimates. This practically guarantees that the results will be applied in ways not supportable by the database.

The Agency has both scientific and policy reasons for estimating water ingestion in the overall population and in subpopulations of interest. Some of these come from the statutory mandates of the Safe Drinking Water Act (SDWA), but others come from the broader environmental health community, such as: a) risk assessment; b) development of default values; and c) sensitive subpopulations. The implications of the survey characteristics and the analyses supporting EPA's estimates on these uses of the ingestion estimates are not sufficiently discussed in the Report.

Risk assessments are scientifically-based efforts to estimate the impact that exposure to a contaminant, or groups of contaminants in water, may have on human health. For waterborne risk scenarios, it is important to construct as complete a picture of water ingestion as is possible. Some of the distinctions in the present estimates limit that capability. For example, as the Agency rightly points out, direct and indirect water represent only part of potential tap water ingestion (and therefore exposure to waterborne contamination). Commercial water (that water added by the manufacturer prior to marketing–not now included in the EPA estimates) is frequently taken from tap sources, although these are frequently far removed from the point of consumption. This does not mean that the estimates obtained from the present study cannot be used in developing risk assessments, but part of the exposure assessment may have to obtain broader categories of water source than are identified in the present analysis of the data. Such limitations in the tabular data need to be clearly stated in the report.

In its current configuration, the report provides estimates that are composites of both those who reported drinking water during both survey days and those who reported drinking none on those days. As EPA noted in its charge to the Subcommittee, this could result in underestimates of drinking water ingestion. EPA traditionally uses a default value for water ingestion when converting a "safe dose" (mg/kg/day) to enforceable concentration limits in drinking water. The Report permits EPA to use improved data in developing such limits. However, the Subcommittee believes that such analyses should focus on those portions of the population that actually ingest drinking water. The estimates needed in this circumstance should not be diluted by including large numbers of individuals that reported no water ingestion during the survey (see Question 11 in Appendix A). In its current configuration, the report provides only the diluted estimates. Ingestion estimates should be developed by EPA to reflect only those who actually reported water ingestion as well as the current composite situation. When sufficient data are available to estimate confidence intervals, these Survey data can be used to develop default values.

Some subpopulations of interest are adequately represented in the report (e.g., pregnant women) but others identified included too few representatives (e.g., children of Native Americans). For this reason, the Subcommittee strongly recommends that the Report make explicit the limitations of the estimates. The breakout of pregnant and lactating women provides at least a starting point for defining the amount of water that is consumed by populations that may have special sensitivities. There are also some data that can be used to estimate water consumption by individuals of varying age. However, it is important to recognize and identify the limitations of these data for smaller populations (e.g., children of Native Americans/ Alaskans). In addition, other populations could be identified that consume higher amounts of water (e.g., diabetics and individuals with kidney disease) that, while not rare in the overall population, are well below the statistical power of the Survey to detect. If there are not sufficient data to support development of relatively robust measures of confidence, the use of the data to describe water ingestion by these smaller subgroups would be misleading and do a disservice to these groups. If these groups are to be a source of particular concern in the Agency's regulatory agenda, surveys should be conducted that are adequate to support such estimates. Some other data sources might be superior for such purposes (e.g., NHANES).

The report provided insight into the 1.0 liter/10 kilogram default value for ingestion of drinking water by children that is currently used by EPA. The analysis presented in the EPA report shows that water consumption per unit body weight is very high at birth and falls off sharply with age. The Subcommittee is encouraged that the EPA Report now provides information that will permit analysts to use specific data for water ingestion in many future instances where allowable concentrations must be developed. For others, the Report will provide a better basis for developing reasonable defaults.

In the Agency's derivation of maximum contaminant limit goals (MCLGs) the mathematical operation essentially converts consumption to ml/kg/day, the Subcommittee believes that there is significant value to be gained from expressing estimates in these units as well as volume ingested. When shown in such units, the real differences in water consumption by age become much more apparent than when given as volume measures alone. Ml/kg/day figures are best used until ingestion stabilizes and then the daily volume becomes equally appropriate.

Clearly, the EPA Report is not intended to answer questions about other critical subpopulations (e.g., workers that consume very large quantities of water because of the exertion involved in their work or because of working in hot and/or dry climates). This points to an opportunity for future work in this area. Some of this information may already be available in the literature. If not such efforts could involve designing a relatively simple hypothesis and model of the determinants of water ingestion. Some independent variables for such a model of water ingestion could include: a) level of effort or metabolic rate; b) average ambient air temperature; c) average ambient relative humidity; d) body weight; and e)age.

Describing and capturing data for these predictor variables, and subsequent water ingestion for subpopulations that share common (and relatively narrow) ranges of these variables, could lead to the identification of the subpopulations of greatest concern for contaminant exposures through drinking water. It might also lead to the development and validation of a comprehensive model for the prediction of water ingestion from such parameters. The resulting simple hypothesis and model of the determinants of water ingestion could be used generically because it would reflect water needs of individuals. In some individuals most, if not all, of that water requirement might come from tap water. Those are the persons that the SDWA is intended to protect. If more accurate estimates of actual drinking water ingestion are needed, appropriate data could be collected by targeted surveys. The results could always be benchmarked against the basic water needs of individuals under different physiological conditions.

The value of some of the tabular distributions provided in the analysis is not clear. For example, water ingestion was provided by region. The Subcommittee's agrees with the need for regional estimates; however, the political regions identified in the Agency Report were probably too large. The within region variability of ingestion is probably much larger than that between regions.

It is important to emphasize that risk is a function of both exposure and sensitivity. Sensitivity is determined by genetics, developmental stage (old as well as young), lifestyle, and preexisting disease conditions that are not addressed in the Report. The Agency should simply point out that these other determinants of sensitivity are not addressed in the report.

3.3 The EPA Report should state that EPA did not have information that would allow calculation of confidence intervals for sub-populations.

A discussion point for the subcommittee centered on the question of whether it was appropriate to provide data without meaningful confidence intervals. The design of the CSFII survey requires use of an ultimate cluster methodology which is an aggregate of sampled persons within each primary sampling unit. Smaller subpopulations within the sample (e.g., the less than one year olds) did not meet these criteria. This prevents the calculation of confidence intervals using the ultimate cluster methodology. It would be good to clarify this point for the readers of the report.

3.4 The Agency needs to develop a strategy for the analysis, presentation, and interpretation of data that is consistent with the intended uses of the data.

The report should contain a description of the methodology used for analyzing the data. This would better explain the approach employed for those who are not experts in the sophisticated statistical techniques. In addition, the report should contain a strategy for future analyses of the data including some hypothesis testing.

Data validation and quality assurance procedures used in the development of the report should be prominently documented, with especial attention to conventions that were developed to handle some of the data.

The presentation of numerous tables containing estimates developed in the Agency analysis are clearly not appropriate for many of the applications the Agency will have for this information. Tables should be substantially reduced. Instead of numerous tables with estimates having unknown confidence levels the report should be limited to tables with estimates that support agency needs and for which valid estimates of reliability can be provided. These tables should be displayed in a useful way with significant figures appropriate to the level of precision in the estimates. The text surrounding these fewer tables should make clear the limitations of the estimates and whether they can be applied with confidence to evaluations of the subpopulations with which they are identified.

For example, the Subcommittee had very little confidence that the data reported for Native Americans reflected a Native American lifestyle (see Question 6 in Appendix A). There is a difference between "race" and "lifestyle". The reasons for different intake rates primarily reflects lifestyle (secondarily SES), and probably not race *per se*. If the Agency is convinced that this data reflects such a lifestyle, it should explain the rationale supporting the conclusion. A contrary conclusion should also be clearly explained.

Similarly, separate tables should be provided reflecting ingestion estimates for those respondents reporting water ingestion during the two days captured in the CSFII. This should be in addition to tables that reflect estimates based on a composite of respondents reporting tapwater ingestion and those who did not report such ingestion. Both sets of analyses provide important perspectives depending upon the use that the data will be applied to by the Agency. There are also good reasons to display data in both in terms of ml/kg/day as well as liters consumed. In all cases these data should include some measure of the precision of the estimate.

It is extremely important to segregate estimates for children by age for the reasons stated earlier. However, it is much less important to separate estimates for adults by age because the differences observed are much smaller. In adults the future analytical focus should be on identifying subpopulations that consume more water for other reasons, such as preexisting disease (e.g., diabetes mellitus), occupational conditions, or effects due to climate.

Appendix A

Responses to Specific Agency Charge Questions

1. Statistical Methodology

Charge Question 1: *The distributions of estimated water intake were generated using standard statistical methodology for surveys with complex designs such as the 1994-96 CSFII. Is the statistical methodology used to generate the estimates appropriate?*

The methodology described in the document is an appropriate technique to produce estimates from a multi-stage, stratified, clustered sample. The Agency, however, did not clearly state that the estimates were generated from a summary tape containing only final weights assigned to individuals. This means that the Agency was limited in what it could do with the data. References to the documents describing estimating equations for the US Department of Agriculture's Continuing Survey of Food Intakes by Individuals are needed.

2. Confidence Limits

Charge Question 2: *We have limited the calculation of confidence intervals about the mean and boot strap intervals for percentiles to the distributions for the larger sub-populations. The complex sample design makes the calculation and interpretation of results for smaller sub-populations virtually impossible to calculate and interpret. Is this an appropriate decision?*

Yes. However, the rationale for this is buried in the narrative. The Subcommittee recommends that the Agency state more clearly, and in a prominent place, its reasoning for not calculating such intervals throughout the report. Also, the convention of placing "zeros" as entries in the tables for place-holders where no estimates have been generated is confusing. The Subcommittee recommends inserting "dashes" in place of such zeros. This convention is used by others reporting results from such efforts.

3. Short-term Data and Long-term Estimates

Charge Question 3: *The CSFII survey is based on short-term survey data. Upper percentile estimates may differ for short-term and long-term data because short-term survey data tends to be inherently more variable. Is it appropriate to report upper percentile estimates such as the 99th percentile?*

The decision whether to report upper percentile estimates depends in part on whether the quality of these estimates is sufficient for their intended use. Quality may be judged by the number of individuals interviewed, the fulfillment of underlying assumptions, and the computed statistical precision, bias and confidence in the percentile estimates. Uses of the drinking water ingestion estimates may be very broad and could include risk assessment, rule-development for microbial contaminants of drinking water and disinfection by-products, as well as other uses not now anticipated. Some uses of drinking water ingestion estimates may require the short-term survey data available from the present CSFII survey data (i.e., estimates of daily averages based on only two non-consecutive days of data), while other uses may need long-term survey data (i.e., estimates based on more than 2 days of data). For example, short term data and a knowledge of the variability of such data can be useful for risk assessments of acute health effects such as diarrhea due to microbiological contamination, whereas long term data and a knowledge of its variability are needed for risk assessments of long-term health effects such as cancer. As the short-term data available from the current CSFII survey are not ideally suited for all uses, it is particularly important that the report adequately describe the quality of the estimates so that users can judge if the results of the current survey are of sufficient quality. As indicated above, this quality can be described in various ways such as by providing variances and confidence limits for estimated percentiles, by carefully stating and explaining all assumptions used in obtaining those estimates, and by the number of individuals interviewed in the various subcategories.

The number of individuals interviewed in subcategories is sometimes very small in the CSFII data. This point is illustrated by reference to Table A-3b in Section 11e of the EPA Report. In this table, there is only one individual in the <0.5 year age category and only three individuals in the 0.5-0.9 age category. Clearly, upper percentiles should not be reported for categories for which the number of persons interviewed is so small. The National Center for Health Statistics has issued guidelines on minimum sample sizes required to obtain credible estimates. These guidelines should be considered by EPA as a way to decide when drinking water estimates should be flagged as being of lower than acceptable quality.

Taking these considerations into account, this Subcommittee believes it is appropriate that the lower and upper percentile estimates obtained from the CSFII survey be reported, but that additional guidance on their quality and when they should and should not be used should be provided.

4. Data Conventions

Charge Question 4: *Are the data conventions used to identify direct and indirect water appropriate?*

A series of conventions was established to allow the estimation of water intake as a result of water consumed as a component of foods. The procedure is described in detail and is essentially the same as that used previously by Ershow and Cantor (1989) and by the Office of Pesticides Program (Tolerance Assessment System, 1985). The procedures as described are appropriate and will allow EPA to account for moisture gained and lost during cooking and allow the estimation of the proportion of water from home supplies versus from commercial water sources. A quick check of the results of applying the conventions to the CSFII food codes indicates that the procedures worked well. The results appear to be in the anticipated ranges. The data should be rounded to reflect the appropriate level of precision. It would also be useful to note in the text and on any files containing the factors that these represent a factor that is a composite of factors, e.g., that different types of rice, rice cooked different lengths of time and by different consumers will have different amounts of moisture and therefore different factors.

The Agency did not conduct a quality assurance check on the data. Given the multitude of uses for this information, the Subcommittee recommends that a formal QA/QC audit be conducted to ensure that the conventions were actually applied to each code as described in the methodology.

Where indirect water and intrinsic water are lost during cooking, it is necessary to determine how much is lost from each source. This is an arbitrary decision and the proposed approach seems reasonable. Validation of the estimates should be undertaken to verify the results.

5. Subpopulation Distributions

Charge Question 5: *Do the data support estimates of subpopulation distributions?*

The CSFII data were used to generate point and interval estimates of daily average *per capita* water ingestion in the manner presented in Section 8b of the EPA Report. Point estimates presented include the mean, 1st, 5th, 10th, 25th, 50th 75th, 90th, 95th and 99th percentiles. Subpopulations defined are gender, age, region, race, economic status, residential status and certain specific female subpopulations of pregnant and lactating women of childbearing age. The results are presented in section 11 by water source and by nine sociodemographic categories.

Examination of the tables on pages 11-3 through 11-326 easily reveals many subcategories without sufficient observations to support the point estimates. For example, Table A-3b on pages 11-15 and 11-16 shows point estimates of community water intake by race and fine age category. Between the American Indians and Native Alaskans, there is only one individual under 6 months and there are only three individuals in each of three other age categories. Presenting point estimates this way will likely mislead readers. Potential users should be cautioned about the uncertainty of point estimates having small sample sizes.

Whenever possible, point estimates should be presented with confidence intervals. But due to small sample size of some subpopulations, not all confidence intervals can be computed from the data. It is not clear how many interval estimates cannot be derived from the data available to the Agency. Only Tables 1, 2, and Figure 9-20 in Section 9 include 90% confidence intervals. A survey of over 15,000 individuals should allow more confidence intervals to be calculated and presented.

Although parameter estimation, hypothesis testing, and modeling are difficult because of the complex nature of this survey, the valuable information collected deserves further exploration. A strategy should be developed to analyze, interpret, and present data on sub-populations in a systematic and meaningful way. The first set of tables presented should be for major subpopulations such as gender (male vs. female), age (infants, children, youth, adults), race (white, black, Asian/Pacific Islander, American Indian/Native Alaskan), and region (northeast, Midwest, south, west) without further subdivision. Both point and interval estimates should be provided for each category of these major subpopulations. Hypothesis testing should be carried out to see if the differences among categories are statistically significant.

In Section 11, ingestion estimates for nine sociodemographic subpopulations are presented by water source. No rationale is given for why, among all the possible combinations of major subpopulations that could have been selected, these nine combinations of sociodemographic variables were chosen for presentation. Further, without understanding the meaning and limitations of the data, over 200 pages of tables are of limited usefulness to readers. If the relative importance of various sociodemographic variables can be evaluated by modeling and hypothesis testing, cross-tabulation can be focused on a limited number of significant variables.

6. Subpopulations Included

Charge Question 6: *We have provided distributions of estimated water intake for numerous subpopulations. Should any additional subpopulations be added? Should any be excluded? Specify subpopulations.*

The Report provided distributions of estimated water intake for a relatively large number of subpopulations. As discussed earlier, the available data do not support reporting of some of the values that are placed in the tables. This does not negate the need to lay out water ingestion rates for subpopulations that might be at greater risk from drinking water contaminants. There are clearly examples that are at least as important as those reported upon. These are pointed out by the Subcommittee with the recognition that the CSFII database will not provide the needed data for such analyses. Nevertheless, the Agency is encouraged to seek better estimates of the distributions for two broad categories:

a) Sub-populations with different lifestyles, occupations, or activities.

I) Infants and toddlers are not a homogeneous group. There is a population of infants in the 0-3 months of age group that receive constituted powdered formula exclusively. These infants could be consuming as much as 180-200 ml/kg/day from the same source of tap water.
ii) Dietary survey misses lifestyles of specific cultural groups (e.g., Native American, recent immigrants) that are still practiced
iii) People who live in hot climate areas.

iv) People who consume large amounts of water because of physical activity (can consume as much as 300-500 ml/kg/day)

b) Health conditions that affect water intake:

I) Diabetes
ii) Conditions requiring rapid rehydration needs (GI upsets, food poisoning)
iii) Disorders of water and sodium metabolism.

The subcommittee also noted that there are aspects of water ingestion that might be better addressed by taking a physiological approach. If total water ingestion is first thought of in terms of the needs that are defined by physiological state, developmental stage, levels of activity (reflected in metabolic rates), and environmental settings a general model could be constructed. This approach will always capture the upper limit, as one can assume that all of the water that is not intrinsic to food could be derived from the tap. Then more accurate estimates of sources of the actual water consumed could be constructed from survey information that is targeted to the sub-populations of interest. This could be a more efficient way of addressing drinking water ingestion by subpopulations of interest to EPA, in particular those noted in 'a' above.

7. Indirect Water

Charge Question 7: *USDA has identified two types of indirect water in foods: a) the amount of water in food as consumed; and b) the amount of water used to prepare food. The water intake report provides estimates of the amount of indirect water in food as consumed. If resources permit, we could expand our report as a future addendum to include estimates of the amount of indirect water used to prepare food. Would this be desirable?*

The current ingestion report provides estimates of the amount of indirect water in food as consumed. The amount of water used to prepare food may be greater, owing to evaporative loss during preparation. This loss can result in a concentration of non-volatile contaminants. Such increases are chemical specific. To be able to calculate the amount of residue concentration, both the amount of indirect water in food as consumed, and the amount of indirect water used to prepare food must be known. This analysis should be limited to only those foods where the amount of water added to prepare the food is known. The amount of water which is first boiled, then added to food such as that used to prepare infant formula, is not known.

The critical question is whether preparation leads to large changes in the distribution or ingestion of water contaminants in the population. Certainly in some cases the losses of water volume could be large, but are they consistent within individual consumers. In addition, it is not clear how common a practice unattended boiling or extensive boiling might be. There are many other more important variables that remain unaddressed with respect to sensitive populations.

Consequently, pursuit of this issue should reflect programmatic priorities with respect to sensitive subpopulations.

An omission in consideration of indirect water that could be significant appears to be soft drinks prepared from syrup in restaurants, fast-food establishments, and bars. Again, the pursuit of this detail has to set within the priorities of the program. However, some initial evaluations might be made by contacting the appropriate industry representatives to obtain information on the ratio of syrup to canned/bottled soda sold.

8. Food Types Not Covered

Charge Question 8: *Additional water intake estimates associated with types of food may be useful for specific risk-exposure analyses, e.g., cold beverage intake. Such analyses are feasible using the CSFII data. We could expand our report as a future addendum if resources permit. Are any such targeted analyses of significant interest at this time?*

This question was withdrawn by the Agency during the discussions at the July 19-20, 1999 Drinking Water Intake Subcommittee meeting.

9. Intrinsic Water

Charge Question 9: *Intrinsic water is the water contained in foods and beverages at the time of market purchase. Intrinsic water includes commercial water (added to food products by food manufacturers) and biological water (found naturally in foods). Intrinsic water is not included in our current analysis. If resources permit, we could expand our report as a future addendum to include estimates of intrinsic water. Would this be desirable?*

Yes, this would be desirable, but the Subcommittee would like to point out that the Agency’s use of the term "intrinsic water" is unusual. In most instances intrinsic water is that in the raw food product, not water added by processors. In some cases (e.g., NASA) the term includes both free water and metabolic water that is derived from a food. There would be some value of using another term (e.g., commercial water) to describe this category. Care would have to be taken that it is not confused with bottled water, however.

The Subcommittee felt that one advantage of including intrinsic water (as the term is used in the Agency report) in the analysis would be to enable the derivation of a fluid requirement distribution by recognizing this additional source of water. This combined direct/indirect water ingestion distribution will be less variable than direct use only, as it is closer to a biological/physiological measure than one of lifestyle. However, this is only one of a number of other sources of water ingestion that would have to be known to construct the physiological need for water for individuals under different conditions. Knowing intrinsic water does capture another tap water source, even though it may be removed from the consumer’s own tap water. The relative component of commercial water could then be calculated by examining only those products with a major contribution to one or more subpopulations. Examples are soda in cans, iced tea in cans, bottled soda, beer, milk, prepared infant formulas.

10. Other Issues

Charge Question 10: *What are the scientific limitations to the use of the water consumption estimates provided in this report (i.e., what other issues has the Subcommittee noted with the estimates that are not covered elsewhere)?*

This report needs to be viewed as a key reference for population based information on water consumption. The following are examples of the many potential uses of the information.

a) It will be valuable to programs where consumption of water estimates are needed.

b) It will be useful to support Agency rule making.

c) It can be used to evaluate existing default water consumption rates and to provide new defaults for subpopulations.

d) It can serve as a reference to compare to other data sources containing similar information.

The document needs to keep these uses in mind and the text and tables should be designed to be user friendly for these purposes. Thus many users will prefer the data summarized in a ml/kg body weight format while others will need the ml/day summary. Both formats should be provided. Keeping the uses in mind, it becomes especially important that the limitations of the Survey database and the ingestion estimates based upon it be clearly spelled out in the introduction and that the report contain only statistically valid estimates. It should be noted that some sensitive subpopulations are not in the database or cannot be identified in the database. These are identified under other charge question responses. It should be explicitly stated when data are sufficient (and give the criteria used) and when they are not. Where it is not obvious why estimates are not provided, it needs to be explained.

A use-restricting limitation is the survey design that precluded estimating water ingestion in subpopulations that either by choice, or access, utilize only one source of water for ingestion. The survey data identify and provide descriptive tables for three significant sources of ingested water; community tap water, bottled water and other (private wells, cisterns, etc). While the report provides detailed ingestion distributions for each water source within defined demographic groups, "sole source" subpopulations of water ingestion limit the utility of the report for local risk assessments. Such "sole source" ingestion distributions would be especially valuable to assessing health risks from ingestion. The overall national mean water ingestion finds community tap water contributing 75% of the water ingested. The tables provided show that the 75% contribution is not evenly distributed over the population. A valuable statistic not provided is the percent of individuals obtaining virtually all their water from community taps or all from the other two sources and their estimated ingestion rates. Such individuals may be consuming nearly 1/3 more tap water than the national estimate provides. If the size of this population is substantial, using the national ingestion estimate to characterize contaminant exposure to this group could significantly underestimate tap water contaminant risks. This underestimate may partially be seen in Section 9, figure 2 which shows that over 47 million US residents are estimated to consume no tap water. Since these individuals require fluid to survive, they probably represent those ingesting only "other" water from private wells or bottled water only. The inclusion of these "unexposed" individuals in the ingestion estimates leads to underestimates of ingestion among those with access to the water source. The potential for underestimating ingestion is even more pronounced for infants where Section 9 figure 3 shows nearly half of the infants drank no tap water. This probably reflects the high percentage of infants being breast fed or using bottled water to mix formula. This seriously reduces the utility of the information provided on this vulnerable population. Whenever possible it would be useful to many users to have confidence intervals around the estimates.

11. Zero-Values

Charge Question 11: *The water intake estimates provided in this report are based on all respondents, including those who did not report consuming water during the two survey days. If resources permit, we could also generate estimates of water consumption which exclude the zero consumers of water. We noticed that for some sub-populations, especially the less than one-year-old infants, a substantial proportion consumed zero or minimal amounts of tap water per day (presumably those who were breast fed or drank undiluted formula or milk); these zero consumers of water can contribute to lower estimates. Would this be desirable?*

Yes, it is desirable, probably necessary, to eliminate the non-consumers of community tap water from the survey statistics for purposes of developing a set of consumption estimates for use in predicting exposure to drinking water contaminants. The DWIS suggests that those data, for which there are adequate numbers of individuals, should be displayed both ways. In other words inclusive of the population and a second display of only those individuals that are consumers of tapwater.

Based on the projections in Section 9, Figure 3, approximately 50% of the children under 1 year of age do not ingest community tap water. The mean and upper confidence limits generated from data from which these projections were made will greatly reduce the estimated ingestion rates in some groups. A rough arithmetic estimate can be made of how important this would be by recognizing that removing half of the population that does not consume water will increase the mean consumption of water in the under 1 year of age group to approximately 90 ml/kg body weight. This is roughly six times that of an adult. Thus, the differential between adults and children is at least twice that which is derived from currently utilized defaults. The subpopulation of children representing the highest tap water intake will be those fed reconstituted powdered formula. This will result in the greatest dose (per kg) of water contaminants. There is less impact in the general population, where only about 8% of the total population does not ingest community tap water. Nevertheless, the principle is the same.

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Appendix F2: EPA Response

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Chair
Science Advisory Board Executive Committee
U.S. Environmental Protection Agency
Ariel Rios Building
1200 Pennsylvania Avenue, NW
Washington, DC 20460 Re: EPA-SAB-EC-00-003

Dear Sir/Madam:

This is in response to the review of "Estimated Per Capita Water Ingestion in the United States," a report prepared by the Office of Water (OW), Office of Science and Technology. The Science Advisory Board (SAB) had many helpful and insightful suggestions. Technical staff in the OW have addressed the comments and recommendations in a revised document that will be completed by March 31, 2000. Our summary response to the SAB review and recommendations is enclosed.

The objective of the report is to present current, technically sound estimates of water ingestion by the U. S. population and certain subpopulations. These estimates will be useful in a wide variety of the Environmental Protection Agency program applications including risk assessments and regulation development. The SAB subcommittee expressed concerns about our lack of explicit guidance on the use of the estimates. We anticipate that guidance on the use of the estimates will be addressed in program-specific documents to be developed in the future.

The majority of the SAB comments concerned presentation and interpretation of the analysis results. The fundamental statistical methodology employed in our study was found to be "an appropriate technique to produce estimates from a multi-stage stratified clustered sample." As a consequence, no changes were made to the methodology, and the numerical estimates did not change. In response to SAB comments, changes were made in the organization of the report, key water ingestion estimates were identified and highlighted in the Report text, confidence intervals were provided for key subpopulations estimates, and the number of subpopulations included in the report was reduced. We have noted the SAB's recommendations for additional studies but are not able to implement these at this time.

The SAB suggested that formal inferential tests of differences between subpopulation water ingestion estimates be applied. While we have not done these, we do provide interval estimates about water ingestion estimates for major subpopulations. These interval estimates can be used to assess the extent of differences in subpopulation estimates.

We are grateful for the ongoing involvement of the Drinking Water Intake Sub-committee of the SAB in our efforts to revise and update our estimates of water ingestion rates for the U.S. population. The discussion and recommendations of the subcommittee have been very beneficial and led directly to a substantially improved report.

Sincerely,

J. Charles Fox
Assistant Administrator

Enclosure

Response to Science Advisory Board Recommendations

In July 1999 the Drinking Water Intake Subcommittee (DWIS) of the U.S. Environmental Protection Agency (EPA) Science Advisory Board (SAB) reviewed the report *Estimated Per Capita Water Consumption in the United States* (hereafter referred to as the Report). The SAB provided its written comments and recommendations in December 1999. The following 16 points address the SAB's major findings and recommendations and describe our responses.

1. **Report objective:** *The SAB expressed concern that the Report is purely descriptive and does not provide "an explicit discussion of how the estimates in the Report might reasonably be applied by users."* It was EPA's intent to limit the Report's objective to the provision of current descriptive statistics on water ingestion for the population of the United States and selected subpopulations. The Report does identify some of the broad applications for these estimates including their use in the development of risk assessment and regulations which involve default values for water ingestion and in the estimates of risks to highly exposed and/or sensitive populations. We believe that more explicit guidance on the application of these estimates is out of the scope of the study. However, we anticipate that guidance on the use of estimates, will be addressed by EPA Program Offices in documents to be developed in the near future.

2. **Overview of logic and survey design:** *The SAB stated that "The Report needs a prominent and early explanation of the logic used in the survey design and in the analyses used to develop the Agency's estimates."* We have made some modifications to the text in the Report in order to respond to this SAB comment. The details of the statistical methodologies, which were in the main text of the Report, have been moved to an appendix. The initial chapters of the Report now provide summary descriptions of both the survey design and methodology. These explanations should be understandable to the general scientific audience. The user is also directed to the references to obtain additional background on the survey design and statistical methods.

3. **Reliability of estimates:** *The SAB recommended that the report "must provide a much clearer indication of which estimates are reliable and which ones are not as reliable."* In response to this comment, we have amended the Report to state that estimates based on small sample sizes may be less reliable than estimates based on larger sample sizes. As suggested by the SAB, we applied the minimal reporting requirements provided in the "Third Report on Nutrition Monitoring in the United States" published in 1995 by the Life Sciences Research Office of the Federation of American Societies for Experimental Biology. In accordance with this document, mean ingestions estimated with a sample size of less than 48 are marked with an asterisk to indicate that they may be statistically unreliable. Similarly, percentiles estimated with sample sizes less than 12.8/(1-percentile) may be statistically unreliable and are also marked.

4. **USDA data:** *The SAB commented that the Agency did not clearly state that the estimates*

were generated from a summary tape containing only final weights assigned to individuals. In response to this comment, the Report has been amended to include a more detailed explanation on how the survey weights were calculated by USDA. USDA provided sample weights for each survey respondent in the three survey years with two days of consumption data. Sample weights, which project the data from a sampled individual to the population, are based on the probability of an individual being sampled at each stage of the sampling design. The sample weights associated with each individual were adjusted by USDA for nonresponse to correct for nonresponse bias as discussed in Appendix D of the final Report. However, certain variables, for example, region, are at a summary level. USDA has named the States within a region. Estimates by State, however, are not trackable because USDA data do not contain a variable identifying States. For this reason, water ingestion estimates by State are not possible. Furthermore, variance estimating strata are numbered sequentially. The sequential numbering prevents aggregation of strata with similar consumption patterns and thus reduces the ability to generate certain subpopulation variance estimates. The USDA documentation referenced in the Report provide the details on the calculation of the survey weights.

5. **Commercial water:** *The SAB recommends that the Report make clear that the estimates do not include commercial water (water added by the manufacturer prior to marketing).* In response to this comment we have further emphasized throughout the report that the water ingestion estimates do not include commercial water or biological water (water found naturally in foods). Also, all tables of estimates now bear a footnote which states "All estimates exclude commercial and biological water."

6. **Water ingestion by "consumers only":** *The SAB recommends that the Report include water ingestion estimates based on those respondents reporting water consumption during the two days captured by the CSFII.* In response to this recommendation, we revised the Report to provide water ingestion estimates based on both the entire population and on "consumers only." The estimates for "all individuals" use water ingestion data from all survey respondents in the population (or subpopulation) including those who reported no consumption of the water from the source under consideration. The "consumers only" estimates include only individuals who reported ingestion of the water under consideration.

7. **Survey limitations:** *The SAB strongly recommends that the Report make explicit the limitations of the estimates. Specifically, the SAB points out that some sub-populations of interest included are not represented in the report.* In response to this recommendation, the "Discussion" chapter of the Report was amended to provide additional detail on the survey strengths and weaknesses. This chapter now specifically states that the survey design does not support generating water consumption estimates for certain sub-populations of interest. Examples of such sub-populations are Native Americans with traditional lifestyles, people who live in hot climates, people who consume large amounts of water because of physical activity, and people with medical conditions necessitating

increased water intake. The reason that the survey does not support estimation of water ingestion by certain sub-populations is that estimation for these sub-populations was not provided for in the design of the study. Rather, the survey is designed to support ingestion estimates by the U.S. population.

8. **Units of milliliters/kilogram of body weight/day:** *The SAB recommends that the Report provide water ingestion estimates in both units of milliliters/person/day and on milliliters/kilogram of body weight/day.* In response to this comment, the Report now provides all water ingestion estimates in both units of milliliters/person/day and milliliters/kilogram of body weight/day.

9. **New studies:** *The SAB suggests that additional studies to collect current or retrospective information on subgroups of interest could augment the report.* We have noted the recommendations but have limited the estimates to those supported by the USDA's 1994-96 CSFII as this survey was designed to collect consumption data from the U.S. population.

10. **Confidence intervals**: *The SAB stated that the "report could be considerably strengthened, and the potential for misinterpretation of its findings could be reduced substantially, if the Agency provided information on the statistical significance of differences in water consumption between major subgroups of the population."* In response to this recommendation, all key tables of water ingestion in the Results chapter of the Report now provide 90 percent confidence interval estimates about the mean per capita water ingestion and 90 percent bootstrap interval estimates of upper percentiles from the empirical distributions of per capita water ingestion. However, the limited sample sizes for certain sub-populations in conjunction with the survey design do not always support estimation of variance which is a necessary component of interval estimation. This is a characteristic of the survey data reporting by USDA. In response to the SAB recommendation, the Report provides detailed discussions of this limitation in both the Methods chapter and the Discussion chapter. Population and subpopulations with sample sizes that are large enough to support variance estimation have interval estimates reported in the main body of the Report. For the smaller subpopulations, as determined by the number of respondents in the survey, point estimates are segregated in the appendices.

11. **Hypothesis testing:** *The SAB suggests providing information on statistical significance of differences in water consumption between major subgroups of the population*. We have not applied formal inferential tests of differences between subpopulation water ingestion estimates; the objective of the Report was limited to presenting current per capita water consumption estimates. However, we provide interval estimates about water ingestion estimates for major subpopulations. These interval estimates can be employed by the user to assess the differences in subpopulations.

12. **Data validation and quality assurance procedures:** *The SAB suggests that data procedures should be prominently documented.* In response to this suggestion, we have added a brief discussion in the “Methods” chapter of the Report which describes the data conventions and validation procedures applied to create the data subsets from which the estimates were created. This chapter also identifies the variables used to identify water consumption and sources. It also relates the file interrelationships and assumptions applied to water-containing foods. Data convention and validation procedures described in the Report are augmented with listings of pertinent survey questions, methods for calculating indirect water and listings of water containing food codes. These augmenting materials appear in the appendices.

13. **Number of tables of estimated water ingestion:** *The SAB stated that the number of tables should be substantially reduced to reflect a limited number of subpopulations.* EPA has done this. We deleted the tables for race/ethnicity, region, economic status, and residential status because of sparse data in some cells. We retained the estimates based on age (broad and fine), pregnant women, lactating women and women of childbearing age. We placed key tables of estimates which we considered of major interest to the user in the “Results” chapter. These tables provide 90 percent confidence intervals around the mean and 90 percent bootstrap intervals around the upper percentiles. Each table has a corresponding graphical display. A more comprehensive set of tables is provided in the Appendix E of the Report. We have flagged estimates in all tables that do not meet the minimal reporting requirements as defined in the “Third Report on Nutrition Monitoring in the United States”. We have also added footnotes to the tables which address data limitations.

14. **Averaging time**: *The SAB recommends that the Agency make clear to the user that the water ingestion estimates are based on two-day averages.* The 1994-96 Continuing Survey of Food Intake by Individuals (CSFII) collected two non-consecutive days of food ingestion data. Quantities of ingested water reported were averaged by participant to generate a two-day average. Throughout the Report we have stated that the estimates of water ingestion are based on the average of the two days water ingestion reported by individual survey respondents. Additionally, in response to the SAB recommendation, we have added a footnote to all tables of estimates which states: "Estimates are based on two-day averages."

15. **Age categories**: *The SAB states that it "is extremely important to segregate children by age..." and that "... it is much less important to separate estimates for adults by age because the differences are much smaller."* The Report provides water ingestion estimates for broad age categories and fine age categories. In response to the SAB comment, we amended the broad age categories to include a single adult age group. The broad age categories now cover babies (less than one year old), children (one to 10 years old), young adults (11 to 19 years old), adults (20 years and older). The fine age categories include 11 age groupings. These groupings are less than six months (<0.5

years), between six months and one year (0.5 to 0.9 years), 1 to 3 years, 4 to 6 years, 7 to 10 years, 11 to 14 years, 15 to 19 years, 20 to 24 years, 25 to 54 years, 55 to 64 years, and 65 and older.

16. **Sensitivity analysis:** *The SAB recommends that the EPA conduct a sensitivity analysis of the data assumptions made during the data analysis.* This comment pertains to the assumptions made about the source of drinking water (plain water ingested directly as a beverage). These assumptions, which are described in the "Methods" chapter of the Report, were necessary because the CSFII survey does not completely designate the source of the plain drinking water. We agree with the SAB's recommendation and a sensitivity analysis under is consideration for future work. Time and resources do not permit the Agency to conduct the analysis at this time.