

Regression Analysis of Caloric, Calcium, Vitamin C, and Caffeine Intakes

Regression analysis of nutrients per person per day derived from nonalcoholic beverages as a function of demographic variables was a study component. The purpose is to understand key drivers, at least by demographic groups, associated with daily nutrient intakes. We direct attention to the female household head (age, employment status, and education). We assume the female household head is the household manager, the person primarily responsible for food shopping and/or food preparation. If there is no female household head, we use the male household head as the household manager. The level of significance chosen for these analyses is 0.05 (data table 12).

Calories

Employment status of the household head, education of the household head, race, region, and the presence of children were statistically important in the determination of daily caloric intakes per person. Households where the household manager was employed either part-time or full-time had lower caloric intakes derived from nonalcoholic beverages than households where the household head was not employed for pay. The difference in the daily caloric intake was between 10 kcal for household heads employed full-time to 18 kcal for household heads employed part-time.

Households where the household manager has a college degree had lower caloric intakes, by roughly 22 kcal, relative to households where the household manager lacks a high school degree. The caloric intake of Asians is lower by 45 kcal relative to Whites. No statistically significant differences in caloric intakes existed among Whites, Blacks, or Other races. No statistically significant differences existed in daily caloric intakes derived from nonalcoholic beverages between Hispanics and non-Hispanics.

Regional differences in caloric intakes were evident. Relative to the East, caloric intakes in the Central region were higher by 21 kcal, and the caloric intakes in the South were higher by 10 kcal. Daily caloric intakes in the West were lower by 9 kcal relative to the East.

In households where children are present, caloric intakes were lower by 21 kcal in comparison with households where children were not present. Importantly, age of the household manager was not a determinant of calories derived from nonalcoholic beverages, except for the age-65-plus group. In addition, poverty status of the household was not a driver of calories generated from nonalcoholic beverages.

Calcium

Age of the household manager was not a factor in affecting the daily calcium intake derived from nonalcoholic beverages. In households where the household manager was employed, calcium intakes were lower by 25 to 29 mg relative to households where the household manager was not employed for pay. In households where the household manager had at least a high school education, calcium intakes were higher by 16 to 22 mg relative to households where the household manager did not have a high school education.

Calcium intakes were lower by 95 mg for Blacks relative to Whites; also they were lower by 61 mg for Asians in comparison with Whites. No statistically significant differences existed in daily calcium intakes derived from nonalcoholic beverages between Hispanics and non-Hispanics.

Daily intakes of calcium were higher by almost 30 mg for the Central region relative to the East. No significant differences existed however in calcium intakes between the South, the West, and the East. Importantly, calcium intakes derived from nonalcoholic beverages were lower by 21 mg for households below the 130 percent of poverty threshold relative to households above the 130 percent of poverty threshold level (table 1). In households where children were present, calcium intakes were lower by nearly 11 mg compared with households where children were not present.

Vitamin C

Age of the household manager was not a key factor in affecting daily vitamin C intakes derived from nonalcoholic beverages. In households where children were present, daily vitamin C intake was lower by almost 7 mg relative to households where children were not present.

In households where the household manager was employed either part-time or full-time, vitamin C intakes were lower by 1 to 4 mg relative to households where the household manager was not employed for pay. In households where the household manager had at least a high school education, vitamin C intakes were higher by 4 to 9 mg relative to households where the household manager did not have a high school education.

Vitamin C intakes were higher by nearly 17 mg for Blacks compared with Whites. They also were higher by 6 mg for Other races, excluding Asians, compared with Whites. No significant differences existed in vitamin C intake generated from nonalcoholic beverages between Whites and Asians. No significant differences existed in vitamin C intake between Hispanics and non-Hispanics.

Daily vitamin C intake was highest in the East. The difference in vitamin C intake between the East and the Central region was slightly more than 5 mg; between the East and the South about 3 mg; and between the East and the West nearly 9 mg. Vitamin C intakes derived from nonalcoholic beverages were lower by almost 6 mg for households below the 130 percent of poverty threshold relative to households above this threshold.

Caffeine

Unlike the situation for calories, calcium, and vitamin C, age of the household manager was a determinant of daily intakes of caffeine. Daily caffeine intakes rose in households as the age of the household manager rose—higher by 23 mg for 40 to 49 years old, higher by 59 mg for household managers 50 to 64 years old, and higher by 55 mg for elderly (65-plus) household managers compared with household managers younger than 25 years. In households where the household manager was employed, daily caffeine intake was lower by 7 to 10 mg relative to households where the

household manager was not employed for pay. Except for the college-plus group, education of the household manager was not a significant factor, statistically, of daily intakes of caffeine derived from nonalcoholic beverages.

In households where children were present, daily caffeine intakes were lower by roughly 37 mg relative to households where children were not present. Caffeine intake was lower by 37 mg, 33 mg, and 19 mg for Blacks, Asians, and Other races, compared with Whites. No significant differences existed in caffeine intake between Hispanics and non-Hispanics.

In households located in the Central region, the South, and the West, caffeine intakes were lower by 8 mg, 11 mg, and 17 mg, respectively, relative to households located in the East. No statistically significant differences existed in caffeine intake between households above or below the 130 percent of poverty threshold.