## Database and Descriptive Statistics

Our statistical analysis is based upon data taken from the Consumer Expenditure Survey (CES) for 1981-95 (every other year). The CES grew out of consumer expenditure surveys of American households that the U.S. Department of Labor's Bureau of Labor Statistics (BLS) had been conducting periodically at about 10-year intervals since 1888.

The CES is composed of two components, each with its own questionnaire and sample. The first is an interview panel survey in which each of approximately 5,000 households is surveyed every 3 months over a 1-year period. The second is a diary survey of approximately the same sample size in which households keep an expenditure diary for two consecutive 1-week periods. The diary survey obtains data on small, frequently purchased items normally difficult to recall, consisting of food and beverages, tobacco, housekeeping supplies, and nonprescription drugs, personal care products and services, fuels, and utilities. Both surveys have a complete demographic profile of each household and its members. In this study, we use data from the diary survey. From our original sample, we eliminated households that did not have positive income. In addition, we subtracted the value of any food stamps that the household received in order to determine household income.

The Current Population Survey (CPS) is actually the benchmark dataset to use for income and the distribution of that income. The sample size of the CES is smaller than the CPS, and hence the CES income estimates are less accurate. Many studies have used the CES, however, including work on income inequality by Deaton and Paxson (1994). Furthermore, researchers have compared the CES income estimates with those of the CPS and the National Income and Product Accounts (NIPA). Most have found an underreporting in income in the CES that is roughly constant over time (see Attanasio, 1998).

The important question is whether the results found in this study would be altered if the CPS were used instead of the CES. To get some idea of the correlation between the two datasets, the growth rate in reported household income from the CES was compared with the growth in personal income in the NIPA. For 1981-95, the correlation coefficient between the two datasets was 0.72, which is nearly identical to what Attanasio

(1998) found. Likewise, the correlation was calculated for the growth in the headcount of the number of households at or below 130 percent of the poverty line in our study with the growth rate of the number of all families in poverty as reported by the U.S. census. This correlation was 0.77. These correlation coefficients indicate that the CES is a fairly representative sample, relative to the NIPA and the families in poverty data. Hence, we doubt if the conclusions reported below would change if we used the CPS dataset. In any case, in the results reported below, we calculate a base set of statistics and report percentage changes from that base after netting out the influence of selected demographic factors.

Table 1 contains selected unweighted average values for both the total population and those who meet the gross income test for food stamps. Households eligible for food stamps are broken out into those who participate in the food stamp program and those who do not. Regional statistics are very similar for both groups, with slightly more of the eligible-for-food-stamp population living in the South and slightly less of it living in the West. In our sample, Blacks represent about 11 percent of the population and non-Blacks about 89 percent. However, in the eligible for food stamp population, Blacks represent about 20 percent of the population and non-Blacks about 80 percent. In households that actually receive food stamps, about 34 percent are Black, while about 66 percent are non-Black.

Age and family size are very similar in the two populations. The average age of the household head was 46 in the total population, with a household size of 2.6 people. This compares with an average age of 47.5 for the household head in the eligible-for-food-stamp population, and an average household size of 2.4 people. In households that actually receive food stamps, the average age of the household head was about 42 years with an average household size of 3.2 persons.

Female-headed households comprise about 6 percent of the total population but represent almost 14 percent of those households eligible for food stamps. However, of households that actually receive food stamps, almost 38 percent are female-headed.

One-person households have been sorted into two groups noted above: Single females 50 years of age or older and all other singles. As noted earlier, we hypothesize that single older females may be a segment of the population that is growing proportionally larger over time. All single households represent about

Table 1—Comparison of selected means for the total population and the population eligible for food stamps, 1981-95

	Eligible for food stamps			
		Eligible for	Receives	Does not
		food stamps total	food	receive
Item	Total population	eligible population	stamps	food stamps
	Percent			
Northeast	20.5	20.2	20.0	20.3
Midwest	25.2	26.1	28.5	25.3
South	29.0	32.0	33.9	31.4
West	25.3	21.7	17.7	23.0
Black	11.1	21.0	34.4	16.6
Non-Black	88.9	79.0	65.6	83.4
Age of head	46.1 years	47.6 years	42.2 years	49.3 years
Family size	2.6 persons	2.4 persons	3.2 persons	2.1 persons
Female-head	5.9	13.7	37.6	5.9
One-person households				
(excluding older females)	19.0	24.3	8.5	29.5
Single older females	9.7	20.7	13.4	23.0
No high school diploma	21.3	42.9	54.2	39.2
High school diploma	53.5	48.8	43.1	50.7
College degree or higher	25.1	8.3	2.8	10.1
Earners per household	1.4 persons	.8 person	.6 person	.9 person

Source: U.S. Department of Agriculture, Economic Research Service.

29 percent of the total population, but they account for 45 percent of the population eligible for food stamps. Of this total, about 21 percent are older females, while the remainder of the group is made up of all other one-person households. In households that actually participate in the food stamp program, about 13 percent are older females, while all other singles represent about 24 percent of program participants.

Approximately 22 percent of the total U.S. adult population has never received a high school diploma. This includes people who never attended school, as well as those who never completed the 12th grade. In the eligible-for-food-stamp population, approximately 43 percent have not completed high school. However,

fully 54.2 percent of all householders who participate in the food stamp program do not have a high school diploma. In the total population, 53.5 percent are high school graduates, whereas this figure falls to about 49 percent in the population eligible for food stamps. In households that receive food stamps, about 43 percent are high school graduates. About 25 percent of the population has a bachelor's degree or higher, but this figure falls to about 8 percent in the population eligible for food stamps, and approximately 3 percent of food stamp recipients are college graduates. Finally, it is not surprising that households in the total population have about 1.4 income earners, whereas households eligible for food stamps or that actually receive food stamps average less than one income earner per household.