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**Modeling Participation in the Maryland Food Stamp Program
Using Census Data and Administrative Records**

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TABLE OF CONTENTS

	<u>Page Nos.</u>
1. Introduction	1
2. Literature Review	2
3. Methodology	3
Data Sources	
Denominator A – General Estimate of Eligibility (2000-2001)	
Denominator B – Detailed Estimate of Eligibility	
4. Results for Denominator A and an Estimated Participation Rate	11
Results for Denominator A – Estimate of Households eligible to participate in the Food Stamp program in 2000	
Estimated participation rate	
Appendix A: Eligibility for Food Stamps – Resource and Income Tests	13
Appendix B: Description of Data Sets	15
The American Community Survey	
Maryland Administrative Records	

List of Tables

Table 1: Trend of Food Stamp Caseload in Maryland: Average Monthly Caseload, CY 1999 – CY 2004	1
Table 2: Income Test Limits for Receipt of Food Stamp Benefits: 2000	8
Table 3: Effect of the Components on the Calculation of Denominator A	12
Table A1: Maximum Monthly Food Stamp Allotments, FFY 2001	14

1. Introduction

Participation in Maryland’s Food Stamp program has fluctuated over time and it is difficult for policymakers to predict future trends in caseloads. It is not clear how much of this fluctuation is due to changes in the size of the eligible population and how much is due to changes in the proportion of eligible people who participate.

The purpose of this paper is to estimate eligibility for the Food Stamp program in Maryland in the year 2000 and derive a participation rate for the program based on the number of actual participants divided by the number of eligible individuals. Data on the number of individuals and households participating in the Food Stamp program, the numerator of the participation rate, are available from the State’s administrative records. The number of households participating in the Food Stamp program each month is reported in the *Department of Human Resources, Family Investment Administration, Monthly Statistical Report*. The average monthly caseloads in the last six years are shown below in Table 1.

**Table 1. Trend of Food Stamp Caseload in Maryland
Average Monthly Caseload, CY 1999-CY 2004**

<u>Year</u>	<u>Average Monthly Participant Households</u>
1999	111,138
2000	98,891
2001	97,375
2002	107,004
2003	117,307
2004	125,402

There is, however, no information about the denominator of the participation rate, that is, the number of households eligible for Food Stamps. The rules that govern eligibility for receiving Food Stamp benefits are federal (see Appendix A) and some states have additional rules. This paper uses only the federal regulations to estimate eligibility.

In this study, we model the denominator for the participation rate in Maryland’s Food Stamp program by estimating the characteristics of households that are receiving Food Stamp assistance in the State as well as the characteristics of eligible households that are not receiving assistance. Because of data limitations, we must make assumptions that we believe result in a *minimum* estimate of households eligible for Food Stamp benefits. We used a combination of two elements from different data sources – (1) the count of actual household caseload; and (2) estimates of eligible households (participating plus nonparticipating) based on the federal eligibility rules for 10/01/2000 to 9/30/2001. To estimate the second element, the number of households that are eligible but not participating in the Food Stamp program, we used statistics from the 2001 Supplementary

Survey of the U.S. Census Bureau's American Community Survey (ACS) program for the State of Maryland (see Appendix B for a description of the ACS).

We emphasize that these results are preliminary and suggestive of further research. Data limitations required that we make assumptions as discussed below. We are developing a research plan with the Census Bureau to improve the use of the data resources to better address the assumptions that underlay this preliminary study. We may also be able to compute estimates for Maryland's larger counties.

We think the American Community Survey is a useful tool for modeling eligibility for assistance programs at the state level. We expect the data from the ACS will provide valuable information to policymakers about the characteristics of the population that is served by the Food Stamp program as well as the characteristics of those who are eligible but not served.

2. Literature Review

Karen Cunyningham, **"Trends in Food Stamp Program Participation Rates: 1999-2002,"** Mathematica Policy Research, Inc., submitted to U.S. Department of Agriculture, Food and Nutrition Service, September 2004.

Estimates of Food Stamp program participation rates in the U.S. are provided by Mathematica Policy Research in an annual report to the U.S. Department of Agriculture. The latest report was issued in September 2004 and presents estimated participation rates for 2002 and revised estimates for 1999, 2000 and 2001. Eligibility for the program is modeled using data from the March Current Population Survey (CPS). For most households, all members are assumed to be in the same Food Stamp unit with some exceptions such as multi-family households. Gross monthly income is estimated using data on annual income and the number of weeks worked from the CPS, and patterns of income receipt shown in the SIPP. The CPS does not have data on expenses to estimate net household income, so net monthly income is modeled as a function of household earnings, unearned income, gross income and geographic location. Estimates of gross and net income, together with the maximum Food Stamp benefit, are used to identify income-eligible households. Information from the SIPP is used to determine eligibility based on assets.

Estimates of average monthly participants during the year are based on Program Operations data and Quality Control data and the Quality Control data are used to show the distribution of participants across sub-groups (children, elderly, households with earnings).

The report found the number of individuals eligible for the Food Stamp program increased substantially in 2001 and 2002 due to changes in the program and an increase in poverty. Participation rates were high for TANF and SSI households, and households with very low incomes and children. Participation rates were relatively low for individuals in households with incomes above poverty and the elderly.

Charles Nelson, Edward Welniak, and Kirby Posey, **“Income in the American Community Survey: Comparisons to Census 2000,”** U.S. Census Bureau, presented at 2003 American Statistical Association, see:

http://www.census.gov/acs/www/Downloads/ACS/ASA_nelson.pdf

The American Community Survey (ACS) has a battery of eight detailed questions about the type of income household members receive and also asks a total income question. These are essentially the same questions asked in the Census 2000 long form with one major exception – the reference period. The census asked about income for a fixed time period, “during 1999.” The American Community Survey, which interviews respondents each month over a year, asks what the person’s income was over the “past 12 months.”

In a comparison study between the 2000 ACS and Census 2000 income questions, the analysts found that response rates to each income question were higher in the ACS than the census although only the difference between response rates for the public assistance question was statistically significant. Median wage/salary income was about \$1,000 less in the ACS than in the census. At the national level, median household income was 4 percent higher in the census than in the ACS. The Census 2000 estimate of median household income is nearly 6 percent higher than that from the Current Population Survey. In fact, the Census 2000 median household income at the national level, and for most states, is higher than in three household surveys. For the ACS data, the data are published as being “in 2000 inflation-adjusted dollars” so the income data can be presented for a fixed reference period. Which is a better measure of the actual population values is not known and “it is impossible to make firm judgments about the relative quality of these quite different sources of sub-national survey-based income estimates” (pg. 12). The same patterns were discovered when the 1990 census and the 1996 test site income data were compared (see:

<file:///C:/Documents%20and%20Settings/Forrest/Local%20Settings/Temporary%20Internet%20Files/Content.IE5/SXIZOXAF/Paper23%5B1%5D.ppt#279,19,Summary>).¹

3. Methodology

To get Food Stamp benefits, households must meet resource and income tests as defined by federal rules UNLESS all members receive public assistance (see Appendix A). As stated by the regulations, “Most households must meet both the gross and net income tests [described below], but a household with an elderly person or a person who is receiving certain types of disability payments only has to meet the net income test.”

¹ Also see: Sandra Lockett Clark, John Iceland, Thomas Palumbo, Kirby Posey, Mai Weismantle, **“Comparing Employment, Income, and Poverty: Census 2000 and the Current Population Survey,”** U.S. Census Bureau, September 2003. See: http://www.census.gov/hhes/www/laborfor/final2_b8_nov6.pdf and Marc I. Roemer, **“Assessing the Quality of the March Current Population Survey and the Survey of Income and Program Participation Income Estimates, 1990 – 1996,”** June 16, 2000, U.S. Census Bureau, available at: <http://www.census.gov/hhes/www/income/assess1.pdf>

There are three ways the State of Maryland determines the eligibility of households for participating in the Food Stamp program:

- (1) If every member of the household receives public assistance [Temporary Cash Assistance (TCA), which is Maryland's Temporary Assistance for Needy Families (TANF) program, and Transitional Emergency Medical and Housing Assistance (TEMHA), and Supplemental Security Income (SSI)]; or
- (2) If the household meets the resource and income tests in the federal regulations; or
- (3) If the household income is less than 130% of the official federal poverty threshold.²

The numerator of the participation rate is based on the program records of the actual number of households that received Food Stamps. Computing a denominator (the eligible population) for that rate has been difficult. Below we discuss options A and B for estimating a denominator, each with different universes and assumptions.

Data Sources

For this study, we used two data sets to compute elements of the two denominators:

- Program records of actual counts of households receiving Food Stamps and other public assistance: TCA (TANF), and TEMHA; and
- 2001 American Community Survey (Supplementary Survey).

One of the first difficulties is that the time frames of the numerator and the denominator are not exactly the same. The program records in the numerator and parts of the denominators are for CY2000. The elements of the denominator that come from the American Community Survey have varying time frames within the 2000 – 2001 period.

The two data sets are described in Appendix B. You can view the U.S. Census Bureau's American Community Survey questionnaire at:

<http://www.census.gov/acs/www/Downloads/SQuest.pdf>

Denominator A – General Estimate of Eligibility (2000-2001)

As described below, denominator A is a general estimate of eligibility based on the sum of the three universes: IA + IB + II.

- Public assistance received by every household member:

² The U.S. Office of Management and Budget defines poverty thresholds for all federal programs. The thresholds are based on income, household size, number of related children, and age of the householder. For example, in 2000, the average poverty threshold for a family of four was \$17,603. The thresholds change each year: <http://www.census.gov/hhes/www/poverty/threshld.html>. The poverty index we use in this study is based on a "family" definition – that is, people who are related. "Households," however, the basis of the other elements of the universes, may include unrelated individuals living in the same housing unit.

- Universe IA: Households in which all members receive SSI; and
- Universe IB: Households in which all members receive public assistance other than SSI; and
- Universe II: Households in which:
 - One or more member is a U.S. citizen,
 - Household resources³ of \$2,000 or less or, if at least one household member is 60 or older, resources of \$3,000 or less; and
 - Family income is below 130 percent of the poverty threshold for that year.

Universe IA: Supplemental Security Income (SSI)

Households in which all members receive SSI are automatically eligible for Food Stamps. There are program records for receipt of SSI but they are for individual people and there is no code for “household.” Therefore, we used the 2001 American Community Survey, question P40e, annual average estimates of the number of households that received SSI in the year before filling out the survey. Because of undercoverage of households in the survey and response errors to the question, it is likely the estimate of the number of households with every member receiving SSI is an underestimate of the actual number of households that received SSI. There is no measure of the extent of the underestimate.

From the Public Use Microdata File (PUMS) of the 2001 Supplementary Survey, there were an estimated **56,095** households that received SSI on average over the 2000-01 period of the survey. Maryland had just over 2 million total households.

Universe IB: TCA (TANF) and TEMHA

Households in which all members are receiving TCA (TANF) or TEMHA are eligible for Food Stamps. They do not have a resource limit and do not have to meet the gross income test or the net income test described below. The source of the counts of TCA and TEMHA households are Maryland’s program records.

The count of TCA households is a count of the actual number of households that received this type of assistance. There were **33,254** unduplicated assistance units in the TCA program in CY 2000.

We were not able to obtain data on the unduplicated total number of TEMHA households in 2000. The average monthly TEMHA caseload in 2000 was 10,669 but we believe the annual count would be higher. Rather, we used the maximum number of TEMHA households that received benefits in one month in 2000. The largest monthly caseload in the TEMHA program for 2000 was the **11,800** paid cases in July of that year. This underestimates the actual count of TEMHA households during the year.

³ Resources include, for example, a bank account. Certain resources are not counted such as a home and lot and the resources of people who receive SSI or benefits under the TANF program.

Universe II: Not receiving public assistance (TCA, TEMHA and SSI), one or more household members is a U.S. citizen, no more than one vehicle is available in the household, and family income is less than 130 percent of the poverty threshold.

“Public assistance” element:

Because public assistance reciprocity is already included in Denominator A from Universes IA and IB, they are excluded from Universe II if they answered “no” to question P40e (SSI) and P40f (public assistance) in the 2001 Supplementary Survey of the American Community Survey. Based on our experience with public assistance and Food Stamp data, it is our guess that the ACS estimates of public assistance and SSI reciprocity are underestimates.⁴ In future research, we can improve this element of the denominator if we can integrate program records and the survey.

“Citizenship” element of eligibility criteria:

Only U.S. citizens are eligible to receive Food Stamps with a few exceptions (refugees, asylees, aliens whose deportation has been withheld, military personnel, and some aliens legally admitted for permanent residence who have 40 qualifying quarters of Social Security coverage). Maryland provides state-funded Food Stamp benefits for most children who are not citizens and who are not eligible for other federal public assistance benefits.

For this study, Universe II includes only households in which one or more members of the household are a U.S. citizen. We also looked at the effect of including only households in which every household member is a citizen. There is little difference between the two estimates and so we used the higher estimate as discussed below.

“Resources and car” element of eligibility criteria:

The eligibility criteria allow for household resources of up to \$2,000 if all household members are under age 60 or up to \$3,000 if any household member is aged 60 or older. The household may have one vehicle only with a fair market value of up to \$4,650 if it is used for work, looking for work, or education that leads to work. There are some circumstances⁵ under which a vehicle is not counted as a resource.

We do not know of any data set that provides the current value of the assets of household members including such specific current value for a car and the purposes of the car’s use. We therefore have to make an assumption for the resources element of the criteria. The

⁴ See “Issues in Comparisons of Decennial Census Poverty Estimates with Public Assistance Caseloads in Maryland,”(pdf) and (Associated Tables) (pdf) by Cynthia Taueber, Jane Staveley and Richard Larson from The Family Investment Administration The Maryland Department of Human Resources, December 13, 2001” and “Issues in Comparisons of Food Stamp Recipients Caseloads from Maryland State Administrative Records and The Census 2000 Supplementary Survey,” (pdf) by Cynthia Taeuber, Jane Staveley, and Richard Larson, July 2003. Available at: <http://www.ubalt.edu/jfi/jfc/publications.htm>

⁵ Vehicles are NOT counted if they are: (a) used over half the time to produce income consistent with their fair market value, needed for long distance travel for work other than daily commutes, used as a home, used to transport a physically disabled household member, or needed to carry the household’s fuel or water.

American Community Survey asked how many vehicles⁶ were available in the household. In Maryland, nearly 882,000 households had either no car or one car only in 2000.

As an approximation of resources, we include as an element of the denominator all households that meet the other criteria of the universe and have either no vehicle or one vehicle available to the household. All households with two or more vehicles are excluded from the denominator. We think this is an acceptable indicator of total resources for poor families.

“Family income less than 130 percent of the poverty thresholds for 2000” element
Households are included in this element of the denominator if no household member receives SSI (P40e) or public assistance (P40f) according to the ACS and every household member is a U.S. citizen (P8) and no household has more than one vehicle and, based on household size, the gross income of the household is less than 130 percent of the federal poverty thresholds for 2000. There were an estimated 243,300 families in Maryland with incomes less than 130 percent of the poverty thresholds for 2000.

The results of the computations of the elements of Denominator A are shown in Section 4 on pages 11 and 12.

Denominator B – Detailed Estimate of Eligibility

Under federal regulations, unless all household members are receiving TCA, TEMHA, or SSI, all households have to meet the limits of either a “Gross Monthly Income” test and/or a “Net Monthly Income” test, depending on characteristics of the household members. Most households must meet the limits of both tests. The exceptions are households with a person 60 years or older or a household with a person who is receiving certain types of disability payments. These exceptions need only have income amounts less than the net income limits listed in Table 2 below.

⁶ “Vehicles” are defined in the 2001 American Community Survey (question H12) as “passenger cars, vans, and pickup or panel trucks of one-ton capacity or less kept at home and available for the use of household members. Vehicles rented or leased for one month or more, company vehicles, and police and government vehicles are included if kept at home and used for nonbusiness purposes. Dismantled or immobile vehicles are excluded. Vehicles kept at home but used only for business purposes also are excluded.”

Table 2. Income Test Limits for Receipt of Food Stamp Benefits: 2000

People in household	Gross Monthly Income Limits	Net Monthly Income Limits
1	905	696
2	1,219	938
3	1,533	1,180
4	1,848	1,421
5	2,162	1,663
6	2,476	1,905
7	2,790	2,146
8	3,104	2,388
Each additional person	+315	+242

Source: U.S. Department of Agriculture, Food and Nutrition Service:
http://www.fns.usda.gov/fsp/applicant_recipients/eligibility.htm

“Gross income” under the rules of the federal Food Stamp program is defined as “a household’s total, nonexcluded income, before any deductions have been made.” “Net income” is defined under these rules as “gross income minus allowable deductions.” The allowable deductions and our data sources to estimate the deductions are described below.

For our model, a household qualifies for Food Stamps if they meet either the criteria in Denominator A above or those shown below for Denominator B. The qualification elements for Denominator B are very complex and there is no data set that can provide the elements without making assumptions we consider to be shaky. As such, we show the elements below and the difficulties of trying to estimate Denominator B with current data. We did not bother to actually compute the results as we cannot interpret their value.

Denominator B is the sum of the following universes:

- The same Universe IA and IB as in Denominator A;
- Universe III (households with disabled members that meet additional criteria);
- Universe IV (households with one or more people aged 60 years or older that meet additional criteria); and
- Universe V (households with all people under age 60 and no disabled members that meet additional criteria)

Net income test

Universes III, IV, and V all require that household income meets the “net income test” under the limits shown in Table 2 above. The net monthly income test is very difficult to estimate from available data sources. The formula is as follows and we include the assumptions it requires to compute it:

- Compute the “gross monthly household income” –the data source could be the average annual estimate for 2000/2001 from question P41 (aggregate total income divided by the 23 months that cover the reference period for that survey question)

from the American Community Survey to estimate an average monthly amount. For a discussion of the ACS income question, see the Literature Review above, “Income in the American Community Survey: Comparisons to Census 2000”.

- From the ACS estimate of the “gross monthly household income” compute the “adjusted gross monthly household income”:
 - Subtract 20 percent of earnings (ACS questions P40a for wages and salaries + P40b for business and self-employment earnings); and
 - Subtract a standard deduction of \$134 for all households; and
 - Subtract a “dependent care deduction when needed for work, training or education – we assume each child is eligible for the maximum of \$200 times the number of children aged 0-1 years in ACS question P2; and
 - Subtract \$175 times the number of children aged 2-17 years in ACS question P2 -- we assume each child is eligible for the maximum deduction; and
 - Subtract legally owed child support payments – we would have to use the state average; and
 - Subtract medical expenses of more than \$35 a month of disabled household members and members aged 60+ years – we would have to use state averages; and
 - Adjustment, if any, for shelter costs as discussed below.
- Compute shelter costs – we have to assume shelter costs are defined by amounts in the ACS for the following components:
 - H13, Fuel
 - H14a, Electricity
 - H14b, Gas
 - H14c, Water
 - H23 and H25c, Taxes
 - H25b, First Mortgage
 - H26b, Second mortgage
 - H27b, mobile home loans and taxes
 - If the household has no person aged 60+ or disabled, determine if the shelter costs are greater than half of the adjusted gross monthly household income. If they are greater, subtract these shelter costs from the “adjusted gross monthly household income” above. The shelter deduction cannot be more than \$300 per household.
 - If the household has a person aged 60+ or disabled (as defined in the ACS), compute the “excess shelter adjustment” as half of the adjusted gross monthly household income from above. Subtract the excess shelter adjustment from the “adjusted gross monthly household income” amount. There is no dollar limit on the amount of the shelter deduction.

- From Table 2 above, determine eligibility based on adjusted gross monthly household income as computed above and household size.

Universe III: Disabled, no more than one vehicle, meets net income test with no limit on shelter costs and a deduction for medical expenses, household does not receive public assistance or SSI, and every household member is a U.S. citizen.

Eligible households for Universe III have every household member as a U.S. citizen, have no more than one vehicle available, and no household member receives public assistance or SSI. Additionally, the federal eligibility criteria for the household requires that there is one or more people receiving certain types of disability payments, and they are limited to countable resources up to \$2,000 and one car with a fair market value up to \$4,650. They have to meet the limits of the net income test but not of the gross income test. There is no limit on the amount of the shelter deduction. Medical expenses of more than \$35 per month may be deducted for household members who are disabled as well as those who are 60 or over, and so we have to use a state average in any calculation.

For Universe III, in addition to the assumptions made about assets and public assistance receipt as described above, to compute this universe we would have to:

- Assume people who receive “certain types of disability payments” can also be defined as people 5 years or older who answered “Yes” to the ACS disability questions P15a, 15b, 16a, or 16b;
- Use the asset indicator as described above for Universe II of Denominator A;
- Assume all household members who are disabled (as defined from the ACS questions) and 60 or older have medical expenses greater than \$35 a month that are not covered by insurance or paid by someone else; and
- Meets the net monthly income test as discussed above.

Universe IV: One or more people aged 60 years or older, no more than one vehicle, and meets net income test with no limit on shelter costs and a deduction for medical expenses, the household does not receive public assistance or SSI, and every household member is a U.S. citizen.

Eligible households for Universe IV have every household member as a U.S. citizen, have no more than one vehicle available, and no household member receives public assistance or SSI. Additionally, the federal eligibility criteria for the household requires that there is one or more people in the household who is 60 years or older, the household is limited to countable resources up to \$3,000, and there is no more than one car with a fair market value up to \$4,650. Such a household does not have to meet the gross income test. They do have to meet the net income test as calculated above except that there is no limit on the amount of the shelter deduction. Medical expenses of more than \$35 per month that are not covered by insurance or paid by someone else may be deducted for household members who are 60 or over as well as those who are disabled, and so we have to use a state average in any calculation.

Universe V: All people in household under age 60, no person in the household is disabled, no more than one vehicle, and meets gross income test and meets net income test with stated limits on shelter costs, the household does not receive public assistance or SSI, and every household member is a U.S. citizen.

Eligible households for Universe V have every household member as a U.S. citizen, have no more than one vehicle available, and no household member receives public assistance or SSI. Additionally, the federal eligibility criteria for the household requires that there is no person 60 years or over, there are no disabled people in the household, and the household is limited to countable resources up to \$2,000 and one car with a fair market value up to \$4,650. Households in Universe V must meet the gross income test where gross household income is less than 130 percent of the federal poverty thresholds. They additionally have to meet the net income test where gross income after allowable deductions does not exceed 100 percent of the federal poverty threshold.

4. Results for Denominator A and an Estimated Participation Rate

Results for Denominator A – Estimate of households eligible to participate in the Food Stamp program in 2000

<i>Unduplicated Assistance Units in the TCA Program, CY2000 -</i>	33,254
<i>Largest monthly caseload, TEMHA -</i>	11,800
<i>SSI estimate from survey -</i>	56,095
<i>Universe II -</i>	<u>+217,952</u>
TOTAL FOR DENOMINATOR A	319,101 households

Estimated Participation Rate

The numerator of the participation rate is the actual number of households that received Food Stamps in Maryland in 2000. The number of unique assistance units that participated in the Food Stamp program in Maryland in 2000 was 155,949.

The estimated participation rate in the Food Stamp program for eligible Maryland households in 2000 from this method and set of assumptions is:

$$155,949/319,101 = 49 \text{ percent}$$

We think this estimate of the participation rate is a close approximation of the actual participation rate, and if anything, possibly a slight overestimate. Given the data limitations and the assumptions we had to make, the denominator is probably a small underestimate of the number of eligible households.

Table 3: Effect of the Components on the Calculation of Denominator A

Component of denominator	Effect on denominator
TCA	Actual count—no effect
TEMHA	Underestimate, negligible: more people would have participated during the year than during one month
SSI	Underestimate: possible underreporting of the survey estimate of 56,095—as a rough guess, if there is 20% underreporting of SSI for people 15 years and older, we would have added 11,200 people to the denominator, thereby dropping the participation rate to 47.2% of households
Not receiving public assistance	Overestimate, negligible: Based on the TCA records of 33,254 households that received public assistance, the ACS point estimate from the PUMS file of 32,558 households is an underestimate of 696 households receiving public assistance. That would subtract 696 households from consideration in Universe II. (Actually, when sampling error is considered, the actual count falls within the range for the ACS estimate).
Citizenship	Overestimate, negligible – Maryland had more than 4.9 million U.S. citizens and less than 300,000 who were not U.S. citizens. There is no evaluation of the quality of the ACS question but it is reasonable to assume that some may have reported they were citizens when they were not thereby causing a small overestimate of households with citizens. Counteracting that, the Food Stamp rules allow some exceptions to the rule that household members must be citizens to be eligible.
Resources	Overestimate, negligible – this model cannot eliminate those who have other assets that make them ineligible for Food Stamps but we assume there are not many in that category.
Poverty	Overestimate – Income is usually underreported and so it is likely the number with incomes less than 130% of the poverty thresholds for families is somewhat less than the estimate of 243,320 households that we used as a start in Universe II (they also had to meet all the other criteria). If we assume an error as high as 5%, that would subtract 12,166 households from the denominator, effectively canceling the SSI possible error.

Appendix A: Eligibility for Food Stamps – Resource and Income Tests

Official rules from the U.S. Department of Agriculture’s Food and Nutrition Service are on their website at: http://www.fns.usda.gov/fsp/applicant_recipients/eligibility.htm

Determination of Eligibility for Food Stamps in Maryland

Households in which all members are receiving public assistance are automatically eligible for Food Stamps and are not subject to an income eligibility test or a resource test. This includes those households receiving Temporary Cash Assistance, Temporary Emergency Medical and Housing Assistance (TEMHA), and SSI. All other households applying for Food Stamps need to meet the following resource and income tests.⁷

Resource Test

Each household may have up to \$2,000 in countable resources, or \$3,000 if at least one person is 60 years or older. Countable resources include bank accounts, cash, real estate, and personal property. The household’s home and lot, household goods, personal belongings, and life insurance are not counted. Each household may have one car with a fair market value of \$4,650 or less. Additional cars or more expensive cars are counted as resources with some exceptions.

Income Test

Households with an elderly person, or person receiving certain types of disability payments have to meet a net income test⁸. All other non-public assistance households have to meet both a gross income test⁹ and a net income test. Almost all income is countable. If the household’s monthly gross income is equal to, or more than, the gross monthly income limit for its household size then the household is ineligible for Food Stamps. If its gross monthly income is less than the limit, then the following deductions are subtracted from gross monthly income to determine net monthly income.

- A 20 percent deduction from earned income
- A standard deduction of \$134 for all households
- A dependent care deduction when needed for work, training or education, not more than \$200 for each child under age 2 and not more than \$175 for each other dependent
- Medical expenses for elderly or disabled members that are more than \$35 a month if they are not paid by insurance or someone else
- Child support payments

⁷ U.S. Department of Agriculture, *Food Stamp Resources, Income, and Benefits, for Households in the Contiguous States and the District of Columbia, 10/1/00 through 9/30/01*, USDA Web Site, July 31, 2001.

⁸ Net income is gross income minus allowable deductions.

⁹ Gross income is a household’s total, nonexcluded income, before any deductions have been made.

- Excess shelter costs¹⁰ that are more than half the household's income after other deductions. This deduction is limited to \$300 per month unless there is an elderly or disabled household member in which case there is no limit.

The amount of the Food Stamp benefit, or allotment, is determined as follows. Maximum monthly Food Stamp allotments are determined for each household size based on the USDA's Thrifty Food Plan. In order to calculate the amount of the Food Stamp benefit received by each household, 30 percent of the net monthly income of the household is subtracted from the maximum monthly Food Stamp allotment for its household size.

Table A.1: Maximum Monthly Food Stamp Allotments, FFY 2001

<u>Household Size</u>	<u>Maximum Monthly Allotment</u>
1	\$ 130
2	\$ 238
3	\$ 341
4	\$ 434
5	\$ 515
6	\$ 618
7	\$ 683
8	\$ 781
Each additional person	\$ 98

Source: U.S. Department of Agriculture, Food and Nutrition Service.

¹⁰ Shelter costs include rent, mortgage and utilities.

Appendix B: Description of Data Sets

The American Community Survey

The American Community Survey is a nationwide survey designed to provide communities with current data showing how they are changing. It is a critical element in the Census Bureau's reengineered 2010 census.

The traditional decennial censuses have had two parts:

- 1) The count of the total U.S. population and housing and the collection of the basic demographic characteristics; and
- 2) A survey taken of a sample of about one in six U.S. housing units about which detailed demographic, housing, social, and economic information are collected.¹¹

Federal agencies use information from the census long form to administer federal programs and to distribute billions of federal dollars. Since the decennial census is conducted only once every ten years, the census long-form sample information is out of date for many areas of the country by mid-decade. The American Community Survey is designed to be a continuous survey and will produce state and community statistics that are updated every year instead of only once in ten years. The information it provides is intended to replace the data collected using the census long form samples beginning with the 2010 census.

Full implementation of the American Community Survey includes yearly independent samples of three million addresses spread over 12 months of the year. Beginning with the 2005 survey, all residential addresses in every county will have a chance of being surveyed. Plans are also in place to introduce samples of the group quarters population into the survey.

In the ACS, sampled housing units are surveyed first by mail. Census Bureau staff attempt to contact by telephone those from which mail responses are not received. Personal visits are conducted for one in three of the remaining nonresponding sample units. When fully implemented, the American Community Survey will provide detailed estimates of social, economic, and housing characteristics for demographic groups that are updated every year for all states, as well as for all cities, counties, metropolitan areas, and population groups of 65,000 people or more. For less populated areas, it will take three to five years to accumulate sufficient sample to produce data for areas as small as census tracts. For example, areas of 20,000 to 64,999 will have data averaged over three years. For rural areas and city neighborhoods or population groups of less than 20,000 people, it will take five years to accumulate a sample that is similar to that of the decennial census. These averages will be updated every year. After five years of data accumulation, the ACS will be able to measure changes over time for small areas and

¹¹ The data for this survey are collected on what is called the census long form. For housing units in the census sample, the long form replaces the standard census short form as the data collection instrument; it collects both the basic demographic data and the more detailed information not contained on the short form.

population groups.

The American Community Survey is conducted under the authority of Title 13, United States Code, Sections 141 and 193, and the Census Bureau may use this information only for statistical purposes. Title 13 requires that the Census Bureau keep all information about respondents strictly confidential. Any Census Bureau employee who violates these provisions is subject to a fine of up to \$250,000 or a prison sentence of up to five years, or both.

For more information about the American Community Survey design and products, see: <http://www.census.gov/acs/www>. For information about the accuracy of the statistics, evaluation studies, quality measures, and the field collection methods, see: <http://www.census.gov/acs/www/AdvMeth/index.htm>

Supplementary Surveys

The Census 2000 Supplementary Survey (C2SS), the first of several large national surveys to use the methods developed for the American Community Survey, was designed to demonstrate the feasibility of collecting long form-type information at the same time but separately from the decennial census. The Supplementary Surveys conducted in 2001 and 2002, and the national American Community Survey samples from which the long-form content was collected in 2003 and 2004, provide a bridge of information to a fully-implemented American Community Survey in 2005. The Census Bureau plans in 2010 to replace the decennial long form data collection with data from the American Community Survey, pending Congressional funding.

Statistics from the Supplementary Surveys are available on the Census Bureau's website for areas with populations of 250,000 or more. Once the American Community Survey is fully implemented, updated statistics will eventually be available for smaller geographic areas such as census tracts and rural areas.

The Supplementary Surveys used the American Community Survey questionnaire and methods to collect the detailed social, economic, and housing data from yearly samples of over 800,000 addresses nationwide. The SS01 collected data for about 10,500 households in Maryland. In contrast, the national CPS sample size for the Annual Social and Economic Supplement in 2001 was nearly 99,000 addresses with less than 1,300 interviews conducted with Maryland households. The very large sample sizes of the Supplementary Surveys made them the preferred choice for the study. The group quarters population was *not* included in the SS01, although people living in certain types of group quarters can receive Food Stamps, particularly people who typically sleep in shelters for the homeless. Under the full implementation of the American Community Survey starting in 2006, the group quarters population is scheduled to be represented in the survey if the Congress provides sufficient funding.

Public Use Microdata Records from the 2001 Supplementary Survey

For this study, we developed tabulations from the 2001 Supplementary Survey for Maryland from the Public Use Microdata (PUMS) record, a microdata file from the American Community Survey program at the U.S. Census Bureau. PUMS files show the

full range of responses made on individual questionnaires, such as how household members answered questions on the type and amount of income they received in the 12 months before responding to the survey. The files contain records for a sample of all housing units, with information on the characteristics of each unit and the people in it, except for names, addresses, or other identifying information.

To ensure confidentiality, all identifying information is removed and a confidentiality edit is applied to introduce some uncertainty so that no information is disclosed about specific individuals, households, or housing units. Because PUMS records are actual records, the Census Bureau takes further steps to protect the confidentiality of the data while ensuring that the basic distributions of the data are upheld. Such steps include limiting geographic detail and topcoding some variables such as income and housing values. The records selected for the PUMS files are a sample of those households that received the questionnaire. The PUMS file is also a sample of the full Supplementary Survey. Every person in a sampled housing unit is selected for the PUMS. For more information see:

<http://www.census.gov/acs/www/Downloads/SS01/AccuracyPUMS.pdf>

The full range of population and housing information collected in the American Community Survey is available in the PUMS. The questionnaire included questions on topics such as age, sex, citizenship, tenure, income, education, language spoken at home, journey to work, occupation, condominium status, shelter costs, and vehicles available for use in the household.

For most questions asked on the questionnaire, the response is given in these files -- and we designed tabulations to aggregate the responses for the estimated denominators for this research. Eleven housing variables and nine person variables are topcoded in the SS01 Public Use Microdata Sample files. For a list of these variables, click on the following link:

<http://www.census.gov/acs/www/Products/PUMS/C2SS/MinMaxVal1.htm>

Maryland Administrative Records

The administrative data used in this study are from Maryland's Client Automated Resource and Eligibility System (CARES).¹² This system has been fully operational in all Maryland jurisdictions since April 1998. It is used to collect data for determining eligibility for Maryland's public assistance programs, including Food Stamps and Temporary Cash Assistance (Maryland's TANF program), and to generate the correct benefits for each case.

The data are collected by the local departments of social services during the intake process, where applicants are asked to respond to a series of questions related to eligibility determination, including the family's resources, monthly income, and number of dependent children. Some demographic information is also collected, but information

¹² Individual records in the Maryland CARES file are confidential and access to these records is highly restricted. Aggregate data, including counts of the number of participants in Maryland's public assistance programs and program expenditures, are published in monthly statistical reports.

that is not required for determining eligibility may be incomplete. Each individual is assigned an individual record number (IRN) upon entering the system.

All Maryland Food Stamp recipients are included in the CARES file, and they may live in group quarters such as shelters for the homeless as well as in households. Recipients must reside in Maryland. The receipt of benefits from another state by those who move is not recorded in Maryland's CARES file because they are no longer eligible. The CARES file contains information only on participants in Maryland's social service programs; it does not contain information on the general population, other low-income groups, or at-risk populations.

The eligible group for Food Stamp purposes is the "Food Stamp household,"¹³ which is one person or a group of people "who live together and customarily purchase food and prepare meals together for home consumption."¹⁴ But spouses, as well as parents and their children under 22 years of age, are always included in the same household. When a Food Stamp household is approved for benefits, it is assigned an assistance unit number and the amount of the monthly benefit is calculated based on the size of the assistance unit, as well as household income and allowable deductions. The amount of the benefit is recorded in CARES for each month that a benefit is received by the assistance unit.

¹³ The Maryland DHR refers to an eligible group as a "Food Stamp household." Once participation in the program is approved, the household is then referred to as an "assistance unit."

¹⁴ Annotated Code of Maryland, Article 88A, sections 88 and 89, Title 07 Department of Human Resources, Subtitle 03, Family Investment Administration, Chapter 17 (Food Stamp Program), .03A(3); and DHR/FIA Case Worker Food Stamp Manual (rev. January 2002), Section 100.2B.