Technical Documentation for the Fiscal Year 2019 Supplemental Nutrition Assistance Program Quality Control Database and the QC Minimodel

FINAL REPORT

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Acknowledgments

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I.   Introduction

The Supplemental Nutrition Assistance Program (SNAP) is the largest of the domestic nutrition assistance programs administered by the Food and Nutrition Service (FNS) of the U.S. Department of Agriculture (USDA), providing millions of Americans with the means to purchase food for a nutritious diet. During fiscal year (FY) 2019, SNAP served an average of 35.7 million people monthly and paid out $55.6 billion in benefits.[1]

In response to legislative adjustments to program rules and changes in economic and demographic trends, the characteristics of SNAP participants and units and the size of the SNAP caseload change over time. To quantify these changes or estimate the effect of adjustments to program rules on the current SNAP caseload, FNS relies on data from the SNAP Quality Control (QC) database. This database is an edited version of the raw data file of monthly case reviews conducted by State SNAP agencies to assess the accuracy of eligibility determinations and benefit calculations for each State's SNAP caseload.[2]

This document describes how the raw data are cleaned and edited to create the SNAP QC database. It also describes how the QC Minimodel—one of FNS's SNAP microsimulation models—uses the SNAP QC database to simulate the effect of various policy changes to SNAP on current SNAP participants. This chapter provides a roadmap to the report and summarizes key program and database changes since FY 2018.

Chapter II provides an overview of the SNAP QC System, the resulting raw data file, and the creation of the SNAP QC database. The overview, written for a nontechnical audience, is designed to give analysts and new users of the data enough general information to analyze and interpret the results of SNAP QC data tabulations and policy change simulations from the QC Minimodel.

Chapter III describes the process for developing files for the SNAP QC database. We discuss the file development programs used to transform the raw data into the SNAP QC database, the algorithms used to edit the data for consistency, and the development of sampling weights for the file.

Chapter IV provides a technical description of the procedures used to transform the SNAP QC database into the format required by the QC Minimodel and to document the QC-specific portions of the QC Minimodel.[3]

Chapter V contains the codebook for the FY 2019 SNAP QC database and explains how to use it. For each variable in the database, the codebook lists the variable name, the variable origin (whether it came from the raw data file or was constructed), and a description (including all valid values of the variable).

Appendix A provides an assessment of the quality of selected variables in the FY 2019 SNAP QC database. Users should read this appendix before using the SNAP QC database; the appendix recommends against the use of some variables and cautions against or provides a disclaimer for the use of others because of apparent miscoding, high prevalence of missing or unknown values, or small sample

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[1] These estimates of 35.7 million participants and $55.6 billion in benefits come from FNS administrative records. They differ from the other estimates in this documentation, which come from the edited SNAP QC database, because the database is adjusted to exclude ineligible households issued benefits in error and households that received disaster assistance.

[2] This report refers to the original data file as the raw data file and the edited version as the SNAP QC database.

[3] The portions of the QC Minimodel code that apply to all of FNS's SNAP microsimulation models are documented in the "2011 MATH SIPP+ Microsimulation Model: Programmer's Guide, Technical Description, and Codebook" (Schechter et al. 2014).

sizes. Appendix B describes automated edits used to improve the quality of the edited SNAP QC database. Appendix C provides information on new and changed variables in the FY 2019 SNAP QC database. Appendix D shows how the monthly sampling weights were derived. Appendix E lists the State and region identification codes used on the file. Appendix F contains the parameter values used to determine SNAP eligibility in FY 2019, including gross and net income eligibility thresholds, deduction amounts, and maximum benefit amounts. Appendix G presents the QC review schedule—the coding form on which the raw data are originally recorded by the State QC System reviewers.

A. Key program changes since the previous fiscal year

Several SNAP program changes occurred during FY 2019:

- As of June 1, 2019, California discontinued its policy of providing SSI recipients with a small food assistance benefit through the State SSI supplement in lieu of their eligibility for SNAP.

- As of June 14, 2019, SNAP Employment and Training programs must provide skill training for the current job market.

- Also as of June 14, 2019, individuals convicted of sexual assault or related charges and individuals with substantial lottery or gambling winnings are ineligible for SNAP.

- As of July 1, 2019, Mississippi discontinued its broad-based categorical eligibility (BBCE) policy.

B. Key changes to the FY 2019 SNAP QC database

The contents of the FY 2019 SNAP QC database are similar to the contents of the FY 2018 SNAP QC database, with a few differences. First, there are no data for 35 States or territories and the District of Columbia for February 2019 because of a lapse in Federal appropriations as a result of the government shutdown in FY 2019. Thus, the full-year weight (FYWGT) in these States for FY 2019 is the monthly weight (HWGT) divided by 11 instead of HWGT divided by 12, as in all other States. Second, in response to a government shutdown, FNS issued a blanket waiver on January 10, 2019, to allow States to issue February SNAP benefits early; the allocation of benefits during the government shutdown resulted in incomplete or inconsistent and fluctuating SNAP Program Operations data in January through March 2019. To account for these fluctuations, we imputed the number of SNAP participants and units and the amount of SNAP benefits for some States and months in order to weight the FY 2019 QA database. Sections II.C, III.C, and V.A provide more detail about these changes.

II. Overview of the SNAP QC Database

The SNAP QC database is an edited version of the raw data file generated by SNAP's QC System. The SNAP QC database contains detailed demographic, economic, and SNAP eligibility information for a nationally representative sample of 43,258 SNAP units.[4] The data, produced annually, are well suited for tabulating characteristics of SNAP units and simulating the impact on SNAP units of various policy changes to the program. Accordingly, the SNAP QC database is the source for FNS's annual report, "Characteristics of Supplemental Nutrition Assistance Program Households," and FNS's QC Minimodel, a microsimulation model that estimates the effect of proposed changes to SNAP on currently participating units. In this chapter, we provide an overview of the raw data file and the processing and edits that convert the data file to the SNAP QC database.

A. The QC system

The raw data file is generated from the monthly reviews of SNAP cases conducted by State SNAP agencies as part of the QC System (SNAP-QCS). The primary objective of QC reviews is to assess the accuracy of eligibility determinations and benefit calculations in sampled cases. Participating units, or *active cases*, are reviewed to determine whether they are indeed eligible to participate and are receiving the correct benefit amount. Units that had their participation denied or terminated, or *negative cases*, are reviewed to determine whether the denial or termination was correct. The SNAP QC database is based on the sample of active cases drawn each month for the 50 States, the District of Columbia, Guam, and the Virgin Islands.

State QC reviewers review data for the sampled cases. They gather financial and demographic information from the sampled unit's case file, visit the household to re-interview the participants, and then determine whether the SNAP unit received the correct SNAP benefit amount. The review information is either uploaded or entered directly into the SNAP-QCS by State agencies. FNS regional offices conduct a Federal re-review of a subsample of each original State sample. Federal re-review data are also entered into the SNAP-QCS and are used in conjunction with the State review data to calculate the official payment error rate for each State. States can be sanctioned on the basis of their official payment error rates.

Most of the data in the raw data file are the financial and demographic information collected during the review. The issued benefit amount and eligibility status determined by the caseworker are also on the file, along with the error amount and eligibility status determined by the reviewer. The reviewer-determined entries are defined as follows:

- If the SNAP unit was eligible and the authorized benefit amount determined by the reviewer equaled the issued benefit, then the error amount is zero and the case finding is "amount correct."

- If the SNAP unit was eligible and the authorized benefit amount varied from the issued benefit, then the difference between the two amounts is recorded as the error amount, and the case finding is either

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[4] In this technical documentation, "SNAP unit" or simply "unit" refers to individuals who together are certified for and receive SNAP benefits. A household may contain multiple SNAP units and/or individuals who do not receive SNAP benefits. However, since QC sampling is done at the unit level, each record contains data on only one SNAP unit.

"overissuance" or "underissuance." In FY 2019, error amounts of $37 or less were not included in the calculation of State error rates.[5]

- If the reviewer determines that the SNAP unit was ineligible, then the issued benefit amount is recorded as the error amount and the case finding is "ineligible."

State QC reviewers also review the negative cases to decide whether proper procedures were used to deny or terminate a case. Because these cases are not participating in SNAP, they are not included in the SNAP QC database or the QC Minimodel.

B. The raw data file

Although most participating SNAP units in the active case file are subject to sampling, certain types of units not appropriate for review are excluded. Specifically, the active case universe excludes the following types of cases:

- Dropped as a result of oversampling
- Listed in error as active cases, including but not limited to:
  - Negative cases incorrectly included in the active case file
  - Cases that did not participate in SNAP for the sample month, including suspended cases and those that were eligible for zero benefits before any recoupments were made
  - Cases receiving restored benefits that were not otherwise participating
  - Cases receiving retroactive benefits for the sample month
- Receiving benefits solely through a Disaster SNAP program authorized by FNS
- Pending a hearing for an adverse action
- Under investigation for SNAP fraud (including those with pending fraud hearings)
- Where all members have died or moved outside the State
- Where no member could be interviewed because:
  - All members had been hospitalized, incarcerated, or placed in a mental institution and were expected to remain there for 95 days after the end of the sample month
  - Members could not be located

The sampling unit within the active case universe is the SNAP unit, as defined in an FNS-approved State manual. State sampling plans must conform to accepted principles of probability sampling. A State may use either a simple random sampling plan or a more complex sampling design that better meets its needs. FNS must approve all sampling designs, including simple random sampling.

The standard minimum annual State sample sizes range from 300 to 2,400 reviews, depending primarily on the size of the monthly participating caseload. States must use the following guidelines when determining their standard annual QC sample sizes:

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[5] This error amount, called the tolerance threshold, is adjusted each year to account for inflation. The FY 2019 tolerance threshold of $37 was unchanged from FY 2018.

- If the average monthly caseload is under 10,000, the standard minimum sample size is 300 cases per year.

- If the average monthly caseload is 60,000 or greater, the standard minimum sample size is 2,400 cases per year.

- If the average monthly caseload is between 10,000 and 60,000, the standard minimum sample size is derived by the following formula:

    Standard minimum = 300 + 0.042 (N − 10,000),

    where N is the average monthly caseload.

A State may choose an optional minimum sample size if it agrees not to dispute later payment error rate findings and the associated sanctions on the basis of the precision of the estimates. Optional minimum sample sizes are determined as follows:

- If the average monthly caseload is under 12,942, the optional minimum sample size is 300.

- If the average monthly caseload is 60,000 or greater, the optional minimum sample size is 1,020.

- If the average monthly caseload is between 12,942 and 60,000, the optional minimum sample size is derived by the following formula:

    Optional minimum = 300 + 0.0153 (N – 12,941),

    where N is the average monthly caseload.

In FY 2019, all States chose to use the optional minimum sample size. FNS applies adjustments to State payment error rates when the State's QC review completion rate falls below a threshold of 98 percent.

C. Creation of the SNAP QC database

We create the SNAP QC database from the raw data file by following four steps: (1) preliminary processing, (2) data editing, (3) variable construction, and (4) weighting.

1. Preliminary processing

After converting the raw data file into a SAS file, we generate and inspect a series of quality assurance counts and frequency distributions for the values of each variable on the file. We assign missing value codes to data that are illogical or out of range, missing from the file, or coded as unknown in the source file.[6] We remove records from that file that are:

- Coded as not subject to review (REVDISP = 2), incomplete (REVDISP = 3), or deselected due to oversampling (REVDISP = 4)

- Coded with review findings of ineligible (STATUS = 4)

- Missing all data except error and status information, identified as those coded with 0 case members (CERTHHSZ = 0), or have unresolved inconsistencies, as detailed in later sections

- Found by the reviewer to be eligible but not qualifying for a positive benefit or as having a benefit overissuance equal to or exceeding the recorded benefit (STATUS = 2 and RAWBEN <= AMTERR)

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[6] See the codebook in Chapter V for the valid values for each variable.

In Table II.1, we show the number and percentage of cases dropped from the FY 2019 edited SNAP QC database.

Table II.1. Number and percentage of cases sampled, dropped from the edited file, and included in the edited file, FY 2019

	FY 2019 SNAP QC sample	Percentage of cases sampled	Percentage of cases subject to review
Number of cases sampled	55,461	100.0	n.a.
Cases not subject to review	3,574	6.4	n.a.
Cases deselected to correct for oversampling	0	0.0	n.a.
Cases subject to review	51,888	93.6	100.0
Incomplete cases	7,570	13.6	14.6
Cases completed[a]	44,318	79.9	85.4
Not eligible for SNAP	635	1.1	1.2
Not eligible for a positive benefit	292	0.5	0.6
Eligible for a positive benefit	43,391	78.2	83.6
Dropped due to unresolved inconsistencies	133	0.2	0.3
SNAP units in the final SNAP QC database	43,258	78.0	83.4

Source: FY 2019 Supplemental Nutrition Assistance Program QC sample.

[a] The total cases completed as noted here do not match the value in the Completes19.SAS7BDAT record count, as there was one case dropped in the 30_RECODE.SAS program before the Completes19.SAS7BDAT output file was created. The one case is included in this table in the line "Dropped due to unresolved inconsistencies."

n.a. = not applicable.

2.   Data editing

Consistent measures of SNAP unit size, income, and benefit level are critical to any analysis of SNAP units. However, data for these measures are not always consistent in the raw data file. For instance, the sum of the income of each person in the unit may not equal reported unit-level gross income. Such inconsistencies may be rooted in the initial case record information or the data entry process. In the data-editing step, we resolve the inconsistencies described below. We drop the small number of SNAP units with unresolved inconsistencies from the edited file.

The overall strategy of the editing process is to ensure that certain relationships hold for all cases. The two most basic relationships are the following:

- Net income must equal gross income minus the total deductions for which the unit is eligible, and it must not be negative.

- The SNAP benefit level must equal the maximum benefit for that unit size minus 30 percent of net income (or be set to the minimum benefit if appropriate), and it must not be negative.

In addition, several important relationships must hold for some final and intermediate variables. For example:

- Gross unit income must equal the sum of all countable person-level income amounts.

- The earned income deduction must equal the specified percentage (rounded down) of countable earned income.

- The excess shelter expense deduction must equal shelter costs above 50 percent of gross income minus all other deductions up to a cap. Units with elderly members or with non-elderly individuals with disabilities are not subject to the cap. Units with a homeless household shelter deduction will not have an excess shelter expense deduction.[7]

- Total deductions must equal the sum of the following:
  - Standard deduction
  - Earned income deduction
  - Dependent care deduction
  - Medical expense deduction
  - Child support payment deduction[8]
  - Excess shelter expense deduction or homeless household shelter deduction

Households participating in the Minnesota Family Investment Program (MFIP) or an SSI Combined Application Project (SSI-CAP) are subject to different eligibility and benefit determination rules and are edited accordingly.

In Chapter III, we describe the complex process by which we determine whether a case is internally consistent and, if not, perform needed edits.

3. Variable construction

We construct several variables from the reported data once the file is edited. Some of the constructed variables (for example, unit-level gross income, net income, and unit size) are edited versions of raw variables while others (such as non-elderly individuals with disabilities) are newly created to more easily identify units and individuals with certain characteristics. The major classes of constructed variables are unit-level countable income variables, SNAP eligibility and benefit determination variables, and characteristics flags.

- **Unit-level countable income variables.** The total SNAP unit income variable for each type of income (for example, Temporary Assistance for Needy Families [TANF] or Social Security) is constructed by summing the person-level income of that type over all individuals in the SNAP unit. The total SNAP unit gross income, earned income, and unearned income variables are constructed by summing all the appropriate unit income variables.

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[7] The 2018 Farm Bill made mandatory the existing State option to provide a standard shelter deduction to homeless households that had qualifying shelter expenses and that were not claiming the excess shelter expense deduction. The 2018 Farm Bill also indexed the homeless shelter deduction to inflation. Before the Farm Bill was enacted, the value of the homeless shelter deduction was $143. Beginning on December 20, 2018, the value increased to $147.55. States were given until the end of December 2018 to implement the change for newly certified or recertified homeless households and were also given the flexibility to round this value up or down depending on their procedures for calculating net income.

[8] In some cases, child support payments are excluded from gross income and are not taken as a deduction.

- **SNAP eligibility and benefit determination variables.** Variables used to determine eligibility and benefits—such as SNAP unit deductions, SNAP unit net countable income, and SNAP unit benefits—are constructed on the basis of SNAP unit countable income and unit demographic characteristics.

- **Characteristics flags.** Characteristics flags identify SNAP units with certain features, such as the presence of an elderly individual or a non-elderly individual with a disability. In addition, we merge data from Census Bureau files to identify whether a SNAP unit resides in a metropolitan, micropolitan, or rural area.[9]

4. Weighting

We weight the observations in the raw QC file to ensure that the weighted totals match three adjusted SNAP Program Operations totals—the monthly number of SNAP units by State and sampling stratum, the monthly number of SNAP participants by State, and the monthly total benefits issued by State. SNAP Program Operations totals are generated from FNS's National Data Bank and reflect actual levels of participation and benefit issuance. In FY 2019, we used adjusted or imputed values for units, individuals, or benefits for at least one month in most States because of the incomplete or inaccurate Program Operations data resulting from a lapse in Federal appropriations from December 22, 2018 through January 25, 2019. Specific imputations or adjustments follow:

- **Benefits.** Nearly all States issued February 2019 benefits in January 2019. For most of these States, January Program Operations data include two months of issuances while February Program Operations data include benefit issuances only to newly participating SNAP units (a small percentage of total SNAP benefits in a typical month). This pattern is consistent across most States with the exception of the District of Columbia, Indiana, Nebraska, and Ohio, where March Program Operations data also seem to only include issuances to newly participating SNAP units. To weight the file, we replaced values for January and February as well as for March in the aforementioned States, using the average values in the data across those months. Given that this is an adjustment rather than an imputation, the FY monthly averages or the total benefit dollars match those reported in the Program Operations data.

- **Units and individuals.** In many States, February Program Operations data include only new units and individuals. As a result, reported counts in the Program Operations data underestimate the total counts of units and individuals in FY 2019. This pattern of underestimated numbers of units and individuals in February 2019 is apparent in all States except Arkansas and New York. This pattern of underestimated numbers of units and individuals extended to January 2019 and March 2019 in several States as well. Michigan, Vermont, and Washington have incomplete data in January 2019, and the District of Columbia has incomplete data in March 2019. To weight the file, we imputed the counts of units and individuals by using the average values for the adjacent months in each State. For example, if a State is missing just February data, we replaced that month with the average value for January and March. As a result, the values used to weight the FY 2019 SNAP QC database do not match FNS administrative records.

In addition to the adjustments described above, we adjust the Program Operations totals by removing benefits issued in error and benefits issued through the SNAP disaster assistance program because the

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[9] A micropolitan statistical area has at least one urban cluster of at least 10,000 but fewer than 50,000 people, and it includes adjacent territory that has a high degree of social and economic integration with the core, as measured by commuting ties.

SNAP QC data do not include cases with either of these circumstances. [10] FNS maintains information on the number of SNAP units and individuals receiving a disaster assistance benefit and the amount of those benefits. The rates of SNAP units receiving benefits in error are estimated from the raw QC data file. In Appendix tables D.1 through D.3, we present the weighted unit, individual, and benefit totals by State and month, and in Appendix tables D.4 through D.6, we show the corresponding adjustments to the Program Operations data that yielded those weighted totals. In Section III.C, we describe the derivation of the sampling weights in detail. In Table II.2, we compare the aggregate program participation data for FY 2019 to the QC System sample-based estimates.

Table II.2. Comparison of program data to edited SNAP QC database, FY 2019

Average monthly value	Program data	Program data with adjustments for incomplete data[a]	Adjustments to program data for disaster assistance[b]	Adjustments to program data for ineligible SNAP units	Edited SNAP QC database
Number of SNAP units	17,964,076	19,174,239	18,974	353,265	18,802,000
Number of participants	35,702,472	38,113,268	45,827	865,035	37,202,406
Value of benefits (dollars)	4,635,156,910	4,635,156,912	8,516,408	226,050,653	4,400,589,851
Average SNAP unit size	1.99	1.99	2.42	2.45	1.98
Average benefit per person (dollars)	129.83	121.62	-	261.32	118.29
Average benefit per household (dollars)	258.02	241.74	-	639.89	234.05

[a] In FY 2019, we used imputed or adjusted values for units, participants, or benefits in most States due to incomplete or inaccurate Program Operations data. As a result, these values, used to weight the FY 2019 SNAP QC database, do not match FNS administrative records. Specific imputations and adjustments are described in the weighting section of this chapter.

[b] Adjustments are made for units and individuals who only receive Disaster SNAP assistance and were not already receiving SNAP. Adjustments are made to benefits for disaster benefits issued to Disaster SNAP units as well as to replacement benefits issued to qualifying, ongoing SNAP units. As a result, the average Disaster SNAP benefit per person may not be calculated from the information in this table.

D. Final SNAP QC database

We create two versions of the SNAP QC database: a restricted-use version that includes all variables and a public use version that, for privacy reasons, excludes the QC review number (REVNUM) and four geographic variables: COUNTYCD, LOCALCOD, AK_AREA, and URBRUR. In Chapter V, we provide a more detailed explanation of the variables on the file.

After we develop the SNAP QC databases, we create SAS, Stata, and SPSS versions that may be used to tabulate characteristics of SNAP units, as well as a binary file that serves as the underlying database for FNS's QC Minimodel.

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[10] In FY 2019, we adjusted the Program Operations data for about 4.2 million units that received benefits issued in error and about 228,000 units that received only Disaster SNAP benefits. We also adjusted the data for about $2.7 billion of benefits issued in error and approximately $102.2 million of Disaster SNAP benefits. After these adjustments and the adjustments for incomplete data described above, the weighted number of SNAP units is about 5 percent higher than Program Operations totals and benefits are about 5 percent lower.

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III. FY 2019 SNAP QC File Development Process

A. Developing the SNAP QC file

In this chapter and in Figure III.1, we describe the programs and data used in the development of the FY 2019 SNAP QC file.[11]

Step 1. Obtain data

We received the data from FNS in an ASCII (or text) format.

INPUT CD	File: FY2019	(ASCII file)
	Record length 2,250	
	56,076 records	

Step 2. Read in and prepare files

We converted to SAS format the specified fields from the raw FNS file, and created the unique record identifier (HHLDNO).

PROGRAM NAME	10_SASIFY.SAS	
INPUT FILE	FY2019	(ASCII; 56,076 records)
OUTPUT FILE	QCFY2019_1.SAS7BDAT	(55,462 records; 721 variables)[12]

Step 3. Conduct quality assurance (QA) review of the data

We ran preliminary frequencies on the SAS file and examined them for data corruption, consistency across States and months, and the extent of missing and out-of-range data. In addition, we calculated means and compared them with means for the previous year.

PROGRAM NAMES	01_FREQS.SAS	
	02_FREQSA.SAS	
	03_FREQS_ELG.SAS	
	04_COMPARE.SAS	
	05_OBS_STATE_MONTH.SAS	
INPUT FILE	QCFY2019_1.SAS7BDAT	(55,462 records; 721 variables)

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[11] Copies of the file development programs are available from FNS upon request.

[12] There were small sample sizes because of a lapse in Federal appropriations. Consequently, we dropped February 2019 cases from the FY2019 input file in Guam and in 14 States: Arkansas, California, Colorado, Delaware, Illinois, Indiana, Iowa, Massachusetts, North Carolina, North Dakota, Ohio, Pennsylvania, Vermont, and Washington.

Figure III.1. FY 2019 SNAP QC file development process
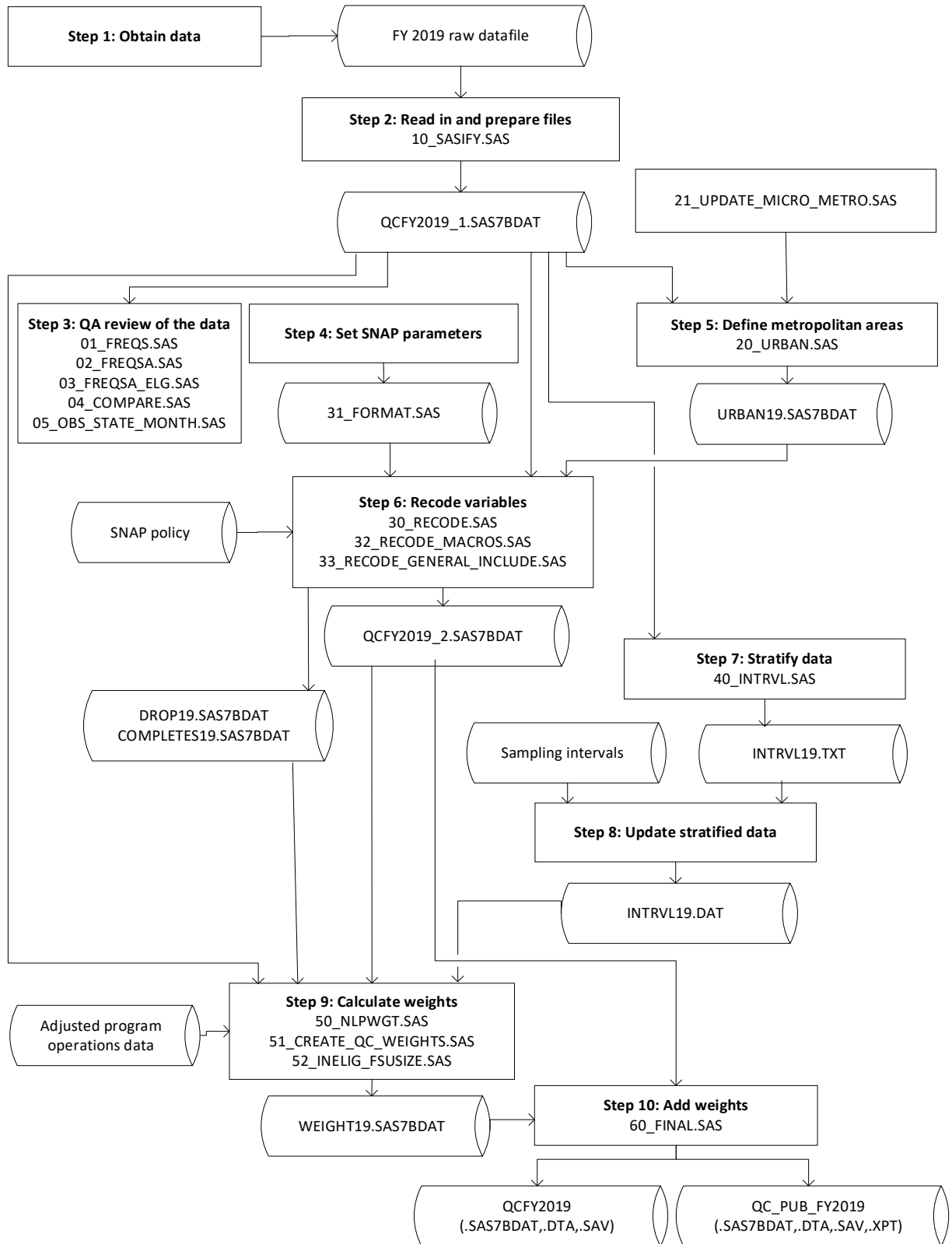
Step 4. Set SNAP parameters

We obtained relevant SNAP policy parameters, including maximum and minimum benefit amounts, income screens, Standard Utility Allowance (SUA) amounts, and values for the MFIP and SSI-CAPs by State.[13] We entered them into a SAS format library and use the formats for the program in Step 6.

OUTPUT PROGRAM   31_FORMAT.SAS

Step 5. Define metropolitan areas

We added geographic information to the file. Using the local agency code in the raw data file, we assigned a county Federal Information Processing Standards (FIPS) code to each SNAP unit. We flagged unknown local agency codes for correction or addition to a concordance of local agency codes by county and State. We then merged each unit to the 2018 Census Bureau files of metropolitan and micropolitan areas by using State and county codes. We coded units as metropolitan or micropolitan, depending on their match to one of the Census Bureau files. Those not found in either file were coded as rural, except for those with State-wide local codes, which we coded as missing metropolitan status. Beginning in 2014, we assigned Alaska units with missing or unknown local agency codes a metropolitan status based on the unit's region (Alaska Urban, Alaska Rural I, or Alaska Rural II). We do not include cases not subject to review or incomplete cases in the output files.

PROGRAM NAME	20_URBAN.SAS	
INPUT FILES	QCFY2019_1.SAS7BDAT	(55,462 records; 721 variables)
	METRO2_18.TXT	(ASCII; 1,251 records; 4 variables) (Census 2018 Metropolitan File)
	MICRO2_18.TXT	(ASCII; 664 records; 4 variables) (Census 2018 Micropolitan File)
	FIPS_LAC.TXT	(ASCII; 5,162 records; 6 variables) (Concordance of local area codes.)
OUTPUT FILE	URBAN19.SAS7BDAT	(44,317 records; 5 variables)

Step 6. Recode and standardize variables

We edited the file to resolve inconsistencies between variables within a unit and created several unit-level variables pertaining to SNAP affiliation, income deductions, the shelter limit, benefit amounts, assets, poverty status, and types of income. Unknown values (9-filled or 0 where a value should have been entered) were set to missing. The program detected inconsistencies between person-level income totals and reported totals and resolved them by using the procedure we detail below (see Section B, Obtaining file consistency). Units that met all of the following conditions were written to the output file: (1) found eligible by the QC reviewer; (2) received a benefit amount of at least $1; (3) passed the eligibility tests, flagged as categorically eligible, or identified as participating in MFIP or an SSI-CAP; and (4) were internally consistent after edits. Meeting these conditions, together with the sample reductions in Step 5, completed the sample construction for the final SNAP QC database (43,258 records).

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[13] SUAs are Standard Utility Allowances that States may use in place of actual utility costs to calculate a household's total shelter expenses. SUAs are mandatory in some States and optional in others.

PROGRAM NAME	30_RECODE.SAS	
INPUT FILES	QCFY2019_1.SAS7BDAT	(55,462 records; 721 variables)
	31_FORMAT.SAS	(Format library)
	URBAN19.SAS7BDAT	(44,317 records; 5 variables)
OUTPUT FILES	QCFY2019_2.SAS7BDAT	(43,258 records; 1,580 variables)
	COMPLETES19.SAS7BDAT	(44,317 records; 1,582 variables)
	DROP19.SAS7BDAT	(132 records; 1,581 variables)

Step 7. Stratify data

We created a file containing State name, FIPS code, and stratum, with one record per State/stratum combination.

PROGRAM NAME	40_INTRVL.SAS	
INPUT FILE	QCFY2019_1.SAS7BDAT	(55,462 records; 721 variables)
OUTPUT FILE	INTRVL19.TXT	(ASCII; 53 records, 4 variables)

Step 8. Update stratified data

No State had a stratified sample in FY 2019, so it was not necessary to edit the INTRVL19.TXT file; we simply saved it as INTRVL19.DAT.

INPUT FILE	INTRVL19.TXT	(ASCII; 53 records; 4 variables)
OUTPUT FILE	INTRVL19.DAT	(ASCII; 53 records, 4 variables)

Step 9. Calculate weights

As described in Section III.C, we calculated a weight for each SNAP unit that had a complete review, except for units that were dropped from the edited file because of unresolved inconsistencies.

PROGRAM NAME	50_NLPWGT.SAS	
INPUT FILES	QCFY2019_1.SAS7BDAT	(55,462 records; 721 variables)
	QCFY2019_2.SAS7BDAT	(43,258 records; 1,580 variables)
	INTRVL19.DAT	(ASCII; 53 records, 4 variables)
	FY2019_ADJUSTED.XLSX	(Excel spreadsheet containing FNS Program Operations data adjusted for disasters)
	COMPLETES19.SAS7BDAT	(44,317 records; 1,582 variables)
	DROP19.SAS7BDAT	(132 records; 1,581 variables)
OUTPUT FILE	WEIGHT19.SAS7BDAT	(44,184 records; 27 variables)

Step 10. Add weights

We merged the file containing weights with the edited SNAP QC file to produce the final FY 2019 SNAP QC files. QCFY2019 is for internal use and includes all variables. QC_PUB_FY2019 is for public use and excludes REVNUM, COUNTYCD, LOCALCOD, AK_AREA, and URBRUR for privacy reasons. The public-use file also excludes two intermediate weighting variables.

PROGRAM NAME	60_FINAL.SAS	
INPUT FILES	QCFY2019_2.SAS7BDAT	(43,258 records; 1,580 variables)
	WEIGHT19.SAS7BDAT	(44,184 records; 27 variables)
OUTPUT FILES [14]	QCFY2019.SAS7BDAT	(43,258 records; 819 variables)
	QC_PUB_FY2019.SAS7BDAT	(43,258 records; 812 variables)
	QCFY2019.DTA	(43,258 records; 819 variables)
	QC_PUB_FY2019.DTA	(43,258 records; 812 variables)
	QCFY2019.SAV	(43,258 records; 818 variables)
	QC_PUB_FY2019.SAV	(43,258 records; 811 variables)
	QC_PUB_FY2019.XPT	(43,258 records; 812 variables)

After developing the final QCFY2019 SNAP QC files, we created MATHPC.BIN, a hierarchical binary file generated for the QC Minimodel with SAS missing values coded to negative values.

PROGRAM NAME	MINIQC19.SAS	
INPUT FILE	QCFY2019.SAS7BDAT	(43,258 records; 819 variables)
OUTPUT FILE	MATHPC.BIN	(43,258 unit records; 93,589 person records)

B. Obtaining file consistency

As mentioned under Step 6 above, we performed selected editing of the reported data. We followed the procedures below to obtain a high degree of consistency between related variables while maintaining the integrity of the database. Some of the procedures do not apply to SNAP units that are in MFIP or were participating in an SSI-CAP. We present the editing procedures for MFIP and SSI-CAP units after outlining the standard editing procedures. For details on specific data-cleaning procedures, please refer to Appendix B.

1.   Standard editing procedures

Step 1. Eliminate case records that are incomplete or are for SNAP units that do not qualify for a benefit, including those:

- With incomplete reviews (REVDISP not equal to 1)

- With no case members (CERTHHSZ = 0)

- Found ineligible by the QC reviewer (STATUS = 4)

- With an overissuance that is equal to or greater than the reported benefit (STATUS = 2 and RAWBEN <= AMTERR)

- With unknown eligibility (STATUS is missing)

Step 2. Obtain a preliminary count of the number of people in the SNAP unit

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[14] The SPSS version omits the variable "statename" due to inconsistencies in the way SPSS treats such variables.

Step 3. Recode missing information to SAS missing values

- Any field coded with an out-of-range value is set to a missing value of .A (for example, a 0 in the SNAP case affiliation code).

- Any field coded as unknown (filled with 9s) is set to a missing value of .B. The one exception is the SNAP case affiliation code (FSAFILi), where the 9s remain to signify a valid person.

- Any constructed field that cannot be determined because of missing input values is set to a missing value of .C (for example, total assets).

- For units participating in months for which they are not certified, CERTMTH is set to a missing value of .D.

- For MFIP and SSI-CAP units, variables not relevant in the benefit determination are set to a missing value of .E.

Step 4. Finalize the unit size

We use the SNAP case affiliation flags for each individual in the unit to construct a measure of the number of members in the SNAP unit under review. An individual is considered a member of the SNAP unit if his or her affiliation code (FSAFILi) is equal to 1.

Step 5. Determine unit totals and indicator variables

Examples of totals include the number of elderly individuals (FSNELDER), children (FSNKID), and non-elderly individuals with disabilities (FSNDIS). Examples of indicators include citizenship status of the unit head (NONCIT_HEAD) and categorical eligibility status (CAT_ELIG) of the unit.

Step 6. Initialize FY 2019 values (for example, the standard deduction, shelter cap, and maximum benefit)

Step 7. Reconcile duplicated amounts of wages (WAGESi), Social Security income (SOCSECi), Supplemental Security Income (SSIi), and TANF (TANFi)

If a unit contains multiple individuals with equivalent WAGESi and either equivalent SOCSECi amounts or SSIi amounts, we check whether the sum of unduplicated income amounts is equal to reported gross income (RAWGROSS). If so, we assume that the QC reviewer incorrectly reported each individual's income for all members of the unit. We try to reconcile the duplicated amounts by using work registration status (WRKREGi) and age. For example, if two non-elderly members have identical WAGESi and SOCSECi, and one is coded as being exempt from work registration due to a disability and the other is not, we assign the SOCSECi income to the former (and set WAGESi to 0) and the WAGESi income to the latter (and set SOCSECi to 0). Beginning in FY 2019, if a unit includes duplicate TANF amounts (TANFi), a household head (RELi = 1), and at least one child (RELi = 4), and if the benefit calculated from the deduplicated TANF and reported deductions matches the reported benefit amount, we retain the deduplicated TANF amount for the household head and set other duplicated TANF amounts to 0.

Step 8. Calculate earned and unearned incomes for those inside the unit and others in the household by adding up person-level income amounts

- Earned income variables are wages (WAGESi), self-employment income (SLFEMPi), and other earned income (OTHERNi).

- Unearned income variables include:
    - Contributions (CONTi)
    - Court-ordered child support payments (CSUPRTi)
    - Deemed income (DEEMi)
    - State diversion payments (DIVERi)
    - Educational grants/scholarships/loans (EDLOANi)
    - Earned income tax credit income (EITCi)
    - Energy assistance income (ENERGYi)
    - Foster care income (FOSTERi)
    - State general assistance (GAi)
    - Other government benefits (OTHGOVi)
    - Other unearned income (OTHUNi)
    - Social Security income (SOCSECi)
    - Supplemental Security Income (SSIi)
    - Temporary Assistance for Needy Families (TANFi)
    - Unemployment compensation (UNEMPi)
    - Veterans' benefits (VETi)
    - Workers' compensation (WCOMPi)
    - Subsidized earned income (WGESUPi)

Step 9. Reconcile reported person-level income amounts with reported unit-level income and deduction variables

All household members reported on the file (not just unit members) are initially considered in the process of reconciling person- and unit-level income. Any person-level income amount that is found to not count toward the benefit calculation is set to 0. To reconcile any differences between the person- and unit-level income amounts, we perform the following steps sequentially, and stop when we resolve inconsistencies:

9a. **Does the child support income match the child support payment deduction?** For units in which child support income and child support expenses are the same, we determine whether excluding either will allow us to replicate the reported unit-level gross income or net income. We set to 0 any child support income or deductions that are not used. Beginning in FY 2018, if the child support exclusion amount is greater than the gross income amount, we set gross income to 0.[15]

9b. **Does the sum of person-level income match the unit-level gross income?** We compare earned and unearned income for members of the unit and the household to determine whether any combination is equal to the reported unit-level gross income. We check in the following order: (1) all unit income, (2) all unit income plus unearned income from outside the unit, (3) all unit income plus earned

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[15] States may exclude child support expenses from gross income rather than consider them a deduction. For units excluding it from gross income, we verify that gross income minus child support expenses is at or below 130 percent of the Federal poverty guidelines.

income from outside the unit, and (4) all household income.[16] At each stage, we check to see if child support expenses have been excluded from the unit-level gross income. If person-level sums and the unit-level gross income are equal at any stage, we set any income not used to 0.

9c. **Does the sum of person-level unearned income and earnings implied by the earned income deduction match the unit-level gross income?** We compare unearned income for members of the unit and the household plus the amount of earnings implied by the reported earned income deduction with the reported unit-level gross income to determine whether any combination is equal. We first check unit unearned income and then household unearned income. At each stage, we check to see if child support expenses have been excluded from the unit-level gross income. If we find a match, we adjust earnings to satisfy the earned income deduction (adjusting existing earnings proportionately or, if there are no person-level earnings, adding to the householder's other earned income). We set all other income to 0.

9d. **Is gross income not recorded?** If the reported unit-level gross income is 0 and the benefit is less than the maximum benefit for a unit of this size, we set the unit-level gross income to the sum of the person-level income values for the household.

9e. **Is the benefit consistent with having no income?** If the reported unit-level gross income is 0 and the benefit is equal to the maximum benefit for a unit of this size, we set the person-level income values for the household to 0.

9f. **Is gross income unreasonably high?** If the reported unit-level gross income is out of range (in this case, greater than three times the net income screen for a unit of this size) and no person-level income value is out of range, we set the unit-level gross income to the sum of the person-level income values for the household.

9g. **Is person-level income consistent with deductions and unit-level net income?** We compare combinations of earned and unearned income for members of the unit and the household minus calculated total deductions to the reported unit-level net income. The calculated total deductions vary for each combination because the shelter deduction depends on household income while the earned income deduction depends on total earnings. We check in the following order: (1) all unit income less total deductions, (2) all unit income plus unearned income from outside the unit less total deductions, (3) all unit income plus earned income from outside the unit less total deductions, and (4) all household income less total deductions. If reconciliation is made, we set any income types not used to 0 and recalculate unit-level gross income.

9h. **Are person-level unearned income and earnings implied by the earned income deduction consistent with deductions and unit-level net income?** We check unearned income for members of the unit and the household plus the amount of earnings implied by the reported earned income deduction to determine whether any combination equals the reported unit-level net income plus calculated total deductions. We check in the following order: (1) unit unearned income and (2) household unearned income. If reconciliation is made, we adjust earnings to satisfy the earned income deduction (adjusting existing earnings proportionately or, in the event of no person-level earnings, adding to the householder's other earned income). We set any income types not used to 0.

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[16] "Unit" income is income associated with participating household members. We allow a $5 difference to account for potential rounding differences.

9i. **Do unit-level income values agree with no errors reported?** If no errors are reported (AMTERR = 0) and the unit-level income values agree (gross income = net income + total deductions), we adjust the person-level income to agree with the unit-level values. We first adjust person-level earnings proportionately to agree with the earned income deductions. If any further adjustments are needed, we adjust person-level unearned income values proportionately. However, we adjust SSI values only if SSI is the only unearned income or the amount of other unearned income is not enough to reconcile the unit.

9j. **Are earnings consistent with the reported earned income deduction, but exceeding the reported unit-level gross income?** If earnings are consistent with the reported earned income deduction, but they exceed the unit-level reported gross income, we recalculate the gross income, setting to 0 any person-level income not used. Specifically, if unit earnings are consistent with the reported earned income deduction, we set all income outside the unit to 0. If household earnings are consistent, we set any unearned income outside the unit to 0. Beginning in FY 2015 (and with minor revisions in FY 2017 and FY 2018), if the unit reports no earnings or up to $1 in earnings per person in the household, has deemed income (FSDEEM), has an earned income deduction equal to 20 percent of FSDEEM (within $5), and includes an individual outside the unit, we change the deemed income to wages. If someone outside the unit reports the deemed income, then the wages remain with that person. If someone inside the unit reports the deemed income, we move the wages to someone outside the unit. If more than one individual is outside the unit, we assign wages to the first individual outside the unit who satisfies one of the following conditions (in order): individual is (1) reporting $1 in wages, (2) the household head (RELi = 1), (3) the spouse of the household head (RELi = 2), (4) the first non-elderly adult, or (5) the first individual. Beginning in FY 2019, if the unit reports $1 in earnings, has other unearned income (FSOTHUN), has an earned income deduction equal to 20 percent of FSOTHUN (within $5), and includes an individual outside the unit, we change the other unearned income to wages, allocating the wages to an individual outside the unit by using a process similar to the one describe above for FSDEEM.

9k. **Are person- and unit-level income amounts still inconsistent?** If we still have not resolved incomes, we make the person-level incomes equal to the reported unit-level gross income by using the following approach. If the reported earned income deduction indicates zero earnings, we set any person-level earnings to 0. If the reported earned income deduction indicates earnings no greater than the reported gross income, we proportionately adjust all person-level earnings to satisfy the earned income deduction. Otherwise, we proportionately adjust all person-level earnings. If additional adjustments are needed, we proportionately adjust all person-level unearned income values.

Step 10. Calculate final SNAP unit income totals (for example, gross, net, TANF, and SSI)

Step 11. Create remaining flags and variables

Beginning in FY 2018, if the unit reports an adult age 18–49 without disabilities (DISi = 0) and includes a nonparticipating child (FSAFIL = 19) outside of the unit where RELi = 4 (daughter, stepdaughter, son, or stepson), we change the individual indicator for NDISCAi to 2, indicating that the individual is not an adult without disabilities in a childless unit.

Step 12. Calculate the benefit

Step 13. If the calculated benefit does not match the raw benefit, adjust the dependent care deduction, excess shelter expense deduction, or medical expense deduction if doing so results in a matching benefit

In some SNAP units, we can reconcile initial differences between the calculated benefit and the raw benefit by performing the following steps sequentially and stopping when we resolve inconsistencies:

13a. **Does the calculated benefit match the raw benefit?** We define a SNAP unit as having a matching benefit if it meets one of the following conditions:

  i. QC reviewers recorded a payment error and (1) the calculated benefit is within $5 of the raw benefit adjusted for the error amount, or (2) the calculated benefit is within $5 of the unadjusted raw benefit and the error element is not indicated to be the dependent care deduction, the shelter deduction, or the SUA.

  ii. QC reviewers recorded no payment errors and the calculated benefit is within $5 of the raw benefit.

13b. **Does adjusting the dependent care deduction result in a matching benefit?** If a unit has a dependent care deduction that is not consistent with dependent care costs, we set the deduction equal to total expenses if doing so results in meeting one of the following conditions:

  i. QC reviewers recorded a payment error and the calculated benefit is within $5 of the raw benefit adjusted for the error amount.

  ii. QC reviewers recorded no payment errors and the calculated benefit is within $5 of the raw benefit.

  For each condition, we check benefit calculations with and without allotment adjustments.

13c. **Does adjusting the excess shelter expense deduction result in a matching benefit?** We try setting the amount of utility expenses equal to an SUA amount or to 0.[17] We try different utility amounts in the following order: (1) Heating and Cooling SUA (HCSUA), (2) Limited Utility Allowance (LUA), (3) utilities equal 0, (4) telephone allowance, and (5) a single-element SUA. We set the amount of utility expenses equal to an SUA amount or to 0 if doing so results in meeting one of the following conditions:

  i. QC reviewers recorded a payment error and the calculated benefit is within $5 of the raw benefit adjusted for the error amount.

  ii. QC reviewers recorded no payment errors and the calculated benefit is within $5 of the raw benefit.

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[17] Many States employ more than one SUA to accommodate units with different types of utility expenses. The HCSUA generally includes all utilities, including telephone service. The LUA is used for units that do not have heating and cooling expenses separate from rent but have at least two other utility expenses. The LUA generally includes all other utilities, including telephone service. A telephone allowance is used for units with telephone expenses but without any other utility expenses. Some States also use a one-utility standard, for units with a single utility expense such as electricity. In addition, a few States use combinations of individual standards for different utility expenses. Hawaii, for example, employs individual utility standards for electricity, telephones, sewage, trash, and water.

    iii.   QC reviewers recorded no payment errors and the calculated shelter deduction is within $5 of the raw shelter deduction.

    iv.   For SNAP units in New York, QC reviewers recorded no payment errors, utilities equal the HCSUA, and the unit is coded as using an HCSUA.[18]

For each condition, we check benefit calculations with and without allotment adjustments. FY 2019 SUA values by State are provided in Appendix F, Table F.7.

13d. **Does setting the medical expense deduction to 0 for a standard medical deduction demonstration participant result in a matching benefit?** For participants in standard medical deduction demonstration States,[19] we set the medical expense deduction, medical expenses, and the standard medical deduction demonstration flag to 0 if doing so results in meeting one of the following conditions:

    i.   QC reviewers recorded a payment error and the calculated benefit is within $5 of the raw benefit adjusted for the error amount.

    ii.   QC reviewers recorded no payment errors and the calculated benefit is within $5 of the raw benefit.

13e. **Redo the income reconciliation, if necessary.** If we modified a deduction to match the computed benefit (Steps 13b, 13c, or 13d) and used deductions in the income reconciliation (Step 9), then we redo the income reconciliation with new deduction values, repeating all steps beginning with Step 9.

Step 14. Drop units for which the calculated benefit is less than $1

Step 15. Perform automated edits to reconcile remaining inconsistencies

Appendix B provides details.

Step 16. Update categorical eligibility

A unit is categorically eligible for SNAP if any of the following is true:

- The QC reviewer recorded the unit as categorically eligible.

- The unit meets the standards for expanded categorical eligibility in its State. (See Appendix B for information on State-expanded categorical eligibility policies.)

- The unit is pure cash public assistance (PA); that is, either (1) everyone in the unit has person-level income from TANF, General Assistance (GA) benefits, or SSI; (2) the unit has TANF income and every adult has person-level income from TANF, GA, or SSI; or (3) the unit contains only children and at least one has person-level income from TANF. Because TANF income is not reported on the file for most MFIP units, we code all MFIP units as pure PA.

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[18] New York's computer system automatically generates an SUA for certain units. Consequently, we do not require a matching net income or a matching shelter deduction for New York SNAP units, as long as the unit is coded as using an HCSUA.

[19] By the end of FY 2019, standard medical deduction demonstrations were operating in Alabama, Arkansas, California, Colorado, Georgia, Idaho, Illinois, Iowa, Kansas, Massachusetts, Missouri, New Hampshire, North Dakota, Oregon, Rhode Island, South Carolina, South Dakota, Texas, Vermont, Virginia, and Wyoming.

Step 17. Determine eligibility

For units that are not identified as categorically eligible, we assess whether each unit would pass the applicable Federal asset and income tests.

- Units without an elderly member or a non-elderly individual with a disability must have a monthly gross income at or below 130 percent of the Federal poverty guidelines (Appendix F).[20] Beginning in FY 2016, if a unit's gross income exceeds the gross income limit by $1 or less and the net income and benefit amounts match the raw net income and benefit amounts, we reduce the unit's gross income by $1 so it will pass the gross income test.[21]

- Units must have a net monthly income at or below 100 percent of the Federal poverty guidelines (Appendix F).[22]

- Units without an elderly member or an individual with a disability must have total countable assets of $2,250 or less. Units with an elderly member or an individual with a disability are allowed up to $3,500 in countable assets. (See the next section for exceptions.)

We retain on the file only units that either are categorically eligible or pass the applicable income and asset tests.

2.   State variations to editing procedures

Below, we detail the State-specific editing procedures that we use to model State SNAP rules. These rules include higher asset limits (Section 2a), MFIP (Section 2b), SSI-CAP with standard benefits and standard shelter expenses (Section 2c), and standard medical deduction demonstrations (Section 2d).

a.   Asset limits in States with BBCE policies

Most States with a BBCE policy align their policy to a program or service that does not include an asset test. However, five States (Idaho, Indiana, Maine, Michigan, and Texas) have an asset limit of $5,000 for BBCE units and Nebraska has a financial asset limit of $25,000 for BBCE units.

b.   Minnesota Family Investment Program units

MFIP is Minnesota's TANF program, which is open to low-income families with children.[23] MFIP calculates participants' food assistance and cash assistance benefits together; consequently, the SNAP benefit calculation differs from the Federal formula. Both the maximum food assistance portion and maximum cash assistance portion of the MFIP benefit are based on unit size and are higher for families with earnings (see Appendix F, Table F.8). To calculate the benefits, countable income is subtracted from the combined maximum food portion and cash portion, or the "transitional standard." If a unit has earned

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[20] States may exclude child support expenses from gross income rather than consider them a deduction. For units that exclude it from gross income, we check that gross income minus child support expenses is at or below 130 percent of the Federal poverty guidelines.

[21] Beginning in FY 2019, if a household includes an elderly individual or an individual with a disability outside the unit who was found ineligible because of an intentional program violation, a felony drug conviction, fleeing felon status, or noncompliance with a workfare or work requirement (FSAFILi = 8, 9, 11, or 13), the household is excluded from the gross income test.

[22] This test is not performed on SNAP units identified as participating in MFIP or an SSI-CAP demonstration in a State using standard benefits.

[23] More information is available from Minnesota's Department of Human Services website (http://www.dhs.state.mn.us/).

income, an earnings deduction is applied, and the remaining countable income is subtracted from the "family wage level," which is 10 percent higher than the transitional standard. If the total benefit amount is less than or equal to the maximum food portion, the unit receives only food assistance. If the benefit is greater than the maximum food portion, the unit receives the remainder of the benefit as cash assistance. MFIP units receive no income deductions other than the earnings deduction. The earnings deduction rate for MFIP participants in FY 2019 was 50 percent after the exclusion of $65 from earned income per wage earner.

Because of the way the SNAP benefit is calculated under MFIP, Minnesota does not record the full TANF benefit amount on the QC data nor do we attempt to calculate it. For some MFIP units, Minnesota records a $1 TANF benefit as an indicator that the unit received a cash TANF benefit. We code all MFIP units as pure PA regardless of whether they have a reported cash TANF benefit.

Below, we describe the calculation of the food portion of the benefit and differences in the general editing procedures that reconcile unit-level income with person-level income. (See Appendix F for FY 2019 cash and food portion values.)

Step 1. Flag units that are MFIP participants. Recognizing that not all MFIP participants receive a cash benefit, we first attempt to identify MFIP-participating units. We flag units in Minnesota as MFIP participants if they have one of the following characteristics:[24]

- The unit has person-level TANF income for SNAP unit members, unless the SNAP benefit in the raw data file is consistent with having been calculated using regular SNAP rules.

- The unit has children and the benefit, adjusted for errors, matches the MFIP table of benefits for this unit size.

- The unit has children, positive person-level earnings, and a positive reported earned income deduction equal to 50 percent of the person-level earnings.

Step 2. Reconcile reported person-level income amounts with reported unit-level income and deduction variables. The procedure for reconciling person-level income amounts with unit-level income and deductions is the same as for all other SNAP units except in the following cases:

- We begin reconciling person-level income to unit-level gross income by excluding TANF from unearned income. At each step in reconciling to unit-level gross income described above, if person-level incomes with TANF excluded do not equal the unit-level gross income, we try including TANF income to determine whether adding it allows us to reconcile to unit-level gross income.[25] The final calculated gross income includes any TANF income initially included in the raw data file.

- We do not attempt to reconcile MFIP participants' person-level income with reported unit-level net income, because net income is not used in the same way for the MFIP benefit as it is in the Federal program. We code the calculated net income variable as missing for all MFIP units.

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[24] MFIP's unit composition rules differ from regular SNAP rules. Specifically, SSI and TANF recipients living in the same household are treated as separate SNAP units. Consequently, if a Minnesota unit of more than one person had both SSI and TANF income, we set the affiliation code of SSI recipients to unknown (99).

[25] With the cash portion of the benefit calculated at the same time as the food portion of the benefit, we do not expect TANF income to be included in a unit's total gross income. However, in some unit records, TANF income is included, and we accept it as confirmation that the recorded gross income is correct.

Step 3. Calculate the earned income deduction. For MFIP units, we calculate the earned income deduction as 50 percent of earnings.

Step 4. Calculate the final deductions. We code all deductions except the earned income deduction and total deduction as missing (.E) for MFIP participants.

Step 5. Calculate the food benefit. We determine the benefit based on unit characteristics:

- If the unit has no income, then the benefit is the food portion for the unit size.

- If the unit has only earned income, the benefit is the lower of the food portion and the difference between the family wage level (the income threshold for units with earnings) and net earnings, but never less than 0.

- If the unit has only unearned income, the benefit is the lower of the food portion and the difference between the transitional standard (the income threshold for units without earnings) and net unearned income, but never less than 0.

- If the unit has both earned and unearned income, we subtract net earned income from the family wage level and compare the difference with the transitional standard. We then subtract unearned income from the smaller of the two (to ensure that the wages were high enough to merit the full increase to the family wage level). The benefit amount is the lower of this difference or the food portion, but never less than 0.

- For one- and two-person SNAP units, we set the benefit amount to the higher of the calculated benefit or the minimum Federal SNAP benefit.

c.   SSI-Combined Application Project units

In FY 2019, 17 States—Arizona, Florida, Kentucky, Louisiana, Maryland, Massachusetts, Michigan, Mississippi, New Jersey, New York, North Carolina, Pennsylvania, South Carolina, South Dakota, Texas, Virginia, and Washington—had SSI-CAP demonstrations. These demonstration projects aim to streamline procedures for providing SNAP benefits to certain units eligible for both SNAP and SSI. Most provide participants with a standard benefit, while three provide a standard shelter expense deduction.

In the next two sections, we describe the 17 programs and our procedures for identifying and editing SSI-CAP units for the SNAP QC database. Most of the SSI-CAP units identified have reported data that are consistent with program rules. In some cases, however, we identify units as participating through an SSI-CAP even though some of their reported data are inconsistent with program rules. We flag SSI-CAP units with consistent data as SSI_CAP = 2 and those with some inconsistent data as SSI_CAP = 3. We model State rules that let units with high medical expenses opt-out of SSI-CAP by setting SSI_CAP = 0 for potential SSI-CAP units with reported data that are inconsistent with some SSI-CAP program rules and high reported medical expenses (FSMEDEXP > $200).

i.   *SSI-CAP programs with a standard benefit*

The States listed in Table III.1 operate programs that provide participants with a standard "high" or "low" benefit, based on whether participants' shelter expenses fall above or below a State-determined threshold. Because net income and deductions are not used in calculating benefits for SSI-CAP households, we set

the final values of these variables to missing (.E).[26] More specifically, the variables set to missing for SSI-CAP participants in States with standard SSI-CAP benefits include:

- Net income (FSNETINC)
- Total deductions (FSTOTDED)
- Standard deduction (FSSTDDED)
- Medical expense deduction (FSMEDDED)
- Earned income deduction (FSERNDED)
- Dependent care deduction (FSDEPDED)
- Child support payment deduction (FSCSDED)
- Homeless household shelter deduction (HOMELESS_DED)
- Excess shelter expense deduction (FSSLTDED)
- Standard Utility Allowance (SUA1 and SUA2)

We use the following general process to identify, recode, and assign benefits to households participating in standard benefit SSI-CAP programs:

- **Identifying units.** We identify as SSI-CAP participants all individuals meeting the eligibility criteria outlined for each State in Table III.1, with a recorded benefit adjusted for errors equal to any of the SSI-CAP standard benefit amounts for that State (see Appendix F, Tables F.9–F.22).

- **Recodes for units.** In addition to setting calculated net income and all calculated deductions to missing, if the sum of individual incomes does not equal the raw gross income, we set the sum of individual incomes equal to the (RAWGROSS) by adjusting individual incomes proportionately, as necessary.

- **Benefit calculations for units.** We set the final calculated benefit equal to the standard SSI-CAP benefit corresponding to the unit's rent/mortgage expenses (RENT) value or total shelter expenses (FSSLTEXP) and unit size.

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[26] The raw variables indicating the actual costs are usually retained.

Table III.1. SSI-CAP programs with standard benefits

State	Start date	Unit composition	Age	Allowed income	Shelter amounts	Benefit calculation
Arizona (AZSNAP)	February 2009	Living alone	65 or older	Unearned	$0 to 99; $100 to 199; $200 to 299; $300 or greater	Table F.9
Kentucky (KYSAFE)	2007	Living alone or married	60 or older	Earned and unearned	One person: Less than $200; $200 or greater Two people: Less than $108; $108 or greater	Table F.10
Louisiana (LaCAP)	2007	Living alone	60 or older	Earned and unearned	Less than $400; $400 to less than $749; $749 or greater	Table F.11
Maryland (MSNAP)	July 2010	Living alone	60 or older	Unearned	Less than $506; $506 or greater	Table F.12
Michigan (MiCAP)	April 2009	Living alone	18 or older	No income	$1,000 or less; greater than $1,000	Table F.13
Mississippi (MSCAP)	October 2001*	Living alone	No age requirement	Unearned	SSI only: $335 or less; greater than $335 SSI and other unearned income: $335 or less; greater than $335	Table F.14
New Jersey (NJ SNAS)	May 2009	Living alone	65 or older	Unearned	$563 or less; greater than $563	Table F.15
New York (NYSNIP)	March 2003*	Living alone	No age requirement	Earned and unearned	SSI only: Positive utility costs (high/low rent), no utility costs (high/low rent), no shelter costs SSI and other unearned income: Positive utility costs (high/low rent), no utility costs (high/low rent), no shelter costs	Table F.16
North Carolina (NCSNAP)	August 2005	Living alone	65 or older	Earned and unearned	Less than $150; $150 or greater	Table F.17
Pennsylvania (PACAP)	2007	Living alone	18 or older	Unearned	SSI only: Less than $196; $196 or greater SSI and other unearned income: Less than $196; $196 or greater	Table F.18
South Carolina (SCCAP)	October 1995*	Living alone	No age requirement	Unearned	SSI only: $290 or less; greater than $290 SSI and other unearned income: $290 or less; Greater than $290	Table F.19
South Dakota (SD IN)	January 2010	Living alone or married	18 or older	Earned and unearned	No earnings: Individuals or couples with shelter expenses less than $690 or $690 or greater and medical expenses $35 or less or greater than $35 Earnings: Individuals or couples with shelter expenses less than $690 or $690 or greater and medical expenses $35 or less or greater than $35	Table F.20
Texas (SNAP-CAP)	September 2002*	Living alone or married	50 or older	Earned or unearned	$400 or less; greater than $400	Table F.21
Virginia (VaCAP)	August 2006	Living alone	65 or older	Unearned	Less than $500; $500 or greater	Table F.22

* We began modeling the SSI-CAP program in FY 2004.

We use alternate or specific characteristics for identifying SSI-CAP units, recoding values, and calculating benefits in some States, as shown in Table III.2 and described below.

Table III.2. States with special rules for identifying, recoding, and calculating benefits for SSI-CAP units

State	Identifying units	Recodes for units	Benefit calculations
Arizona	X		
Kentucky	X		
Louisiana	X		
Mississippi	X	X	X
New Jersey	X		
New York	X		X
Pennsylvania			X
South Carolina	X	X	X
South Dakota	X	.	X
Texas	X	X	
Virginia	X		

Identifying units

In addition to the criteria listed in Table III.1, we identify as SSI-CAP participants units with a certification period of 24 months in New Jersey; 36 months in Arizona, Kentucky, and Virginia; and 36 or 39 months in Louisiana.

In New York, the certification period for NYSNIP is 48 months, with interim contact at the end of 24 months. We identify as NYSNIP participants one-person units that receive SSI benefits and belong to one of the following groups:[27, 28]

- Units with a recorded benefit adjusted for errors that matches an NYSNIP benefit, and the benefit amount is consistent with the presence of unit income other than SSI, adjusting for the New York SSI supplement of $87

- Units with a recorded benefit adjusted for errors that matches an NYSNIP benefit and with the medical expense and excess shelter expense deductions both coded as 0

- Units with a certification period exceeding 48 months

Married couples in Kentucky and South Dakota may participate in SSI-CAP, but each individual must meet the eligibility criteria and be treated as a member of the same SNAP unit. Only married couples in which both individuals are SNAP participants and report receiving SSI benefits are identified as SSI-CAP participants.

[27] New York requires NYSNIP participants to be living alone (not just forming one-person SNAP units) and provides data on the QC data file that are sufficiently detailed for us to identify households consisting of just one person.

[28] Because so few NYSNIP eligible units have allotment adjustments, we do not check for units where the recorded benefit plus or minus the allotment adjustment would equal an NYSNIP standard benefit.

In Texas, at least one person must be age 50 or older and receive SSI benefits. SNAP-CAP treats elderly SSI participants independently of other household members. All other household members apart from the first elderly SSI participant are edited to be outside of the unit.

QC reviewers in Kentucky and Texas do not include information on SSI receipt for SSI-CAP units in the raw file. Thus, units in these States that appeared to be SSI-CAP cases based on their household composition, certification periods, and benefit amounts are identified as SSI-CAP units, even if they are not coded as receiving SSI.

QC reviewers in Mississippi and South Carolina make income and deductions consistent with the standard benefit for MSCAP and SCCAP participants. Most MSCAP and SCCAP units follow a consistent pattern in terms of income and recorded shelter expenses. (See Appendix F, Table F.14 for MSCAP benefits and income patterns and Appendix F, Table F.19 for SCCAP benefits and income patterns.) If one of the following conditions is true, we flag as MSCAP or SCCAP participants in one-person units that report receiving SSI benefits and have no reported earned income:

- The recorded benefit adjusted for errors equals an MSCAP or SCCAP standard benefit, and the recorded gross income or recorded net income is consistent with that benefit according to the pattern followed in most units (allowing the recorded utility amount for MSCAP or rent/mortgage amount for SCCAP to be inconsistent).[29]

- The recorded benefit adjusted for errors equals a standard benefit, and the recorded utility amount equals the MSCAP SUA or standard rent/mortgage amount for SCCAP (allowing the recorded gross and net income to be inconsistent).

- The recorded utility amount equals the MSCAP SUA, or the recorded rent/mortgage amount equals the standard rent/mortgage amount for SCCAP, and the recorded gross income or recorded net income equals one of the income amounts consistent with the pattern (allowing the benefit to be inconsistent).[30]

Recodes for units

In Mississippi and South Carolina, we set calculated net income and all calculated deduction variables to missing as described earlier and perform the following recodes for units identified as MSCAP or SCCAP participants:

- **Shelter expenses.** For most MSCAP participants, QC reviewers record the utility expenses as the MSCAP SUA. For units where this was not the case, we recode the utility expense values (UTIL). In addition to a utility expense, some QC reviewers record a rent or mortgage value for MSCAP units. We recode this value (RENT) as 0 because the MSCAP SUA reflects combined shelter expenses, including rent/mortgage.

  For most SCCAP participants, QC reviewers record the utility expense value as the South Carolina HCSUA value and rent/mortgage as the standard SCCAP rent amount. We recode utilities (UTIL) and rent/mortgage (RENT) for SCCAP units that do not follow this pattern.

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[29] If the recorded benefit equals the minimum benefit, we require both gross income and net income to be consistent with the pattern.

[30] Because so few MSCAP- and SCCAP-eligible units have allotment adjustments, we do not check for units in which the recorded benefit plus or minus the allotment adjustment would equal an MSCAP or SCCAP standard benefit.

- **Income.** In most MSCAP and SCCAP units, the raw gross income equals either the maximum SSI benefit for eligible individuals or the maximum SSI benefit plus $20, reflecting the $20 unearned income disregard for SSI. We recode the raw gross income (RAWGROSS) of MSCAP and SCCAP units that do not follow this pattern. We set the sum of individual incomes equal to the raw gross income (RAWGROSS) by adjusting individual incomes proportionately, as necessary.

In Texas, after setting calculated net income and all calculated deduction variables to missing as described earlier, we perform the following recode for units identified as SNAP-CAP participants:

- **SNAP participation and unit size.** According to SNAP-CAP rules, married couples may participate in the program but are treated as separate units. If a unit consists of a married couple, both partners are age 50 or older, and the unit is coded as SNAP participants and receives a SNAP-CAP standard benefit, we keep the first person as an eligible member of the SNAP case under review (FSAFILi = 1) and recode the other as "Eligible SNAP participant in another unit, not currently under review" (FSAFILi = 2). We adjust the variable indicating unit size accordingly (FSUSIZE).
- **Income.** In SNAP-CAP units that originally had more than one individual coded as a SNAP participant, we reset raw gross income (RAWGROSS) equal to the sum of the individual incomes assigned to the one individual who remains a SNAP participant (FSAFILi = 1). In other SNAP-CAP units, we reconcile individual incomes with the original gross income.

Benefit calculations for units

In Mississippi, we set the final calculated benefit equal to the standard SSI-CAP benefit that corresponds to the utility (UTIL) and raw gross (RAWGROSS) values in Appendix F, Table F.14.

In New York, for NYSNIP units with a recorded benefit that matches an NYSNIP benefit, we set the calculated benefit equal to the recorded benefit. For NYSNIP units with a recorded benefit that does not match an NYSNIP benefit, we calculate the benefit based on NYSNIP rules.

In Pennsylvania, we set the final calculated benefit equal to the standard SSI-CAP benefit that corresponds to the unit's rent (RENT) and presence or absence of unearned income other than SSI, as listed in Appendix F, Table F.18.

In South Carolina, we set the final calculated benefit equal to the standard SSI-CAP benefit that corresponds to the rent (RENT) and raw gross (RAWGROSS) value listed in Appendix F, Table F.19.

In South Dakota, we set the final calculated benefit equal to the standard SSI-CAP benefit that is consistent with unit size, shelter expenses (FSSLTEXP), presence or absence of earned income (FSEARN), and presence or absence of medical expenses (FSMEDEXP) as listed in Appendix F, Table F.20.

ii. SSI-CAP programs with a standard shelter expense

The States listed in Table III.3 operate programs that assign participants a standard "high" or "low" shelter expense, and then calculate the unit benefit on the basis of actual income, the standard deduction, the SUA, and the standard shelter expense. Because net income and a few deductions are used to calculate a benefit for SSI-CAP participants in these States, we retain the variables on the file. However, we do not use other deductions for the benefit calculation and set them to missing (.E). The deductions we set to missing for SSI-CAP participants in these States include:

- Medical expense deduction (FSMEDDED)

- Earned income deduction (FSERNDED)

- Dependent care deduction (FSDEPDED)

- Child support payment deduction (FSCSDED)

- Homeless household shelter deduction (HOMELESS_DED)

In addition, we recode the SUAs to differentiate SSI-CAP units from other units that received the same SUA by setting SUA1 to 9 ("Other"). Like SSI-CAP units with a standard benefit, when we set calculated deductions to missing, the raw variables indicating the actual expenses are usually retained.

Units with earnings are not eligible to enroll in SSI-CAP programs in these States. However, after a unit participates, it may have earned income for up to three consecutive months without losing eligibility.

Table III.3. SSI-CAP programs with standard shelter expenses

State	Start date	Unit composition	Age	Allowed income	Shelter amounts
Florida (SUNCAP)	April 2005	Living alone	18 or older	Earned and unearned	$305 or less; greater than $305
Massachusetts (BAYSTATE CAP)	February 2005	Living alone	18 or older	Earned and unearned	Less than $453; $453 or greater
Washington (WASHCAP)[a]	December 2001*	Living alone	18 or older	Unearned	Less than $320; $320 or greater

* We began modeling the SSI-CAP program in FY 2004.

[a] QC reviewers use a special local agency code for WASHCAP units whose applications were processed in an SSA office. We identify as WASHCAP participants all units meeting the criteria outlined in the table above and flagged with this special local agency code.

We use the following process to identify, recode, and assign benefits to households participating in SSI-CAP programs with a standard shelter expense:

Identifying units

We identify as SSI-CAP participants all individuals meeting the eligibility criteria outlined in Table III.3 who have recorded rent/mortgage amounts equal to any of the standard rent/mortgage allowances for that State.

In Massachusetts, if the recorded rent/mortgage amount is not equal to the standard allowance, we calculate the benefit assuming that the standard allowance was used. If this calculated benefit matches the raw benefit, we recode the rent/mortgage amount to be the standard allowance and flag the unit as a BAY STATE CAP participant.

Recodes for units

In addition to setting the deductions not used in the benefit calculation to missing as described above, we perform the following recode for units identified as participants:

- **Shelter expenses.** When necessary, we recode utilities of units in Massachusetts and Washington to equal the State's HCSUA or LUA for one-person units.

- **Income.** We reconcile individual incomes with gross income in SSI-CAP units by using the same process as in non-CAP units.

Benefit calculation for units

We use the regular SNAP benefit calculation. Benefits are based on actual income, the standard deduction, the standard shelter amount, and the SUA. The standard shelter amount is determined by the unit's actual monthly shelter expenses, excluding utilities. Appendix F, Table F.23 lists benefit calculations for all States with a standard shelter expense SSI-CAP program.

d. Standard medical deduction demonstration programs

Twenty-one States have programs to standardize medical expense deduction amounts when units' medical expenses are greater than $35 but fall below a State-specific threshold (see Appendix F, Table F.4). In these States, if a unit with an elderly member or a non-elderly individual with a disability incurs medical expenses less than or equal to the State threshold, the unit receives a medical expense deduction equal to the threshold minus $35. Units with medical expenses greater than the threshold receive a medical expense deduction equal to actual medical expenses, minus $35. To achieve cost neutrality, as required by FNS to operate a medical deduction demonstration program, most States reduced the HCSUA for the entire caseload. The HCSUA modeled for these States in the SNAP QC database reflects the adjustments. Table III.4 lists the States.

The standard medical deduction demonstration flag (MED_DED_DEMO) identifies households in States with standard medical deduction demonstration programs in place during the sample month that have positive countable medical expenses, indicating households eligible for a standard medical deduction.

Table III.4. States with standard medical deduction demonstrations

State	Start date (of current waiver)	Cost neutrality adjustment
Alabama	October 2018	HCSUA was reduced by $8.
Arkansas	September 2016	HCSUA was reduced by $4.
California	October 2017	HCSUA was reduced by $3.
Colorado	October 2018	HCSUA was reduced by $7.
Georgia	October 2015	HCSUA was reduced by $6.
Idaho	November 2013	HCSUA was reduced by $8.
Illinois	June 2017	The standard deduction was reduced by $7.
Iowa	October 2017	HCSUA and limited utility allowance were reduced by $5.
Kansas	January 2016	HCSUA was reduced by $8.
Massachusetts	April 2013	HCSUA was reduced by $9.
Missouri	October 2018	HCSUA was reduced by $14.
New Hampshire	October 2015	HCSUA was reduced by $7.
North Dakota	April 2013	HCSUA was reduced by $10.
Oregon	February 2017	HCSUA was reduced by $6.
Rhode Island	October 2019	HCSUA was reduced by $9.
South Carolina	November 2015	HCSUA was reduced by $14.
South Dakota	October 2019	HCSUA was reduced by $14.
Texas	July 2013	HCSUA and limited utility allowance were reduced by $2.
Vermont	December 2018	HCSUA was reduced by $9.
Virginia	April 2017	HCSUA was reduced by $4.
Wyoming	January 2017	HCSUA was reduced by $7.

C. Derivation of sampling weights

The SNAP QC file's sampling weights are derived to reflect State and national caseload totals from SNAP Program Operations data after adjustments for receipt of disaster assistance benefits and benefits issued in error. They are intended to match monthly target levels of SNAP units, individuals, and benefits.

To derive monthly weights, we first calculate preliminary weights that sum to the monthly number of SNAP units by State and stratum, as reflected in the adjusted SNAP Program Operations data. The tables in Appendix D list the preliminary monthly weights (HWGT) and their derivation for each State and stratum. We create the preliminary weights using these six major steps, presented in Tables D.7–D.18:

1. In States that distributed Disaster SNAP benefits, we lower the Program Operations counts in the months of the disaster by the number of SNAP units receiving benefits because of the disaster (but not already participating SNAP units who receive additional benefits) (Column e).

2. For the States with stratified samples, we apportion the adjusted Program Operations counts across the strata according to the percentage of the sample that is in that stratum in that month (Column f).[31] (No State had a stratified sample in FY 2019.)

3. We calculate the disqualification rate by State and stratum by first identifying all disqualified SNAP units, which are those that the reviewers found ineligible (coded as STATUS = 4) or eligible but not qualifying for a benefit (coded as STATUS = 2 with the error amount at least as large as the full benefit). The number of disqualified SNAP units divided by the number of SNAP units with completed reviews is the disqualification rate[32] (Column i).

4. We lower the Program Operations counts of SNAP units by the disqualification rate calculated in Step 3 to derive the final adjusted Program Operations totals (Column j).

5. We remove from the SNAP QC file any additional SNAP units that do not appear to be eligible for SNAP either because they do not pass the asset or income tests and are not categorically eligible or because they do not qualify for a positive benefit. Removing these units does not affect disqualification rates or the total number of weighted units (Column k).

6. We calculate a preliminary weight for each SNAP unit by State and stratum by dividing the final adjusted Program Operations count by the remaining number of SNAP units on the file (Column m).

After deriving the preliminary weights, we create final weights using a nonlinear programming (NLP) technique that produces estimates that match adjusted Program Operation monthly totals of units, individuals, and benefits. Participant totals are adjusted by the number of individuals in units removed in Steps 1 and 4 above. Benefit totals are adjusted by benefits issued to units that were removed in Steps 1 and 4 and by additional disaster benefits issued to units receiving regular SNAP benefits. The NLP algorithm incrementally changes the original weight until the three adjusted Program Operation monthly totals are matched, with the additional restriction that the final weights will not be less than 10 percent of the preliminary weights. The resulting monthly weights are no longer identical to the preliminary weights or identical among units sampled in the same month, State, and stratum.

To calculate standard errors, we first create 500 sets of replicate weights by drawing 500 random samples from the SNAP QC data and repeating the weighting methodology described above. Because the replicate weights are based on a random sample of raw SNAP QC data, there are occasionally instances when the

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[31] Column omitted from Appendix D tables due to space limitations but available upon request.
[32] The numerator of FNS's error rate includes units that received too much or too little in benefits in addition to the units included in the disqualification rate numerator.

NLP algorithm cannot find weights that match all three Program Operations totals within a certain State and month. When this happens, the algorithm attempts to match only the unit and individuals control totals for that particular State and month. If the algorithm cannot find weights that match both control totals, the replicate weights are set equal to the preliminary weights (calculated in Step 6, described above) for that particular State and month. We use the 500 replicate weights to calculate standard errors.

The edited SNAP QC file contains two weight variables: (1) the monthly weight (HWGT) and (2) the full-year weight (FYWGT). HWGT is used for tabulations in specific months. If a tabulation is for a period longer than one calendar month, the average monthly value for the time period can be obtained by dividing HWGT by the number of months being analyzed. National tabulations of average monthly values for the entire fiscal year can be obtained by using FYWGT, which is typically HWGT divided by 12. However, February totals are not available because of missing data for the District of Columbia, Guam, and 34 States.[33] For these States, FYWGT is HWGT divided by 11.

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[33] Of the 36 States and territories (including the District of Columbia) with no data for February 2019, 21 were missing data in the raw QC data file, including Alabama, Alaska, Connecticut, the District of Columbia, Florida, Georgia, Hawaii, Kansas, Maine, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New York, Oregon, Rhode Island, South Dakota, Tennessee, and Wyoming. During file development, we dropped units due to small sample sizes for the remaining 15 States and territories including Arkansas, California, Colorado, Delaware, Illinois, Indiana, Iowa, Massachusetts, North Carolina, North Dakota, Ohio, Pennsylvania, Vermont, Washington, and Guam.

IV. Development of the 2019 QC Minimodel

The QC Minimodel—one of FNS's SNAP microsimulation models—uses the SNAP QC database to simulate the impact of various policy changes to SNAP on current SNAP participants. The model uses a series of algorithms, written in ISO/IEC standard Fortran 95 and organized in the SNAP Module (FSTAMP), to simulate eligibility, benefits, and participation in SNAP. Some of the FSTAMP routines are specific to the SNAP QC database while others are database-independent. This chapter provides a technical description of the procedures specific to the SNAP QC database that are used to transform characteristics of SNAP units in that database into the data elements that conform with inputs used with the database-independent algorithms of FSTAMP. The database-independent algorithms are documented in the "2011 MATH SIPP+ Microsimulation Model: Programmer's Guide, Technical Description and Codebook" (Schechter et al. 2014).

A. Create MATH-style version of SNAP QC database

1.   Introduction

The QC Minimodel requires a binary file in a particular format (MATH[TM] style)[34] as input. This section describes the procedure used to create the binary file from the SAS version of the SNAP QC database. A two-step process is required to generate the final binary file in the MATH format: (1) create a binary file from the SAS dataset, and (2) run a tally using the binary file from Step 1 to finalize the binary file for use with the QC Minimodel.

2.   User parameters

None.

3.   Programmer's guide

3a.   Input file for Step 1

      QCFY2019.SAS7BDAT   Final SNAP QC database, in SAS format

3b.   Output files from Step 1

MATHPC.HDR	ASCII header file that describes the record layout of the database file, MATHPC.BIN
MATHPC.BIN	QC database file in a hierarchical format (household record and then person records for individuals in the household)

3c.   Program for Step 1

      sas2bin.SAS

3d.   Output variables for Step 1

The variables are the same as those in the final SNAP QC database.

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[34] MATH stands for Micro Analysis of Transfers to Households.

3e. Input files for Step 2

MATHPC.HDR	From Step 1
MATHPC.BIN	From Step 1

3f. Output files from Step 2

MATHPC.HDR	ASCII header file that describes the record layout of the database file, MATHPC.BIN, in final MATH format
MATHPC.BIN	QC database file, in a hierarchical format (household record then person records for individuals in the household), in final MATH format

3g. Program for Step 2

The QC Minimodel TALLY subroutine creates:

- Person-level seeds SEEDP to be used with the random number generator.

- Variables FSDEPDED, FSNDIS, FSNONCIT, FSNABAWD, FSALLPA, and FSASTEST.

3h. Output variables for Step 2

The variables are the same as those in the SNAP QC database, plus the newly created variables.

4. Technical description of procedures

The following is a brief description of the procedures used to create a MATH-style version of the SNAP QC database.

4a. Create preliminary binary file

We create a hierarchical file in standard binary format that contains one household-record per household in the SNAP QC database. Within each household, we create one person-record for each person represented in the SNAP QC database and then convert proprietary SAS missing data codes as follows:

SAS	Recode	
.	-1	(blank on raw QC file)
.A	-2	(coded by Mathematica as out of range)
.B	-3	(coded by QC reviewer as unknown)
.C	-4	(unable to construct variable)
.D	-5	(household participating in month not certified)
.E	-6	(MFIP and SSI-CAP units, variable not relevant in benefit determination

4b. Create preliminary header file

We edit by hand the MATHPC.HDR file so that its record layout matches the output statement in SAS2BIN.SAS.

4c. Create final binary and header files

The model tracks, updates, and writes out the final header file, illustrated below.

```
 MATHPC.BIN   FILE NAME
 10/01/2020   CREATION DATE
18:01:00.00   CREATION TIME
     FY2019   BASE YEAR
     FY2019   YEAR AGED TO
        avg   SIMULATION MONTH
      43259   HOUSEHOLD COUNT
    QC MINI   MODEL LABEL
    2019.00   MODEL VERSION
```

Using the output database from SAS2BIN.SAS, we run a QC Minimodel TALLY subroutine to generate the final version of the QC Minimodel database. This program:

- Renames unit-level variable FSDEPDED to HDEPDED (because FSDEPDED is reserved as a MATH model variable name)

- Deletes the variable SEEDP and generates a new person-level SEEDP that is compatible with the MATH model random number generator MATHRAND

- Creates a person-level variable FSNDIS (the number of non-elderly individuals with disabilities in the unit) on the unit head's record, by summing over individuals in the unit with DISi = 1; and sets FSNDIS to 0 for all other individuals

- Creates a person-level variable FSNONCIT (the number of noncitizens in the unit) on the unit head's record, by summing over individuals in the unit with CTZN > 2; and sets FSNONCIT to 0 for all other individuals

- Creates a person-level variable FSNABAWD (the number of adults without disabilities age 18–49 in childless units) on the unit head's record, by summing over individuals in the unit with NDISCA = 1; and sets FSNABAWD to 0 for all other individuals

- Creates a person-level variable FSALLPA from the unit-level variable PURE_PA and sets it to 0 for all, or 1 for the unit head if PURE_PA = 1

- Creates a person-level variable FSNONGR on the unit head's record that flags units that should not be subject to the gross income test because the household includes an elderly individual or an individual with a disability outside of the unit who was found ineligible because of an intentional program violation, a felony drug conviction, fleeing felon status, or noncompliance with a workfare or work requirement (FSAFILi = 8, 9, 11, or 13); and sets FSNONGR to 0 for all other individuals

- Ensures the asset test result FSASTEST = 1 for all units

B. QC-specific portion of the QC Minimodel

1. Introduction

The QC Minimodel software is segregated into database-independent (generic) and database-specific components. In this section, we document the QC-specific portion of the model.

2. User parameters

The QC Minimodel contains the following model-specific user parameters:

- SHELCAP1 is the shelter limit for the contiguous United States, Alaska, Hawaii, Guam, and the Virgin Islands.

- MN_BEN is a table by SNAP unit size with entries for the food portion amounts and the cash portion amounts required for calculating the benefit for MFIP participants.

- MNERNDED is the value used for calculating the earnings deduction for MFIP participants.

- The following flags allow users to exclude the specified participants from a policy change simulation:
  - XMN_FIP excludes MFIP participants.
  - XSCAP_AZ excludes AZSNAP participants.
  - XSCAP_FL excludes SUNCAP participants.
  - XSCAP_KY excludes KYSAFE participants.
  - XSCAP_LA excludes LaCAP participants.
  - XSCAP_MA excludes BAYSTATECAP participants.
  - XSCAP_MD excludes MSNAP participants.
  - XSCAP_MI excludes MiCAP participants.
  - XSCAP_MS excludes MSCAP participants.
  - XSCAP_NC excludes NCSNAP participants.
  - XSCAP_NJ excludes NJSNAS participants.
  - XSCAP_NY excludes NYSNIP participants.
  - XSCAP_PA excludes PACAP participants.
  - XSCAP_SC excludes SCCAP participants.
  - XSCAP_SD excludes SD IN participants.
  - XSCAP_TX excludes SNAP-CAP participants.
  - XSCAP_VA excludes VaCAP participants.
  - XSCAP_WA excludes WASHCAP participants.

- DOSTAT allows users to include or exclude table statistics in a set of standard summary tables.

For a list of generic FSTAMP user parameters, see documentation for the database-independent portion of the SNAP model (FSTAMP) in the "2011 MATH SIPP+ Microsimulation Model: Programmer's Guide, Technical Description and Codebook" (Schechter et al. 2014).

3. Programmer's guide

3a. Input files

MATHPC.PRM	User parameter file (text file)
MATHPC.HDR	ASCII header file that describes the record layout of the database file, MATHPC.BIN
MATHPC.BIN	SNAP QC database file in standard binary form, in a hierarchical format: household record, and then person records for individuals in the household [35]

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[35] Individuals on the file include SNAP participants plus nonparticipating household members whose income was considered in the eligibility and benefit determinations of the SNAP unit under review.

3b. Output files

MATHPC.HDR[36]	ASCII header file that describes the record layout of the output database file, MATHPC.BIN
MATHPC.BIN	SNAP QC database file in standard binary form, in a hierarchical format (unit record, and then person records for individuals in the unit)
MATHPC.TAB	Summary tables (text file)
tables.json	Summary tables (JSON[37] format text file)
MATHPC.OUT	Debug file

3c. Programs

i. *Subroutines*

db_fs_counts	Increments debug counters and prints totals to MATHPC.OUT file.
db_fs_hh_definers	Creates variables that describe fixed characteristics of the SNAP household, such as the geographic indices used in the income screens and benefit calculations; if standard errors are desired, the replicate weight file is opened, the replicate weight array is allocated, and the weights are read.
db_fs_display_partic_debug	Dummy routine for generic code compatibility.
db_fs_asset	Counts database-specific assets for SNAP units; since the SNAP QC database contains a reported value for unit countable assets, the routine only computes the asset limit.
db_fs_unit	Identifies which household members belong to which SNAP unit and determines whether a person is categorically excluded from any SNAP unit.
db_fs_locate_vars	Locates the database-specific input variables.
db_fs_parm_array_sizes	Sets the size of database-specific arrays.
db_fs_readparm	Reads database-specific user parameters from parameter file.
db_fs_validate_parm	Validates the user parameters using database-specific criteria.
db_fs_participation	Determines whether or not eligible units participate.
db_fs_display_debug	Prints database-specific debug about SNAP units and their eligibility determination
db_fs_vars	Creates SNAP unit summary variables (for example, FSGRINC, FSNETINC).
db_fs_calc_benefit	Computes the benefit for participants in State programs with nonstandard benefit calculations.
db_fs_calc_pure_pa	Calculates FSALLPA, the pure PA flag.
db_fs_set_fsgrtest	Recomputes gross income test for units with child support expenses or units with elderly and disabled household members with certain SNAP case affiliation codes who have been removed from the unit.
db_fs_save_generic_vars	Dummy routine for generic code compatibility.
db_fs_calc_liheap	Dummy routine for generic code compatibility.
db_fs_display_summ_debug	Dummy routine for generic code compatibility.
db_fs_table_b	Dummy routine for generic code compatibility.

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[36] Note that MATHPC.HDR and MATHPC.BIN are created only when the WRFILE is set to T (true).
[37] JSON stands for JavaScript Object Notation, and is defined and documented in ECMA-404 The JSON Data Interchange Syntax.

db_fs_prob_distr_tab	Dummy routine for generic code compatibility.
db_fs_calc_categ_elig	Dummy routine for generic code compatibility. Placeholder for any new BBCE coding.
db_fs_display_partic_debug	Dummy routine for generic code compatibility. Placeholder for any new participation algorithm debug.
db_fs_calc_ben_post	Dummy routine for generic code compatibility.

ii.   *Modules*

fs_dbdefine	Common storage for database-specific household definer variables.
fs_dblocs	Common storage for database-specific variable locations.
fs_dbparm	Common storage for model-specific parameters; also storage for the standard medical deduction demonstration program parameters
fs_dbwork	Common storage for some working variables.

3d. Output variables

None. The database-independent portion of the FSTAMP model creates all output variables.

4.   Technical description of procedures

The primary purpose of the SNAP QC-specific model algorithms is to use SNAP QC-specific data elements to construct the variables needed by the database-independent portion of FSTAMP. Sections a, b, and c refer to code that is executed in the initialization phase (KEOF = 1). The remaining sections refer to code executed in the processing phase (KEOF = 2).

4a. Set parameter array sizes

i.   *Purpose*

Certain parameters or features of FNS's microsimulation models are generic across the models, but vary in form or shape from model to model. In this section, we set the database-specific elements. For example, all models use the maximum benefit parameters, but the number of regions where the maximum benefit is specified varies from model to model (seven regions in the QC Minimodel).

ii.   *Specification*

Deflation parameters. These are usually set to 1.0 (no deflation parameters) in the QC Minimodel:

```
defl_gen = 1.0
defl_VEH = 1.0
```

State loops. There is no looping over States in the QC Minimodel. These parameters control looping:

```
start_kist = 1
end_kist = 1
gen_array_size = 1
```

Database-specific parameter dimensions for the QC Minimodel:

```
num_benmax_region   = 7
num_benmin_region   = 7
num_depmax_region   = 5
num_screen_region   = 3
num_shelcap_region  = 5
num_standded_region = 5
```

4b. Validate user parameters

i. *Purpose*

Although not SNAP QC-specific, two of the generic FSTAMP user parameters must have certain values for the QC Minimodel: BASELAW and FS_VARS.

ii. *Specification*

The QC Minimodel does not support BASELAW = ' ' (baselaw eligibility simulation), because the baselaw simulation is determined by the SNAP QC file editing process rather than by FSTAMP (although the results of the SNAP QC file editing algorithms match the results of the FSTAMP algorithms exactly). For new baselaw runs, a new file created with WRFILE = T should be saved, and policy change simulations can be run off this baselaw by setting BASELAW = the suffix of the variables from the new baseline and setting FS_VARS = BASELAW+1. For example, if baselaw variables have a suffix of 1 a new policy change simulation is created with FS_VARS = 2 and saved as a new baseline. The new file now has two sets of variables, one with suffix = 1 and the other with suffix = 2. To use the new baseline in a policy change simulation, point INDIR to the new file and set BASELAW = 2 and FS_VARS = 3.

FS_VARS = 1 is not allowed, because the variables with a suffix of 1 are always on the file. The original suffix 1 variables are always needed by the DBVARS routine for imputing medical, shelter, and child support expenses, and countable assets (when the unit composition is not that of the original unit). Users who change the suffix 1 set of variables on the file should make sure that they understand the impact on the DBLOCS, DBDEFINE, and DBVARS calculations.

Certain parameters must stay constant from simulation to simulation in a multisimulation run. These include:

> DOSTATS
> XMN_FIP
> XSCAP_xx, where xx is the State abbreviation of a State with an SSI_CAP program.

A fatal error will be issued if the model detects a variation in any of these parameters from simulation to simulation.

4c. Locate the input variables used and the output variables created

i. *Purpose*

During KEOF = 1, before processing household records, obtain pointers to variables needed as input to the database-specific model algorithms.

ii. *Specification*

Use the LOCVAR supervisor routine to obtain and store locations for the following variables:

AGE	FOSTER	HOMEDED	SOCSEC
AK_AREA	FSAFIL	HOMELSDED	SSI
CAT_ELIG	FSASSET 1	MED_DED_DEMO	SSI_CAP
CONT	FSCSDED	MINIMUM_BEN	STATE
CSUPRT	FSMEDEXP	MN_FIP	TANF
CTZN	FSNDIS 1	NDISCA	UNEMP
DEEM	FSNELDER 1	OTHERN	VET
DIS	FSNKID 1	OTHGOV	WAGES
DIVER	FSSLTEXP	OTHUN	WCOMP
DPCOST	FSUN 1	PURE_PA	WGESUP
EDLOAN	FSUSIZE 1	RACETH	WRKREG
EITC	FSVEHAST	RCNTACTN	YRMONTH
EMPRG	FYWGT	REL	
ENERGY	GA	SEX	
EXFSCSDED	HDEPDED	SLFEMP	

4d. Construct household definer variables

i. Purpose

For each household, we create household definer variables that are used in subsequent calculations.

ii. Specification

If indicators of statistical significance are selected, we open the replicate weight file and read in the weights for each household. We set WGT to FYWGT. We set geographic indicators for the 48 contiguous United States plus the District of Columbia, Alaska, Hawaii, Guam, and Virgin Islands. GEOG_DED indexes the standard deduction, dependent care deduction, and shelter deduction arrays; GEOG_SCRN indexes the gross and net income screen arrays; GEOG_BEN indexes the maximum benefit array; and GEOG_POV indexes the POVMONTH array.

```
select case (l_state%ihhld)
   case(15)                              !! hawaii
         geog_ded = 3
         geog_scrn = 3
         geog_ben = 5
         case(2)!! alaska
         geog_ded = 2
         geog_scrn = 2

select case(l_ak_area%ihhld)
   case(1)                              !! alaska rural i
         geog_ben = 3
   case(2)                              !! alaska rural ii
         geog_ben = 4
   case default                                   !! alaska urban is default
         geog_ben = 2
end select
   case(66)                             !! guam
         geog_ded = 4
         geog_scrn = 1
         geog_ben = 6
   case(78)                             !! virgin islands
         geog_ded = 5
         geog_scrn = 1
         geog_ben = 7
   case default
         geog_ded = 1
         geog_scrn = 1
         geog_ben = 1
end select

geog_pov = geog_scrn
region = region_lookup(state%ihhld)
```

We set skip_hh_flags for MN_FIP and SSI_CAP units according to the skip parameters, which vary by State.

We assign SNAP reporting status, FS_REPORTER, and set it to true for all units.

We assign the household's dependent care and child support payment deductions and shelter and medical expenses to a set of working variables that are used in policy change simulations that change the original household composition. Note that when imputing these expenses and dependent care deductions within a simulation, the values for the original household must be used even if a new baselaw has been previously constructed. Also, we set original assets and original unit counts and flags.

```
   orig_fsmedexp = l_original_fsmedexp%ihhld
   orig_fssltexp = l_original_fssltexp%ihhld
   orig_fsdepded = l_original_fsdepded%ihhld
   orig_fscsded  = l_original_fscsded %ihhld
   orig_fsuhead = 0
   hhtanf = 0
   orig_kids_lt15 = 0
   do ip = 1, ctprhh
      if (l_original_fsun%iper(ip) == ip) orig_fsuhead = ip
      if (l_tanf%iper(ip) > 0) hhtanf = hhtanf + l_tanf%iper(ip)
      if (l_original_fsun%iper(ip) == 0) cycle
      if (l_age%iper(ip) >= 0 .and. l_age%iper(ip) < 15) &
            orig_kids_lt15 = orig_kids_lt15 + 1
   enddo
   orig_fsusize  = l_original_fsusize %iper(orig_fsuhead)
   orig_fsnkid   = l_original_fsnkid  %iper(orig_fsuhead)
   orig_fsnelder = l_original_fsnelder%iper(orig_fsuhead)
   orig_fsndis   = l_original_fsndis  %iper(orig_fsuhead)
   orig_fsasset  = l_original_fsasset %iper(orig_fsuhead)
```

4e.   Construct SNAP unit

i.   *Purpose*

We use the FSUN 1 code to construct the SNAP unit. We make sure that every SNAP unit has a head.

ii.   *Specification*

We assign FSUN (SNAP unit number) to each person in the household:

```
do ip = 1, ctprhh
   fsun(ip) = l_original_fsun%iper(ip)
end do
```

We identify units that no longer have a head due to a policy change simulation and assign them a new head:

```
do ip = 1,ctprhh
   if (fsun(ip) == 0) cycle
   if (fsun(fsun(ip)) /= fsun(ip)) then
         do jp = ip+1,ctprhh
               if (fsun(jp) == fsun(ip)) fsun(jp) = ip
         end do
         fsun(ip) = ip
   end if
end do
```

4f.   Create SNAP unit summary variables

i.   *Purpose*

We summarize characteristics of each SNAP unit by adding the countable income of all household members and counting various types of people in the unit (such as the number of elderly members and number of children).

ii. Specification

For each unit, we aggregate the countable income of all members in the household. Gross income is the sum of all earned and unearned income. When appropriate, we exclude child support expenses from the gross income. (There are separate values that indicate expenses to be subtracted before the gross income test [EXFSCSDED] and expenses to be subtracted before the net income test [FSCSDED].)

We loop over all individuals in the household:[38]

```
do iunit = 1, ctprhh
   do ip = 1, ctprhh
         if (l_dpcost%iper(ip) > 0) depexp(iunit) = depexp(iunit) + l_dpcost%iper(ip)
         !--------  WELFARE Support  (Note: missing income values are coded as < 0)
         if (l_tanf%iper(ip) > 0) fstanf(iunit)  = fstanf(iunit) + l_tanf%iper(ip)
         if (l_ssi %iper(ip) > 0) then
               fsssi (iunit)  = fsssi (iunit) + l_ssi %iper(ip)
               nssi = nssi + 1
         endif
         if (l_ga  %iper(ip) > 0) fsga  (iunit)  = fsga  (iunit) + l_ga  %iper(ip)
         !---- Earned income
         if (l_wages %iper(ip) >0) fsearn(iunit) = fsearn(iunit) + l_wages %iper(ip)
         if (l_othern%iper(ip) >0) fsearn(iunit) = fsearn(iunit) + l_othern%iper(ip)
         if (l_slfemp%iper(ip) >0) fsearn(iunit) = fsearn(iunit) + l_slfemp%iper(ip)
         !---- Other unearned income
         if (l_othgov%iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_othgov%iper(ip)
         if (l_socsec%iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_socsec%iper(ip)
         if (l_unemp %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_unemp %iper(ip)
         if (l_vet   %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_vet   %iper(ip)
         if (l_wcomp %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_wcomp %iper(ip)
         if (l_edloan%iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_edloan%iper(ip)
         if (l_csuprt%iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_csuprt%iper(ip)
         if (l_deem  %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_deem  %iper(ip)
         if (l_cont  %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_cont  %iper(ip)
         if (l_othun %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_othun %iper(ip)
         if (l_diver %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_diver %iper(ip)
         if (l_wgesup%iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_wgesup%iper(ip)
         if (l_energy%iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_energy%iper(ip)
         if (l_eitc  %iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_eitc  %iper(ip)
         if (l_foster%iper(ip) > 0)  fsgrinc(iunit) = fsgrinc(iunit) + l_foster%iper(ip)
   end do ! end of person loop
   fsgrinc(iunit) = fsgrinc(iunit) + fsearn(iunit)  + fsssi(iunit)  &
                                   + fstanf(iunit)  + fsga(iunit)
   fsgrinc(iunit) = fsgrinc(iunit) – l_exfscsded%ihhld
 end do ! end of unit loop
```

For each unit, we loop over individuals and count members with various characteristics:

- Total members

- Number of adults and number of female adults (those with missing age are included as adults)

- Number of children, number of school-age children (children age 5–17), number of toddlers (children under age 2), and number of children older than toddlers

- Number of elderly members

- Number of noncitizens

---

[38]All individuals in the household include all individuals in the SNAP unit under review, plus individuals outside the unit who contribute income to the unit.

- Number of able-bodied adults without dependents (ABAWDs)

- Number of members with a disability

- Number of female members and number of male members

```
do iunit = 1, ctprhh
        do ip = 1, ctprhh
                if (fsun(ip) /= iunit) cycle  ! cycle if person not in the SNAP unit
                fsusize(iunit) = fsusize(iunit) + 1
                if (l_age%iper(ip) > max_kid_age .or. l_age%iper(ip) < 0) then
                        fsnadult(iunit)  = fsnadult(iunit) + 1
                        if (l_sex%iper(ip) == 2) femadults = femadults + 1
                else
                        fsnkid(iunit)  = fsnkid(iunit) + 1
                        if (l_age%iper(ip) >= min_school_age)  fsnk5t17(iunit) =
    fsnk5t17(iunit) + 1
                        if (l_age%iper(ip) < max_toddler_age) then
                                fndeplt2(iunit) = fndeplt2(iunit) + 1
                        else
                                fndepge2(iunit) = fndepge2(iunit) + 1
                        end if
                end if
                if (l_age%iper(ip) >= min_elderly_age) fsnelder(iunit) = fsnelder(iunit)
    + 1
                if (l_ctzn%iper(ip) > 2) fsnoncit(iunit) = fsnoncit(iunit) + 1
                if (l_NDISCA%iper(ip) == 1 .AND. l_fsafil%iper(ip) == 1) &
                        fsnabawd(iunit) = fsnabawd(iunit) + 1
                if (l_dis%iper(ip) == 1) fsndis(iunit) = fsndis(iunit) + 1
                if (l_sex%iper(ip) == 2) then
                        fsnfemale(iunit) = fsnfemale(iunit) + 1
                else
                        fsnmale(iunit) = fsnmale(iunit) + 1
                end if

        end do ! end of person loop
    end do ! end of loop over all fs units in the household
```

We identify SNAP units headed by a single female. This is not used for any eligibility determination. It is used for summary counts only.

```
if (fsnadult(iunit) == 1 .and. femadults==1 .and. fsnkid(iunit) >0) fsngmom(iunit) = 1
```

4g. Impute assets, shelter expenses, medical expenses, homeless household shelter deduction, and child support expenses when the SNAP unit is not the original SNAP unit

i.   Purpose

Asset and expense data recorded on the SNAP QC database pertain to the actual SNAP unit sampled by the QC System. However, the QC Minimodel has the capability to simulate SNAP units with compositions that are different from the composition of the original SNAP unit by removing individuals with certain characteristics from the original SNAP unit.

The QC system records countable income at the person-level for every household member whose income is used to determine the SNAP unit's eligibility. However, asset and expense data are recorded only at the unit level for the original SNAP unit. Thus, the QC Minimodel uses the original SNAP unit's asset and expense data, along with algorithms described below, to impute expenses and assets for any simulated SNAP unit that has a composition different from that of the original SNAP unit.

Many different algorithms could be used to impute assets and expenses in simulations that involve changes to SNAP unit composition. The best algorithm to use depends on the type of policy change to be simulated. The algorithms described below have been incorporated into the QC Minimodel because they have been used for numerous policy change simulations requested by FNS. These algorithms will work well for many types of simulations, but they are not designed to be generally applicable.

ii. Specification

Countable assets. For all simulated SNAP units, the QC Minimodel assigns the countable assets of the original SNAP unit:

```
fsasset (iunit) = orig_fsasset
```

While the value of countable assets is kept constant when the unit composition changes, the removal of certain individuals from the SNAP unit may mean that a different asset limit is applicable, thus resulting in some units losing asset eligibility. For example, the removal of elderly members or non-elderly individuals with disabilities from the SNAP unit would lead to a lower asset limit.

Shelter expenses. For all simulated SNAP units, the QC Minimodel assigns shelter expenses equal to the product of the number of individuals in the unit and the per-capita shelter expenses of the original SNAP unit:

```
fssltexp(iunit) = nint( orig_fssltexp * float(fsusize(iunit)) / orig_fsusize )
```

In reality, a household's shelter expenses are assigned to each SNAP unit in the household, based on the share of shelter expenses actually paid by each member of each SNAP unit. Although the SNAP QC data contain no information regarding which individuals are responsible for paying shelter expenses, one could impute payment responsibility based on income; a person with 65 percent of a household's income would be assumed to be responsible for paying 65 percent of the household's shelter expenses. Again, the best imputation depends on the type of policy change to be simulated.

Medical expenses. The QC Minimodel imputes medical expenses based either on the number of elderly members or non-elderly individuals with disabilities in the original unit. If the original unit contains no elderly individuals and no non-elderly individuals with disabilities, then a medical expense deduction is not allowed—either in the original SNAP QC file editing process or in any QC Minimodel simulations. However, under certain circumstances, such as an elderly individual outside the unit, the medical expense may be applied to the head of household. In policy change simulations, the medical expense is prorated by the ratio of elderly individuals and non-elderly individuals with disabilities in the policy change simulation relative to the number of elderly individuals and non-elderly individuals with disabilities in baselaw:

```
if (orig_fsmedexp > 0) then
   if (orig_fsnelder + orig_fsndis > 0) then
         fsmedexp(iunit) = &
               nint (real (orig_fsmedexp * (fsnelder(iunit) + fsndis(iunit)) ) &
               / (orig_fsnelder + orig_fsndis))
   else if (orig_fsnelder == 0 .and. orig_fsndis == 0) then
         if (nssi > 0) then
               ! The unit is allowed a medical deduction based on an elderly or
               ! disabled person outside the unit (if there are none in the unit).
               ! The medical deduction goes to whomever in the unit has SSI
               ! income.
               do ip = 1, ctprhh
                     !--- Cycle if person not in the fsu
                     if (fsun(ip) /= iunit) cycle
                     fsmedexp(ip) = nint(real(orig_fsmedexp) / nssi)
               end do
         else
               ! The unit is allowed a medical deduction based on an elderly or
               ! disabled person outside the unit, but nobody has SSI income,
               ! so assign the medical deduction to the unit head.
               fsmedexp(iunit) = orig_fsmedexp
         end if
   end if
else
   fsmedexp(iunit) = 0
end if
```

In addition, we identify units participating in standard medical deduction demonstration programs in the 21 States with such demonstrations. Certain States have a reduction to the standard deduction or HCSUA to maintain cost neutrality. See Appendix F, Table F.4 for more detail on the standard medical deduction amounts for these States:

```
do i = 1, num_med_demo
   if (fstate == med_demo_state(i) .and. fsmedexp(iunit) > 0 .and. l_yrmonth%ihhld >=
                     med_demo_date(i) ) then
         if (fsmedexp(iunit) <= (med_demo_thres(i)-35)) fsmedexp(iunit) = med_demo_min(i)
         fsstdded(iunit) = fsstdded(iunit) - med_demo_stddedred(i)
   end if
end do
```

Child support expenses. The QC Minimodel imputes the child support expenses of the original unit to the head of the original unit. The child support payment deduction is equal to the child support expenses.

```
if (orig_fscsded > 0 .and. fsun(orig_fsuhead) == iunit)  fscspded(iunit) = orig_fscsded
```

For a policy change simulation, we assign child support expenses to the simulated SNAP unit that contains the head of the original unit. If the head of the original unit does not belong to any of the newly simulated units, then the child support expenses are not used.

Homeless household shelter deduction. The QC Minimodel assigns the homeless household shelter deduction attributed to the original unit to all simulated SNAP units within the household.

```
if (l_homeded%ihhld == 3)
   fshomeDED(IUNIT) = l_homelsded%ihhld
```

Recompute gross income test. In the QC Minimodel, the gross income test is recalculated for units with child support expenses:

```
if (fscspded(iunit) > 0 .and. fsgrinc(iunit) - fscspded(iunit) <= GROSS_SCREEN(IUNIT))
        FSGRTEST(IUNIT) = 1
```

4h.   Select participants

i.   *Purpose*

After eligibility is determined for a SNAP unit in the household, the model must simulate whether or not the unit decides to participate. In the QC Minimodel, we simulate all SNAP-eligible units on the file as participants because every household on the file did in reality participate in SNAP. We believe that this all-eligible-units-participate rule is reasonable in most cases. On the other hand, if a large reduction in SNAP benefits is simulated, the user may want to make some out-of-model adjustments to account for eligible SNAP units that may not continue to participate. If a baselaw eligible unit is simulated to have a zero benefit under a policy change simulation, the unit is treated as ineligible in the simulation results.

ii.   *Specification*

```
do iunit = 1, ctprhh      fspart(iunit) = 0
   if (fsun (iunit) /= iunit) cycle        !  not the SNAP unit head
   if (fsben(iunit) > 0) fspart(iunit) = 1 !  all eligible units participate
end do
```

We describe in detail the FSBEN calculation in the FSBEN entry of the codebook (Chapter V). We describe MFIP and State SSI-CAP programs in Chapter III, and we list the MFIP parameters and SSI-CAP standard benefit and shelter amounts in Appendix F.

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V. Codebook for the FY 2019 SNAP QC Database

In this chapter, we describe the variables on the FY 2019 SNAP QC database, including an overview of the types of variables on the file, a list of variables, and a detailed description of each variable.

A. Overview of variables on the QC file

For each variable in the FY 2019 SNAP QC database, the Codebook provides the name, origin, label, range of values, and a list of values or description. This section explains how to interpret and use that information.

1. Origin: Reported versus constructed

The "Origin" column in the codebook indicates the source of each particular variable as either reported or constructed. Variables coded as "R" are those reported on the QC Review Schedule input form and have been read directly from the raw data file, although some editing may have taken place, as noted in the variable description. Variables coded as "C" are constructed or recoded variables that are derived from reported variables and program parameters, such as the Thrifty Food Plan and the SNAP benefit reduction rate. Constructed variables are the best variables for analytical purposes because inconsistencies have been corrected.

In particular, certain constructed variables are used frequently in creating the tables in the "Characteristics of Supplemental Nutrition Assistance Program Households" report series. Data users will be able to obtain results consistent with those in the report by using the following variables rather than their unedited counterparts:

Variable	Description
FSBEN	Final calculated benefit
FSUSIZE	Constructed certified unit size
FSGRINC	Final gross countable unit income
FSNETINC	Final net countable unit income
FSERNDED	Calculated earned income deduction
TPOV	Gross income/poverty level ratio

2. Missing values

Table V.1 lists the missing value conventions used in the restricted use version of the SNAP QC database. Beginning in FY 2015, the public use version of the SNAP QC database includes only one value (".") for all missing data.

Table V.1. Codes for missing data in the restricted use SNAP QC database

ASCII or binary codes	SAS codes	Description
-1	.	Blank on source file
-2	.A	Value out of range
-3	.B	Coded by QC reviewer as unknown (field coded with all 9s)
-4	.C	Pertains to constructed variables only; variable could not be constructed or calculated due to missing data
-5	.D	For CERTMTH variable, indicates that unit is participating in months not certified
-6	.E	For SSI-CAP and MFIP units, variables that are not relevant in the benefit determination

3.   Using the SNAP QC database

The FY 2019 SNAP QC database is a SAS file with 43,258 observations for sample months ranging from October 2018 through September 2019 for all States, the District of Columbia, Guam, and the Virgin Islands. Typically, the file includes data from all 12 sample months of the fiscal year for all States, territories, and the District of Columbia. However, as a result of a lapse in Federal appropriations in FY 2019, the District of Columbia, Guam, and 34 States do not have any observations for February 2019 and therefore include observations from only 11 sample months. To conduct analyses for a specific calendar month, the user should select observations sampled in that month by using the year month (YRMONTH) variable. The year month variable is a six-digit code with the first four digits indicating the year and the last two digits indicating the month. For example, to conduct an analysis based on observations from January 2019, the user should select all observations with a YRMONTH code equal to "201901."

After selecting the desired observations, the user must assign a weight to each observation so that the sample represents the national SNAP caseload. The weights, stored in the variable HWGT, are computed for each of the independent monthly samples and are based on actual program participation. When analyzing a specific calendar month, the user should use the YRMONTH code to select the correct observations and then use the HWGT variable. However, if the analysis is based on more than one month and an average monthly estimate is desired, the user should divide HWGT by the number of months to be analyzed that are available for each State on the file. The FYWGT variable should be used for all full-year tabulations. (FYWGT equals HWGT divided by 12, with the exception of the District of Columbia, Guam, and 34 States with missing February data where FYWGT equals HWGT divided by 11.)

The tables in the "Characteristics of Supplemental Nutrition Assistance Program Households" report series are based on the full-year sample. To create the tables, we select all observations for all months and weight the observations by FYWGT to reflect the national monthly average caseload during the fiscal year.

The SNAP QC database can be used to obtain person-level information along with unit-level data. An integer from 1 to 16, representing up to 16 people in a household, is attached to each person-level variable. For ease, users often place these variables in arrays and use indices to access the data. One of the key person-level variables is the affiliation code FSAFILi. An FSAFILi value of 1 indicates that the person participated in SNAP.

B. Codebook

This codebook lists and describes each variable in the FY 2019 SNAP QC database. The unit-level variables are listed first, followed by the person-level variables and then the detailed error findings variables, for a total of nine categories.

The unit-level variables are divided into the following six categories:

1. Unit-level QC review administrative data
2. Unit-level demographics and sample weights
3. Unit-level countable income
4. Unit-level countable assets
5. Unit-level expenses and deductions
6. Unit-level benefits

The person-level variables are divided into two categories:

1. Person-level characteristics
2. Person-level income

One category covers detailed error findings variables:

1. Detailed error findings

The categories appear in the order shown above. The variables in each category are listed alphabetically. Two codebooks are presented, both sorted in the same order. The first codebook—the quick-reference codebook—lists only the variable name, its origin, and a brief description. The second codebook—the detailed codebook—lists the variable name, its origin, and a description that includes all the valid values of the variable for discrete variables and the range of valid values for continuous variables (such as HWGT).

Note: Detailed information on each variable in the database can be found starting on page 59.

Table V.2. Quick-reference codebook

Variable	Origin*	Description
Unit QC review administrative data		
ACTNTYPE	R	Type of action
ALLADJ	R	Allotment adjustment
AMTADJ	R	Amount of allotment adjustment
AUTHREP	R	Authorized representative
BENFIX	C	Benefit allotment (SNAP benefit) adjusted for errors
CASE	R	Case classification
CAT_ELIG	C	Indicator of categorical eligibility status
CERTMTH	R	Months in certification period
EXPEDSER	R	Received expedited service
HHLDNO	C	SNAP household identification number
LASTCERT	C	Months since last SNAP certification
LOCALCOD	R	Local agency code (not retained on public use file)
MED_DED_DEMO	C	Indicator of standard medical deduction demonstration eligibility
MN_FIP	C	Indicator of MFIP participation
PURE_PA	C	Indicator of pure cash public assistance status
RCNTACTN	R	Most recent action on case
REP_SYS	R	Reporting requirement
REVNUM	R	State QC review number (not retained on public use file)
SSI_CAP	C	Indicator of SSI-CAP participation
STATUS	R	Status of case error findings
YRMONTH	R	Sample year and month
Unit demographics and sample weights		
AK_AREA	C	Alaska region (not retained on public use file)
CERTHHSZ	R	Certified unit size
COMPOSITION	C	Unit composition
COUNTYCD	C	FIPS code for county (not retained on public use file)
CTPRHH	C	Number of people in household
FSDIS	C	Indicator of non-elderly individuals with disabilities in unit
FSELDER	C	Indicator of elderly individuals in unit
FSKID	C	Indicator of children in unit
FSNDIS	C	Number of non-elderly individuals with disabilities in unit
FSNDISCA	C	Number of adults age 18–49 without disabilities in childless units
FSNELDER	C	Number of elderly individuals in unit
FSNGMOM	C	Indicator of single-female-headed unit
FSNK0T4	C	Number of preschool-age children in unit
FSNK5T17	C	Number of school-age children in unit

Variable	Origin*	Description
FSNKID	C	Number of children in unit
FSNONCIT	C	Number of noncitizens in unit
FSUSIZE	C	Constructed certified unit size
FYWGT	C	Weight used for full-year calculations
HWGT	C	Monthly sample weight
NONCIT_HEAD	C	Unit head citizenship indicator
RAWHSIZE	R	Reported number of people in household
REGION	C	Constructed census region code
REGIONCD	R	FNS region code
STATE	R	FIPS code for State or territory
STATENAME	C	State or territory
STRATUM	R	Stratum identification
TANF_IND	C	Indicator of TANF receipt for unit
TPOV	C	Gross income/poverty level ratio
URBRUR	C	Urban/rural indicator (not retained on public use file)
WRK_POOR	C	Indicator of working poor unit
Unit countable income (monthly dollar amounts)		
FSCONT	C	Countable unit income from contributions
FSCSUPRT	C	Countable unit child support payment income
FSDEEM	C	Countable unit deemed income
FSDIVER	C	Countable unit State diversion payments
FSEARN	C	Countable unit earned income
FSEDLOAN	C	Countable unit income from educational grants and loans
FSEITC	C	Countable unit income from earned income tax credit
FSENERGY	C	Countable unit energy assistance income
FSFOSTER	C	Countable unit foster care income
FSGA	C	Countable unit General Assistance benefits
FSGRINC	C	Final gross countable unit income
FSNETINC	C	Final net countable unit income
FSOTHERN	C	Countable unit other earned income
FSOTHGOV	C	Countable unit income from other government benefits
FSOTHUN	C	Countable unit other unearned income
FSSLFEMP	C	Countable unit self-employment income
FSSOCSEC	C	Countable unit Social Security income
FSSSI	C	Countable unit SSI benefits
FSTANF	C	Countable unit TANF payments
FSUNEARN	C	Countable unit unearned income
FSUNEMP	C	Countable unit unemployment compensation benefits
FSVET	C	Countable unit veterans' benefits
FSWAGES	C	Countable unit wages and salaries
FSWCOMP	C	Countable unit workers' compensation benefits
FSWGESUP	C	Countable unit wage supplementation income

Variable	Origin*	Description
RAWGROSS	R	Reported gross countable unit income
RAWNET	R	Reported net countable unit income
Unit countable and reported assets		
FSASSET	C	Total countable assets under State rules
FSVEHAST	C	Countable non-excluded vehicles' value under State rules
LIQRESOR	C	Countable liquid assets under State rules
OTHNLRES	C	Countable other nonliquid assets under State rules
RAWLQRES	R	Reported liquid assets
RAWOTRES	R	Reported other nonliquid assets
RAWRPROP	R	Reported real property
RAWVHAST	R	Reported non-excluded vehicles' value
REALPROP	C	Countable real property under State rules
VEHICLEA	R	Reported category for first vehicle
VEHICLEB	R	Reported category for second vehicle
Unit expenses and deductions		
ERN_INC_DED_PCT	C	Percentage used to calculate earned income deduction
EXCL_FSCSDED	C	Child support excluded from gross income
FSCSDED	C	Child support payment deduction
FSCSEXP	R	Reported child support payment deduction
FSDEPDED	R	Reported dependent care deduction
FSDEPDE2	C	Marginal effectiveness of dependent care deduction
FSERNDED	C	Calculated earned income deduction
FSERNDE2	C	Marginal effectiveness of earned income deduction
FSMEDDED	C	Calculated medical expense deduction
FSMEDDE2	C	Marginal effectiveness of medical expense deduction
FSMEDEXP	R	Reported medical expenses
FSSLTDED	C	Calculated excess shelter expense deduction
FSSLTDE2	C	Marginal effectiveness of excess shelter expense deduction
FSSLTEXP	C	Calculated shelter expenses
FSSTDDED	C	Standard deduction
FSSTDDE2	C	Marginal effectiveness of standard deduction
FSTOTDED	C	Total deductions
FSTOTDE2	C	Marginal effectiveness of total deduction
HOMEDED	R	Indicator of homelessness
HOMELESS_DED	C	Amount of homeless household shelter deduction
RAWERND	R	Reported earned income deduction
RENT	R	Rent/mortgage amount
SHELCAP	C	Maximum allowable shelter expense deduction
SHELDED	R	Reported shelter deduction
SUA1	R	Standard utility allowance—usage and entitlement
SUA2	R	Standard utility allowance—prorated
UTIL	R	Utility amount

Variable	Origin*	Description
Unit benefits		
AMTERR	R	Amount of benefit in error
ASSLIM	C	Asset limit
BENMAX	C	Maximum benefit amount
FSASTEST	C	Indicator of passing asset test
FSBEN	C	Final calculated benefit
FSGRTEST	C	Indicator of passing gross income test
FSMINBEN	C	Received minimum benefit
FSNETEST	C	Indicator of passing net income test
GROSSCRN	C	Gross income screen
MINIMUM_BEN	C	Minimum benefit amount
NETSCRN	C	Net income screen
RAWBEN	R	Reported SNAP benefit received
Person-level characteristics: i = 1 to 16		
ABWDSTi	R	ABAWD status
AGEi	R	Age
CTZNi	R	Citizenship status
DISi	C	Person-level disability indicator
DPCOSTi	R	Reported dependent care cost
EMPRGi	R	SNAP Employment and Training program status
EMPSTAi	R	Employment status—type
EMPSTBi	R	Employment status—amount
FSAFILi	R	SNAP case affiliation
FSUNi	C	Position of head of SNAP unit
NDISCAi	C	Adult age 18–49 without disabilities in childless unit status
RACETHi	R	Race/ethnicity
RELi	R	Relationship to head of household
SEXi	R	Sex
WORKi	C	Person-level working indicator
WRKREGi	R	Work registration status
YRSEDi	R	Highest educational level completed
Person-level countable income (monthly dollar amounts): i = 1 to 16		
CONTi	R	Countable income from contributions
CSUPRTi	R	Countable child support payment income
DEEMi	R	Countable deemed income
DIVERi	R	Countable State diversion payments
EDLOANi	R	Countable income from educational grants and loans
EITCi	R	Countable income from earned income tax credit
ENERGYi	R	Countable energy assistance income
FOSTERi	R	Countable foster care income
GAi	R	Countable General Assistance benefits
OTHERNi	R	Countable other earned income

Variable	Origin*	Description
OTHGOVi	R	Countable income from other government benefits
OTHUNi	R	Countable other unearned income
SLFEMPi	R	Countable self-employment income
SOCSECi	R	Countable Social Security income
SSIi	R	Countable SSI benefits
TANFi	R	Countable TANF payments
UNEMPi	R	Countable unemployment compensation benefits
VETi	R	Countable veterans' benefits
WAGESi	R	Countable wages and salaries
WCOMPi	R	Countable workers' compensation benefits
WGESUPi	R	Countable wage supplementation income
Detailed error findings: i = 1 to 9		
AGENCYi	R	Agency or client responsibility
AMOUNTi	R	Variance dollar amount
DISCOVi	R	Variance discovery
E_FINDGi	R	Error finding
ELEMENTi	R	Variance element
NATUREi	R	Nature of variance
OCCDATEi	R	Variance occurrence date
TIMEPERi	R	Variance time period
VERIFi	R	Variance verification

* R indicates the variable is from the raw data; C indicates the variable was constructed.

Unit QC review administrative data

Variable	Origin	Description
ACTNTYPE	**R**	**TYPE OF ACTION**
		Range = (1, 2)
		1 = Certification
		2 = Recertification
ALLADJ	**R**	**ALLOTMENT ADJUSTMENT**
		Range = (1, 3)
		1 = No adjustment
		2 = Prorated benefit
		3 = Other adjustment
AMTADJ	**R**	**AMOUNT OF ALLOTMENT ADJUSTMENT**
		Range = (0, 1002)
AUTHREP	**R**	**AUTHORIZED REPRESENTATIVE**
		Range = (1, 2)
		1 = Used to make application
		2 = Not used to make application
BENFIX	**C**	**BENEFIT ALLOTMENT ADJUSTED FOR ERRORS**
		Range = (0, 2768)
CASE	**R**	**CASE CLASSIFICATION**
		Range = (1, 3)
		1 = Included in error rate calculation
		2 = Excluded from error rate calculation—processed by SSA worker
		3 = Excluded from error rate calculation, as designated by FNS (for example, demonstration project, simplified SNAP)
CAT_ELIG	**C**	**INDICATOR OF CATEGORICAL ELIGIBILITY STATUS**
		Range = (0, 2)
		0 = Unit not categorically eligible for benefits
		1 = Unit reported as categorically eligible for benefits and therefore not subject to SNAP income or asset tests (unit subject to State-determined income and/or asset limit on cash Public Assistance [PA] or noncash TANF-funded benefit used to confer categorical eligibility)
		2 = Unit recoded as categorically eligible after being identified as pure cash PA or as meeting State-specified criteria for BBCE and therefore not subject to SNAP income or asset tests
CERTMTH	**R**	**MONTHS IN CERTIFICATION PERIOD**
		Range = (0, 96)
		Number of months SNAP unit was certified to participate during current certification or recertification period
EXPEDSER	**R**	**RECEIVED EXPEDITED SERVICE**
		Range = (1, 3)
		1 = Entitled to expedited service and received benefits within Federal time frame
		2 = Entitled to expedited service but did not receive benefits within Federal time frame
		3 = Not entitled to expedited service
HHLDNO	**C**	**SNAP HOUSEHOLD IDENTIFICATION NUMBER**
		Range = (2, 56076)
		Position of unit in unedited SNAP QC file (unique unit identifier)
LASTCERT	**C**	**MONTHS SINCE LAST SNAP CERTIFICATION**

Variable	Origin	Description
		Range = (0, 93)
LOCALCOD	**R**	**LOCAL AGENCY CODE (not retained on public use file)**
		Range = (0, 930)
		Designates local agency and allows grouping of data by county or county equivalent (may be FIPS code or alternative classification)
MED_DED_DEMO	**C**	**INDICATOR OF STANDARD MEDICAL DEDUCTION DEMONSTRATION ELIGIBILITY**
		Range = (0, 1)
		0 = No
		1 = Yes
MN_FIP	**C**	**INDICATOR OF MFIP PARTICIPATION**
		We recommend using MN_FIP, with the understanding that it may slightly underestimate the number of MFIP units. We recommend against using MFIP units' TANF income because it is not included as gross income and is most likely recorded incorrectly, if at all. See Appendix A for details.
		Range = (0, 1)
		0 = No
		1 = Yes
PURE_PA	**C**	**INDICATOR OF PURE CASH PUBLIC ASSISTANCE STATUS**
		Range = (0, 1)
		0 = No
		1 = Yes
		A unit is pure cash public assistance (pure PA) when everyone in the unit receives TANF, GA, or SSI or the unit has TANF income and every adult receives TANF, GA, or SSI.
RCNTACTN	**R**	**MOST RECENT ACTION ON CASE**
		Range = (20081001, 20190930)
		Date the case was certified or recertified for participation in sample month under review (in yyyymmdd format)
REP_SYS	**R**	**REPORTING REQUIREMENT**
		Range = (1, 10)
		1 = $25 change reporting
		2 = $80 change in earned income
		3 = $100 change in earned income
		4 = Status reporting
		5 = 5-hour change in hours worked and expected to continue over a month
		6 = Simplified reporting (exceeding 130 percent of income poverty guidelines)
		7 = Quarterly reporting
		8 = Monthly reporting
		9 = Transitional benefits (no reporting requirement)
		10 = Other
REVNUM	**R**	**STATE QC REVIEW NUMBER (not retained on public use file)**
		Range = (1, 961120)
SSI_CAP	**C**	**INDICATOR OF SSI-CAP PARTICIPATION**
		We recommend using SSI_CAP, with the understanding that it likely underestimates the actual number of SSI-CAP units. See Appendix A for details.
		Range = (0, 3)
		0 = Not in SSI-CAP
		1 = SSI-CAP case with standard shelter expenses
		2 = SSI-CAP case with standard benefit, consistent with program rules

Variable	Origin	Description
		3 = SSI-CAP case with standard benefit, inconsistent with program rules
STATUS	**R**	**STATUS OF CASE ERROR FINDINGS**
		Range = (1, 3)
		1 = Amount correct
		2 = Overissuance
		3 = Underissuance
YRMONTH	**R**	**SAMPLE YEAR AND MONTH**
		Range = (201810, 201909)
		Allows user to select one or more sample months from full-year file for analyses. The YRMONTH variable is a six-digit code; the first four digits indicate the sample year and the last two indicate the month. To select observations from January 2019, for example, YRMONTH should equal 201901.

Unit demographics and sample weights

Variable	Origin	Description
AK_AREA	**C**	**ALASKA REGION (not retained on public use file)**
		Range = (1, 3)
		1 = Alaska Rural I
		2 = Alaska Rural II
		3 = Alaska Urban
CERTHHSZ	**R**	**CERTIFIED UNIT SIZE**
		Range = (1, 14)
COMPOSITION	**C**	**UNIT COMPOSITION**
		Range = (0, 5)
		0 = No children
		1 = Child(ren) only
		2 = Child(ren) and one male adult
		3 = Child(ren) and one female adult
		4 = Child(ren) and married unit head (spouse may be nonparticipating; includes married teens)
		5 = Child(ren) with other multiple adults
COUNTYCD	**C**	**FIPS CODE FOR COUNTY (not retained on public use file)**
		Range = (1, 840)
CTPRHH	**C**	**NUMBER OF PEOPLE IN HOUSEHOLD**
		Range = (1, 15)
		Number of people in household with nonmissing person-level information
FSDIS	**C**	**INDICATOR OF NON-ELDERLY INDIVIDUALS WITH DISABILITIES IN UNIT**
		Range = (0, 1)
		We recommend using FSDIS, with the understanding that it likely underestimates the number of units with non-elderly individuals with disabilities. See Appendix A for details.
		0 = No
		1 = Yes
		A SNAP unit with one or more individuals that are defined as disabled (DISi = 1)
FSELDER	**C**	**INDICATOR OF ELDERLY INDIVIDUALS IN UNIT**
		Range = (0, 1)
		0 = No
		1 = Yes
		A SNAP unit with one or more elderly individuals
FSKID	**C**	**INDICATOR OF CHILDREN IN UNIT**
		Range = (0, 1)
		0 = No
		1 = Yes
		A SNAP unit with one or more children under age 18
FSNDIS	**C**	**NUMBER OF NON-ELDERLY INDIVIDUALS WITH DISABILITIES IN UNIT**
		We recommend using FSNDIS, with the understanding that it likely underestimates the number of non-elderly individuals with disabilities. See Appendix A for details.
		Range = (0, 4)
		Number of individuals in the unit that are defined as disabled (DISi = 1)

Variable	Origin	Description
FSNDISCA	**C**	**NUMBER OF ADULTS AGE 18–49 WITHOUT DISABILITIES IN CHILDLESS UNITS**
		We recommend using FSNDISCA, with the understanding that it likely overestimates the number of adults without disabilities. See Appendix A for details.
		Range = (0, 4)
		Number of adults age 18–49 without disabilities in childless SNAP units
FSNELDER	**C**	**NUMBER OF ELDERLY INDIVIDUALS IN UNIT**
		Range = (0, 2)
		Number of adults age 60 or older in SNAP unit
FSNGMOM	**C**	**INDICATOR OF SINGLE-FEMALE-HEADED UNIT**
		Range = (0, 1)
		0 = No
		1 = Yes
		A SNAP unit with one adult and one or more children; the adult is female
FSNK0T4	**C**	**NUMBER OF PRESCHOOL-AGE CHILDREN IN UNIT**
		Range = (0, 6)
		Number of children under age 5 in SNAP unit
FSNK5T17	**C**	**NUMBER OF SCHOOL-AGE CHILDREN IN UNIT**
		Range = (0, 11)
		Number of children age 5–17 in SNAP unit
FSNKID	**C**	**NUMBER OF CHILDREN IN UNIT**
		Range = (0, 12)
		Number of children under age 18 in SNAP unit
FSNONCIT	**C**	**NUMBER OF NONCITIZENS IN UNIT**
		Range = (0, 10)
		Number of people with FSAFILi = 1 and CTZNi >= 3
FSUSIZE	**C**	**CONSTRUCTED CERTIFIED UNIT SIZE**
		Range = (1, 14)
		Number of people with FSAFILi = 1
FYWGT	**C**	**WEIGHT USED FOR FULL-YEAR CALCULATIONS**
		Range = (3.60, 6549.15)
		Calculated as HWGT/12, with the exception of the District of Columbia, Guam, and 34 States with missing February data, where defined as HWGT/11.
HWGT	**C**	**MONTHLY SAMPLE WEIGHT**
		Range = (39.63, 72040.69)
		Allows user to replicate total monthly caseloads as reflected in SNAP Program Operations data. If the reference period for the analysis is longer than one calendar month, the weight field must be divided by the number of months being analyzed to calculate an average monthly value for that reference period.
NONCIT_HEAD	**C**	**UNIT HEAD CITIZENSHIP INDICATOR**
		Range = (0, 2)
		0 = Head of unit is a citizen
		1 = Head of unit is a participating noncitizen
		2 = Head of unit is a nonparticipating noncitizen
RAWHSIZE	**R**	**REPORTED NUMBER OF PEOPLE IN HOUSEHOLD**
		Range = (1, 15)

Variable	Origin	Description
REGION	**C**	**CONSTRUCTED CENSUS REGION CODE**
		Range = (1, 4)
		1 = Northeast
		2 = Midwest
		3 = South
		4 = West
		See Appendix E (Table E.3) for a list of States in each region.
REGIONCD	**R**	**FNS REGION CODE**
		Range = (1, 7)
		1 = Northeast
		2 = Mid-Atlantic
		3 = Southeast
		4 = Midwest
		5 = Southwest
		6 = Mountain Plains
		7 = West
		See Appendix E (Table E.2) for a list of States in each region.
STATE	**R**	**FIPS CODE FOR STATE OR TERRITORY**
		Range = (1, 78)
		See Appendix E (Table E.1) for FIPS code list.
STATENAME	**C**	**STATE OR TERRITORY**
		State or territory name. See Appendix E (Table E.1) for list.
STRATUM	**R**	**STRATUM IDENTIFICATION**
		Range = (0, 0)
		Codes for distinct parts of States with stratified samples; codes in States that are not stratified are recoded to 0.
TANF_IND	**C**	**INDICATOR OF TANF RECEIPT FOR UNIT**
		Range = (0, 1)
		0 = No
		1 = Yes
		TANF_IND = 1 if FSTANF > 0 or MN_FIP = 1
TPOV	**C**	**GROSS INCOME/POVERTY LEVEL RATIO**
		Range = (0, 980)
		TPOV = FSGRINC/NETSCRN*100, rounded to nearest integer. If FSGRINC = 0, then TPOV = 0. Otherwise if TPOV rounds to 0, TPOV is set to 1.

Variable	Origin	Description
URBRUR	**C**	**URBAN/RURAL INDICATOR (not retained on public use file)**
		We recommend caution when using URBRUR for any State-level tabulations because of concerns about the representativeness of the sample at the substate level. We recommend against the use of URBRUR for State-level tabulations in Alabama, Guam, Nebraska, Nevada, New Hampshire, Oklahoma, Utah, Vermont, the Virgin Islands, and Washington because of the number of cases with unknown locality. See Appendix A for details.
		Range = (1, 3)
		Location of agency at which unit's SNAP application was processed.
		1 = Metropolitan (at least one urbanized area of 50,000 or more population and adjacent territory with a high degree of social and economic integration with the core as measured by commuting ties)
		2 = Micropolitan (at least one urban cluster of at least 10,000 but fewer than 50,000 people and adjacent territory with a high degree of social and economic integration with the core as measured by commuting ties)
		3 = Rural (not metropolitan or micropolitan)
WRK_POOR	**C**	**INDICATOR OF WORKING POOR UNIT**
		Range = (0, 1)
		0 = No
		1 = Yes
		All SNAP units with countable earnings (FSEARN) or multiple indicators of earnings in the unedited SNAP QC file

Unit countable income (monthly dollar amounts)

Variable	Origin	Description
FSCONT	**C**	**COUNTABLE UNIT INCOME FROM CONTRIBUTIONS**
		Range = (0, 2000)
		Sum of CONT1 through CONT16
FSCSUPRT	**C**	**COUNTABLE UNIT CHILD SUPPORT PAYMENT INCOME**
		Range = (0, 3179)
		Sum of CSUPRT1 through CSUPRT16
FSDEEM	**C**	**COUNTABLE UNIT DEEMED INCOME**
		Range = (0, 3923)
		Sum of DEEM1 through DEEM16
FSDIVER	**C**	**COUNTABLE UNIT STATE DIVERSION PAYMENTS**
		Range = (0, 0)
		Sum of DIVER1 through DIVER16
FSEARN	**C**	**COUNTABLE UNIT EARNED INCOME**
		Range = (0, 9917)
		Sum of FSWAGES, FSSLFEMP, and FSOTHERN
FSEDLOAN	**C**	**COUNTABLE UNIT INCOME FROM EDUCATIONAL GRANTS AND LOANS**
		Range = (0, 402)
		Sum of EDLOAN1 through EDLOAN16
FSEITC	**C**	**COUNTABLE UNIT INCOME FROM EARNED INCOME TAX CREDIT**
		Range = (0, 923)
		Sum of EITC1 through EITC16
FSENERGY	**C**	**COUNTABLE UNIT ENERGY ASSISTANCE INCOME**
		Range = (0, 903)
		Sum of ENERGY1 through ENERGY16
FSFOSTER	**C**	**COUNTABLE UNIT FOSTER CARE INCOME**
		Range = (0, 2100)
		Sum of FOSTER1 through FOSTER16
FSGA	**C**	**COUNTABLE UNIT GENERAL ASSISTANCE BENEFITS**
		Range = (0, 1125)
		Sum of GA1 through GA16
FSGRINC	**C**	**FINAL GROSS COUNTABLE UNIT INCOME**
		Range = (0, 9917)
		Total monthly gross income of unit (sum of FSEARN and FSUNEARN)
FSNETINC	**C**	**FINAL NET COUNTABLE UNIT INCOME**
		Range = (0, 7770)
		Total monthly income of unit after applying deductions. Calculated as FSGRINC-FSTOTDED but not less than 0.
		Coded as missing for MFIP units and for SSI-CAP units in States with standard SSI-CAP benefits
FSOTHERN	**C**	**COUNTABLE UNIT OTHER EARNED INCOME**
		Range = (0, 1700)
		Sum of OTHERN1 through OTHERN16
FSOTHGOV	**C**	**COUNTABLE UNIT INCOME FROM OTHER GOVERNMENT BENEFITS**
		Range = (0, 2552)
		Sum of OTHGOV1 through OTHGOV16

Variable	Origin	Description
FSOTHUN	**C**	**COUNTABLE UNIT OTHER UNEARNED INCOME**
		Range = (0, 3178)
		Sum of OTHUN1 through OTHUN16
FSSLFEMP	**C**	**COUNTABLE UNIT SELF-EMPLOYMENT INCOME**
		Range = (0, 3616)
		Sum of SLFEMP1 through SLFEMP16
FSSOCSEC	**C**	**COUNTABLE UNIT SOCIAL SECURITY INCOME**
		Range = (0, 3496)
		Sum of SOCSEC1 through SOCSEC16
FSSSI	**C**	**COUNTABLE UNIT SSI BENEFITS**
		Range = (0, 3084)
		Sum of SSI1 through SSI16
FSTANF	**C**	**COUNTABLE UNIT TANF PAYMENTS**
		We recommend against using FSTANF in Minnesota because TANF income is not used in the SNAP benefit calculation for MFIP units. We recommend using FSTANF in California, with the understanding that it may contribute to an overestimate of the number of pure PA units. See Appendix A for more details.
		Range = (0, 1812)
		Sum of TANF1 through TANF16
FSUNEARN	**C**	**COUNTABLE UNIT UNEARNED INCOME**
		Range = (0, 4200)
		Sum of FSCONT, FSCSUPRT, FSDEEM, FSEDLOAN, FSGA, FSOTHGOV, FSOTHUN, FSSOCSC, FSSSI, FSTANF, FSUNEMP, FSVET, FSWCOMP, FSDIVER, FSENERGY, and FSWGESUP
FSUNEMP	**C**	**COUNTABLE UNIT UNEMPLOYMENT COMPENSATION BENEFITS**
		Range = (0, 2869)
		Sum of UNEMP1 through UNEMP16
FSVET	**C**	**COUNTABLE UNIT VETERANS' BENEFITS**
		Range = (0, 3592)
		Sum of VET1 through VET16
FSWAGES	**C**	**COUNTABLE UNIT WAGES AND SALARIES**
		Range = (0, 9917)
		Sum of WAGES1 through WAGES16
FSWCOMP	**C**	**COUNTABLE UNIT WORKERS' COMPENSATION BENEFITS**
		Range = (0, 2923)
		Sum of WCOMP1 through WCOMP16
FSWGESUP	**C**	**COUNTABLE UNIT WAGE SUPPLEMENTATION INCOME**
		Range = (0, 0)
		Sum of WGESUP1 through WGESUP16
RAWGROSS	**R**	**REPORTED GROSS COUNTABLE UNIT INCOME**
		Range = (0, 9917)
		Reported total monthly countable income of unit before applying deductions (see FSGRINC for final value)
RAWNET	**R**	**REPORTED NET COUNTABLE UNIT INCOME**
		Range = (0, 7772)
		Reported total monthly countable income of unit after applying deductions (see FSNETINC for final value)

Unit countable assets

Variable	Origin	Description
FSASSET	**C**	**TOTAL COUNTABLE ASSETS UNDER STATE RULES**
		We recommend using FSASSET with the understanding that only 9 percent of SNAP units have countable assets. See Appendix A for more details.
		Range = (0, 4894)
		Sum of LIQRESOR, FSVEHAST, OTHNLRES, and REALPROP
FSVEHAST	**C**	**COUNTABLE NON-EXCLUDED VEHICLES' VALUE UNDER STATE RULES**
		We recommend using FSVEHAST, with the understanding that very few SNAP units have non-excluded vehicles. See Appendix A for more details.
		Range = (0, 4750)
LIQRESOR	**C**	**COUNTABLE LIQUID ASSETS UNDER STATE RULES**
		Range = (0, 4894)
OTHNLRES	**C**	**COUNTABLE OTHER NONLIQUID ASSETS UNDER STATE RULES**
		Range = (0, 3595)
RAWLQRES	**R**	**REPORTED LIQUID ASSETS**
		Range = (0, 99998)
RAWOTRES	**R**	**REPORTED OTHER NONLIQUID ASSETS**
		Range = (0, 3595)
RAWRPROP	**R**	**REPORTED REAL PROPERTY**
		Range = (0, 99998)
		Does not include home
RAWVHAST	**R**	**REPORTED NON-EXCLUDED VEHICLES' VALUE**
		Range = (0, 4750)
REALPROP	**C**	**COUNTABLE REAL PROPERTY UNDER STATE RULES**
		Range = (0, 2910)
		Does not include home
VEHICLEA	**R**	**REPORTED CATEGORY FOR FIRST VEHICLE**
		We recommend against the use of VEHICLEA because of a history of coding inconsistencies. See Appendix A for more details.
		Range = (1, 8)
		1 = No vehicle
		2 = Vehicle exempt because used for producing income, as a home, to transport a physically disabled member, for long-distance travel (other than commuting), or to carry fuel or water
		3 = Vehicle exempt because inaccessible resource (equity value $1,500 or less)
		4 = Vehicle exempt due to categorical eligibility
		5 = Vehicle excluded under State TANF standard (vehicle of noncategorically eligible unit members only)
		6 = Vehicle registered and attributable to an adult unit member or used by a person under age 18 for employment or education (subject to fair market value only)
		7 = Vehicle not registered (equity test only)
		8 = Vehicle not excluded and not included in code 6 (subject to fair market value or equity test, whichever is greater)

Variable	Origin	Description
VEHICLEB	**R**	**REPORTED CATEGORY FOR SECOND VEHICLE**
		We recommend against the use of VEHICLEB because of a history of coding inconsistencies. See Appendix A for more details.
		Range = (1, 8)
		1 = No vehicle
		2 = Vehicle exempt because used for producing income, as a home, to transport a physically disabled member, for long-distance travel (other than commuting), or to carry fuel or water
		3 = Vehicle exempt because inaccessible resource (equity value $1,500 or less)
		4 = Vehicle exempt due to categorical eligibility
		5 = Vehicle excluded under State TANF standard (vehicle of noncategorically eligible unit members only)
		6 = Vehicle registered and attributable to an adult unit member or used by a person under age 18 for employment or education (subject to fair market value only)
		7 = Vehicle not registered (equity test only)
		8 = Vehicle not excluded and not included in code 6 (subject to fair market value or equity test, whichever is greater)

Unit expenses and deductions

Variable	Origin	Description
ERN_INC_DED_PCT	**C**	**PERCENTAGE USED TO CALCULATE EARNINGS DEDUCTION**
		Range = (0.20, 0.50)
		0.50 for MFIP participants; 0.20 for all other SNAP participants
EXCL_FSCSDED	**C**	**CHILD SUPPORT EXCLUDED FROM GROSS INCOME**
		Range = (0, 820)
		Child support expenses excluded before gross income test rather than before net income test for eligibility
FSCSDED	**C**	**CHILD SUPPORT PAYMENT DEDUCTION**
		Range = (0, 1114)
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States using standard SSI-CAP benefits
FSCSEXP	**R**	**REPORTED CHILD SUPPORT PAYMENT DEDUCTION**
		Range = (0, 1114)
		Some States treat child support payments to non-unit members as an income exclusion rather than a deduction. See EXCL_FSCSDED and FSCSDED for final values.
FSDEPDED	**R**	**REPORTED DEPENDENT CARE DEDUCTION**
		We recommend against using FSDEPDED for State-level tabulations because of small sample sizes and inconsistencies between DPCOSTi and FSDEPDED. See Appendix A for more details.
		Range = (0, 1932)
		Some values have been edited to obtain consistency with DPCOST1 to DPCOST16 and to improve the final benefit calculation. See Appendix B for details.
		Coded as missing for all MFIP and SSI-CAP units
FSDEPDE2	**C**	**MARGINAL EFFECTIVENESS OF DEPENDENT CARE DEDUCTION [39]**
		Range = (0, 2484)
		Calculated as FSDEPDE2 = NEWNET-FSNETINC, where NEWNET = MAX (0, FSGRINC-FSSLT3-FSERNDED-FSMEDDED-FSSTDDED-FSCSDED-HOMELESS_DED) and where FSSLT3 is the shelter deduction calculated without FSDEPDED
		Coded as missing for all MFIP and SSI-CAP units
FSERNDED	**C**	**CALCULATED EARNED INCOME DEDUCTION**
		Range = (0, 1983)
		Calculated as FSERNDED = ERN_INC_DED_PCT*FSEARN, rounded to nearest integer. The deduction equals 50 percent of total earned income for MFIP participants and 20 percent of total earned income for all others.
		Coded as missing for all SSI-CAP units
FSERNDE2	**C**	**MARGINAL EFFECTIVENESS OF EARNED INCOME DEDUCTION**
		Range = (0, 1983)
		Calculated as FSERNDE2 = NEWNET-FSNETINC, where NEWNET = MAX (0, FSGRINC-FSSLT2-FSDEPDED-FSMEDDED-FSSTDDED-FSCSDED-HOMELESS_DED) and where FSSLT2 is the shelter deduction calculated without FSERNDED
		Coded as missing for all MFIP and SSI-CAP units

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[39] The marginal effectiveness variables are calculated as the difference between the actual calculated net income and what the net income would have been without the deduction. Given that the combined value of deductions to which a unit is entitled sometimes exceeds the gross income received by the unit, the marginal effectiveness variables give a more accurate picture of the impact of the deductions.

Variable	Origin	Description
FSMEDDED	**C**	**CALCULATED MEDICAL EXPENSE DEDUCTION**
		Range = (0, 4262)
		The deduction is for units with elderly members or individuals with disabilities only; the entry for medical expenses should include only expenses in excess of $35. Calculated as FSMEDDED = MAX(0, FSMEDEXP).
		Coded as missing for all MFIP and SSI-CAP units
FSMEDDE2	**C**	**MARGINAL EFFECTIVENESS OF MEDICAL EXPENSE DEDUCTION**
		Range = (0, 1909)
		Calculated as FSMEDDE2 = NEWNET-FSNETINC, where NEWNET = MAX (0, FSGRINC-FSSLT4-FSDEPDED-FSERNDED-FSSTDDED-FSCSDED-HOMELESS_DED) and where FSSLT4 is the shelter deduction calculated without FSM EDDED
		Coded as missing for all MFIP and SSI-CAP units
FSMEDEXP	**R**	**REPORTED MEDICAL EXPENSES**
		Range = (0, 4262)
		Allowable medical expenses in excess of $35 for elderly adults or individuals with disabilities
FSSLTDED	**C**	**CALCULATED EXCESS SHELTER EXPENSE DEDUCTION**
		Range = (0, 2813)
		Set to 0 if HOMEDED = 3; otherwise set to XCOST for units with elderly members or individuals with disabilities and equal to the minimum of XCOST and SHELCAP for units without elderly members or individuals with disabilities, where XCOST = MAX(0, FSSLTEXP-HALFNET) and HALFNET = MAX (0,ROUND(FSGRINC-FSSTDDED-FSERNDED-FSDEPDED-FSMEDDED-FSCSDED)/2). The final value of FSSLTDED is rounded to nearest integer.
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits
FSSLTDE2	**C**	**MARGINAL EFFECTIVENESS OF EXCESS SHELTER EXPENSE DEDUCTION**
		Range = (0, 1915)
		Calculated as FSSLTDE2 = NEWNET-FSNETINC, where NEWNET = MAX (0,FSGRINC-FSDEPDED-FSERNDED-FSMEDDED-FSSTDDED-FSCSDED-HOMELESS_DED).
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits.
FSSLTEXP	**C**	**CALCULATED SHELTER EXPENSES**
		Range = (0, 5226)
		Sum of RENT and UTIL
FSSTDDED	**C**	**STANDARD DEDUCTION**
		Range = (145, 467)
		Varies by region. See Appendix F for values.
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits.
FSSTDDE2	**C**	**MARGINAL EFFECTIVENESS OF STANDARD DEDUCTION**
		Range = (0, 701)
		Calculated as FSSTDDE2 = NEWNET – FSNETINC, where NEWNET = MAX (0, FSGRINC – FSSLT1 – FSDEPDED – FSERNDED – FSMEDDED – FSCSDED – HOMELESS_DED) and where FSSLT1 is the shelter deduction calculated without FSSTDDED
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits
FSTOTDED	**C**	**TOTAL DEDUCTIONS**
		Range = (0, 5167)
		Sum of FSSTDDED, FSERNDED, FSDEPDED, FSSLTDED, FSMEDDED, HOMELESS_DED, and FSCSDED
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits

Variable	Origin	Description
FSTOTDE2	C	MARGINAL EFFECTIVENESS OF TOTAL DEDUCTION
		Range = (0, 3528)
		Calculated as FSGRINC-FSNETINC
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits
HOMEDED	R	INDICATOR OF HOMELESSNESS
		Range = (1, 3)
		1 = Not homeless
		2 = Homeless, not receiving homeless shelter allowance
		3 = Homeless, receiving homeless shelter allowance
HOMELESS_DED	C	AMOUNT OF HOMELESS HOUSEHOLD SHELTER DEDUCTION
		Range = (0, 148)
		Positive value only for those with HOMEDED = 3
		Coded as missing for all MFIP and SSI-CAP units
RAWERND	R	REPORTED EARNED INCOME DEDUCTION
		Range = (0, 999)
		See FSERNDED for final earned income deduction value.
RENT	R	RENT/MORTGAGE AMOUNT
		Range = (0, 4750)
		Some values for SSI-CAP units have been edited to apply standard shelter allowances.
SHELCAP	C	MAXIMUM ALLOWABLE SHELTER EXPENSE DEDUCTION
		Range = (435, 881)
		SHELCAP varies by region. See Appendix F for values.
SHELDED	R	REPORTED SHELTER DEDUCTION
		Range = (0, 3308)
		See FSSLTDED for the final value.
SUA1	R	STANDARD UTILITY ALLOWANCE–USAGE AND ENTITLEMENT
		Range = (1, 9)
		1 = No utilities and no LIHEAA assistance
		2 = Uses actual expenses
		3 = Uses higher standard based on LIHEAA assistance
		4 = Uses higher standard and does not receive LIHEAA assistance
		5 = Uses lower, or limited, standard
		6 = Uses telephone-only standard
		7 = Uses individual standards
		8 = Uses higher standard, LIHEAA assistance status unknown
		9 = Other
		Some values have been edited to obtain consistency with UTIL. See Appendix B for more details.
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits
		LIHEAA is the Low Income Home Energy Assistance Act of 1981. Some State programs may have another name, such as Home Energy Assistance Program (HEAP).
		Higher standard is an SUA based upon payment of heating or cooling and includes all utilities
		Lower, or limited, standard is an SUA based upon all utilities but is for households that do not incur heating or cooling or receive LIHEAA.

Variable	Origin	Description
SUA2	**R**	**STANDARD UTILITY ALLOWANCE–PRORATED**
		Range = (1, 2)
		1 = Not prorated
		2 = Prorated
		Some values have been edited to obtain consistency with UTIL. See Appendix B for more details. Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits.
UTIL	**R**	**UTILITY AMOUNT**
		Range = (0, 837)
		Some values have been edited to improve the final benefit calculation. See Appendix B for more details.

Unit benefits

Variable	Origin	Description
AMTERR	**R**	**AMOUNT OF BENEFIT IN ERROR**
		Range = (0, 764)
		Dollar amount of any identified error, or the difference between the benefits the State authorized and the benefits the State should have authorized. Before FY 2012, only errors over $25 were recorded.
ASSLIM	**C**	**ASSET LIMIT**
		Range = (2250, 5000)
		SNAP eligibility limit. Categorically eligible units are not subject to an asset limit. See Appendix F.
BENMAX	**C**	**MAXIMUM BENEFIT AMOUNT**
		Range = (192, 2768)
		The maximum possible benefit for a unit, which varies by unit size and region. See Appendix F for schedule.
FSASTEST	**C**	**INDICATOR OF PASSING ASSET TEST**
		Range = (0, 1)
		0 = No
		1 = Yes
FSBEN	**C**	**FINAL CALCULATED BENEFIT**
		Range = (3, 2768)
		Calculated as FSBEN = MAX(minimum benefit, BENMAX-ROUND (.3*FSNETINC)) if FSUSIZE is 2 or Less. Otherwise, FSBEN = MAX (0, BENMAX-ROUND (.3*FSNETINC)) for all units, except for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits where the benefit is calculated by using a State-specific formula.
FSGRTEST	**C**	**INDICATOR OF PASSING GROSS INCOME TEST**
		Range = (0, 1)
		0 = No
		1 = Yes
FSMINBEN	**C**	**RECEIVED MINIMUM BENEFIT**
		Range = (0, 1)
		0 = No
		1 = Yes
		FSMINBEN = 1 when FSBEN = 8 percent of the maximum one-person benefit for the unit's geographic region and FSUSIZE = 1 or 2. FSMINBEN is always set to 0 for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits.
FSNETEST	**C**	**INDICATOR OF PASSING NET INCOME TEST**
		Range = (0, 1)
		0 = No
		1 = Yes
		Coded as missing for MFIP units and for units participating in an SSI-CAP program in States that use standard SSI-CAP benefits.
GROSSCRN	**C**	**GROSS INCOME SCREEN**
		Range = (1316, 7400)
		SNAP eligibility limit determined by unit size. Categorically eligible units and those with elderly members or individuals with disabilities are not subject to the gross income screen. See Appendix F for values.
MINIMUM_BEN	**C**	**MINIMUM BENEFIT AMOUNT**
		Range = (15, 29)
		See Appendix Table F.6 for minimum monthly SNAP benefit amounts for FY 2019.

Variable	Origin	Description
NETSCRN	**C**	**NET INCOME SCREEN**
		Range = (1012, 5692)
		SNAP eligibility limit determined by unit size. Categorically eligible units are not subject to the net income screen. See Appendix F for values.
RAWBEN	**R**	**REPORTED SNAP BENEFIT RECEIVED**
		Range = (0, 2555)
		Reported amount of SNAP benefits that the unit was certified to receive during the sample month (see FSBEN for final value)

Person-level characteristics: i = 1 to 16

Variable	Origin	Description
ABWDST1 to ABWDST16	**R**	**ABAWD STATUS**
		We recommend caution when using ABWDSTi because of inconsistencies between ABWDSTi and several employment variables (i.e., WRKREGi, EMPSTAi, and EMPSTBi). We specifically recommend against using ABWDSTi for State-level tabulations in Colorado, Florida, Guam, Indiana, Iowa, Missouri, New Hampshire, North Dakota, Texas, Vermont, and Wyoming given small sample sizes. See Appendix A for more details.
		Range = (1, 6)
		Person 1 through Person 16
		1 = Not an able-bodied adult without dependents (ABAWD)
		2 = ABAWD in a waived area
		3 = Exempt based on 15 percent option
		4 = ABAWD meeting work requirements
		5 = ABAWD in 1st 3 months
		6 = ABAWD in 2nd 3 months
		7 = ABAWD who has exhausted time-limited benefits
AGE1 to AGE16	**R**	**AGE**
		Range = (0, 98)
		Person 1 through Person 16
		0 = Age less than 1 year
		1 to 97 = Age in years
		98 = Age 98 years or older
CTZN1 to CTZN16	**R**	**CITIZENSHIP STATUS**
		Range = (1, 10)
		Person 1 through Person 16
		1 = US–born citizen
		2 = Naturalized citizen
		3 = Legal permanent resident with 40 quarters of work, military service, five years legal U.S. residency, disability, or under age 18
		5 = Person admitted as refugee, granted asylum, or given stay of deportation
		6 = Other eligible noncitizen
		7 = Noncitizen legally in U.S. who does not meet one of the above codes and is not receiving SNAP benefits but whose income and resources must be considered in determining benefits
		8 = Other ineligible legal noncitizen (for example, visitor, tourist, student, diplomat)
		9 = Undocumented noncitizen
		10 = Noncitizen, status unknown
DIS1 to DIS16	**C**	**PERSON-LEVEL DISABILITY INDICATOR**
		We recommend using DISi, with the understanding that it likely underestimates the number of non-elderly individuals with disabilities. See Appendix A for more details.
		Range = (0, 1)
		Person 1 through Person 16
		0 = Not disabled
		1 = Disabled
		Non-elderly individuals identified as disabled using receipt of SSI or a combination of hours worked, work registration status, receipt of Social Security, veterans' benefits, or workers' compensation, and/or unit medical expense deduction. See Appendix B for details.

Variable	Origin	Description
DPCOST1 to DPCOST16	**R**	**REPORTED DEPENDENT CARE COST**
		We recommend against using DPCOSTi for State-level tabulations because of small sample sizes and inconsistencies between DPCOSTi and FSDEPDED. See Appendix A for more details.
		Range = (0, 1551)
		Person 1 through Person 16
		Some values have been edited to obtain consistency with FSDEPDED. See Appendix B for details.
EMPRG1 to EMPRG16	**R**	**SNAP EMPLOYMENT AND TRAINING PROGRAM STATUS**
		We recommend using EMPRGi with the understanding that this variable is best used in conjunction with other work-related variables. See Appendix A for more details.
		Range = (0, 9)
		Person 1 through Person 16
		0 = Not participating in E&T
		1 = Participating in non-SNAP E&T (such as TANF)
		2 = SNAP job search or job search training
		3 = SNAP E&T workfare or work experience
		4 = SNAP E&T work supplementation
		5 = SNAP E&T education leading to high school diploma or GED
		6 = SNAP E&T postsecondary education leading to degree or certificate
		7 = SNAP E&T remedial education (including adult education and English lessons not leading to degree)
		8 = SNAP E&T vocational training
		9 = Other
EMPSTA1 to EMPSTA16	**R**	**EMPLOYMENT STATUS—TYPE**
		Range = (1, 8)
		Person 1 through Person 16
		We recommend using EMPSTAi with the understanding that this variable is best used in conjunction with other work-related variables. See Appendix A for more details.
		1 = Not in labor force and not looking for work
		2 = Unemployed and looking for work
		3 = Active-duty military
		4 = Migrant farm labor
		5 = Nonmigrant farm labor
		6 = Self-employed, farming
		7 = Self-employed, nonfarming
		8 = Employed by other
EMPSTB1 to EMPSTB16	**R**	**EMPLOYMENT STATUS—AMOUNT**
		Range = (1, 5)
		Person 1 through Person 16
		We recommend using EMPSTBi with the understanding that this variable is best used in conjunction with other work-related variables. See Appendix A for more details.
		1 = Not employed
		2 = 1–19 hours/week
		3 = 20–29 hours/week
		4 = 30–39 hours/week
		5 = Full-time (40 hours or more)

Variable	Origin	Description
FSAFIL1 to FSAFIL16	**R**	**SNAP CASE AFFILIATION**
		Range = (1, 99)
		Person 1 through Person 16
		We recommend against the use of FSAFILi for State-level tabulations of nonparticipants in West Virginia and advise caution when using FSAFILi for State-level tabulations of nonparticipants in Nevada, New Hampshire, and North Dakota due to high percentages of unknown values among nonparticipants. See Appendix A for more details.
		1 = Eligible member of SNAP case under review and entitled to receive benefits
		2 = Eligible SNAP participant in another unit, not currently under review (code added by Mathematica for use in certain SNAP-CAP units)
		4 = Member is ineligible noncitizen and not participating in State-funded SNAP
		5 = Member not paying/cooperating with child support agency
		6 = Member is ineligible striker
		7 = Member is ineligible student
		8 = Member disqualified for program violation
		9 = Member ineligible to participate due to disqualification or failure to meet work requirements (work registration, E&T, acceptance of employment, employment status/job availability, voluntary quit/reducing work effort, workfare/comparable workfare)
		10 = ABAWD time limit exhausted and ABAWD ineligible to participate due to failure to meet ABAWD work requirements, to work at least 20 hours per week, to participate in at least 20 hours per week in qualifying educational training activities, or to participate in workfare
		11 = Fleeing felon or parole and probation violator
		13 = Convicted drug felon
		14 = Social Security Number disqualified
		15 = SSI recipient in California
		16 = Prisoner in detention center
		17 = Foster care
		18 = Member is ineligible noncitizen and participating in State-funded SNAP
		19 = Individual in the home but not part of SNAP household
		99 = Unknown
FSUN1 to FSUN16	**C**	**POSITION OF HEAD OF SNAP UNIT**
		Range = (0, 9)
		Person 1 through Person 16
		Identifies the index position of the head of the SNAP unit. The head is defined as the first person in unit with RELi = 1 or, if no one in unit has RELi = 1, as the first adult in unit. If there are no adults in unit, the oldest child is the head. FSUNi is the same for everyone in unit. For example, if unit head is the second person in the household, FSUNi = 2 for everyone in unit. FSUNi = 0 for any individuals in household who are not part of the SNAP unit.
NDISCA1 to NDISCA16	**C**	**ADULT AGE 18–49 WITHOUT DISABILITIES IN CHILDLESS UNIT STATUS**
		We recommend using NDISCAi, with the understanding that it likely overestimates the number of adults without disabilities. See Appendix A for details.
		Range = (0, 2)
		Person 1 through Person 16
		0 = Not in universe (AGEi<18 or AGEi>49)
		1 = Adult age 18–49 without disabilities in childless unit
		2 = Age 18–49, but not adult without disabilities in childless unit

Variable	Origin	Description
RACETH1 to RACETH16	**R**	**RACE/ETHNICITY**
		Range = (1, 22)
		Person 1 through Person 16
		We recommend against using RACETHi due to a high prevalence of unreported race/ethnicity data nationally. See Appendix A for more details.
		1 = Racial/ethnic data not available because application was not found
		2 = Not recorded on application
		Not Hispanic or Latino
		3 = American Indian or Alaska Native
		4 = Asian
		5 = Black or African American
		6 = Native Hawaiian or other Pacific Islander
		7 = White
		Multiple races reported
		8 = (American Indian or Alaska Native) and white
		9 = Asian and white
		10 = (Black or African American) and white
		11 = (American Indian or Alaska Native) and (black or African American)
		12 = Respondent reported more than one race and does not fit into above categories (codes 8 through 11)
		Hispanic or Latino
		13 = (Hispanic or Latino) and (American Indian or Alaska Native)
		14 = (Hispanic or Latino) and Asian
		15 = (Hispanic or Latino) and (black or African American)
		16 = (Hispanic or Latino) and (Native Hawaiian or other Pacific Islander)
		17 = (Hispanic or Latino) and white
		Multiple races reported
		18 = (Hispanic or Latino) and (American Indian or Alaska Native) and white
		19 = (Hispanic or Latino) and Asian and white
		20 = (Hispanic or Latino) and (black or African American) and white
		21 = (Hispanic or Latino) and (American Indian or Alaska Native) and (black or African American)
		22 = (Hispanic or Latino) and respondent reported more than one race and does not fit into above categories (codes 18 through 21)
REL1 to REL16	**R**	**RELATIONSHIP TO HEAD OF HOUSEHOLD**
		Range = (1, 7)
		Person 1 through Person 16
		1 = Head of household
		2 = Spouse
		3 = Parent
		4 = Daughter, stepdaughter, son, or stepson
		5 = Other related person (brother, sister, niece, nephew, grandchild, great-grandchild, cousin)
		6 = Foster child
		7 = Unrelated person

Variable	Origin	Description
SEX1 to SEX16	**R**	**SEX**
		Range = (1, 2)
		Person 1 through Person 16
		1 = Male
		2 = Female
WORK1 to WORK16	**C**	**PERSON-LEVEL WORKING INDICATOR**
		Range = (0, 1)
		Person 1 through Person 16
		0 = No
		1 = Yes
		Identifies individuals who are coded as being employed (EMPSTAi > 2), having positive earnings (WAGESi + OTHERNi + SLFEMPi > 0), and working one or more hours per week (EMPSTBI > 1).
WRKREG1 to WRKREG16	**R**	**WORK REGISTRATION STATUS**
		Range = (1, 6)
		Person 1 through Person 16
		We recommend using WRKREGi, with the understanding that this variable is best used in conjunction with other work-related variables. See Appendix A for more details.
		1 = Federal exemption for disability
		2 = Federal exemption for reason other than disability
		3 = Work registrant, not E&T participant
		4 = Work registrant, voluntary E&T participant
		5 = Work registrant, mandatory E&T participant
		6 = Should have been registered but was not registered
YRSED1 to YRSED16	**R**	**HIGHEST EDUCATIONAL LEVEL COMPLETED**
		We recommend against the use of YRSEDi due to a high percentage of missing or unknown values. See Appendix A for more details.
		Range = (0, 14)
		Person 1 through Person 16
		0 = None
		1 = Grade 1
		2 = Grade 2
		3 = Grade 3
		4 = Grade 4
		5 = Grade 5
		6 = Grade 6
		7 = Grade 7
		8 = Grade 8
		9 = Grade 9
		10 = Grade 10
		11 = Grade 11
		12 = High school graduate or GED
		13 = Postsecondary education (for example, technical education or some college)
		14 = College graduate or postgraduate degree

Person-level countable income (monthly dollar amounts): i = 1 to 16 [40]

Variable	Origin	Description
CONT1 to CONT16	**R**	**COUNTABLE INCOME FROM CONTRIBUTIONS**
		Range = (0, 2000)
		Person 1 through Person 16
		Amount of contributions, charity, and in-kind income
CSUPRT1 to CSUPRT16	**R**	**COUNTABLE CHILD SUPPORT PAYMENT INCOME**
		Range = (0, 2804)
		Person 1 through Person 16
		Court-ordered child support payments received from absent parent or responsible person
DEEM1 to DEEM16	**R**	**COUNTABLE DEEMED INCOME**
		Range = (0, 3923)
		Person 1 through Person 16
		Income deemed from sponsor of noncitizen member of unit
DIVER1 to DIVER16	**R**	**COUNTABLE STATE DIVERSION PAYMENTS**
		Range = (0, 0)
		Person 1 through Person 16
EDLOAN1 to EDLOAN16	**R**	**COUNTABLE INCOME FROM EDUCATIONAL GRANTS AND LOANS**
		Range = (0, 402)
		Person 1 through Person 16
		Educational grants, scholarships, and loans
EITC1 to EITC16	**R**	**COUNTABLE INCOME FROM EARNED INCOME TAX CREDIT**
		Range = (0, 923)
		Person 1 through Person 16
ENERGY1 to ENERGY16	**R**	**COUNTABLE ENERGY ASSISTANCE INCOME**
		Range = (0, 903)
		Person 1 through Person 16
FOSTER1 to FOSTER16	**R**	**COUNTABLE FOSTER CARE INCOME**
		Range = (0, 1509)
		Person 1 through Person 16
GA1 to GA16	**R**	**COUNTABLE GENERAL ASSISTANCE BENEFITS**
		Range = (0, 1125)
		Person 1 through Person 16
OTHERN1 to OTHERN16	**R**	**COUNTABLE OTHER EARNED INCOME**
		Range = (0, 1700)
		Person 1 through Person 16
OTHGOV1 to OTHGOV16	**R**	**COUNTABLE INCOME FROM OTHER GOVERNMENT BENEFITS**
		Range = (0, 2552)
		Person 1 through Person 16
		Includes but not limited to Black Lung Benefits, Railroad Retirement payments, and payments to farmers by USDA. OTHGOVi amounts were recoded as SSI benefits in units with reported SSI income in cases for which OTHGOVi equaled an applicable State SSI supplement.

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[40] Some person-level income amounts have been edited to obtain consistency with final gross income (FSGRINC).

Variable	Origin	Description
OTHUN1 to OTHUN16	**R**	**COUNTABLE OTHER UNEARNED INCOME**
		Range = (0, 3178)
		Person 1 through Person 16
		Includes alimony, foster care income, dividends and interest, rental income, pensions, and union benefits. OTHUNi amounts were recoded as SSI benefits in units with reported SSI income in cases for which OTHUNi equaled an applicable State SSI supplement.
SLFEMP1 to SLFEMP16	**R**	**COUNTABLE SELF-EMPLOYMENT INCOME**
		Range = (0, 3616)
		Person 1 through Person 16
		Net income from any self-employment enterprise
SOCSEC1 to SOCSEC16	**R**	**COUNTABLE SOCIAL SECURITY INCOME**
		Range = (0, 3496)
		Person 1 through Person 16
SSI1 to SSI16	**R**	**COUNTABLE SSI BENEFITS**
		Range = (0, 1662)
		Person 1 through Person 16
		Includes recoded countable income reported as OTHGOVi or OTHUNi in units with reported SSI income and where OTHGOVi or OTHUNi equaled an applicable State SSI supplement
TANF1 to TANF16	**R**	**COUNTABLE TANF PAYMENTS**
		Range = (0, 1508)
		Person 1 through Person 16
		Assigned to payee or principal person of assistance group
UNEMP1 to UNEMP16	**R**	**COUNTABLE UNEMPLOYMENT COMPENSATION UNEMP16 BENEFITS**
		Range = (0, 2869)
		Person 1 through Person 16
VET1 to VET16	**R**	**COUNTABLE VETERANS' BENEFITS**
		Range = (0, 3592)
		Person 1 through Person 16
WAGES1 to WAGES16	**R**	**COUNTABLE WAGES AND SALARIES**
		Range = (0, 9917)
		Person 1 through Person 16
		Amount of wages, salaries, tips, and commission
WCOMP1 to WCOMP16	**R**	**COUNTABLE WORKERS' COMPENSATION BENEFITS**
		Range = (0, 2923)
		Person 1 through Person 16
WGESUP1 to WGESUP16	**R**	**COUNTABLE WAGE SUPPLEMENTATION INCOME**
		Range = (0, 0)
		Person 1 through Person 16
		Earnings above cash assistance and/or SNAP benefit amount

Detailed error findings: i = 1 to 9

Variable	Origin	Description
AGENCY1 to AGENCY9	**R**	**AGENCY OR CLIENT RESPONSIBILITY**
		Range = (1, 99)
		Variance 1 through Variance 9
		Primary cause of variance
		1 = Information not reported
		2 = Incomplete or incorrect information provided; agency not required to verify
		3 = Information withheld by client (case referred for Intentional Program Violation [IPV] investigation)
		4 = Incorrect information provided by client (case referred for IPV investigation)
		7 = Inaccurate information reported by collateral contact
		8 = Acted on incorrect Federal computer match information not requiring verification (such variance is excluded from error determination but must be recorded)
		10 = Policy incorrectly applied
		12 = Reported information disregarded or not applied
		14 = Agency failed to follow up on inconsistent or incomplete information
		15 = Agency failed to follow up on impending changes
		16 = Agency failed to verify required information
		17 = Computer programming error
		18 = Data entry and/or coding error
		19 = Mass change (error due to problem with computer- generated mass change)
		20 = Arithmetic computation error
		21 = Computer user error
		99 = Other
AMOUNT1 to AMOUNT9	**R**	**VARIANCE DOLLAR AMOUNT**
		Range = (0, 764)
		Variance 1 through Variance 9
		Dollar amount of variance
DISCOV1 to DISCOV9	**R**	**VARIANCE DISCOVERY**
		Range = (1, 9)
		Variance 1 through Variance 9
		How variance was discovered
		1 = Variance clearly identified from case record (documentation not from an automated match)
		2 = Variance clearly identified from case record (documentation from an automated match)
		3 = Variance discovered from recipient interview
		4 = Employer (present or former)
		5 = Financial institution, insurance company, or other business
		6 = Landlord
		7 = Government agency or public records, not automated match
		8 = Government agency or public records, automated match
		9 = Other

Variable	Origin	Description
E_FINDG1 to E_FINDG9	**R**	**ERROR FINDING**
		Range = (2, 4)
		Variance 1 through Variance 9
		Impact of variance
		2 = Overissuance
		3 = Underissuance
		4 = Ineligible
ELEMENT1 to ELEMENT9	**R**	**VARIANCE ELEMENT**
		Range = (111, 820)
		Variance 1 through Variance 9
		Element of variance
		111 = Student status
		130 = Citizenship and noncitizen status
		140 = Residency
		150 = Unit composition
		151 = Recipient disqualification
		160 = Employment and training programs
		161 = Time-limited participation
		162 = Work registration requirements
		163 = Voluntary quit/reduced work effort
		164 = Workfare and comparable workfare
		165 = Employment status/job availability
		166 = Acceptance of employment
		170 = Social Security number
		211 = Bank accounts or cash on hand
		212 = Nonrecurring lump-sum payment
		213 = Other liquid assets
		221 = Real property
		222 = Vehicles
		224 = Other nonliquid resources
		225 = Combined resources
		311 = Wages and salaries
		312 = Self-employment
		314 = Other earned income
		321 = Earned income deductions
		323 = Dependent care deduction
		331 = RSDI benefits
		332 = Veterans' benefits
		333 = SSI and/or State SSI supplement
		334 = Unemployment compensation
		335 = Workers' compensation
		336 = Other government benefits
		342 = Contributions
		343 = Deemed income
		344 = TANF, PA, or GA
		345 = Educational grants/scholarships/loans

Variable	Origin	Description
		346 = Other unearned income
		350 = Child support payments received from absent parent
		361 = Standard deduction
		363 = Shelter deduction
		364 = Standard utility allowance
		365 = Medical expense deductions
		366 = Child support payment deduction
		371 = Combined gross income
		372 = Combined net income
		520 = Arithmetic computation
		530 = Transitional benefits
		560 = Reporting systems
		810 = SNAP simplification project
		820 = Demonstration projects
NATURE1 to NATURE9	**R**	**NATURE OF VARIANCE**
		Range = (6, 307)
		Variance 1 through Variance 9
		Nature of each variance
		6 = Eligible person(s) excluded
		7 = Ineligible person(s) included
		12 = Eligible person(s) with no income, resources, or deductible expenses excluded
		13 = Eligible person(s) with income excluded
		14 = Eligible person(s) with resources excluded
		15 = Eligible person(s) with deductible expenses excluded
		16 = Newborn improperly excluded
		20 = Incorrect resource limit applied
		24 = Resource should have been excluded
		28 = Incorrect income limit applied
		29 = Exceeds prescribed limit
		30 = Resource should have been included
		32 = Failed to consider or incorrectly considered income of ineligible member
		35 = Unreported source of income (do not use for change in employment status)
		36 = Rounding used/not used or incorrectly applied
		37 = All income from source known but not included
		38 = More income received from this source than budgeted
		39 = Employment status changed from unemployed to employed
		40 = Employment status changed from employed to unemployed
		41 = Change only in amount of earnings
		42 = Conversion to monthly amount not used or incorrectly applied
		43 = Averaging not used or incorrectly applied
		44 = Less income received from this source than budgeted
		45 = Cost of doing business not used or incorrectly applied
		46 = Failed to consider/anticipate month with extra pay date
		52 = Deduction that should have been included was not
		53 = Deduction included that should not have been
		54 = Incorrect standard used (not as a result of change in unit size or move)

Variable	Origin	Description
		64 = Incorrect amount used resulting from change in residence
		65 = Incorrect standard used resulting from change in unit size
		75 = Benefit/allotment/eligibility incorrectly computed
		77 = Unit not entitled to transitional benefits
		79 = Incorrect use of allotment tables
		80 = Improper prorating of initial month's benefits
		97 = Not required to be reported or acted upon based on time frames and reporting requirements for allotment differences below the $50 threshold
		98 = Transcription or computation errors
		99 = Other
		111 = Child support payment(s) not considered or incorrectly applied for initial month(s) of eligibility
		112 = Retained child support payment(s) not considered or incorrectly applied
		120 = Variance/errors resulting from noncompliance with this means-tested public assistance program
		123 = Incorrectly prorated
		124 = Variances resulting from use of automatic Federal information exchange system
		127 = Pass-through not considered or incorrectly applied
		200 = Eligible noncitizen excluded
		201 = Ineligible noncitizen included
		301 = Unit improperly participating under retrospective budgeting
		302 = Unit improperly participating under prospective budgeting
		303 = Unit improperly participating under monthly reporting
		304 = Unit improperly participating under quarterly reporting
		305 = Unit improperly participating under semiannual reporting
		306 = Unit improperly participating under change reporting
		307 = Unit improperly participating under status reporting
		308 = Unit improperly participating under 5 hour reporting
		309 = Unit improperly participating in transitional benefits
OCCDATE1 to OCCDATE9	**R**	**VARIANCE OCCURRENCE DATE**
		Range = (199004, 999999)
		Variance 1 through Variance 9
		Date each variance occurred (year and month)
		999999 = Unknown
TIMEPER1 to TIMEPER9	**R**	**VARIANCE TIME PERIOD**
		Range = (1, 9)
		Variance 1 through Variance 9
		Time period during which variance occurred
		1 = Before most recent action
		2 = At time of most recent action by agency
		3 = After most recent action by agency
		9 = Time of occurrence cannot be determined

Variable	Origin	Description
VERIF1 to VERIF9	**R**	**VARIANCE VERIFICATION**
		Range = (1, 9)
		Variance 1 through Variance 9
		Indicates how each variance was verified
		1 = From case record (verification not from an automated match)
		2 = From case record (verification from an automated match)
		3 = From information provided by recipient
		4 = Employer (present or former)
		5 = Financial institution, insurance company, or other business
		6 = Landlord
		7 = Government agency or public records, not automated match
		8 = Government agency or public records, automated match
		9 = Other

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Schechter, Bruce, Joel Smith, and Randy Rosso. "2011 MATH SIPP+ Microsimulation Model: Programmer's Guide, Technical Description and Codebook." Washington, DC: Mathematica Policy Research, March 2014.

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APPENDIX A

Assessment of the Quality of the Selected Variables
in the FY 2019 SNAP QC Database

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We assessed the quality of the data for variables in the FY 2019 SNAP QC database that are new to the file, have changed in recent years, or have a history of coding inconsistencies. Based on our assessment, we recommend against using some variables and recommend caution when using other variables, as listed and described in detail below.

In addition to the data quality concerns listed below, we recommend against preparing tabulations of monthly results for February 2019. Due to missing and incomplete data, the edited SNAP QC database does not include information on participants in February 2019 for the District of Columbia, Guam, and 34 States: Alabama, Alaska, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia, Hawaii, Illinois, Indiana, Iowa, Kansas, Maine, Massachusetts, Michigan, Mississippi, Missouri, Montana, Nebraska, New Hampshire, New York, North Carolina, North Dakota, Ohio, Oregon, Pennsylvania, Rhode Island, South Dakota, Tennessee, Vermont, Washington, and Wyoming.

More information about our assessment and recommendations is available upon request.

A. Summary recommendations concerning use of certain variables

Based on our assessment, we recommend against using the following variables for all tabulations:

- RACETHi
- VEHICLEA and VEHICLEB
- YRSEDi

We recommend against using the following variables for specific tabulations:

- ABWDSTi for State-level tabulations in Colorado, Florida, Guam, Indiana, Iowa, Missouri, New Hampshire, North Dakota, Texas, Vermont, and Wyoming
- DPCOSTi and FSDEPDED for State-level tabulations
- FSAFILi for State-level tabulations of nonparticipants in West Virginia
- FSTANF in Minnesota
- URBRUR for State-level tabulations in Alabama, Guam, Nebraska, Nevada, New Hampshire, Oklahoma, Utah, Vermont, the Virgin Islands, and Washington (this variable is not retained in public use file)

We recommend caution when using the following variables for tabulations:

- ABWDSTi
- FSAFILi for State-level tabulations of nonparticipants in Nevada, New Hampshire, and North Dakota
- URBRUR for tabulations in States other than those listed above (this variable is not retained in public use file)

We recommend using the following variables for tabulations, each with a disclaimer:

- DISi, FSDIS, and FSNDIS (with the understanding that DISi and FSNDIS likely underestimate the number of non-elderly individuals with disabilities and that FSDIS likely underestimates the number of units containing non-elderly individuals with disabilities)

- EMPRGi (with the understanding that this variable is best used in conjunction with other work-related variables)

- EMPSTAi and EMPSTBi (with the understanding that these variables are best used in conjunction with other work-related variables)

- FSASSET and FSVEHAST (with the understanding that only 9 percent of SNAP units have countable assets)

- FSTANF in California (with the understanding that the number of pure public assistance [PA] units may be overestimated)

- MN_FIP (with the understanding that this variable may slightly underestimate the number of Minnesota Family Investment Program [MFIP] units)

- NDISCAi and FSNDISCA (with the understanding that NDISCAi likely overestimates the number of adults without disabilities)

- SSI_CAP (with the understanding that this variable likely underestimates the actual number of SSI-CAP units)

- WRKREGi (with the understanding that this variable is best used in conjunction with other work-related variables)

We found the quality of other assessed variables to be suitable for all tabulations. Below, we discuss in detail our recommendations for specific variables in the SNAP QC database.

B. Variables not recommended for all tabulations

1. Race/ethnicity (RACETHi)

Current values for RACETHi allow reporting of multiple races and ethnicities and include values indicating that race/ethnicity data are not available or not recorded (unreported race/ethnicity data). About 16 percent of participants have unreported race/ethnicity data, although this percentage varies considerably by State. Given the large percentage of participants with unreported race/ethnicity data nationally, we recommend against use of this variable.

2. Vehicles (VEHICLEA and VEHICLEB)

For more than a decade, we have recommended against using the vehicle variables (VEHICLEA and VEHICLEB) because of coding inconsistencies, and we continue to recommend against using these variables in the FY 2019 SNAP QC database. In addition, because QC reviewers are instructed to record possession of vehicles only if the vehicle's value is counted toward a unit's resources, VEHICLEA and VEHICLEB are often missing, limiting the usefulness of the variables for analyses.

3. Highest educational level completed (YRSEDi)

We recommend against using YRSEDi because 8 percent of adult participants have a missing or unknown value for this variable.

C. Variables not recommended for specific tabulations

1. Non-elderly childless adults without disabilities subject to work registration (ABWDSTi)

We recommend that care be taken to avoid State-level tabulations that result in small sample sizes, which could produce misleading findings. For this reason, we recommend against using ABWDSTi for State-level tabulations in Colorado, Florida, Guam, Indiana, Iowa, Missouri, New Hampshire, North Dakota, Texas, Vermont, and Wyoming.

2. Dependent care costs (DPCOSTi) and deduction (FSDEPDED)

Nationally, we find inconsistencies between DPCOSTi and FSDEPDED in 1 percent of unweighted units that have a positive dependent care deduction, positive dependent care costs, or both. In a few States, however, the percentage of units with dependent care expenses or deductions that have inconsistencies between the two variables is relatively high (18 percent in California, 8 percent in Connecticut, 6 percent in Oklahoma, 5 percent in Vermont and 8 percent in Virginia). Furthermore, sample sizes are small in most States. As a result, we recommend against the use of DPCOSTi and FSDEPDED for State-level tabulations.

3. SNAP case affiliation (FSAFILi)

FSAFILi may be used for tabulations of participants. However, in West Virginia, a little over 91 percent of nonparticipants have unknown FSAFILi values. As a result, we recommend against use of FSAFILi for State-level tabulations of nonparticipants in West Virginia.

4. TANF recipients in the Minnesota Family Investment Program (MFIP) (FSTANF)

In general, we code units in Minnesota with TANF income (FSTANF) as MFIP units. The reported TANF amounts for these units are typically very small, likely because of Federal QC System constraints. Specifically, when States transmit a quality control record, the national computer system checks that the unit's gross income is equal to the sum of all reported income types. Because TANF income is not used in the MFIP benefit calculation, it is not included in reported gross income, resulting in a fatal error in the data transmission if the full TANF amount is reported. Because TANF receipt may not be recorded for some units receiving MFIP cash assistance, we recommend using the MFIP variable (MN_FIP) with the understanding that it may slightly underestimate the number of MFIP units. We recommend against use of MFIP units' TANF income because it is not included as gross income and is most likely recorded incorrectly, if at all.

5. Locality (URBRUR)

Four States (Guam, Nebraska, Utah, and the Virgin Islands) use Local Agency Codes (LACs) that do not align to geographic areas and therefore cannot be used to classify units as located in a metropolitan, micropolitan, or rural area. All units in these four States are classified as having an unknown locality. In addition, mostly because of the use of statewide LACs, we cannot identify locality for more than 5 percent of units in Alabama, Nevada, New Hampshire, Oklahoma, Vermont, and Washington. Because we cannot identify locality for a large percentage of cases in these States, we recommend against use of URBRUR (metropolitan, micropolitan, or rural status) in these States. URBRUR is not retained in the public use file.

D. Variables recommended for use with caution

1. Non-elderly childless adults without disabilities subject to work registration (ABWDSTi)

There are some inconsistencies between ABWDSTi and related employment variables (WRKREGi, EMPSTAi, and EMPSTBi). For example, of the 294,000 weighted participants with an ABWDSTi code indicating they are an ABAWD meeting work requirements, 65 percent have a WRKREGi code indicating they are exempt from work registration and thus do not have work requirements. In view of the inconsistencies between ABWDSTi and these employment variables, we recommend caution when using this variable.

2. SNAP case affiliation (FSAFILi)

As discussed in Section C of this appendix, West Virginia has a very high percentage of missing or unknown values for nonparticipants. Additionally, there are 3 States where more than 5 percent of nonparticipants have missing or unknown values. We recommend caution when using FSAFILi for State-level tabulations of nonparticipants in Nevada, New Hampshire, and North Dakota.

3. Locality (URBRUR)

Because of concerns about the representativeness of the sample within a State, we recommend caution when using URBRUR for State-level tabulations. URBRUR is not retained in the public use file.

E. Variables recommended for use, with disclaimers

1. Person-level and unit disability (DISi, FSDIS, and FSNDIS)

Beginning in FY 2012, we have used an algorithm to identify individuals with disabilities (DISi) based on SSI receipt, medical expenses, age, work registration status (WRKREGi), and other factors. We then use this variable to identify units containing individuals with disabilities (FSDIS) and count the number of individuals with disabilities in a unit (FSNDIS). We recommend use of DISi, FSDIS, and FSNDIS with the understanding that the variables likely underestimate the number of individuals and units with disabilities. For more information, including a description of the disability algorithm, see Appendix B.

2. SNAP employment and training program status (EMPRGi) and employment status (EMPSTAi and EMPSTBi)

Although we are limited in our ability to assess EMPRGi, we did uncover some inconsistencies between EMPRGi and other variables indicating employment and training status. For example, there are a number of cases with contradicting values for participation in employment and training programs, specifically those coded as participating based on WRKREG (work registration status) and not participating based on EMPRG. In addition, we noticed inconsistencies between YRSEDi (years of education) and EMPRGi when defining the participant's level of education completed. Based on our limited assessment of EMPRGi and the other work-related variables, we recommend caution when using EMPRGi.

As in previous years, we found inconsistencies between the two employment status variables, EMPSTAi and EMPSTBi, and with other variables recording countable earned income. For example, of the 12,059 unweighted participants coded as working more than one hour and employed, 356 have no countable earnings. Given these inconsistencies, we recommend use of EMPSTAi and EMPSTBi in conjunction with other work-related variables to determine participants' employment status. Specifically, we recommend use of the person-level work indicator, WORKi, which incorporates information from person-level earnings variables as well as EMPSTAi and EMPSTBi.

3. Assets (FSASSET and FSVEHAST)

We edit positive values of FSVEHAST, LIQRESOR, OTHNLRES, and REALPROP to $0 for units not subject to a SNAP asset test because of their State's broad-based categorical eligibility (BBCE) policy. In view of this edit and the large number of States with BBCE policies, a large number of units have no recorded assets. Only 9 percent of SNAP units have recorded assets (FSASSET > 0) in the FY 2019 file, and nearly all units have no vehicle assets (FSVEHAST = 0). We recommend use of FSASSET and FSVEHAST for tabulations with the understanding that most units have no recorded countable assets.

4. TANF recipients in California (FSTANF)

The percentage of weighted California SNAP units that are pure PA units appears to be too high when compared with State administrative data. Therefore, we recommend use of TANF receipt in California with the understanding that it may contribute to an overestimate of the number of pure PA units in California.

5. Adults age 18–49 without disabilities in childless units (NDISCAi and FSNDISCA)

We recommend use of NDISCAi and FSNDISCA, with the understanding that DISi likely underestimates the number of non-elderly individuals with disabilities as discussed above, and therefore, NDISCAi likely overestimates the number of adults without disabilities.

6. SSI-CAP (SSI_CAP)

Because the raw SNAP QC data do not identify units that enter SNAP through an SSI-CAP, we use an algorithm for identifying, recoding, and assigning benefits for SSI-CAP units in States with these projects.[1]

Because SSI-CAP units are not directly identified in the raw data but rather through an algorithm that relies on available data, the SNAP QC data file may underestimate the actual number of SSI-CAP units in some States. Therefore, we recommend caution when using SSI_CAP.

7. Work registration status (WRKREGi)

WRKREGi includes values that distinguish between individuals with a Federal exemption because of a disability (WRKREGi = 1) and individuals with a Federal exemption for a reason other than a disability (WRKREGi = 2). We found continued evidence in the FY 2019 file of likely miscoding of this variable. For example, we found some inconsistencies between WRKREGi and DISi, which captures additional indicators of disability. Twenty States have a high percentage (greater than 20 percent) of participants coded as individuals with a Federal exemption because of a disability (WRKREGi = 1). Nineteen of these

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[1] See Section III.2 for details on States implementing SSI-CAP programs during FY 2019.

States have a discrepancy of 5 percentage points or more between the percentage with $WRKREG_i = 1$ and those flagged as having a disability ($DIS_i = 1$), with the higher percentage coded as $WRKREG_i = 1$. Because of such inconsistencies and our limited ability to assess $WRKREG_i$, we recommend use of $WRKREG_i$ with the understanding that it is best used in conjunction with other work-related variables. If attempting to identify individuals with disabilities, we recommend use of the person-level disability indicator, DIS_i, described above.

APPENDIX B

Automated Edits to SNAP Units

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We were able to resolve some inconsistencies in the raw FY 2019 data file through automated edits involving simple algorithms, as described in this section.

A. Missing and miscoded SNAP affiliation (FSAFILi) codes

We checked for instances in which the SNAP case affiliation codes in the raw data file were missing. If the individual had nonmissing age and gender, we recoded them as potential SNAP participants. That is, we first recoded FSAFILi as "unknown" (99) and then set it to 1 if certain other conditions, described below, were met.

We also checked for instances in which the SNAP case affiliation codes in the raw data file were inconsistent with other coded variables in the file such as citizenship, ABAWD status, and receipt of SSI and TANF. We were able to recode many of the inconsistencies:

- In the case of differences between unit size (the count of those with an affiliation code of 1) and certified household size, we checked to see which size was consistent with the reported benefit and then edited the affiliation codes accordingly. We also resolved differences by recoding any affiliation codes that were inconsistent with citizenship or ABAWD status.

- Beginning in FY 2015, if a participating minor child of the household head (FSAFILi = 1, AGEi < 18, and RELi = 4) had an inconsistent citizenship status (CTZNi > = 7) and there was no one outside the unit (FSAFILi > 1), then we changed the child's citizenship status to the value for the household head.

- Before June 2019, we set the affiliation codes of California SSI recipients to 15, except for one-person households with SSI recoded as OTHGOV income.[2]

- MFIP uses unit composition rules that differ from those used in regular SNAP. Specifically, SSI and TANF recipients living in the same household are treated as separate SNAP units. Consequently, if a Minnesota unit of more than one person had both SSI and TANF income, we set the affiliation code of the SSI recipient to unknown (99).

B. Vehicle assets

The following States consider the value of some vehicles when determining asset eligibility for households that are not categorically eligible: Alaska, Arkansas, Delaware, Idaho, Illinois, Iowa, Kansas, Maine, Michigan, Minnesota, Nebraska, Nevada, New Hampshire, New York, North Dakota, Oregon, Pennsylvania, Rhode Island, South Carolina, South Dakota, Texas, Vermont, the Virgin Islands, and Washington. For all other States, we reset any reported vehicle assets to $0 because the States exclude the value of all vehicles when determining asset eligibility.

C. Child support deduction and child support income

We checked for instances in which the reported child support payment deduction is exactly equal to the reported countable unit child support payment income. Although it is possible for a unit to have both child support expenses and child support income, it is highly unlikely that the two would be exactly equal

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[2] As of June 1, 2019, California discontinued its policy of providing SSI recipients with a small food assistance benefit through the State SSI supplement in lieu of deeming them eligible for SNAP.

in value. In these units, we checked to see if either of the amounts should be excluded by using the following procedure:

- If unit income less child support income was within $5 of reported gross income, we set child support income to $0.

- If calculated net income for the unit was within $5 of reported net income, we retained both the child support income and the child support deduction.

- If calculated net income was greater than reported net income and the difference between the two was greater than or equal to child support income, we set child support income to $0.

- If calculated net income was less than reported net income and the difference between the two was less than child support income, we set the child support payment deduction to $0.

In addition, if a unit was not categorically eligible, included no elderly members or non-elderly individuals with disabilities, and would have passed the gross income test if child support expenses were excluded from gross income but would not if they were included, we excluded child support expenses from unit gross income and set the child support payment deduction to $0.

D. Dependent care expenses

The QC data file includes units for which the QC reviewers recorded dependent care expenses for the parent rather than for the dependent. We corrected for this error, as follows:

- If dependent care expenses were assigned to adults age 18 to 59 without SSI and there were children in the unit without dependent care expenses, we set the expenses to $0 for the adults and distributed them among the children in the following order:

  1. If the unit contained at least one member age 0 to 4, we distributed the expenses evenly to unit members age 0 to 8.

  2. If the unit did not contain a member age 0 to 4, we distributed the expenses evenly to any unit members age 5 to 13.

  3. If the unit did not contain a member age 0 to 13, we distributed the expenses evenly to any unit members age 14 to 17.

In units where the calculated benefit matched the raw benefit, we assumed the recorded dependent care deduction was correct and, if necessary, recoded the expenses to make them consistent with the deduction. We followed these guidelines to reconcile differences between the dependent care deduction and expenses:

- If the dependent care deduction was greater than the total value of dependent care expenses, we set the expenses equal to the deduction by assigning additional dependent care expenses to unit members who originally had positive dependent care expenses.

- If no unit members originally had recorded dependent care expenses, we assigned expenses to unit members in the following order:

  1. If the unit contained at least one member age 0 to 4, we distributed expenses evenly to unit members age 0 to 8.

  2. If the unit did not contain a member age 0 to 4, we distributed expenses evenly to any unit members age 5 to 13.

3. If the unit did not contain a member age 0 to 13, we distributed expenses evenly to any unit members age 14 to 17.

4. If the unit did not contain a member age 0 to 17, we distributed expenses evenly to any unit members age 18 or older with SSI.

5. If the unit did not contain a member age 0 to 17 or an adult with SSI, we distributed expenses to elderly unit members without SSI.

6. If the unit did not contain a member age 0 to 17 or an adult with SSI or an elderly unit member without SSI, we distributed expenses evenly to all unit members.

- In units with positive dependent care expenses, no dependent care deduction, and a calculated benefit that did not match the raw benefit, we set the dependent care deduction equal to the total unit dependent care expenses if doing so resulted in a calculated benefit that matches the raw benefit.

These edits excluded households identified as MFIP or SSI-CAP.

E. SUA usage and prorating[3]

The SNAP QC data file includes two variables that describe the use of Standard Utility Allowances (SUAs). One variable records the use of and entitlement to SUAs (SUA1); the other records prorating utility allowances in shared housing situations (SUA2). In units where the calculated benefit matched the raw benefit, we assumed the recorded utility amount to be correct. For these units, we recoded the SUA1 and SUA2 variables to make them consistent with the utility amount. For units coded as receiving a type of SUA not used in the State, we recoded SUA1 regardless of the result of the benefit calculation.

In most States, we checked for full SUA values as well as for half SUA values (Table F.7).[4] If the utility amount equaled a full SUA value, we confirmed that SUA1 indicated the correct SUA type and that SUA2 was coded as "not prorated." If the utility amount equaled half of an SUA value, we confirmed that SUA1 indicated the correct SUA type and that SUA2 was coded as "prorated." However, in States that use individual standards, we checked half SUA values for the HCSUA and LUA, but only full SUA values for the telephone SUA, electricity SUA, or both (telephone plus electricity). If the utility amount did not equal a full or half SUA value and was not coded as prorated, we coded the unit as using individual standards in States with individual standards and as using actual expenses in other States. However, in States where SUA use was mandatory and the State did not use individual standards, we did not change the values from the raw data file and were unable to reconcile the value of SUA1 and SUA2.[5]

F. Pure public assistance (PA) units

We flagged the following types of units as pure PA units:

- Units containing only children where at least one member received TANF income

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[3] These edits exclude units identified as MFIP or SSI-CAP participants. SSI-CAP participants in States with a standard benefit had SUA1 and SUA2 set to missing. SSI-CAP participants in States with a standardized shelter expense had SUA1 set to 9 ("Other") and SUA2 set to 1 (not prorated).

[4] Prorated values are not always equal to half of the full SUA value. However, because of the multitude of possible values, we checked only for values that were half of the full amount.

[5] Throughout FY 2019, 47 States and the District of Columbia mandated the use of an SUA rather than actual utility costs. The 47 States include Alaska, which mandates the use of an SUA for the Central geographic region.

- Units in which at least one member received TANF income and in which every adult member of the unit received TANF, SSI, or General Assistance (GA) income

- Units in which every adult and every child received SSI or GA income

- All MFIP units

G. Categorical eligibility

Most States have adopted BBCE policies that confer categorical SNAP eligibility on all units authorized to receive a TANF or Maintenance of Effort–funded noncash benefit. In such States, units meeting State-determined eligibility criteria are exempt from the Federal SNAP income and asset tests. In States with BBCE policies, most units were already identified as categorically eligible through the CAT_ELIG variable, which is set in the raw file to 0 for units that are not categorically eligible and to 1 for units reported as categorically eligible.[6] We set the CAT_ELIG flag to 2 for units that were not reported to be categorically eligible but that we identified as pure PA or met the following State-specific criteria:

- **Alabama.** All units with net income at or below 100 percent of Federal poverty guidelines and either (1) gross income at or below 130 percent of Federal poverty guidelines or (2) only elderly individuals or individuals with disabilities and gross income at or below 200 percent of Federal poverty guidelines

- **Arizona, Connecticut, New Jersey, Oregon, and Vermont.** All units with gross income at or below 185 percent of Federal poverty guidelines

- **California, Delaware, District of Columbia, Florida, Hawaii, Maryland, Nevada, North Carolina, Washington, West Virginia, and Wisconsin.** All units with gross income at or below 200 percent of Federal poverty guidelines

- **Colorado, Massachusetts, Montana, and North Dakota.** All units with net income at or below 100 percent of Federal poverty guidelines and gross income at or below 200 percent of Federal poverty guidelines

- **Georgia.** All units with (1) gross income at or below 130 percent of Federal poverty guidelines or (2) only elderly individuals or individuals with disabilities and gross income at or below 200 percent of Federal poverty guidelines

- **Guam, Minnesota, and New Mexico.** All units with gross income at or below 165 percent of Federal poverty guidelines

- **Idaho.** All units with countable assets at or below $5,000, net income at or below 100 percent of Federal poverty guidelines, and either (1) gross income at or below 130 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability

- **Indiana.** All units with countable assets at or below $5,000 and either (1) gross income at or below 130 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability

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[6] Beginning in FY 2019, we recoded to 0 a small number of cases with a missing value for CAT_ELIG in the raw file because the cases were in States without BBCE policies, not identified as pure PA, and passed federal SNAP eligibility tests.

- Illinois. All units with (1) gross income at or below 165 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability and gross income at or below 200 percent of Federal poverty guidelines

- Iowa. All units with gross income at or below 160 percent of Federal poverty guidelines

- Kentucky, Ohio, and South Carolina. All units with (1) gross income at or below 130 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability and gross income at or below 200 percent of Federal poverty guidelines

- Maine. All units with (1) gross income at or below 185 percent of Federal poverty guidelines with children under age 19 living with a parent or caretaker, or (2) gross income at or below 185 percent of Federal poverty guidelines and countable assets at or below $5,000

- Michigan. All units with gross income at or below 200 percent of Federal poverty guidelines and countable assets at or below $5,000

- Mississippi. Through June 2019, all units with net income at or below 100 percent of Federal poverty guidelines and either (1) gross income at or below 130 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability[7]

- Oklahoma. All units with net income at or below 100 percent of Federal poverty guidelines and either (1) gross income at or below 130 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability

- Nebraska. All units with net income at or below 100 percent of Federal poverty guidelines, countable financial assets at or below $25,000, and either (1) gross income at or below 130 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability

- New Hampshire. All units with children under age 22, a relative of the child present, and gross income at or below 185 percent of Federal poverty guidelines

- New York. All units with (1) gross income at or below 130 percent of Federal poverty guidelines, (2) earned income and gross income at or below 150 percent of Federal poverty guidelines, (3) at least one elderly individual or individual with a disability and gross income at or below 200 percent of Federal poverty guidelines, or (4) dependent care expenses and gross income at or below 200 percent of Federal poverty guidelines

- Pennsylvania. All units with (1) gross income at or below 160 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability and gross income at or below 200 percent of Federal poverty guidelines

- Rhode Island. All units with (1) gross income at or below 185 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability and gross income at or below 200 percent of Federal poverty guidelines

- Texas. All units with gross income at or below 165 percent of Federal poverty guidelines and countable assets at or below $5,000

- Virgin Islands. All units with (1) gross income at or below 175 percent of Federal poverty guidelines or (2) at least one elderly individual or individual with a disability and gross income at or below 200 percent of Federal poverty guidelines

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[7] Mississippi ended its BBCE program on July 1, 2019.

H.   State SSI supplements

Some States appear to have coded State SSI supplements as other government benefits (FSOTHGOV) or other unearned income (FSOTHUN), rather than SSI. We add these types of income to SSI (and remove them from FSOTHGOV or FSOTHUN) if the total amount of one of the income types was equal to the State's SSI supplement for individuals or couples.

I.   Person-level disability

The QC data file does not directly identify individuals with disabilities. However, we can use information in the QC data file—such as SSI receipt or work registration status—to identify those likely to have a disability. Starting with the FY 2012 SNAP QC data file, we used the following procedure to flag individuals with disabilities:

- We identify as disabled most individuals under age 60 with SSI. We make exceptions if they are the only individual in the unit to have SSI and a work registration status indicating a Federal exemption for a reason other than a disability (WRKREGi = 2) and meet any of the following conditions:

  1. Individual is an adult (age 18 to 59) living with at least one individual who does not have SSI, does not have earned income, and has a work registration status indicating disability (WRKREGi = 1). In these cases, we code the first child in the unit with WRKREGi = 1 as disabled; or, if there are no children in the unit, we code the first adult in the unit with WRKREGi = 1 as disabled. We do not code the adult with SSI and WRKREGi = 2 as disabled.

  2. Individual is a child (age 0 to 17) living with at least one other child who does not have SSI, does not have earned income, and has a work registration status indicating disability. In these cases, we code the first child in the unit with WRKREGi = 1 as disabled. We do not code the child with SSI and WRKREGi = 2 as disabled.

  3. Individual does not meet conditions (1) or (2) but is in the labor force (EMPSTAi > 1); has earned income; has no Social Security, veterans' benefits, or workers' compensation; and is living with at least one child who does not have SSI. In these cases, we code the first child in the unit as disabled. We do not code the individual described above with SSI as disabled.

- We identify as disabled all non-elderly adults who satisfy all three of the following: conditions:

  1. Coded as working fewer than 30 hours per week (EMPSTBi = 1, 2, or 3) and either

     a. Has monthly earnings equal to less than the equivalent of the monthly Federal minimum wage for someone working 30 hours a week, or

     b. Beginning with the FY 2014 SNAP QC data file, does not have a related dependent (age 17 or under, RELi = 4 or 5) receiving Social Security in the unit

  2. Coded as exempt from work registration due to disability (WRKREGi = 1)

  3. Receives Social Security, veterans' benefits, or workers' compensation

- In units in which no individual is identified as disabled per the above criteria, but the unit receives a medical expense deduction and has no participating elderly individuals or nonparticipating elderly members with FSAFILi = 8, 9, 11, or 13, we code at least one individual as disabled. We do so by looking for the following types of individuals, among those with FSAFILi = 1 and FSAFILi = 8, 9, 11, or 13, stopping when a step codes one or more individuals as disabled:

1. Individuals with a work registration status indicating disability (code all such individuals as disabled)

2. Individuals receiving Social Security, veterans' benefits, or workers' compensation and coded as working fewer than 30 hours per week (code all such individuals as disabled)

3. Individuals receiving Social Security, veterans' benefits, or workers' compensation (code all such individuals as disabled)

4. Child coded as working fewer than 30 hours per week (code first as disabled)

5. Adult coded as working fewer than 30 hours per week (code first as disabled)

If the unit did not contain any of the types of individuals listed above, we code all individuals in the unit as disabled.

- Beginning with the FY 2015 SNAP QC data file, we also identify as disabled non-elderly adults in single-person SNAP households who receive Social Security and without any individuals outside of the unit.

- Beginning with the FY 2016 SNAP QC data file, we also identify as disabled non-elderly adults in single-person SNAP units with WRKREGi = 1, no gross income, and assets above the limit for units without any elderly or disabled individuals but below the limit for units with elderly or disabled individuals.

- Beginning with the FY 2016 SNAP QC data file, we exclude nonparticipating elderly members with FSAFILi = 8, 9, 11, or 13 from being flagged as disabled.

J. Homeless household shelter deduction

The 2018 Farm Bill made mandatory the existing State option to provide a standard shelter deduction to homeless households that had qualifying shelter expenses and that were not claiming the excess shelter expense deduction. The 2018 Farm Bill also indexed the homeless shelter deduction to inflation. Before the Farm Bill was enacted, the value of the homeless shelter deduction was $143. Beginning on December 20, 2018, the value increased to $147.55. States were given until the end of December 2018 to implement the change for newly certified or recertified homeless households and were also given the flexibility to round this value up or down depending on their procedures for calculating net income.

In the FY 2019 SNAP QC data file, we identified households as receiving the homeless shelter deduction if the reported shelter deduction (SHELDED) was $143, $147, or $148. If the reported shelter deduction (SHELDED) was greater than $148, we assumed that the unit did not use the homeless deduction and set the indicator of homelessness (HOMEDED) to 2 and the homeless household shelter deduction (HOMELESS_DED) to 0.

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APPENDIX C

New Variables and Variables That Changed
in the FY 2019 SNAP QC Database

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A. New variables in the FY 2019 SNAP QC database

None

B. Variables changed in the FY 2019 SNAP QC database

None

Information on variables in the FY 2018 SNAP QC database appears in *Technical Documentation for the Fiscal Year 2018 SNAP QC Database and QC Minimodel* (Cronquist et al. 2019).

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APPENDIX D

Derivation of Weights by State and Month

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Tables D.1a through D.3b present the final calculated weighted counts of SNAP units, individuals, and benefit amounts in the FY 2019 SNAP QC file. Tables D.4a through D.6b present the corresponding adjustments to the Program Operations data that yielded the weighted counts in the FY 2019 SNAP QC file. Tables D.7 through D.18 show the preliminary monthly weights (HWGT) and their derivation for each State and stratum. The preliminary weights (stratum-specific weights) are derived as follows:

Data	Table D.7 through D.18 columns	Derivation
Sampling interval	a	Raw data
Stratum sampling size	b	Raw data
SNAP units in stratum (unedited)	c^	a*b
Stratum share of State sample	d^	c/(sum c over State)
SNAP units in State	e	Raw data
SNAP units in stratum (edited)	f^	d*e
Units with complete reviews	g	Raw data
Ineligible units	h	Raw data
Disqualification rate	i	h/g
Adjusted SNAP units in State	j	(1-i)*f
Failing units	k	Raw data
Stratum sampling size	l	g-h-k
Stratum-specific weight	m	j/l

^ Column omitted from published tables due to space limitations; available on request.

As described in Chapter III, Section C, the preliminary monthly stratum-specific unit weights are the starting point for creating the final weights. After deriving the preliminary weights, we use a nonlinear programming technique to create final weights that match the adjusted monthly Program Operations number of units, participants, and benefits. In Chapter III, Section C, we provide a description of the derivation of sampling weights.

Table D.1a. Calculated weighted unit counts by State (October 2018 to April 2019)

State	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019
Alabama	340,386	341,855	348,807	337,965		333,720	329,358
Alaska	29,702	37,781	36,380	37,410		33,943	36,400
Arizona	380,367	375,385	373,039	381,800	362,327	362,093	362,808
Arkansas	156,009	157,018	160,107	159,158		157,001	153,021
California	1,883,939	1,866,714	1,855,125	1,858,940		1,794,551	1,782,919
Colorado	220,986	227,958	223,738	224,568		221,951	224,890
Connecticut	212,499	210,926	215,283	207,065		208,047	209,773
Delaware	63,262	64,006	65,572	67,688		63,714	62,920
District of Columbia	66,458	67,629	67,028	65,096		64,073	64,035
Florida	1,564,371	1,577,680	1,547,298	1,559,702		1,495,835	1,499,980
Georgia	675,003	668,085	647,571	645,454		630,623	629,544
Hawaii	81,182	80,284	80,538	80,491		78,932	78,754
Idaho	66,828	66,955	67,155	67,554	67,296	66,179	66,547
Illinois	873,652	873,669	859,289	895,343		848,163	855,050
Indiana	269,024	249,252	256,093	257,137		254,723	239,917
Iowa	157,833	158,362	154,211	156,383		152,751	147,342
Kansas	97,434	91,314	91,549	90,674		92,145	87,926
Kentucky	252,102	245,420	248,163	255,174	230,708	239,412	241,584
Louisiana	381,467	383,986	380,963	373,709	377,175	375,788	364,502
Maine	84,153	83,756	81,922	82,971		80,708	80,839
Maryland	341,809	339,964	331,024	330,216	335,824	321,159	324,597
Massachusetts	433,793	451,033	443,046	447,729		446,236	441,022
Michigan	643,720	627,952	608,543	629,970		625,816	621,398
Minnesota	202,880	200,878	206,114	211,448	200,228	207,210	202,391
Mississippi	218,423	213,882	217,632	212,623		209,975	207,566
Missouri	323,803	328,660	314,971	325,222		319,608	314,287
Montana	52,666	52,303	52,971	48,839		52,303	52,219
Nebraska	74,203	73,788	69,617	72,777		72,140	72,404
Nevada	224,494	216,590	221,569	215,386	219,105	220,731	215,342
New Hampshire	39,428	40,018	38,133	40,708		39,338	38,498
New Jersey	366,108	357,974	361,021	363,628	358,443	353,257	350,174
New Mexico	218,542	216,222	214,934	214,597	209,991	212,816	215,834
New York	1,536,243	1,507,150	1,463,427	1,531,428		1,488,579	1,478,911
North Carolina	640,573	634,604	637,265	630,046		612,431	605,755
North Dakota	24,326	23,531	23,906	23,904		23,479	23,329
Ohio	695,524	667,234	697,541	683,472		684,163	665,830
Oklahoma	259,852	248,900	258,175	250,433	255,535	246,291	258,606
Oregon	354,999	353,939	354,725	348,509		340,404	345,326
Pennsylvania	937,698	949,366	917,308	945,432		927,599	938,729
Rhode Island	89,163	91,041	87,924	86,619		85,977	85,413
South Carolina	280,909	278,964	286,913	277,741	280,508	276,962	275,630
South Dakota	38,687	38,579	37,697	37,928		37,511	37,292
Tennessee	444,314	432,041	422,935	438,565		422,830	402,697
Texas	1,486,107	1,495,466	1,495,103	1,481,150	1,480,337	1,417,534	1,390,143
Utah	74,606	73,107	71,086	72,675	73,240	72,835	72,173
Vermont	38,749	40,223	40,295	40,022		38,401	38,039
Virginia	317,055	317,143	326,510	339,009	332,487	330,707	336,324
Washington	474,866	482,073	488,059	484,505		480,950	473,569
West Virginia	157,541	161,116	157,408	163,826	159,420	157,321	154,114
Wisconsin	319,150	320,633	312,055	310,276	317,161	313,467	312,579
Wyoming	12,278	12,187	12,208	12,528		11,873	11,703
Guam	15,023	15,533	14,921	15,637		14,556	15,543
Virgin Islands	13,576	13,384	12,603	11,964	11,207	10,450	9,862
United States	19,207,768	19,103,513	18,957,471	19,103,092	5,270,991	18,629,258	18,505,406

Table D.1b. Calculated weighted unit counts by State (May 2019 to September 2019) and FY average

State	May 2019	June 2019	July 2019	August 2019	September 2019	FY average 2019
Alabama	332,982	329,346	337,091	331,418	334,358	336,117
Alaska	36,761	39,241	36,604	37,294	35,645	36,106
Arizona	363,819	357,815	371,735	369,512	359,154	368,321
Arkansas	148,103	150,547	149,699	155,811	151,153	154,330
California	1,804,985	1,935,586	2,053,345	2,100,790	2,097,698	1,912,235
Colorado	217,744	223,919	221,225	222,430	219,424	222,621
Connecticut	202,356	204,947	207,667	210,495	203,186	208,386
Delaware	60,130	61,742	60,007	57,257	59,840	62,376
District of Columbia	62,374	62,512	64,691	65,330	65,410	64,967
Florida	1,507,038	1,496,088	1,509,953	1,507,501	1,480,647	1,522,372
Georgia	624,686	628,634	612,628	610,976	611,920	635,011
Hawaii	77,436	78,416	82,016	79,813	78,708	79,688
Idaho	66,052	64,522	64,960	65,235	64,868	66,179
Illinois	856,499	860,781	853,293	878,347	886,924	867,365
Indiana	243,317	252,565	225,617	248,889	252,561	249,918
Iowa	148,342	150,035	141,154	145,716	136,687	149,892
Kansas	88,493	89,802	90,750	90,762	84,743	90,508
Kentucky	232,559	228,922	233,270	225,399	223,342	238,005
Louisiana	360,784	360,228	367,554	364,152	362,643	371,079
Maine	80,267	74,869	83,683	82,652	84,326	81,831
Maryland	331,601	330,887	324,335	333,459	332,027	331,408
Massachusetts	446,143	433,768	450,879	448,673	455,252	445,234
Michigan	581,992	592,293	597,031	614,381	573,514	610,601
Minnesota	200,469	204,102	201,920	207,053	202,940	203,969
Mississippi	207,248	208,080	208,202	208,615	198,916	210,106
Missouri	305,267	320,683	314,730	300,041	318,316	316,872
Montana	51,278	51,261	51,117	51,762	52,460	51,744
Nebraska	72,225	70,652	71,328	71,460	65,399	71,454
Nevada	214,766	215,564	218,861	213,516	216,290	217,684
New Hampshire	39,479	38,279	38,754	38,108	38,747	39,044
New Jersey	344,371	349,069	347,341	347,963	344,237	353,632
New Mexico	203,175	217,543	212,950	214,547	215,329	213,873
New York	1,505,591	1,481,088	1,462,987	1,385,056	1,481,195	1,483,787
North Carolina	591,412	600,326	604,527	602,637	602,648	614,748
North Dakota	22,821	22,109	22,083	23,206	22,245	23,176
Ohio	663,352	678,454	654,371	675,310	670,116	675,942
Oklahoma	258,931	267,505	262,343	262,766	268,181	258,127
Oregon	349,737	344,243	339,815	343,385	336,813	346,536
Pennsylvania	937,782	927,445	941,757	935,511	922,287	934,629
Rhode Island	83,421	85,093	85,272	83,974	81,399	85,936
South Carolina	271,125	273,457	272,974	264,658	269,911	275,813
South Dakota	37,870	37,819	37,040	36,482	37,323	37,657
Tennessee	422,050	415,308	413,070	414,166	397,236	420,474
Texas	1,415,354	1,412,787	1,385,865	1,428,347	1,396,352	1,440,379
Utah	70,933	71,222	68,746	70,832	70,112	71,797
Vermont	39,081	38,836	37,940	38,592	38,579	38,978
Virginia	323,873	329,193	335,061	328,433	323,250	328,254
Washington	466,642	461,051	470,003	465,264	462,544	473,593
West Virginia	159,008	157,690	157,123	158,131	159,336	158,503
Wisconsin	308,270	305,033	311,836	308,330	311,625	312,535
Wyoming	11,256	11,156	11,492	11,429	11,194	11,755
Guam	15,430	15,335	15,387	15,411	15,446	15,293
Virgin Islands	10,118	10,194	9,731	10,395	10,439	11,160
United States	18,476,799	18,628,041	18,703,813	18,761,671	18,694,893	18,802,000

Table D.2a. Calculated weighted individual counts by State (October 2018 to April 2019)

State	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019
Alabama	718,535	726,648	739,258	717,337		700,301	695,024
Alaska	66,146	83,956	78,775	82,296		72,586	80,157
Arizona	829,398	808,260	808,672	815,689	770,154	773,947	769,805
Arkansas	354,915	352,610	355,223	356,653		345,508	338,816
California	3,661,651	3,712,401	3,735,517	3,630,218		3,575,653	3,583,834
Colorado	448,733	462,062	449,429	450,118		442,675	447,801
Connecticut	361,012	352,640	372,079	353,778		351,428	357,584
Delaware	131,078	128,297	134,116	138,562		130,125	128,321
District of Columbia	113,306	113,646	111,266	108,891		104,341	106,298
Florida	2,889,004	2,923,485	2,842,055	2,888,654		2,748,143	2,765,663
Georgia	1,477,635	1,448,339	1,407,340	1,415,699		1,333,963	1,374,557
Hawaii	159,258	154,789	155,964	153,062		154,485	147,709
Idaho	148,779	148,842	149,309	150,376	149,377	146,318	146,903
Illinois	1,749,564	1,759,510	1,715,594	1,812,805		1,694,059	1,704,948
Indiana	599,613	557,931	564,456	576,442		563,705	540,973
Iowa	324,905	329,869	317,709	326,341		307,794	300,692
Kansas	209,277	195,704	197,115	198,425		196,192	189,999
Kentucky	558,097	538,342	543,051	563,546	523,462	531,412	533,922
Louisiana	824,612	825,542	823,758	805,866	809,551	808,037	778,478
Maine	151,879	146,294	143,853	148,647		137,440	142,013
Maryland	637,966	633,655	599,189	618,413	621,659	556,911	579,910
Massachusetts	727,933	767,420	746,893	759,254		754,623	729,085
Michigan	1,198,180	1,151,029	1,121,181	1,161,492		1,167,184	1,154,745
Minnesota	381,756	384,206	403,986	418,348	375,510	406,302	391,082
Mississippi	471,308	459,017	468,186	454,757		449,821	443,868
Missouri	695,042	705,803	683,420	690,309		669,139	666,534
Montana	108,530	103,974	107,818	99,377		104,530	104,127
Nebraska	163,999	162,964	152,596	159,696		159,128	158,792
Nevada	431,747	397,472	411,320	402,346	410,874	418,397	407,534
New Hampshire	76,483	76,151	73,992	78,653		74,777	72,466
New Jersey	731,983	710,311	721,400	728,496	715,862	703,228	695,964
New Mexico	451,133	433,873	442,277	435,716	429,505	436,019	441,243
New York	2,727,462	2,658,370	2,540,038	2,705,107		2,598,429	2,592,373
North Carolina	1,327,171	1,308,754	1,326,080	1,300,319		1,243,729	1,235,417
North Dakota	50,503	49,414	49,586	49,813		48,422	48,096
Ohio	1,400,704	1,329,330	1,406,880	1,337,608		1,376,068	1,327,803
Oklahoma	556,572	541,002	561,810	522,143	541,576	529,892	553,394
Oregon	612,249	610,070	607,328	602,033		558,187	591,781
Pennsylvania	1,732,824	1,780,497	1,695,851	1,768,620		1,691,191	1,747,214
Rhode Island	149,298	152,914	146,423	148,845		142,181	141,030
South Carolina	608,766	605,696	617,516	600,255	603,602	595,551	590,881
South Dakota	82,566	81,999	80,158	80,075		78,198	79,823
Tennessee	930,579	906,421	892,050	921,665		874,760	836,687
Texas	3,411,771	3,480,721	3,496,398	3,427,045	3,443,331	3,322,820	3,182,041
Utah	178,812	175,087	170,380	172,836	174,057	172,787	170,989
Vermont	66,220	71,400	71,494	70,674		66,714	65,304
Virginia	641,181	637,896	670,808	704,033	675,871	685,965	685,101
Washington	822,072	834,522	842,115	834,150		826,184	812,615
West Virginia	302,815	309,086	302,985	314,042	301,005	296,368	297,760
Wisconsin	627,392	629,450	609,500	598,861	622,243	615,344	613,035
Wyoming	27,448	27,262	27,257	28,009		26,472	26,025
Guam	42,832	44,621	43,595	44,909		41,504	44,376
Virgin Islands	27,983	27,069	25,662	24,527	22,957	21,387	20,381
United States	38,180,677	38,016,619	37,760,710	37,955,830	11,190,598	36,830,325	36,640,972

Table D.2b. Calculated weighted individual counts by State (May 2019 to September 2019) and FY average

State	May 2019	June 2019	July 2019	August 2019	September 2019	FY average 2019
Alabama	698,468	682,883	714,701	687,289	693,001	706,677
Alaska	82,163	87,307	81,513	81,824	80,642	79,760
Arizona	773,157	758,997	790,722	785,030	772,369	788,017
Arkansas	326,618	334,738	336,157	347,594	337,094	344,175
California	3,549,734	3,682,946	3,914,962	3,987,750	3,903,783	3,721,677
Colorado	422,967	445,289	437,613	440,612	435,150	443,859
Connecticut	343,645	343,369	354,635	359,603	344,495	354,024
Delaware	119,892	125,758	123,599	108,492	122,139	126,398
District of Columbia	98,804	101,418	109,146	110,383	111,402	108,082
Florida	2,779,400	2,746,483	2,779,754	2,770,280	2,704,824	2,803,431
Georgia	1,336,248	1,357,718	1,318,355	1,318,701	1,316,773	1,373,211
Hawaii	145,288	148,555	158,401	154,642	147,898	152,732
Idaho	145,542	141,697	142,933	143,236	142,105	146,285
Illinois	1,735,230	1,704,388	1,647,747	1,725,529	1,770,574	1,729,086
Indiana	546,517	559,775	506,695	550,189	559,162	556,860
Iowa	308,444	310,137	290,949	298,641	267,067	307,504
Kansas	186,981	193,312	195,071	196,370	186,742	195,017
Kentucky	501,097	501,948	518,431	502,747	494,712	525,897
Louisiana	778,510	765,953	791,070	792,894	777,741	798,501
Maine	139,489	124,348	146,510	143,196	152,028	143,245
Maryland	611,598	610,677	590,829	615,096	612,399	607,358
Massachusetts	752,862	703,903	759,398	757,666	764,203	747,567
Michigan	1,100,977	1,098,767	1,121,139	1,155,683	1,084,351	1,137,702
Minnesota	370,679	392,219	382,383	404,212	392,525	391,934
Mississippi	444,005	446,617	446,420	446,880	424,992	450,534
Missouri	657,275	682,299	667,777	632,357	678,716	675,334
Montana	102,363	104,860	103,537	104,472	106,053	104,513
Nebraska	158,544	155,158	155,587	157,278	145,445	157,199
Nevada	394,574	395,962	418,162	396,504	403,678	407,381
New Hampshire	75,411	72,351	73,837	71,470	73,506	74,463
New Jersey	677,060	692,664	690,006	690,789	682,918	703,390
New Mexico	414,666	441,711	439,780	431,999	439,028	436,413
New York	2,642,450	2,584,783	2,567,247	2,337,344	2,586,186	2,594,526
North Carolina	1,202,864	1,224,625	1,248,711	1,243,573	1,239,737	1,263,725
North Dakota	47,026	45,200	43,161	48,043	42,243	47,410
Ohio	1,316,459	1,347,357	1,319,777	1,359,949	1,347,556	1,351,772
Oklahoma	557,644	571,467	564,745	565,894	575,449	553,466
Oregon	595,284	588,422	549,733	575,919	561,892	586,627
Pennsylvania	1,741,489	1,708,004	1,746,086	1,705,501	1,672,057	1,726,303
Rhode Island	135,568	140,609	139,596	138,121	133,170	142,523
South Carolina	578,057	581,976	581,393	579,601	583,385	593,890
South Dakota	80,967	80,962	78,067	78,358	79,186	80,033
Tennessee	882,904	869,288	869,058	867,586	825,487	879,680
Texas	3,291,843	3,318,023	3,302,199	3,352,434	3,300,367	3,360,750
Utah	166,066	167,588	161,376	164,891	163,453	169,860
Vermont	68,257	67,606	66,355	67,195	67,209	68,039
Virginia	661,509	687,911	681,318	660,957	634,439	668,916
Washington	802,654	796,991	803,022	782,422	783,763	812,774
West Virginia	302,274	293,777	297,398	298,420	305,290	301,768
Wisconsin	592,852	588,663	609,826	595,807	607,844	609,235
Wyoming	24,714	25,055	25,527	25,349	24,928	26,186
Guam	44,170	43,740	43,673	43,698	43,773	43,717
Virgin Islands	20,934	21,099	20,607	21,511	21,623	22,978
United States	36,534,190	36,667,353	36,926,694	36,881,982	36,726,549	37,202,406

Table D.3a. Calculated weighted benefit amounts by State (October 2018 to April 2019)

State	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019
Alabama	84,810,353	85,060,645	88,002,895	83,281,809		78,233,607	77,914,317
Alaska	11,615,427	13,843,830	13,546,325	13,709,138		12,265,736	12,909,621
Arizona	95,041,146	96,962,695	94,167,821	88,952,125	89,085,653	90,647,746	91,260,660
Arkansas	36,947,534	36,745,414	35,656,419	37,781,761		35,776,947	35,723,805
California	513,265,667	478,319,807	482,875,066	473,132,994		460,813,184	457,576,703
Colorado	50,878,087	52,565,560	53,505,407	50,701,813		49,144,931	50,878,572
Connecticut	46,705,352	45,974,704	48,409,676	44,391,201		45,600,114	45,189,563
Delaware	14,112,431	15,564,375	13,915,147	15,107,134		15,062,900	14,351,109
District of Columbia	13,130,207	13,796,687	13,879,299	12,283,979		12,891,865	12,097,233
Florida	341,147,801	340,562,053	330,091,402	326,458,670		318,323,881	320,179,266
Georgia	188,704,654	170,622,590	171,151,814	160,387,033		156,918,511	166,033,847
Hawaii	36,899,808	38,318,485	36,477,591	37,713,490		37,004,681	35,311,764
Idaho	16,220,421	15,938,746	16,311,275	16,277,238	16,332,723	15,892,252	16,044,076
Illinois	227,128,907	219,323,995	212,265,035	212,621,505		206,529,760	191,890,342
Indiana	67,808,745	60,709,518	61,249,764	66,436,562		64,603,418	62,979,404
Iowa	34,072,277	34,038,023	33,312,601	35,266,108		32,253,561	31,069,551
Kansas	22,261,608	20,211,973	21,082,948	21,224,849		21,000,279	19,587,340
Kentucky	63,809,469	58,903,240	57,219,713	60,409,708	62,780,493	59,711,466	59,151,438
Louisiana	97,825,621	101,970,799	104,526,539	98,306,554	100,132,638	97,539,691	93,930,943
Maine	16,111,977	16,082,841	14,573,830	15,291,807		14,812,957	14,879,847
Maryland	75,550,665	69,793,592	74,690,646	72,690,382	69,744,058	64,367,015	72,669,442
Massachusetts	93,801,674	94,545,591	92,507,828	92,268,697		92,276,729	88,161,784
Michigan	133,741,856	135,621,691	141,511,014	132,791,579		136,595,909	128,349,046
Minnesota	38,464,729	40,348,064	40,705,989	40,503,986	39,921,136	42,575,349	39,089,727
Mississippi	52,751,568	48,094,259	50,697,521	48,191,796		49,391,568	48,426,788
Missouri	83,790,579	82,162,685	80,661,696	78,883,160		77,374,283	76,992,978
Montana	11,904,327	11,696,726	12,126,941	11,167,040		11,868,621	11,757,665
Nebraska	18,609,794	18,389,010	17,167,419	17,986,626		17,369,520	18,155,966
Nevada	49,676,729	46,643,814	46,643,842	46,312,681	46,136,567	46,756,351	43,111,294
New Hampshire	7,708,551	7,680,718	7,219,693	7,574,418		7,505,540	7,354,116
New Jersey	81,135,134	79,073,183	82,159,330	78,502,243	81,996,584	74,896,705	78,178,303
New Mexico	53,431,993	49,031,469	49,682,183	49,305,699	48,079,484	50,529,658	49,909,553
New York	361,975,129	357,126,386	339,415,594	354,955,823		327,345,268	353,904,049
North Carolina	154,087,118	152,797,183	152,009,762	155,827,910		144,171,539	139,054,986
North Dakota	6,269,490	5,505,559	5,839,646	5,678,830		5,746,358	5,565,689
Ohio	163,013,458	166,901,692	163,132,789	152,550,744		166,329,710	158,229,734
Oklahoma	67,659,016	63,018,156	63,450,609	60,440,872	62,309,609	62,373,676	63,080,083
Oregon	71,205,387	71,313,039	68,105,617	64,180,412		65,200,738	71,770,801
Pennsylvania	205,242,763	203,000,422	196,985,542	202,908,020		204,679,736	194,554,824
Rhode Island	17,719,472	18,878,723	17,893,056	17,174,892		15,832,122	15,735,908
South Carolina	74,108,145	71,790,697	71,481,197	70,152,659	70,287,493	67,899,823	67,998,533
South Dakota	10,255,478	10,250,771	9,941,734	10,006,556		9,661,851	9,962,776
Tennessee	111,010,388	109,940,672	104,590,042	109,744,572		101,505,362	95,595,850
Texas	406,797,410	400,575,873	405,791,876	386,446,753	402,778,713	363,792,505	372,480,208
Utah	19,503,146	19,725,734	18,538,087	19,352,309	20,459,608	19,574,552	19,181,922
Vermont	8,524,754	8,382,464	8,470,603	8,530,080		8,201,644	7,521,050
Virginia	75,892,434	70,946,534	75,026,130	82,710,644	80,168,653	77,972,985	74,316,539
Washington	95,298,595	98,773,327	99,420,996	98,668,060		95,454,220	93,992,062
West Virginia	32,850,080	32,128,193	32,563,145	32,627,431	30,980,865	31,337,095	32,233,550
Wisconsin	64,583,762	62,646,652	62,266,421	59,809,054	61,865,906	59,490,335	62,485,027
Wyoming	3,016,201	3,078,580	3,145,499	3,133,381		3,012,758	3,023,795
Guam	7,869,249	7,614,291	7,823,361	7,794,403		7,446,935	7,991,308
Virgin Islands	4,594,210	4,141,643	3,767,258	4,026,970	3,789,733	3,559,275	2,713,966
United States	4,640,540,777	4,537,133,371	4,507,653,633	4,452,634,159	1,286,849,915	4,337,123,220	4,322,508,721

Table D.3b. Calculated weighted benefit amounts by State (May 2019 to September 2019) and FY average

State	May 2019	June 2019	July 2019	August 2019	September 2019	FY average 2019
Alabama	78,923,011	78,432,587	80,631,396	77,472,611	81,080,078	81,258,483
Alaska	13,351,094	14,295,748	13,762,864	13,459,179	13,325,965	13,280,448
Arizona	91,737,358	91,840,683	90,402,651	92,309,630	90,576,448	91,915,385
Arkansas	35,771,293	35,734,797	35,205,532	36,811,872	36,178,313	36,212,153
California	447,360,746	453,887,994	485,473,610	492,691,614	459,863,277	473,205,515
Colorado	47,608,576	49,717,586	50,783,183	50,059,548	50,472,036	50,574,118
Connecticut	41,984,911	43,811,420	43,975,273	44,947,361	44,475,189	45,042,251
Delaware	13,818,087	13,218,176	13,078,557	11,888,809	12,653,170	13,888,172
District of Columbia	12,324,628	13,035,001	13,140,458	12,888,926	13,142,267	12,964,596
Florida	314,701,261	311,928,552	308,511,446	320,981,055	311,198,992	322,189,489
Georgia	159,551,832	163,139,423	156,960,953	162,300,657	157,894,834	164,878,741
Hawaii	35,089,590	34,635,124	36,172,421	37,041,020	35,916,855	36,416,439
Idaho	15,861,103	15,583,938	15,524,475	15,416,242	15,502,481	15,908,747
Illinois	191,778,338	199,587,023	203,194,858	210,254,619	213,432,280	208,000,606
Indiana	63,770,163	64,870,473	66,419,659	64,822,417	62,511,798	64,198,356
Iowa	31,582,872	32,767,698	30,871,646	30,334,785	29,660,303	32,293,584
Kansas	19,570,157	20,235,912	20,678,925	20,937,078	20,709,223	20,681,845
Kentucky	56,116,368	56,812,714	59,210,034	55,597,811	54,476,340	58,683,233
Louisiana	96,959,853	93,770,747	100,312,174	100,191,157	96,086,352	98,462,756
Maine	13,304,963	14,012,354	15,107,239	14,630,438	15,754,403	14,960,241
Maryland	68,297,306	66,144,632	67,168,184	68,463,036	67,438,741	69,751,475
Massachusetts	91,411,883	87,973,847	89,661,414	90,335,497	91,657,211	91,327,469
Michigan	123,080,143	128,901,059	134,117,502	130,545,628	119,374,250	131,329,971
Minnesota	39,450,191	39,993,647	38,434,049	39,837,226	39,418,009	39,895,175
Mississippi	49,267,950	49,313,035	49,374,379	47,689,363	45,532,156	48,975,489
Missouri	77,221,146	79,507,229	82,098,331	75,434,732	77,767,564	79,263,126
Montana	11,450,799	11,385,931	11,514,585	11,857,234	12,080,557	11,710,039
Nebraska	17,425,161	17,632,636	16,775,450	17,462,749	15,748,873	17,520,291
Nevada	45,546,274	44,368,002	46,523,768	43,950,006	45,766,531	45,952,988
New Hampshire	7,353,723	6,604,887	7,406,687	6,696,868	6,807,698	7,264,809
New Jersey	79,978,166	79,661,193	79,266,912	80,402,075	76,762,758	79,334,382
New Mexico	45,790,509	48,717,302	50,895,586	51,423,048	52,140,799	49,911,440
New York	355,489,823	348,223,281	333,309,251	290,806,835	334,627,629	341,561,733
North Carolina	134,531,528	140,827,477	145,112,318	144,900,781	143,641,995	146,087,509
North Dakota	5,434,376	5,390,924	5,155,067	5,462,563	5,115,760	5,560,387
Ohio	157,467,724	163,410,848	154,043,068	165,199,609	152,600,850	160,261,839
Oklahoma	65,158,551	64,467,150	65,446,467	64,653,169	66,653,177	64,059,211
Oregon	69,726,419	68,503,182	59,039,825	63,810,032	65,883,258	67,158,065
Pennsylvania	205,901,125	200,418,994	196,469,103	198,769,561	187,074,435	199,636,775
Rhode Island	14,717,331	16,391,127	15,836,076	15,234,282	15,826,881	16,476,352
South Carolina	65,577,275	68,355,477	64,671,109	66,878,795	67,544,165	68,895,447
South Dakota	10,225,466	10,145,266	9,662,991	9,865,141	9,872,041	9,986,370
Tennessee	103,317,012	101,041,452	98,667,563	105,611,294	95,417,785	103,312,908
Texas	359,317,901	373,399,625	380,768,793	376,580,966	376,546,748	383,773,114
Utah	18,892,276	19,063,169	17,866,954	18,807,718	18,176,529	19,095,167
Vermont	8,220,958	8,098,441	7,842,361	8,043,894	7,711,257	8,140,682
Virginia	76,281,079	74,178,749	77,393,021	73,679,641	74,542,915	76,092,444
Washington	95,037,800	94,580,966	92,163,739	94,224,695	91,155,352	95,342,710
West Virginia	31,692,045	30,492,030	30,501,175	30,699,982	31,601,889	31,642,290
Wisconsin	61,339,017	61,226,064	62,325,251	62,667,150	60,885,156	61,799,150
Wyoming	2,904,496	2,842,801	2,788,341	2,712,737	2,779,159	2,948,886
Guam	7,994,725	8,242,879	8,757,610	7,111,379	7,972,599	7,874,431
Virgin Islands	3,381,358	3,388,933	3,212,443	3,480,440	3,534,599	3,632,569
United States	4,290,047,740	4,324,210,186	4,343,686,727	4,338,334,952	4,284,569,935	4,400,589,851

Table D.4a. Adjustments to weighted unit counts by State (October 2018 to April 2019)

State	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019
Alabama	12,157	8,655	0	9,012	1,663	8,899	10,624
Alaska	2,785	0	1,548	1,386	6,167	5,029	3,033
Arizona	5,763	6,055	5,486	0	(333,246)	5,325	0
Arkansas	5,506	5,675	1,819	1,872	162,097	3,975	3,600
California	27,705	27,861	31,507	31,507	303,030	54,380	41,463
Colorado	5,595	0	3,065	3,163	14,711	5,285	0
Connecticut	5,120	5,208	0	8,067	19,891	5,201	2,558
Delaware	3,330	2,000	0	0	4,591	0	0
District of Columbia	1,528	0	0	723	59,489	(57,877)	0
Florida	42,390	67,146	37,739	0	214,313	13,723	0
Georgia	8,333	53,362	24,284	24,825	133,634	24,893	17,734
Hawaii	1,624	2,059	1,611	1,342	5,547	1,489	1,175
Idaho	0	0	0	0	(59,162)	859	0
Illinois	11,968	(0)	24,551	12,610	64,915	26,926	9,828
Indiana	0	15,775	6,921	13,714	18,695	9,207	14,113
Iowa	1,716	0	3,505	1,798	12,752	1,797	6,128
Kansas	1,218	6,431	4,883	5,181	5,046	1,024	4,996
Kentucky	9,574	12,749	9,306	3,271	(199,650)	5,504	0
Louisiana	9,781	5,189	5,772	4,853	(334,629)	0	4,734
Maine	2,215	2,234	3,321	2,337	5,313	4,118	4,300
Maryland	0	0	6,019	7,679	(319,497)	12,594	7,549
Massachusetts	17,586	0	5,830	0	49,078	0	4,642
Michigan	9,196	18,201	34,284	604,000	56,328	7,450	7,487
Minnesota	9,017	9,131	2,240	0	(165,376)	0	4,762
Mississippi	2,570	5,628	0	2,835	20,353	0	0
Missouri	7,898	0	12,769	8,233	21,323	7,795	7,225
Montana	908	934	0	4,157	5,293	844	779
Nebraska	0	0	3,815	983	6,000	2,285	1,523
Nevada	2,954	8,781	2,954	8,179	(197,194)	0	5,900
New Hampshire	1,516	785	2,243	0	2,880	634	1,262
New Jersey	0	5,424	0	0	(342,939)	0	0
New Mexico	2,953	5,474	5,889	6,131	(187,613)	5,528	2,840
New York	0	20,095	63,627	0	1,526,845	33,831	35,636
North Carolina	147,345	31,080	0	7,160	49,845	22,136	13,612
North Dakota	0	636	0	0	3,256	0	0
Ohio	0	9,812	0	10,356	28,776	(0)	22,194
Oklahoma	9,507	20,259	9,221	17,271	(226,887)	18,021	5,811
Oregon	0	0	0	5,051	41,143	9,200	4,211
Pennsylvania	15,372	0	28,225	0	93,193	11,595	(0)
Rhode Island	4,572	3,502	5,785	5,775	9,771	4,999	4,799
South Carolina	9,261	9,731	0	6,312	(240,073)	0	0
South Dakota	0	0	661	690	3,653	536	557
Tennessee	4,399	8,817	14,584	8,860	23,311	18,186	25,980
Texas	57,900	19,677	0	41,143	(1,231,596)	20,846	40,294
Utah	0	892	1,800	969	(59,312)	0	0
Vermont	1,409	0	0	21,988	5,609	1,347	1,312
Virginia	28,309	28,191	17,492	5,468	(282,810)	12,719	6,006
Washington	14,611	6,790	0	425,716	67,828	0	5,638
West Virginia	4,703	0	2,459	0	(148,493)	2,247	4,742
Wisconsin	3,469	0	7,174	10,578	(284,776)	0	0
Wyoming	0	0	0	0	837	0	0
Guam	601	0	711	0	1,413	856	0
Virgin Islands	590	0	0	0	(10,385)	0	0
United States	514,951	434,239	393,098	1,335,197	(1,575,048)	313,409	339,049

Note: For more details on the adjustments made, see Section II.C, Creation of the SNAP QC database.

Table D.4b. Adjustments to weighted unit counts by State (May 2019 to September 2019) and FY average

State	May 2019	June 2019	July 2019	August 2019	September 2019
Alabama	6,660	10,511	3,548	10,577	7,015
Alaska	2,372	0	2,288	1,462	2,690
Arizona	0	10,524	0	5,434	16,082
Arkansas	7,405	5,322	7,045	1,877	6,950
California	32,818	35,192	0	0	20,769
Colorado	6,404	0	2,911	0	3,006
Connecticut	10,246	7,408	4,944	2,567	9,676
Delaware	2,405	0	984	4,018	0
District of Columbia	1,686	1,690	0	(0)	0
Florida	0	17,196	0	0	20,009
Georgia	19,521	13,970	19,552	25,725	26,039
Hawaii	2,498	1,286	1,345	0	1,290
Idaho	0	827	0	0	(0)
Illinois	28,871	22,071	36,055	13,724	0
Indiana	13,708	0	5,937	5,997	6,476
Iowa	4,009	1,875	9,668	5,204	12,757
Kansas	3,890	2,961	3,203	2,992	8,474
Kentucky	6,120	8,401	0	6,440	4,214
Louisiana	8,908	9,237	0	8,183	8,738
Maine	5,178	10,696	1,609	3,210	1,670
Maryland	0	0	6,757	0	0
Massachusetts	0	13,844	0	4,985	(0)
Michigan	42,072	27,873	20,587	0	36,298
Minnesota	6,834	2,243	5,048	0	2,670
Mississippi	0	0	0	0	8,288
Missouri	15,457	0	4,371	20,551	0
Montana	1,628	1,654	1,549	761	0
Nebraska	722	2,355	1,504	812	5,722
Nevada	5,884	5,748	2,958	8,896	5,926
New Hampshire	0	736	0	669	0
New Jersey	5,837	0	0	0	0
New Mexico	16,254	2,653	8,406	8,252	7,690
New York	0	15,756	29,857	101,346	0
North Carolina	20,162	13,194	0	6,696	7,440
North Dakota	486	1,079	1,027	0	947
Ohio	21,869	6,923	28,764	7,261	14,728
Oklahoma	6,022	0	6,101	6,183	3,048
Oregon	0	4,781	8,713	4,977	8,863
Pennsylvania	0	11,450	(0)	12,149	20,961
Rhode Island	6,636	4,575	4,536	5,304	7,793
South Carolina	4,373	2,188	2,504	9,894	2,546
South Dakota	0	0	570	1,123	0
Tennessee	4,796	8,836	12,775	8,907	22,830
Texas	0	21,735	59,394	21,642	43,636
Utah	1,493	791	3,090	1,540	806
Vermont	0	0	654	0	0
Virginia	17,993	12,661	6,092	13,137	17,958
Washington	11,965	15,541	5,595	10,574	10,512
West Virginia	0	2,285	2,576	2,471	2,276
Wisconsin	3,425	6,779	0	3,585	0
Wyoming	375	429	0	0	0
Guam	0	0	0	0	0
Virgin Islands	0	0	608	0	0
United States	356,981	345,275	323,125	359,126	386,794

Note: For more details on the adjustments made, see Section II.C, Creation of the SNAP QC database.

Table D.5a. Adjustments to weighted individual counts by State (October 2018 to April 2019)

State	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019
Alabama	30,220	16,869	0	16,761	3,926	23,295	22,139
Alaska	5,629	0	5,800	4,009	14,683	13,698	7,369
Arizona	5,120	14,916	5,118	(0)	(707,883)	5,776	0
Arkansas	8,271	12,949	8,408	3,880	363,301	12,797	8,264
California	168,999	83,113	37,929	97,238	606,095	101,437	39,820
Colorado	12,926	0	7,156	6,668	31,018	9,941	0
Connecticut	15,435	21,590	0	17,615	39,270	15,025	6,598
Delaware	5,174	6,752	0	0	9,847	0	0
District of Columbia	6,579	0	0	689	99,991	(94,092)	0
Florida	107,298	150,392	102,315	0	473,190	32,656	0
Georgia	7,425	132,305	46,574	36,615	319,224	80,359	22,890
Hawaii	2,096	5,545	3,689	5,887	7,377	1,417	6,817
Idaho	0	0	0	0	(128,625)	2,060	0
Illinois	33,825	0	61,915	13,945	141,914	63,150	32,169
Indiana	0	32,876	20,175	27,340	44,078	22,690	25,108
Iowa	7,690	0	10,206	1,561	28,798	12,242	17,186
Kansas	1,728	12,875	8,272	5,535	10,754	1,385	6,819
Kentucky	19,468	30,472	23,759	3,354	(447,728)	8,435	0
Louisiana	13,999	10,071	5,419	5,199	(714,543)	0	15,674
Maine	7,441	12,107	13,173	8,513	10,078	18,124	13,756
Maryland	0	0	27,549	8,589	(590,885)	59,404	32,671
Massachusetts	40,441	0	15,779	0	83,104	0	23,672
Michigan	19,319	53,955	77,620	1,140,487	107,779	15,439	20,620
Minnesota	40,817	33,977	9,139	(0)	(296,740)	0	14,485
Mississippi	5,858	14,154	(0)	8,527	47,674	0	0
Missouri	18,109	(0)	19,945	23,022	49,363	27,075	18,142
Montana	890	4,642	0	8,473	11,053	3,427	3,306
Nebraska	0	0	9,117	2,647	13,198	4,256	3,793
Nevada	3,151	32,669	16,453	22,918	(369,021)	0	11,813
New Hampshire	3,244	2,986	4,061	0	5,614	1,985	3,647
New Jersey	(0)	15,442	(0)	(0)	(685,058)	0	0
New Mexico	3,111	19,532	8,299	14,830	(384,641)	8,236	3,086
New York	0	48,327	162,564	0	2,690,578	83,288	70,138
North Carolina	364,180	84,946	0	22,549	110,659	64,703	43,370
North Dakota	0	634	0	0	7,638	0	0
Ohio	0	28,898	0	63,696	61,255	0	57,419
Oklahoma	25,129	39,242	13,462	53,626	(478,394)	35,925	12,506
Oregon	0	0	(0)	5,102	71,869	39,588	4,384
Pennsylvania	58,740	0	73,753	0	196,429	57,524	0
Rhode Island	8,650	5,836	10,656	6,254	20,281	9,641	9,258
South Carolina	14,517	15,379	(0)	11,397	(506,870)	0	(0)
South Dakota	0	0	1,370	2,089	8,068	3,214	1,116
Tennessee	8,407	16,047	21,521	12,316	46,795	39,159	53,004
Texas	198,569	63,672	0	117,365	(2,775,364)	19,432	140,090
Utah	0	2,122	3,807	2,491	(136,133)	0	0
Vermont	4,956	0	0	48,469	9,920	3,140	3,628
Virginia	74,378	78,126	40,515	5,458	(573,521)	19,008	16,203
Washington	23,717	9,383	0	806,482	126,444	0	6,156
West Virginia	9,048	0	2,483	0	(278,098)	7,170	4,284
Wisconsin	7,170	(0)	15,935	30,280	(550,815)	0	0
Wyoming	0	0	0	0	1,803	0	0
Guam	2,178	0	1,341	0	4,159	2,594	0
Virgin Islands	700	0	0	0	(21,231)	0	0
United States	1,394,602	1,112,805	895,278	2,671,877	(3,768,325)	834,602	781,400

Note: For more details on the adjustments made, see Section II.C, Creation of the SNAP QC database.

Table D.5b. Adjustments to weighted individual counts by State (May 2019 to September 2019) and FY average

State	May 2019	June 2019	July 2019	August 2019	September 2019
Alabama	18,521	34,681	3,822	34,010	26,826
Alaska	4,673	0	5,092	4,361	4,505
Arizona	(0)	24,818	0	12,765	25,761
Arkansas	17,894	10,546	10,662	1,998	14,105
California	86,579	92,847	0	(0)	101,134
Colorado	23,126	0	7,013	0	3,176
Connecticut	20,811	20,209	9,457	5,101	19,979
Delaware	7,653	0	889	16,747	0
District of Columbia	7,536	5,157	0	0	0
Florida	0	42,615	0	0	50,685
Georgia	54,417	28,139	47,415	53,551	56,192
Hawaii	9,330	5,606	3,859	0	7,395
Idaho	0	2,213	0	0	0
Illinois	45,548	67,139	135,202	58,001	0
Indiana	23,654	0	12,535	15,554	15,142
Iowa	7,178	4,163	20,689	13,860	42,059
Kansas	8,878	3,830	3,891	3,252	11,543
Kentucky	28,046	25,308	0	12,946	12,066
Louisiana	17,300	30,037	0	8,761	20,795
Maine	16,677	31,884	9,239	12,883	3,620
Maryland	0	0	19,694	0	0
Massachusetts	(0)	50,940	(0)	5,018	(0)
Michigan	66,951	64,041	39,107	0	63,621
Minnesota	35,094	11,336	21,676	0	8,352
Mississippi	0	0	0	0	18,390
Missouri	25,519	0	10,991	51,217	0
Montana	4,594	1,960	2,761	1,674	0
Nebraska	1,419	5,048	4,075	1,477	10,994
Nevada	23,734	23,640	2,581	24,977	17,337
New Hampshire	0	2,003	0	2,305	0
New Jersey	18,465	0	0	0	0
New Mexico	30,149	4,681	8,094	18,222	11,382
New York	0	38,394	45,844	261,482	0
North Carolina	60,479	43,478	0	22,923	22,817
North Dakota	1,069	2,583	4,484	0	5,827
Ohio	62,097	31,890	55,279	15,367	33,689
Oklahoma	9,248	(0)	8,514	17,148	2,740
Oregon	0	4,707	41,964	14,398	24,219
Pennsylvania	0	33,022	0	50,162	72,712
Rhode Island	14,167	8,320	9,318	9,966	14,687
South Carolina	12,144	8,496	9,454	10,684	2,778
South Dakota	0	(0)	2,247	1,781	0
Tennessee	8,231	15,523	20,347	16,439	51,285
Texas	0	21,407	61,916	24,293	46,484
Utah	4,814	1,953	6,985	3,881	1,709
Vermont	0	0	781	0	0
Virginia	38,844	12,507	17,289	38,880	63,911
Washington	12,842	16,957	6,529	27,615	20,900
West Virginia	0	10,568	5,704	7,220	2,348
Wisconsin	18,186	22,035	0	14,271	0
Wyoming	1,075	783	0	0	0
Guam	0	0	0	0	0
Virgin Islands	0	0	763	0	0
United States	846,945	865,464	676,162	895,189	911,168

Note: For more details on the adjustments made, see Section II.C, Creation of the SNAP QC database.

Table D.6a. Adjustments to weighted benefit amounts by State (October 2018 to April 2019)

State	October 2018	November 2018	December 2018	January 2019	February 2019	March 2019	April 2019
Alabama	5,830,483	3,330,955	410,945	80,515,928	7,478,420	6,950,867	6,117,423
Alaska	529,809	110,378	627,855	12,462,627	2,305,103	2,173,294	1,766,565
Arizona	5,615,396	1,935,153	3,578,787	93,186,637	(82,160,430)	2,308,293	834,266
Arkansas	2,947,295	2,848,649	3,663,495	36,016,280	3,949,309	1,738,894	1,267,754
California	2,285,534	30,739,225	24,927,469	451,179,094	72,917,188	35,277,173	21,852,086
Colorado	3,259,169	1,730,377	698,449	51,166,015	5,564,447	4,655,746	2,207,006
Connecticut	3,925,057	4,167,233	1,308,199	51,636,324	1,894,161	2,698,865	2,710,744
Delaware	1,807,260	269,055	1,451,510	14,617,285	1,058,418	(228,527)	202,729
District of Columbia	2,119,428	1,345,291	1,129,227	14,780,570	13,618,339	(11,101,831)	1,833,848
Florida	22,141,384	29,436,043	18,437,600	282,409,152	56,338,014	7,337,812	4,190,466
Georgia	1,976,401	35,647,841	10,053,552	162,729,995	30,402,760	16,363,116	3,047,843
Hawaii	1,771,124	37,386	1,774,055	35,197,408	2,606,185	4,390	1,367,297
Idaho	38,683	378,271	209,416	14,783,389	(14,522,540)	374,412	109,728
Illinois	1,773,769	2,104,470	10,007,596	209,660,934	18,120,032	13,724,661	22,577,712
Indiana	3,418,326	8,714,922	7,372,844	66,860,809	34,711,618	(26,187,526)	4,698,363
Iowa	3,399,948	2,938,689	3,354,472	35,649,636	2,373,639	2,996,341	4,158,027
Kansas	1,190,647	2,874,984	1,633,925	22,089,082	1,172,149	396,737	1,844,890
Kentucky	2,412,504	5,903,051	6,546,904	57,822,923	(54,668,273)	2,321,461	1,137,141
Louisiana	8,134,048	3,187,734	427,243	90,843,206	(87,786,514)	2,779,600	2,975,212
Maine	1,271,046	1,155,484	2,514,159	17,283,504	1,148,278	1,990,504	2,074,294
Maryland	513,319	5,486,622	9,058,446	64,586,278	(60,858,142)	8,115,913	(1,840,080)
Massachusetts	3,488,538	1,829,275	3,146,525	89,754,993	8,982,276	490,337	3,954,710
Michigan	15,234,818	10,598,125	4,933,466	142,013,191	11,504,607	5,287,173	11,948,842
Minnesota	5,379,514	2,895,683	2,001,306	37,892,712	(31,997,981)	(444,833)	2,997,514
Mississippi	1,044,839	5,028,571	1,611,873	47,019,080	5,615,007	(51,513)	764,457
Missouri	2,253,128	1,456,557	3,607,560	87,440,956	2,982,562	5,760,390	3,855,263
Montana	655,227	596,942	153,441	12,359,615	920,657	469,232	536,629
Nebraska	(42,599)	52,407	1,052,638	17,838,046	782,298	4,033,468	877,137
Nevada	1,395,108	3,660,948	3,238,587	46,940,993	(41,243,446)	1,743,534	5,513,553
New Hampshire	413,634	334,866	741,028	7,752,127	494,774	252,597	377,204
New Jersey	1,546,845	2,771,299	(1,139,877)	74,975,855	(78,605,650)	2,741,240	1,141,005
New Mexico	352,111	4,403,203	3,428,097	52,490,976	(44,685,085)	1,650,563	2,174,073
New York	11,784,537	12,746,926	30,561,809	348,489,082	26,916,871	34,664,854	5,141,655
North Carolina	67,673,514	12,906,717	1,870,366	145,919,713	9,235,512	4,340,374	4,707,326
North Dakota	(240,686)	374,687	(38,606)	4,880,059	813,161	(117,435)	84,030
Ohio	8,527,754	3,475,877	8,705,755	169,292,279	89,635,095	(74,694,117)	8,257,565
Oklahoma	2,494,686	6,867,118	5,818,955	68,817,619	(55,807,191)	4,509,872	3,710,593
Oregon	3,682,366	3,342,072	6,467,186	80,483,387	3,318,740	8,309,601	1,637,232
Pennsylvania	8,655,492	8,527,540	13,946,014	205,841,970	12,061,046	2,449,752	10,459,255
Rhode Island	3,874,436	2,039,013	3,595,596	21,862,671	1,894,746	4,426,926	4,327,501
South Carolina	3,773,341	3,018,465	1,876,749	59,583,479	(58,620,212)	1,786,443	888,127
South Dakota	131,854	12,785	319,018	9,560,083	936,099	532,769	125,955
Tennessee	2,481,009	2,021,786	5,508,718	103,511,168	8,484,045	9,082,753	10,897,976
Texas	20,793,515	7,408,624	987,644	353,694,375	(337,142,269)	21,277,984	12,965,956
Utah	977,740	446,559	1,219,237	15,856,620	(16,532,700)	102,645	167,821
Vermont	110,263	232,784	182,967	7,530,194	1,058,444	223,227	695,425
Virginia	9,637,134	11,602,360	7,635,948	78,554,283	(68,173,242)	5,355,241	8,066,433
Washington	6,979,107	3,087,269	2,570,710	92,914,881	9,124,228	3,993,803	4,442,978
West Virginia	1,516,077	1,627,261	892,469	30,779,882	(27,391,683)	1,407,094	273,043
Wisconsin	1,914,988	2,993,829	3,017,427	61,755,377	(54,963,520)	4,307,967	1,438,318
Wyoming	147,853	41,149	(15,833)	2,913,409	332,118	33,987	(26,458)
Guam	639,699	866,301	675,189	8,457,043	521,135	818,034	278,091
Virgin Islands	341,966	128,858	273,560	3,512,477	(3,596,308)	(6,093)	593,461
United States	263,978,437	261,737,671	228,031,670	4,356,165,672	(667,483,704)	129,428,066	198,405,986

Note: For more details on the adjustments made, see Section II.C, Creation of the SNAP QC database.

Table D.6b. Adjustments to weighted benefit amounts by State (May 2019 to September 2019) and FY average

State	May 2019	June 2019	July 2019	August 2019	September 2019
Alabama	5,466,353	6,185,840	4,085,022	7,895,257	3,954,084
Alaska	1,237,145	452,657	1,055,661	1,205,146	1,080,505
Arizona	928,098	2,468,998	5,334,008	3,989,304	5,709,088
Arkansas	1,426,591	2,062,849	2,517,888	1,402,079	2,158,835
California	33,750,786	36,479,381	13,259,345	9,668,932	39,684,424
Colorado	5,306,552	3,061,676	1,843,614	2,065,950	1,126,157
Connecticut	5,996,121	4,110,096	4,045,931	3,155,411	3,605,694
Delaware	665,161	1,096,222	984,287	2,355,079	1,090,211
District of Columbia	1,933,013	845,686	911,412	1,014,794	1,038,586
Florida	12,331,805	16,650,990	20,440,666	6,762,354	14,825,580
Georgia	11,455,453	5,847,856	8,611,280	5,796,452	9,502,544
Hawaii	1,682,505	2,081,525	572,615	(196,296)	952,385
Idaho	128,447	167,415	122,741	196,202	27,099
Illinois	28,583,892	18,021,655	17,183,995	11,146,601	5,123,901
Indiana	3,535,202	2,019,953	592,725	3,023,356	4,702,362
Iowa	3,465,452	2,214,961	3,974,095	4,709,420	4,851,113
Kansas	1,808,066	1,386,586	1,260,186	1,093,203	1,071,801
Kentucky	4,084,220	3,240,746	50,622	3,092,510	3,155,144
Louisiana	1,885,062	5,643,035	378,299	1,012,122	3,625,823
Maine	3,741,940	2,914,052	1,820,149	2,257,976	896,485
Maryland	2,425,476	4,498,226	3,413,074	2,905,244	3,327,591
Massachusetts	1,136,524	4,615,539	3,494,223	3,802,719	1,850,652
Michigan	15,885,521	8,909,908	5,445,249	8,881,163	16,158,604
Minnesota	2,639,773	1,980,076	3,444,165	1,881,356	2,053,372
Mississippi	(116,914)	132,637	232,983	1,975,986	3,792,738
Missouri	5,147,790	2,117,238	(340,298)	6,488,197	3,548,415
Montana	788,469	815,736	579,935	241,081	16,794
Nebraska	580,697	542,459	1,156,290	534,938	1,829,808
Nevada	2,463,711	4,110,245	2,026,801	3,864,483	2,401,510
New Hampshire	283,068	911,926	29,099	757,253	628,716
New Jersey	(530,883)	(607,621)	(602,133)	(1,468,072)	1,324,102
New Mexico	6,326,213	3,690,746	1,840,638	1,347,868	951,170
New York	2,630,687	6,970,398	21,581,918	63,780,237	17,169,924
North Carolina	7,878,979	2,310,977	(1,989,821)	60,936	1,779,620
North Dakota	230,007	242,328	447,343	170,521	476,147
Ohio	9,508,509	6,323,756	12,077,494	2,584,394	13,922,857
Oklahoma	2,019,183	3,347,002	2,419,210	4,570,735	2,067,977
Oregon	3,582,045	4,886,709	13,939,900	9,134,643	6,667,059
Pennsylvania	12,171,429	11,233,380	7,678,431	8,519,241	16,148,509
Rhode Island	5,228,936	3,394,819	3,989,931	4,488,770	3,860,349
South Carolina	3,661,928	1,408,841	5,080,654	3,119,439	2,330,129
South Dakota	(51,045)	10,920	399,420	151,631	16,112
Tennessee	3,716,231	5,094,880	8,256,930	2,088,214	9,662,420
Texas	22,930,723	17,451,998	13,837,882	15,477,307	12,151,686
Utah	513,175	144,107	1,275,628	513,527	726,469
Vermont	23,959	72,602	203,383	68,588	299,332
Virginia	6,328,763	8,662,331	4,747,181	9,046,123	7,808,287
Washington	3,582,958	3,187,322	5,227,522	2,746,262	5,753,457
West Virginia	771,758	2,103,476	2,295,950	2,373,162	1,543,981
Wisconsin	2,140,655	2,414,786	5,910,757	2,947,057	2,905,625
Wyoming	55,312	110,314	84,204	157,649	5,663
Guam	243,494	(40,854)	(222,974)	1,086,601	207,402
Virgin Islands	(17,564)	9,466	236,908	(1,740)	(26,576)
United States	253,591,431	228,008,851	217,242,418	235,941,368	251,541,717

Note: For more details on the adjustments made, see Section II.C, Creation of the SNAP QC database.

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Table D.7. Stratification and weight calculation by State, October 2018

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Alabama	0	1	95	352,543	87	3	0.0345	340,386	2	82	4,151
Alaska	0	1	49	32,487	35	3	0.0857	29,702	0	32	928
Arizona	0	1	99	386,130	67	1	0.0149	380,367	0	66	5,763
Arkansas	0	1	103	161,515	88	3	0.0341	156,009	0	85	1,835
California	0	1	93	1,911,644	69	1	0.0145	1,883,939	1	67	28,118
Colorado	0	1	103	226,581	81	2	0.0247	220,986	3	76	2,908
Connecticut	0	1	104	217,619	85	2	0.0235	212,499	0	83	2,560
Delaware	0	1	76	66,592	40	2	0.0500	63,262	0	38	1,665
District of Columbia	0	1	99	67,986	89	2	0.0225	66,458	0	87	764
Florida	0	1	107	1,600,334	89	2	0.0225	1,564,371	3	84	18,623
Georgia	0	1	96	683,336	82	1	0.0122	675,003	0	81	8,333
Hawaii	0	1	91	82,806	51	1	0.0196	81,182	0	50	1,624
Idaho	0	1	103	66,828	76	0	0.0000	66,828	0	76	879
Illinois	0	1	87	885,620	74	1	0.0135	873,652	1	72	12,134
Indiana	0	1	104	269,024	78	0	0.0000	269,024	1	77	3,494
Iowa	0	1	100	159,549	93	1	0.0108	157,833	0	92	1,716
Kansas	0	1	88	98,652	81	1	0.0123	97,434	1	79	1,233
Kentucky	0	1	86	261,676	82	3	0.0366	252,102	0	79	3,191
Louisiana	0	1	101	391,248	80	2	0.0250	381,467	0	78	4,891
Maine	0	1	87	86,368	78	2	0.0256	84,153	0	76	1,107
Maryland	0	1	90	341,809	53	0	0.0000	341,809	0	53	6,449
Massachusetts	0	1	88	451,379	77	3	0.0390	433,793	0	74	5,862
Michigan	0	1	91	652,916	71	1	0.0141	643,720	0	70	9,196
Minnesota	0	1	98	211,897	94	4	0.0426	202,880	2	88	2,305
Mississippi	0	1	91	220,993	86	1	0.0116	218,423	1	84	2,600
Missouri	0	1	88	331,701	84	2	0.0238	323,803	0	82	3,949

		Unedited SNAP QC data			Edited SNAP QC data						
State	**Stratum**	**Sampling interval**	**Stratum sampling size**	**SNAP units in State (program ops data)**	**Units with complete reviews**	**Ineligible units**	**Disqualification rate**	**Adjusted SNAP units in State**	**Failing units**	**Stratum sampling size**	**Stratum-specific units weight**
		a	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Montana	0	1	77	53,574	59	1	0.0169	52,666	0	58	908
Nebraska	0	1	90	74,203	80	0	0.0000	74,203	1	79	939
Nevada	0	1	100	227,448	77	1	0.0130	224,494	1	75	2,993
New Hampshire	0	1	61	40,944	54	2	0.0370	39,428	0	52	758
New Jersey	0	1	101	366,108	65	0	0.0000	366,108	1	64	5,720
New Mexico	0	1	98	221,495	75	1	0.0133	218,542	0	74	2,953
New York	0	1	90	1,536,243	77	0	0.0000	1,536,243	0	77	19,951
North Carolina	0	1	91	640,573	88	0	0.0000	640,573	0	88	7,279
North Dakota	0	1	43	24,326	36	0	0.0000	24,326	0	36	676
Ohio	0	1	83	695,524	74	0	0.0000	695,524	0	74	9,399
Oklahoma	0	1	102	269,359	85	3	0.0353	259,852	0	82	3,169
Oregon	0	1	100	354,999	77	0	0.0000	354,999	0	77	4,610
Pennsylvania	0	1	89	953,070	62	1	0.0161	937,698	0	61	15,372
Rhode Island	0	1	91	93,735	82	4	0.0488	89,163	0	78	1,143
South Carolina	0	1	103	290,170	94	3	0.0319	280,909	0	91	3,087
South Dakota	0	1	61	38,687	59	0	0.0000	38,687	0	59	656
Tennessee	0	1	123	448,713	102	1	0.0098	444,314	0	101	4,399
Texas	0	1	98	1,544,007	80	3	0.0375	1,486,107	0	77	19,300
Utah	0	1	90	74,606	83	0	0.0000	74,606	0	83	899
Vermont	0	1	62	40,158	57	2	0.0351	38,749	0	55	705
Virginia	0	1	90	345,364	61	5	0.0820	317,055	1	55	5,765
Washington	0	1	94	489,477	67	2	0.0299	474,866	0	65	7,306
West Virginia	0	1	88	162,244	69	2	0.0290	157,541	0	67	2,351
Wisconsin	0	1	107	322,619	93	1	0.0108	319,150	0	92	3,469
Wyoming	0	1	28	12,278	25	0	0.0000	12,278	0	25	491
Guam	0	1	29	15,624	26	1	0.0385	15,023	0	25	601
Virgin Islands	0	1	28	14,166	24	1	0.0417	13,576	0	23	590

Table D.8. Stratification and weight calculation by State, November 2018

State	Stratum	Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
	Stratum	a	b	e	g	h	i	j	k	l	m
Alabama	0	1	94	350,510	81	2	0.0247	341,855	0	79	4,327
Alaska	0	1	59	37,781	46	0	0.0000	37,781	1	45	840
Arizona	0	1	99	381,440	63	1	0.0159	375,385	2	60	6,256
Arkansas	0	1	102	162,693	86	3	0.0349	157,018	0	83	1,892
California	0	1	93	1,894,575	68	1	0.0147	1,866,714	0	67	27,861
Colorado	0	1	102	227,958	62	0	0.0000	227,958	5	57	3,999
Connecticut	0	1	104	216,134	83	2	0.0241	210,926	0	81	2,604
Delaware	0	1	63	66,006	33	1	0.0303	64,006	0	32	2,000
District of Columbia	0	1	106	67,629	91	0	0.0000	67,629	0	91	743
Florida	0	1	105	1,596,920	83	1	0.0120	1,577,680	2	80	19,721
Georgia	0	1	101	676,232	83	1	0.0120	668,085	0	82	8,147
Hawaii	0	1	91	82,343	40	1	0.0250	80,284	0	39	2,059
Idaho	0	1	103	66,955	94	0	0.0000	66,955	0	94	712
Illinois	0	1	85	873,669	72	0	0.0000	873,669	0	72	12,134
Indiana	0	1	103	265,027	84	5	0.0595	249,252	3	76	3,280
Iowa	0	1	97	158,362	87	0	0.0000	158,362	0	87	1,820
Kansas	0	1	86	97,745	76	5	0.0658	91,314	0	71	1,286
Kentucky	0	1	85	258,169	81	4	0.0494	245,420	0	77	3,187
Louisiana	0	1	100	389,175	75	1	0.0133	383,986	0	74	5,189
Maine	0	1	86	85,990	77	2	0.0260	83,756	0	75	1,117
Maryland	0	1	90	339,964	51	0	0.0000	339,964	1	50	6,799
Massachusetts	0	1	88	451,033	76	0	0.0000	451,033	0	76	5,935
Michigan	0	1	91	646,153	71	2	0.0282	627,952	0	69	9,101
Minnesota	0	1	98	210,009	92	4	0.0435	200,878	0	88	2,283
Mississippi	0	1	91	219,510	78	2	0.0256	213,882	1	75	2,852

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Missouri	0	1	87	328,660	81	0	0.0000	328,660	0	81	4,058
Montana	0	1	77	53,237	57	1	0.0175	52,303	0	56	934
Nebraska	0	1	89	73,788	71	0	0.0000	73,788	0	71	1,039
Nevada	0	1	100	225,371	77	3	0.0390	216,590	2	72	3,008
New Hampshire	0	1	61	40,803	52	1	0.0192	40,018	1	50	800
New Jersey	0	1	100	363,398	67	1	0.0149	357,974	0	66	5,424
New Mexico	0	1	98	221,696	81	2	0.0247	216,222	0	79	2,737
New York	0	1	90	1,527,245	76	1	0.0132	1,507,150	0	75	20,095
North Carolina	0	1	93	641,983	87	1	0.0115	634,604	0	86	7,379
North Dakota	0	1	42	24,167	38	1	0.0263	23,531	0	37	636
Ohio	0	1	81	677,046	69	1	0.0145	667,234	0	68	9,812
Oklahoma	0	1	102	269,159	93	7	0.0753	248,900	0	86	2,894
Oregon	0	1	99	353,939	67	0	0.0000	353,939	0	67	5,283
Pennsylvania	0	1	90	949,366	60	0	0.0000	949,366	0	60	15,823
Rhode Island	0	1	92	94,543	81	3	0.0370	91,041	0	78	1,167
South Carolina	0	1	103	288,695	89	3	0.0337	278,964	0	86	3,244
South Dakota	0	1	59	38,579	57	0	0.0000	38,579	1	56	689
Tennessee	0	1	122	440,858	100	2	0.0200	432,041	0	98	4,409
Texas	0	1	97	1,515,143	77	1	0.0130	1,495,466	0	76	19,677
Utah	0	1	89	73,999	83	1	0.0120	73,107	0	82	892
Vermont	0	1	61	40,223	58	0	0.0000	40,223	0	58	694
Virginia	0	1	89	345,334	49	4	0.0816	317,143	0	45	7,048
Washington	0	1	93	488,863	72	1	0.0139	482,073	0	71	6,790
West Virginia	0	1	87	161,116	65	0	0.0000	161,116	0	65	2,479
Wisconsin	0	1	107	320,633	79	0	0.0000	320,633	0	79	4,059
Wyoming	0	1	28	12,187	26	0	0.0000	12,187	0	26	469
Guam	0	1	29	15,533	24	0	0.0000	15,533	1	23	675
Virgin Islands	0	1	24	13,384	18	0	0.0000	13,384	0	18	744

Table D.9. Stratification and weight calculation by State, December 2018

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Alabama	0	1	93	348,807	83	0	0.0000	348,807	1	82	4,254
Alaska	0	1	59	37,928	49	2	0.0408	36,380	0	47	774
Arizona	0	1	98	378,525	69	1	0.0145	373,039	0	68	5,486
Arkansas	0	1	102	161,926	89	1	0.0112	160,107	0	88	1,819
California	0	1	93	1,885,537	62	1	0.0161	1,855,125	0	61	30,412
Colorado	0	1	103	226,803	74	1	0.0135	223,738	5	68	3,290
Connecticut	0	1	96	215,283	73	0	0.0000	215,283	0	73	2,949
Delaware	0	1	61	65,572	46	0	0.0000	65,572	0	46	1,425
District of Columbia	0	1	108	67,028	94	0	0.0000	67,028	0	94	713
Florida	0	1	104	1,585,037	84	2	0.0238	1,547,298	0	82	18,869
Georgia	0	1	94	671,855	83	3	0.0361	647,571	0	80	8,095
Hawaii	0	1	90	82,149	51	1	0.0196	80,538	0	50	1,611
Idaho	0	1	104	67,155	90	0	0.0000	67,155	0	90	746
Illinois	0	1	86	883,840	72	2	0.0278	859,289	2	68	12,637
Indiana	0	1	102	263,014	76	2	0.0263	256,093	1	73	3,508
Iowa	0	1	99	157,716	90	2	0.0222	154,211	0	88	1,752
Kansas	0	1	85	96,432	79	4	0.0506	91,549	1	74	1,237
Kentucky	0	1	85	257,469	83	3	0.0361	248,163	0	80	3,102
Louisiana	0	1	99	386,735	67	1	0.0149	380,963	0	66	5,772
Maine	0	1	85	85,243	77	3	0.0390	81,922	0	74	1,107
Maryland	0	1	89	337,043	56	1	0.0179	331,024	3	52	6,366
Massachusetts	0	1	88	448,876	77	1	0.0130	443,046	0	76	5,830
Michigan	0	1	92	642,827	75	4	0.0533	608,543	0	71	8,571
Minnesota	0	1	97	208,354	93	1	0.0108	206,114	0	92	2,240
Mississippi	0	1	90	217,632	79	0	0.0000	217,632	1	78	2,790
Missouri	0	1	86	327,740	77	3	0.0390	314,971	1	73	4,315

State	Stratum	Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
	Stratum	a	b	e	g	h	i	j	k	l	m
Montana	0	1	77	52,971	60	0	0.0000	52,971	0	60	883
Nebraska	0	1	89	73,432	77	4	0.0519	69,617	0	73	954
Nevada	0	1	99	224,523	76	1	0.0132	221,569	0	75	2,954
New Hampshire	0	1	60	40,376	54	3	0.0556	38,133	0	51	748
New Jersey	0	1	100	361,021	67	0	0.0000	361,021	3	64	5,641
New Mexico	0	1	98	220,823	75	2	0.0267	214,934	0	73	2,944
New York	0	1	90	1,527,054)	72	3	0.0417	1,463,427	0	69	21,209
North Carolina	0	1	93	637,265	87	0	0.0000	637,265	0	87	7,325
North Dakota	0	1	41	23,906	41	0	0.0000	23,906	0	41	583
Ohio	0	1	78	697,541	67	0	0.0000	697,541	0	67	10,411
Oklahoma	0	1	101	267,396	87	3	0.0345	258,175	0	84	3,074
Oregon	0	1	98	354,725	73	0	0.0000	354,725	0	73	4,859
Pennsylvania	0	1	88	945,533	67	2	0.0299	917,308	0	65	14,112
Rhode Island	0	1	91	93,709	81	5	0.0617	87,924	0	76	1,157
South Carolina	0	1	101	286,913	87	0	0.0000	286,913	0	87	3,298
South Dakota	0	1	59	38,358	58	1	0.0172	37,697	1	56	673
Tennessee	0	1	121	437,519	90	3	0.0333	422,935	0	87	4,861
Texas	0	1	95	1,495,103	63	0	0.0000	1,495,103	0	63	23,732
Utah	0	1	88	72,886	81	2	0.0247	71,086	1	78	911
Vermont	0	1	62	40,295	58	0	0.0000	40,295	0	58	695
Virginia	0	1	89	344,002	59	3	0.0508	326,510	1	55	5,937
Washington	0	1	93	488,059	71	0	0.0000	488,059	0	71	6,874
West Virginia	0	1	87	159,867	65	1	0.0154	157,408	0	64	2,459
Wisconsin	0	1	106	319,229	89	2	0.0225	312,055	0	87	3,587
Wyoming	0	1	27	12,208	25	0	0.0000	12,208	0	25	488
Guam	0	1	29	15,631	22	1	0.0455	14,921	0	21	711
Virgin Islands	0	1	25	12,603	22	0	0.0000	12,603	0	22	573

Table D.10. Stratification and weight calculation by State, January 2019

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	**Stratum**	**a**	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Alabama	0	1	93	346,977	77	2	0.0260	337,965	1	74	4,567
Alaska	0	1	59	38,796	28	1	0.0357	37,410	0	27	1,386
Arizona	0	1	96	381,800	68	0	0.0000	381,800	0	68	5,615
Arkansas	0	1	101	161,030	86	1	0.0116	159,158	1	84	1,895
California	0	1	94	1,890,447	60	1	0.0167	1,858,940	0	59	31,507
Colorado	0	1	103	227,731	72	1	0.0139	224,568	0	71	3,163
Connecticut	0	1	97	215,132	80	3	0.0375	207,065	1	76	2,725
Delaware	0	1	43	67,688	37	0	0.0000	67,688	0	37	1,829
District of Columbia	0	1	107	65,819	91	1	0.0110	65,096	1	89	731
Florida	0	1	103	1,559,702	75	0	0.0000	1,559,702	0	75	20,796
Georgia	0	1	94	670,279	81	3	0.0370	645,454	0	78	8,275
Hawaii	0	1	91	81,833	61	1	0.0164	80,491	0	60	1,342
Idaho	0	1	104	67,554	82	0	0.0000	67,554	0	82	824
Illinois	0	1	87	907,953	72	1	0.0139	895,343	0	71	12,610
Indiana	0	1	103	270,851	79	4	0.0506	257,137	2	73	3,522
Iowa	0	1	97	158,181	88	1	0.0114	156,383	0	87	1,798
Kansas	0	1	85	95,855	74	4	0.0541	90,674	0	70	1,295
Kentucky	0	1	84	258,445	79	1	0.0127	255,174	0	78	3,271
Louisiana	0	1	97	378,562	78	1	0.0128	373,709	0	77	4,853
Maine	0	1	85	85,308	73	2	0.0274	82,971	0	71	1,169
Maryland	0	1	89	337,895	44	1	0.0227	330,216	0	43	7,679
Massachusetts	0	1	88	447,729	77	0	0.0000	447,729	1	76	5,891
Michigan	0	1	93	638,047	79	1	0.0127	629,970	0	78	8,077
Minnesota	0	1	97	211,448	87	0	0.0000	211,448	0	87	2,430
Mississippi	0	1	89	215,458	76	1	0.0132	212,623	1	74	2,873
Missouri	0	1	87	333,455	81	2	0.0247	325,222	0	79	4,117

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	**Stratum**	**a**	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Montana	0	1	77	52,996	51	4	0.0784	48,839	0	47	1,039
Nebraska	0	1	89	73,760	75	1	0.0133	72,777	0	74	983
Nevada	0	1	99	223,565	82	3	0.0366	215,386	0	79	2,726
New Hampshire	0	1	60	40,708	54	0	0.0000	40,708	0	54	754
New Jersey	0	1	91	363,628	63	0	0.0000	363,628	2	61	5,961
New Mexico	0	1	98	220,728	72	2	0.0278	214,597	0	70	3,066
New York	0	1	90	1,531,428	76	0	0.0000	1,531,428	1	75	20,419
North Carolina	0	1	93	637,206	89	1	0.0112	630,046	1	87	7,242
North Dakota	0	1	42	23,904	35	0	0.0000	23,904	0	35	683
Ohio	0	1	77	693,828	67	1	0.0149	683,472	0	66	10,356
Oklahoma	0	1	101	267,704	93	6	0.0645	250,433	0	87	2,879
Oregon	0	1	98	353,560	70	1	0.0143	348,509	0	69	5,051
Pennsylvania	0	1	89	945,432	68	0	0.0000	945,432	0	68	13,903
Rhode Island	0	1	90	92,394	80	5	0.0625	86,619	0	75	1,155
South Carolina	0	1	100	284,053	90	2	0.0222	277,741	0	88	3,156
South Dakota	0	1	59	38,618	56	1	0.0179	37,928	0	55	690
Tennessee	0	1	123	447,425	101	2	0.0198	438,565	0	99	4,430
Texas	0	1	95	1,522,293	74	2	0.0270	1,481,150	1	71	20,861
Utah	0	1	87	73,644	76	1	0.0132	72,675	0	75	969
Vermont	0	1	62	40,022	59	0	0.0000	40,022	0	59	678
Virginia	0	1	91	344,477	63	1	0.0159	339,009	0	62	5,468
Washington	0	1	93	484,505	73	0	0.0000	484,505	0	73	6,637
West Virginia	0	1	87	163,826	75	0	0.0000	163,826	0	75	2,184
Wisconsin	0	1	105	320,854	91	3	0.0330	310,276	0	88	3,526
Wyoming	0	1	27	12,528	24	0	0.0000	12,528	0	24	522
Guam	0	1	29	15,637	27	0	0.0000	15,637	0	27	579
Virgin Islands	0	1	21	11,964	19	0	0.0000	11,964	0	19	630

Table D.11. Stratification and weight calculation by State, February 2019

		Unedited SNAP QC data			Edited SNAP QC data						
State	Stratum	Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
	Stratum	a	b	e	g	h	i	j	k	l	m
Alabama	0	1	0	344,798	0	0	0.0000	.	0	0	0
Alaska	0	1	0	38,884	0	0	0.0000	0	0	0	0
Arizona	0	1	95	374,609	61	2	0.0328	362,327	0	59	6,141
Arkansas	0	1	0	162,097	0	0	0.0000	0	0	0	0
California	0	1	0	1,869,689	0	0	0.0000	0	0	0	0
Colorado	0	1	0	227,484	0	0	0.0000	0	0	0	0
Connecticut	0	1	0	214,190	0	0	0.0000	0	0	0	0
Delaware	0	1	0	65,701	0	0	0.0000	0	0	0	0
District of Columbia	0	1	0	64,927	0	0	0.0000	0	0	0	0
Florida	0	1	0	1,534,630	0	0	0.0000	0	0	0	0
Georgia	0	1	0	662,898	0	0	0.0000	.	0	0	0
Hawaii	0	1	0	81,127	0	0	0.0000	.	0	0	0
Idaho	0	1	104	67,296	82	0	0.0000	67,296	0	82	821
Illinois	0	1	0	891,521	0	0	0.0000	0	0	0	0
Indiana	0	1	0	267,391	0	0	0.0000	0	0	0	0
Iowa	0	1	0	156,365	0	0	0.0000	0	0	0	0
Kansas	0	1	0	94,512	0	0	0.0000	.	0	0	0
Kentucky	0	1	98	251,681	12	1	0.0833	230,708	0	11	20,973
Louisiana	0	1	12	377,175	12	0	0.0000	377,175	0	12	31,431
Maine	0	1	0	85,067	0	0	0.0000	0	0	0	0
Maryland	0	1	89	335,824	58	0	0.0000	335,824	2	56	5,997
Massachusetts	0	1	0	446,983	0	0	0.0000	0	0	0	0
Michigan	0	1	0	638,047	0	0	0.0000	.	0	0	0
Minnesota	0	1	98	209,329	92	4	0.0435	200,228	0	88	2,275
Mississippi	0	1	0	212,717	0	0	0.0000	.	0	0	0
Missouri	0	1	0	330,429	0	0	0.0000	.	0	0	0

		Unedited SNAP QC data		Edited SNAP QC data							
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Montana	0	1	0	53,072	0	0	0.0000	.	0	0	0
Nebraska	0	1	0	73,966	0	0	0.0000	.	0	0	0
Nevada	0	1	98	222,148	73	1	0.0137	219,105	0	72	3,043
New Hampshire	0	1	0	40,340	0	0	0.0000	0	0	0	0
New Jersey	0	1	86	358,443	65	0	0.0000	358,443	1	64	5,601
New Mexico	0	1	98	219,536	69	3	0.0435	209,991	0	66	3,182
New York	0	1	0	1,526,845	0	0	0.0000	0	0	0	0
North Carolina	0	1	0	635,887	0	0	0.0000	0	0	0	0
North Dakota	0	1	0	23,692	0	0	0.0000	0	0	0	0
Ohio	0	1	0	688,996	0	0	0.0000	0	0	0	0
Oklahoma	0	1	149	266,008	127	5	0.0394	255,535	0	122	2,095
Oregon	0	1	0	351,582	0	0	0.0000	0	0	0	0
Pennsylvania	0	1	0	942,313	0	0	0.0000	0	0	0	0
Rhode Island	0	1	0	91,685	0	0	0.0000	0	0	0	0
South Carolina	0	1	98	280,508	12	0	0.0000	280,508	0	12	23,376
South Dakota	0	1	0	38,333	0	0	0.0000	0	0	0	0
Tennessee	0	1	0	444,221	0	0	0.0000	0	0	0	0
Texas	0	1	93	1,480,337	66	0	0.0000	1,480,337	0	66	22,429
Utah	0	1	18	73,240	15	0	0.0000	73,240	0	15	4,883
Vermont	0	1	0	40,022	0	0	0.0000	0	0	0	0
Virginia	0	1	85	343,952	60	2	0.0333	332,487	1	57	5,833
Washington	0	1	0	484,505	0	0	0.0000	0	0	0	0
West Virginia	0	1	87	161,697	71	1	0.0141	159,420	0	70	2,277
Wisconsin	0	1	104	317,161	90	0	0.0000	317,161	1	89	3,564
Wyoming	0	1	0	12,201	0	0	0.0000	.	0	0	0
Guam	0	1	0	15,525	0	0	0.0000	0	0	0	0
Virgin Islands	0	1	11	11,207	9	0	0.0000	11,207	0	9	1,245

Table D.12. Stratification and weight calculation by State, March 2019

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	**Stratum**	**a**	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Alabama	0	1	91	342,619	77	2	0.0260	333,720	1	74	4,510
Alaska	0	1	61	38,972	31	4	0.1290	33,943	0	27	1,257
Arizona	0	1	94	367,418	69	1	0.0145	362,093	0	68	5,325
Arkansas	0	1	99	160,976	81	2	0.0247	157,001	1	78	2,013
California	0	1	92	1,848,931	68	2	0.0294	1,794,551	0	66	27,190
Colorado	0	1	113	227,236	86	2	0.0233	221,951	0	84	2,642
Connecticut	0	1	96	213,248	82	2	0.0244	208,047	0	80	2,601
Delaware	0	1	12	63,714	10	0	0.0000	63,714	0	10	6,371
District of Columbia	0	1	91	64,927	76	1	0.0132	64,073	0	75	854
Florida	0	1	137	1,509,558	110	1	0.0091	1,495,835	0	109	13,723
Georgia	0	1	93	655,516	79	3	0.0380	630,623	0	76	8,298
Hawaii	0	1	89	80,421	54	1	0.0185	78,932	0	53	1,489
Idaho	0	1	103	67,038	78	1	0.0128	66,179	0	77	859
Illinois	0	1	88	875,089	65	2	0.0308	848,163	0	63	13,463
Indiana	0	1	115	263,930	86	3	0.0349	254,723	0	83	3,069
Iowa	0	1	96	154,548	86	1	0.0116	152,751	0	85	1,797
Kansas	0	1	102	93,169	91	1	0.0110	92,145	0	90	1,024
Kentucky	0	1	96	244,916	89	2	0.0225	239,412	0	87	2,752
Louisiana	0	1	96	375,788	72	0	0.0000	375,788	0	72	5,219
Maine	0	1	112	84,826	103	5	0.0485	80,708	0	98	824
Maryland	0	1	88	333,753	53	2	0.0377	321,159	2	49	6,554
Massachusetts	0	1	103	446,236	93	0	0.0000	446,236	0	93	4,798
Michigan	0	1	107	633,266	85	1	0.0118	625,816	0	84	7,450
Minnesota	0	1	97	207,210	89	0	0.0000	207,210	0	89	2,328
Mississippi	0	1	106	209,975	95	0	0.0000	209,975	1	94	2,234
Missouri	0	1	101	327,403	84	2	0.0238	319,608	1	81	3,946

State	Stratum	Unedited SNAP QC data		SNAP units in State (program ops data)	Edited SNAP QC data						Stratum-specific units weight
		Sampling interval	Stratum sampling size		Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	
State	Stratum	a	b	e	g	h	i	j	k	l	m
Montana	0	1	91	53,147	63	1	0.0159	52,303	0	62	844
Nebraska	0	1	89	74,172	73	2	0.0274	72,140	0	71	1,016
Nevada	0	1	97	220,731	71	0	0.0000	220,731	1	70	3,153
New Hampshire	0	1	66	39,972	63	1	0.0159	39,338	0	62	634
New Jersey	0	1	89	353,257	64	0	0.0000	353,257	2	62	5,698
New Mexico	0	1	98	218,344	79	2	0.0253	212,816	0	77	2,764
New York	0	1	103	1,522,410	90	2	0.0222	1,488,579	0	88	16,916
North Carolina	0	1	91	634,567	86	3	0.0349	612,431	0	83	7,379
North Dakota	0	1	52	23,479	49	0	0.0000	23,479	0	49	479
Ohio	0	1	73	684,163	63	0	0.0000	684,163	0	63	10,860
Oklahoma	0	1	100	264,312	88	6	0.0682	246,291	0	82	3,004
Oregon	0	1	103	349,604	76	2	0.0263	340,404	1	73	4,663
Pennsylvania	0	1	106	939,194	81	1	0.0123	927,599	0	80	11,595
Rhode Island	0	1	104	90,976	91	5	0.0549	85,977	0	86	1,000
South Carolina	0	1	98	276,962	87	0	0.0000	276,962	0	87	3,183
South Dakota	0	1	73	38,047	71	1	0.0141	37,511	2	68	552
Tennessee	0	1	122	441,016	97	4	0.0412	422,830	0	93	4,547
Texas	0	1	92	1,438,380	69	1	0.0145	1,417,534	0	68	20,846
Utah	0	1	104	72,835	89	0	0.0000	72,835	0	89	818
Vermont	0	1	61	39,748	59	2	0.0339	38,401	0	57	674
Virginia	0	1	90	343,426	54	2	0.0370	330,707	0	52	6,360
Washington	0	1	114	480,950	84	0	0.0000	480,950	5	79	6,088
West Virginia	0	1	87	159,568	71	1	0.0141	157,321	0	70	2,247
Wisconsin	0	1	104	313,467	96	0	0.0000	313,467	0	96	3,265
Wyoming	0	1	31	11,873	30	0	0.0000	11,873	0	30	396
Guam	0	1	28	15,412	18	1	0.0556	14,556	0	17	856
Virgin Islands	0	1	12	10,450	12	0	0.0000	10,450	0	12	871

Table D.13. Stratification and weight calculation by State, April 2019

State	Stratum	Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Alabama	0	1	107	339,982	96	3	0.0313	329,358	0	93	3,541
Alaska	0	1	61	39,433	26	2	0.0769	36,400	0	24	1,517
Arizona	0	1	93	362,808	76	0	0.0000	362,808	1	75	4,837
Arkansas	0	1	99	156,621	87	2	0.0230	153,021	0	85	1,800
California	0	1	150	1,824,382	88	2	0.0227	1,782,919	0	86	20,732
Colorado	0	1	112	224,890	86	0	0.0000	224,890	0	86	2,615
Connecticut	0	1	95	212,331	83	1	0.0120	209,773	0	82	2,558
Delaware	0	1	26	62,920	21	0	0.0000	62,920	0	21	2,996
District of Columbia	0	1	111	64,035	92	0	0.0000	64,035	1	91	704
Florida	0	1	99	1,499,980	78	0	0.0000	1,499,980	0	78	19,231
Georgia	0	1	89	647,278	73	2	0.0274	629,544	0	71	8,867
Hawaii	0	1	107	79,929	68	1	0.0147	78,754	0	67	1,175
Idaho	0	1	102	66,547	79	0	0.0000	66,547	0	79	842
Illinois	0	1	107	864,878	88	1	0.0114	855,050	0	87	9,828
Indiana	0	1	114	254,030	90	5	0.0556	239,917	0	85	2,823
Iowa	0	1	95	153,158	79	3	0.0380	147,342	0	76	1,939
Kansas	0	1	102	92,922	93	5	0.0538	87,926	1	87	1,011
Kentucky	0	1	123	241,584	117	0	0.0000	241,584	0	117	2,065
Louisiana	0	1	109	369,236	78	1	0.0128	364,502	0	77	4,734
Maine	0	1	113	85,139	99	5	0.0505	80,839	0	94	860
Maryland	0	1	88	332,146	44	1	0.0227	324,597	0	43	7,549
Massachusetts	0	1	103	445,664	96	1	0.0104	441,022	0	95	4,642
Michigan	0	1	105	628,885	84	1	0.0119	621,398	0	83	7,487
Minnesota	0	1	96	207,153	87	2	0.0230	202,391	0	85	2,381
Mississippi	0	1	105	207,566	92	0	0.0000	207,566	1	91	2,281
Missouri	0	1	99	321,512	89	2	0.0225	314,287	0	87	3,612

State	Stratum	Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Montana	0	1	91	52,998	68	1	0.0147	52,219	0	67	779
Nebraska	0	1	115	73,094	106	1	0.0094	72,404	0	105	690
Nevada	0	1	97	221,242	75	2	0.0267	215,342	0	73	2,950
New Hampshire	0	1	66	39,760	63	2	0.0317	38,498	0	61	631
New Jersey	0	1	87	350,174	66	0	0.0000	350,174	1	65	5,387
New Mexico	0	1	98	218,674	77	1	0.0130	215,834	0	76	2,840
New York	0	1	103	1,514,547	85	2	0.0235	1,478,911	0	83	17,818
North Carolina	0	1	96	619,367	91	2	0.0220	605,755	0	89	6,806
North Dakota	0	1	51	23,329	45	0	0.0000	23,329	0	45	518
Ohio	0	1	112	688,024	93	3	0.0323	665,830	0	90	7,398
Oklahoma	0	1	100	264,417	91	2	0.0220	258,606	0	89	2,906
Oregon	0	1	104	349,537	83	1	0.0120	345,326	0	82	4,211
Pennsylvania	0	1	106	938,729	82	0	0.0000	938,729	0	82	11,448
Rhode Island	0	1	106	90,212	94	5	0.0532	85,413	0	89	960
South Carolina	0	1	97	275,630	86	0	0.0000	275,630	0	86	3,205
South Dakota	0	1	72	37,849	68	1	0.0147	37,292	0	67	557
Tennessee	0	1	119	428,677	99	6	0.0606	402,697	0	93	4,330
Texas	0	1	91	1,430,437	71	2	0.0282	1,390,143	0	69	20,147
Utah	0	1	104	72,173	93	0	0.0000	72,173	0	93	776
Vermont	0	1	65	39,351	60	2	0.0333	38,039	0	58	656
Virginia	0	1	89	342,330	57	1	0.0175	336,324	0	56	6,006
Washington	0	1	114	479,207	85	1	0.0118	473,569	0	84	5,638
West Virginia	0	1	82	158,856	67	2	0.0299	154,114	0	65	2,371
Wisconsin	0	1	104	312,579	93	0	0.0000	312,579	0	93	3,361
Wyoming	0	1	32	11,703	29	0	0.0000	11,703	0	29	404
Guam	0	1	29	15,543	27	0	0.0000	15,543	0	27	576
Virgin Islands	0	1	11	9,862	10	0	0.0000	9,862	0	10	986

Table D.14. Stratification and weight calculation by State, May 2019

State	Stratum	Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
	Stratum	**a**	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Alabama	0	1	107	339,642	102	2	0.0196	332,982	1	99	3,363
Alaska	0	1	78	39,133	33	2	0.0606	36,761	1	30	1,225
Arizona	0	1	94	363,819	68	0	0.0000	363,819	0	68	5,350
Arkansas	0	1	99	155,508	84	4	0.0476	148,103	0	80	1,851
California	0	1	150	1,837,803	112	2	0.0179	1,804,985	0	110	16,409
Colorado	0	1	112	224,148	70	2	0.0286	217,744	1	67	3,250
Connecticut	0	1	95	212,602	83	4	0.0482	202,356	0	79	2,561
Delaware	0	1	27	62,535	26	1	0.0385	60,130	0	25	2,405
District of Columbia	0	1	89	64,060	76	2	0.0263	62,374	0	74	843
Florida	0	1	100	1,507,038	75	0	0.0000	1,507,038	1	74	20,365
Georgia	0	1	116	644,207	99	3	0.0303	624,686	0	96	6,507
Hawaii	0	1	107	79,934	64	2	0.0313	77,436	0	62	1,249
Idaho	0	1	101	66,052	79	0	0.0000	66,052	0	79	836
Illinois	0	1	106	885,370	92	3	0.0326	856,499	0	89	9,624
Indiana	0	1	113	257,025	75	4	0.0533	243,317	0	71	3,427
Iowa	0	1	94	152,351	76	2	0.0263	148,342	0	74	2,005
Kansas	0	1	102	92,383	95	4	0.0421	88,493	0	91	972
Kentucky	0	1	121	238,679	117	3	0.0256	232,559	0	114	2,040
Louisiana	0	1	108	369,692	83	2	0.0241	360,784	0	81	4,454
Maine	0	1	114	85,445	99	6	0.0606	80,267	0	93	863
Maryland	0	1	88	331,601	51	0	0.0000	331,601	2	49	6,767
Massachusetts	0	1	103	446,143	88	0	0.0000	446,143	0	88	5,070
Michigan	0	1	105	624,064	89	6	0.0674	581,992	0	83	7,012
Minnesota	0	1	97	207,303	91	3	0.0330	200,469	0	88	2,278
Mississippi	0	1	104	207,248	92	0	0.0000	207,248	4	88	2,355
Missouri	0	1	99	320,724	83	4	0.0482	305,267	0	79	3,864

		Unedited SNAP QC data			Edited SNAP QC data						
State	**Stratum**	**Sampling interval**	**Stratum sampling size**	**SNAP units in State (program ops data)**	**Units with complete reviews**	**Ineligible units**	**Disqualification rate**	**Adjusted SNAP units in State**	**Failing units**	**Stratum sampling size**	**Stratum-specific units weight**
		a	b	e	g	h	i	j	k	l	m
Montana	0	1	91	52,906	65	2	0.0308	51,278	0	63	814
Nebraska	0	1	114	72,947	101	1	0.0099	72,225	0	100	722
Nevada	0	1	97	220,650	75	2	0.0267	214,766	0	73	2,942
New Hampshire	0	1	65	39,479	60	0	0.0000	39,479	0	60	658
New Jersey	0	1	88	350,208	60	1	0.0167	344,371	0	58	5,937
New Mexico	0	1	98	219,429	81	6	0.0741	203,175	0	75	2,709
New York	0	1	103	1,505,591	87	0	0.0000	1,505,591	0	87	17,306
North Carolina	0	1	95	611,574	91	3	0.0330	591,412	0	88	6,721
North Dakota	0	1	51	23,307	48	1	0.0208	22,821	0	47	486
Ohio	0	1	111	685,221	94	3	0.0319	663,352	0	91	7,290
Oklahoma	0	1	100	264,953	88	2	0.0227	258,931	0	86	3,011
Oregon	0	1	103	349,737	76	0	0.0000	349,737	0	76	4,602
Pennsylvania	0	1	105	937,782	74	0	0.0000	937,782	0	74	12,673
Rhode Island	0	1	107	90,057	95	7	0.0737	83,421	0	88	948
South Carolina	0	1	138	275,498	126	2	0.0159	271,125	0	124	2,186
South Dakota	0	1	73	37,870	66	0	0.0000	37,870	0	66	574
Tennessee	0	1	118	426,846	89	1	0.0112	422,050	0	88	4,796
Texas	0	1	90	1,415,354	69	0	0.0000	1,415,354	0	69	20,512
Utah	0	1	105	72,426	97	2	0.0206	70,933	0	95	747
Vermont	0	1	65	39,081	63	0	0.0000	39,081	0	63	620
Virginia	0	1	89	341,866	57	3	0.0526	323,873	0	54	5,998
Washington	0	1	113	478,607	80	2	0.0250	466,642	0	78	5,983
West Virginia	0	1	87	159,008	70	0	0.0000	159,008	0	70	2,272
Wisconsin	0	1	103	311,695	91	1	0.0110	308,270	0	90	3,425
Wyoming	0	1	31	11,631	31	1	0.0323	11,256	0	30	375
Guam	0	1	29	15,430	24	0	0.0000	15,430	0	24	643
Virgin Islands	0	1	11	10,118	11	0	0.0000	10,118	0	11	920

Table D.15. Stratification and weight calculation by State, June 2019

		Unedited SNAP QC data			Edited SNAP QC data						
State	Stratum	Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualifica tion rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
	Stratum	a	b	e	g	h	i	j	k	l	m
Alabama	0	1	107	339,857	97	3	0.0309	329,346	0	94	3,504
Alaska	0	1	78	39,241	33	0	0.0000	39,241	0	33	1,189
Arizona	0	1	95	368,339	70	2	0.0286	357,815	0	68	5,262
Arkansas	0	1	99	155,738	90	3	0.0333	150,547	0	87	1,730
California	0	1	162	1,970,778	112	2	0.0179	1,935,586	0	110	17,596
Colorado	0	1	112	223,919	83	0	0.0000	223,919	0	83	2,698
Connecticut	0	1	101	212,355	86	3	0.0349	204,947	0	83	2,469
Delaware	0	1	83	61,742	70	0	0.0000	61,742	1	69	895
District of Columbia	0	1	91	64,202	76	2	0.0263	62,512	0	74	845
Florida	0	1	101	1,513,284	88	1	0.0114	1,496,088	0	87	17,196
Georgia	0	1	117	642,604	92	2	0.0217	628,634	0	90	6,985
Hawaii	0	1	107	79,702	62	1	0.0161	78,416	0	61	1,286
Idaho	0	1	101	65,349	79	1	0.0127	64,522	0	78	827
Illinois	0	1	109	882,852	80	2	0.0250	860,781	0	78	11,036
Indiana	0	1	112	252,565	78	0	0.0000	252,565	0	78	3,238
Iowa	0	1	94	151,910	81	1	0.0123	150,035	0	80	1,875
Kansas	0	1	102	92,763	94	3	0.0319	89,802	1	90	998
Kentucky	0	1	121	237,323	113	4	0.0354	228,922	0	109	2,100
Louisiana	0	1	108	369,465	80	2	0.0250	360,228	0	78	4,618
Maine	0	1	114	85,564	104	13	0.1250	74,869	0	91	823
Maryland	0	1	87	330,887	53	0	0.0000	330,887	2	51	6,488
Massachusetts	0	1	104	447,612	97	3	0.0309	433,768	0	94	4,615
Michigan	0	1	105	620,166	89	4	0.0449	592,293	0	85	6,968
Minnesota	0	1	97	206,345	92	1	0.0109	204,102	0	91	2,243
Mississippi	0	1	105	208,080	90	0	0.0000	208,080	0	90	2,312
Missouri	0	1	99	320,683	79	0	0.0000	320,683	0	79	4,059

		Unedited SNAP QC data			Edited SNAP QC data						
State	Stratum	Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
		a	b	e	g	h	i	j	k	l	m
Montana	0	1	91	52,915	64	2	0.0313	51,261	0	62	827
Nebraska	0	1	114	73,007	93	3	0.0323	70,652	0	90	785
Nevada	0	1	97	221,312	77	2	0.0260	215,564	0	75	2,874
New Hampshire	0	1	64	39,015	53	1	0.0189	38,279	0	52	736
New Jersey	0	1	88	349,069	56	0	0.0000	349,069	0	56	6,233
New Mexico	0	1	98	220,196	83	1	0.0120	217,543	0	82	2,653
New York	0	1	108	1,496,844	95	1	0.0105	1,481,088	0	94	15,756
North Carolina	0	1	95	613,520	93	2	0.0215	600,326	0	91	6,597
North Dakota	0	1	50	23,188	43	2	0.0465	22,109	0	41	539
Ohio	0	1	112	685,377	99	1	0.0101	678,454	0	98	6,923
Oklahoma	0	1	101	267,505	86	0	0.0000	267,505	0	86	3,111
Oregon	0	1	102	349,024	73	1	0.0137	344,243	0	72	4,781
Pennsylvania	0	1	105	938,895	82	1	0.0122	927,445	0	81	11,450
Rhode Island	0	1	107	89,668	98	5	0.0510	85,093	0	93	915
South Carolina	0	1	138	275,645	126	1	0.0079	273,457	0	125	2,188
South Dakota	0	1	72	37,819	65	0	0.0000	37,819	0	65	582
Tennessee	0	1	117	424,144	96	2	0.0208	415,308	0	94	4,418
Texas	0	1	91	1,434,522	66	1	0.0152	1,412,787	0	65	21,735
Utah	0	1	103	72,013	91	1	0.0110	71,222	0	90	791
Vermont	0	1	64	38,836	62	0	0.0000	38,836	0	62	626
Virginia	0	1	90	341,854	54	2	0.0370	329,193	0	52	6,331
Washington	0	1	113	476,592	92	3	0.0326	461,051	1	88	5,239
West Virginia	0	1	91	159,975	70	1	0.0143	157,690	0	69	2,285
Wisconsin	0	1	103	311,811	92	2	0.0217	305,033	0	90	3,389
Wyoming	0	1	31	11,585	27	1	0.0370	11,156	0	26	429
Guam	0	1	29	15,335	28	0	0.0000	15,335	0	28	548
Virgin Islands	0	1	21	10,194	18	0	0.0000	10,194	0	18	566

Table D.16. Stratification and weight calculation by State, July 2019

		Unedited SNAP QC data			Edited SNAP QC data						
State	**Stratum**	**Sampling interval**	**Stratum sampling size**	**SNAP units in State (program ops data)**	**Units with complete reviews**	**Ineligible units**	**Disqualification rate**	**Adjusted SNAP units in State**	**Failing units**	**Stratum sampling size**	**Stratum-specific units weight**
	Stratum	**a**	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Alabama	0	1	107	340,639	96	1	0.0104	337,091	0	95	3,548
Alaska	0	1	80	38,892	34	2	0.0588	36,604	1	31	1,181
Arizona	0	1	96	371,735	75	0	0.0000	371,735	0	75	4,956
Arkansas	0	1	100	156,744	89	4	0.0449	149,699	0	85	1,761
California	0	1	171	2,053,345	112	0	0.0000	2,053,345	0	112	18,333
Colorado	0	1	112	224,136	77	1	0.0130	221,225	1	75	2,950
Connecticut	0	1	101	212,611	86	2	0.0233	207,667	0	84	2,472
Delaware	0	1	71	60,991	62	1	0.0161	60,007	0	61	984
District of Columbia	0	1	91	64,691	77	0	0.0000	64,691	1	76	851
Florida	0	1	98	1,509,953	80	0	0.0000	1,509,953	0	80	18,874
Georgia	0	1	116	632,180	97	3	0.0309	612,628	0	94	6,517
Hawaii	0	1	107	83,361	62	1	0.0161	82,016	0	61	1,345
Idaho	0	1	100	64,960	76	0	0.0000	64,960	0	76	855
Illinois	0	1	103	889,348	74	3	0.0405	853,293	0	71	12,018
Indiana	0	1	112	231,554	78	2	0.0256	225,617	0	76	2,969
Iowa	0	1	93	150,822	78	5	0.0641	141,154	0	73	1,934
Kansas	0	1	103	93,953	88	3	0.0341	90,750	0	85	1,068
Kentucky	0	1	119	233,270	110	0	0.0000	233,270	0	110	2,121
Louisiana	0	1	108	367,554	79	0	0.0000	367,554	0	79	4,653
Maine	0	1	113	85,292	106	2	0.0189	83,683	1	103	812
Maryland	0	1	86	331,092	49	1	0.0204	324,335	0	48	6,757
Massachusetts	0	1	104	450,879	96	0	0.0000	450,879	0	96	4,697
Michigan	0	1	103	617,618	90	3	0.0333	597,031	0	87	6,862
Minnesota	0	1	97	206,968	82	2	0.0244	201,920	0	80	2,524
Mississippi	0	1	105	208,202	93	0	0.0000	208,202	1	92	2,263
Missouri	0	1	98	319,101	73	1	0.0137	314,730	1	71	4,433

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Montana	0	1	90	52,666	68	2	0.0294	51,117	0	66	775
Nebraska	0	1	113	72,830	97	2	0.0206	71,328	2	93	767
Nevada	0	1	97	221,819	75	1	0.0133	218,861	0	74	2,958
New Hampshire	0	1	64	38,754	58	0	0.0000	38,754	0	58	668
New Jersey	0	1	87	347,341	59	0	0.0000	347,341	0	59	5,887
New Mexico	0	1	98	221,356	79	3	0.0380	212,950	0	76	2,802
New York	0	1	108	1,492,844	100	2	0.0200	1,462,987	0	98	14,928
North Carolina	0	1	95	604,527	94	0	0.0000	604,527	0	94	6,431
North Dakota	0	1	51	23,110	45	2	0.0444	22,083	0	43	514
Ohio	0	1	111	683,135	95	4	0.0421	654,371	0	91	7,191
Oklahoma	0	1	102	268,444	88	2	0.0227	262,343	0	86	3,051
Oregon	0	1	102	348,528	80	2	0.0250	339,815	0	78	4,357
Pennsylvania	0	1	106	941,757	74	0	0.0000	941,757	0	74	12,726
Rhode Island	0	1	108	89,808	99	5	0.0505	85,272	0	94	907
South Carolina	0	1	125	275,478	110	1	0.0091	272,974	0	109	2,504
South Dakota	0	1	72	37,610	66	1	0.0152	37,040	1	64	579
Tennessee	0	1	117	425,845	100	3	0.0300	413,070	0	97	4,258
Texas	0	1	92	1,445,259	73	3	0.0411	1,385,865	0	70	19,798
Utah	0	1	104	71,836	93	4	0.0430	68,746	0	89	772
Vermont	0	1	64	38,594	59	1	0.0169	37,940	0	58	654
Virginia	0	1	88	341,153	56	1	0.0179	335,061	0	55	6,092
Washington	0	1	113	475,598	85	1	0.0118	470,003	0	84	5,595
West Virginia	0	1	90	159,699	62	1	0.0161	157,123	0	61	2,576
Wisconsin	0	1	104	311,836	94	0	0.0000	311,836	0	94	3,317
Wyoming	0	1	31	11,492	29	0	0.0000	11,492	0	29	396
Guam	0	1	68	15,387	24	0	0.0000	15,387	0	24	641
Virgin Islands	0	1	19	10,339	17	1	0.0588	9,731	0	16	608

Table D.17. Stratification and weight calculation by State, August 2019

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	Stratum	a	b	e	g	h	i	j	k	l	m
Alabama	0	1	108	341,995	97	3	0.0309	331,418	0	94	3,526
Alaska	0	1	77	38,756	53	2	0.0377	37,294	0	51	731
Arizona	0	1	97	374,946	69	1	0.0145	369,512	1	67	5,515
Arkansas	0	1	100	157,688	84	1	0.0119	155,811	0	83	1,877
California	0	1	174	2,100,790	125	0	0.0000	2,100,790	0	125	16,806
Colorado	0	1	111	222,430	75	0	0.0000	222,430	0	75	2,966
Connecticut	0	1	101	213,062	83	1	0.0120	210,495	0	82	2,567
Delaware	0	1	68	61,275	61	4	0.0656	57,257	0	57	1,005
District of Columbia	0	1	92	65,330	75	0	0.0000	65,330	0	75	871
Florida	0	1	96	1,507,501	74	0	0.0000	1,507,501	0	74	20,372
Georgia	0	1	117	636,701	99	4	0.0404	610,976	0	95	6,431
Hawaii	0	1	107	79,813	56	0	0.0000	79,813	0	56	1,425
Idaho	0	1	99	65,235	85	0	0.0000	65,235	0	85	767
Illinois	0	1	69	892,071	65	1	0.0154	878,347	0	64	13,724
Indiana	0	1	113	254,886	85	2	0.0235	248,889	0	83	2,999
Iowa	0	1	94	150,920	87	3	0.0345	145,716	0	84	1,735
Kansas	0	1	102	93,754	94	3	0.0319	90,762	0	91	997
Kentucky	0	1	119	231,839	108	3	0.0278	225,399	0	105	2,147
Louisiana	0	1	109	372,335	91	2	0.0220	364,152	0	89	4,092
Maine	0	1	114	85,862	107	4	0.0374	82,652	0	103	802
Maryland	0	1	87	333,459	48	0	0.0000	333,459	0	48	6,947
Massachusetts	0	1	105	453,658	91	1	0.0110	448,673	1	89	5,041
Michigan	0	1	101	614,381	82	0	0.0000	614,381	0	82	7,492
Minnesota	0	1	97	207,053	75	0	0.0000	207,053	1	74	2,798
Mississippi	0	1	104	208,615	96	0	0.0000	208,615	2	94	2,219
Missouri	0	1	98	320,592	78	5	0.0641	300,041	0	73	4,110

		Unedited SNAP QC data			Edited SNAP QC data						
State	Stratum	Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
	Stratum	a	b	e	g	h	i	j	k	l	m
Montana	0	1	91	52,523	69	1	0.0145	51,762	0	68	761
Nebraska	0	1	114	72,272	89	1	0.0112	71,460	0	88	812
Nevada	0	1	98	222,412	75	3	0.0400	213,516	0	72	2,965
New Hampshire	0	1	64	38,777	58	1	0.0172	38,108	0	57	669
New Jersey	0	1	87	347,963	56	0	0.0000	347,963	0	56	6,214
New Mexico	0	1	98	222,799	81	3	0.0370	214,547	0	78	2,751
New York	0	1	108	1,486,402	88	6	0.0682	1,385,056	0	82	16,891
North Carolina	0	1	95	609,333	91	1	0.0110	602,637	0	90	6,696
North Dakota	0	1	51	23,206	48	0	0.0000	23,206	0	48	483
Ohio	0	1	112	682,571	94	1	0.0106	675,310	0	93	7,261
Oklahoma	0	1	102	268,949	87	2	0.0230	262,766	0	85	3,091
Oregon	0	1	103	348,362	70	1	0.0143	343,385	0	69	4,977
Pennsylvania	0	1	106	947,660	78	1	0.0128	935,511	0	77	12,149
Rhode Island	0	1	107	89,278	101	6	0.0594	83,974	0	95	884
South Carolina	0	1	125	274,552	111	4	0.0360	264,658	0	107	2,473
South Dakota	0	1	72	37,605	67	2	0.0299	36,482	1	64	570
Tennessee	0	1	117	423,073	95	2	0.0211	414,166	0	93	4,453
Texas	0	1	92	1,449,989	67	1	0.0149	1,428,347	0	66	21,642
Utah	0	1	104	72,372	94	2	0.0213	70,832	1	91	778
Vermont	0	1	63	38,592	61	0	0.0000	38,592	0	61	633
Virginia	0	1	90	341,570	52	2	0.0385	328,433	0	50	6,569
Washington	0	1	112	475,838	90	2	0.0222	465,264	0	88	5,287
West Virginia	0	1	90	160,602	65	1	0.0154	158,131	0	64	2,471
Wisconsin	0	1	104	311,915	87	1	0.0115	308,330	0	86	3,585
Wyoming	0	1	30	11,429	29	0	0.0000	11,429	0	29	394
Guam	0	1	29	15,411	28	0	0.0000	15,411	0	28	550
Virgin Islands	0	1	19	10,395	19	0	0.0000	10,395	0	19	547

Table D.18. Stratification and weight calculation by State, September 2019

		Unedited SNAP QC data			Edited SNAP QC data						
		Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualificat ion rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
State	**Stratum**	**a**	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Alabama	0	1	158	341,373	146	3	0.0205	334,358	0	143	2,338
Alaska	0	1	77	38,335	57	4	0.0702	35,645	0	53	673
Arizona	0	1	97	375,236	70	3	0.0429	359,154	0	67	5,361
Arkansas	0	1	100	158,103	91	4	0.0440	151,153	0	87	1,737
California	0	1	174	2,118,467	102	1	0.0098	2,097,698	0	101	20,769
Colorado	0	1	111	222,430	74	1	0.0135	219,424	0	73	3,006
Connecticut	0	1	102	212,861	88	4	0.0455	203,186	0	84	2,419
Delaware	0	1	73	59,840	65	0	0.0000	59,840	0	65	921
District of Columbia	0	1	93	65,410	80	0	0.0000	65,410	0	80	818
Florida	0	1	98	1,500,656	75	1	0.0133	1,480,647	1	73	20,283
Georgia	0	1	117	637,959	98	4	0.0408	611,920	0	94	6,510
Hawaii	0	1	108	79,998	62	1	0.0161	78,708	0	61	1,290
Idaho	0	1	101	64,868	88	0	0.0000	64,868	0	88	737
Illinois	0	1	47	886,924	33	0	0.0000	886,924	0	33	26,876
Indiana	0	1	112	259,037	80	2	0.0250	252,561	0	78	3,238
Iowa	0	1	93	149,444	82	7	0.0854	136,687	0	75	1,822
Kansas	0	1	102	93,217	88	8	0.0909	84,743	0	80	1,059
Kentucky	0	1	116	227,556	108	2	0.0185	223,342	0	106	2,107
Louisiana	0	1	110	371,381	85	2	0.0235	362,643	0	83	4,369
Maine	0	1	114	85,996	103	2	0.0194	84,326	0	101	835
Maryland	0	1	86	332,027	47	0	0.0000	332,027	0	47	7,064
Massachusetts	0	1	106	455,252	91	0	0.0000	455,252	0	91	5,003
Michigan	0	1	102	609,812	84	5	0.0595	573,514	0	79	7,260
Minnesota	0	1	96	205,610	77	1	0.0130	202,940	0	76	2,670
Mississippi	0	1	104	207,204	100	4	0.0400	198,916	0	96	2,072
Missouri	0	1	98	318,316	84	0	0.0000	318,316	0	84	3,789

State	Stratum	Sampling interval	Stratum sampling size	SNAP units in State (program ops data)	Units with complete reviews	Ineligible units	Disqualification rate	Adjusted SNAP units in State	Failing units	Stratum sampling size	Stratum-specific units weight
		a	**b**	**e**	**g**	**h**	**i**	**j**	**k**	**l**	**m**
Montana	0	1	90	52,460	68	0	0.0000	52,460	0	68	771
Nebraska	0	1	111	71,121	87	7	0.0805	65,399	0	80	817
Nevada	0	1	97	222,216	75	2	0.0267	216,290	0	73	2,963
New Hampshire	0	1	64	38,747	53	0	0.0000	38,747	0	53	731
New Jersey	0	1	86	344,237	58	0	0.0000	344,237	0	58	5,935
New Mexico	0	1	98	223,019	87	3	0.0345	215,329	0	84	2,563
New York	0	1	108	1,481,195	91	0	0.0000	1,481,195	0	91	16,277
North Carolina	0	1	84	610,088	82	1	0.0122	602,648	0	81	7,440
North Dakota	0	1	52	23,192	49	2	0.0408	22,245	0	47	473
Ohio	0	1	111	684,844	93	2	0.0215	670,116	0	91	7,364
Oklahoma	0	1	103	271,229	89	1	0.0112	268,181	0	88	3,048
Oregon	0	1	103	345,676	78	2	0.0256	336,813	0	76	4,432
Pennsylvania	0	1	106	943,248	90	2	0.0222	922,287	0	88	10,481
Rhode Island	0	1	107	89,192	103	9	0.0874	81,399	0	94	866
South Carolina	0	1	124	272,457	107	1	0.0093	269,911	0	106	2,546
South Dakota	0	1	71	37,323	68	0	0.0000	37,323	0	68	549
Tennessee	0	1	116	420,066	92	5	0.0543	397,236	0	87	4,566
Texas	0	1	92	1,439,988	66	2	0.0303	1,396,352	0	64	21,818
Utah	0	1	102	70,918	88	1	0.0114	70,112	0	87	806
Vermont	0	1	57	38,579	55	0	0.0000	38,579	0	55	701
Virginia	0	1	90	341,208	57	3	0.0526	323,250	0	54	5,986
Washington	0	1	112	473,056	90	2	0.0222	462,544	0	88	5,256
West Virginia	0	1	92	161,612	71	1	0.0141	159,336	0	70	2,276
Wisconsin	0	1	104	311,625	93	0	0.0000	311,625	0	93	3,351
Wyoming	0	1	30	11,194	30	0	0.0000	11,194	0	30	373
Guam	0	1	29	15,446	23	0	0.0000	15,446	0	23	672
Virgin Islands	0	1	14	10,439	13	0	0.0000	10,439	0	13	803

APPENDIX E

State and Region Codes

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Table E.1. State FIPS codes (STATE)

State	FIPS code	State	FIPS code
Alabama	01	Montana	30
Alaska	02	Nebraska	31
Arizona	04	Nevada	32
Arkansas	05	New Hampshire	33
California	06	New Jersey	34
Colorado	08	New Mexico	35
Connecticut	09	New York	36
Delaware	10	North Carolina	37
District of Columbia	11	North Dakota	38
Florida	12	Ohio	39
Georgia	13	Oklahoma	40
Guam	66	Oregon	41
Hawaii	15	Pennsylvania	42
Idaho	16	Rhode Island	44
Illinois	17	South Carolina	45
Indiana	18	South Dakota	46
Iowa	19	Tennessee	47
Kansas	20	Texas	48
Kentucky	21	Utah	49
Louisiana	22	Vermont	50
Maine	23	Virgin Islands	78
Maryland	24	Virginia	51
Massachusetts	25	Washington	53
Michigan	26	West Virginia	54
Minnesota	27	Wisconsin	55
Mississippi	28	Wyoming	56
Missouri	29		

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

Table E.2. SNAP region codes (REGIONCD)

REGIONCD = 1 (Northeast)	REGIONCD = 5 (Southwest)
Connecticut	Arkansas
Maine	Louisiana
Massachusetts	New Mexico
New Hampshire	Oklahoma
New York	Texas
Rhode Island	**REGIONCD = 6 (Mountain Plains)**
Vermont	Colorado
REGIONCD = 2 (Mid-Atlantic)	Iowa
Delaware	Kansas
District of Columbia	Missouri
Maryland	Montana
New Jersey	Nebraska
Pennsylvania	North Dakota
Virgin Islands	South Dakota
Virginia	Utah
West Virginia	Wyoming
REGIONCD = 3 (Southeast)	**REGIONCD = 7 (West)**
Alabama	Alaska
Florida	Arizona
Georgia	California
Kentucky	Guam
Mississippi	Hawaii
North Carolina	Idaho
South Carolina	Nevada
Tennessee	Oregon
REGIONCD = 4 (Midwest)	Washington
Illinois	
Indiana	
Michigan	
Minnesota	
Ohio	
Wisconsin	

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

Table E.3. Census region codes (REGION)

REGION = 1 (Northeast)	REGION = 3 (South)
Connecticut	Alabama
Maine	Arkansas
Massachusetts	Delaware
New Hampshire	District of Columbia
New Jersey	Florida
New York	Georgia
Pennsylvania	Kentucky
Rhode Island	Louisiana
Vermont	Maryland
REGION = 2 (Midwest)	Mississippi
Illinois	North Carolina
Indiana	Oklahoma
Iowa	South Carolina
Kansas	Tennessee
Michigan	Texas
Minnesota	Virginia
Missouri	West Virginia
Nebraska	**REGION = 4 (West)**
North Dakota	Alaska
Ohio	Arizona
South Dakota	California
Wisconsin	Colorado
	Guam
	Hawaii
	Idaho
	Montana
	Nevada
	New Mexico
	Oregon
	Utah
	Virgin Islands
	Washington
	Wyoming

Source: U.S. Census Bureau.

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APPENDIX F

FY 2019 SNAP Parameters

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Table F.1. SNAP gross income screen, FY 2019

	Gross income screen (dollars per month)		
Unit size	Contiguous United States, Guam, and the Virgin Islands	Alaska	Hawaii
1	1,316	1,645	1,513
2	1,784	2,230	2,051
3	2,252	2,815	2,590
4	2,720	3,400	3,128
5	3,188	3,985	3,666
6	3,656	4,570	4,205
7	4,124	5,155	4,743
8	4,592	5,740	5,282
Each additional person	+468	+585	+539

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

Note: The FY 2019 SNAP gross monthly income limits were based on the 2018 Federal poverty guidelines issued by the U.S. Department of Health and Human Services. FNS derived the FY 2019 gross income limits by multiplying the 2018 poverty guidelines by 130 percent, dividing the results by 12, and then rounding up to the nearest dollar.

Table F.2. SNAP net income screen, FY 2019

	Net income screen (dollars per month)		
Unit size	Contiguous United States, Guam, and the Virgin Islands	Alaska	Hawaii
1	1,012	1,265	1,164
2	1,372	1,715	1,578
3	1,732	2,165	1,992
4	2,092	2,615	2,406
5	2,452	3,065	2,820
6	2,812	3,515	3,235
7	3,172	3,965	3,649
8	3,532	4,415	4,063
Each additional person	+360	+450	+415

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

Note: The FY 2019 SNAP net monthly income limits were based on the 2018 Federal poverty guidelines issued by the U.S. Department of Health and Human Services. FNS derived the FY 2019 net income limits by dividing the 2018 poverty guidelines by 12 and rounding up to the nearest dollar.

Table F.3. Deduction amounts, FY 2019

Deduction	Contiguous United States	Alaska	Hawaii	Guam	Virgin Islands
Standard deduction (dollars)					
1 to 2 people	164	281	232	331	145
3 people	164	281	232	331	145
4 people	174	281	232	348	174
5 people	204	281	234	408	204
6 or more people	234	292	269	467	234
Maximum excess shelter expense deduction (dollars)	552	881	743	647	435
Homeless household shelter deduction (dollars)[a]	147.55	147.55	147.55	147.55	147.55
10/2018–12/19/2018	143	143	143	143	143
12/20/2018–9/2019	147.55	147.55	147.55	147.55	147.55
Earnings deduction	20%	20%	20%	20%	20%

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

Note: MFIP relies on a separate SNAP benefit calculation procedure that does not include any deductions except for the earnings deduction, which was 50 percent. As a result, all the other deductions are coded as missing for MFIP participants in the SNAP QC database. Similarly, deductions are not used to assign benefits to units participating in SSI-CAP in States with standardized benefit amounts. Consequently, all deductions are coded as missing for SSI-CAP participants in these States. SSI-CAP States without standardized benefits (or standard shelter expenses) use some deductions, but not all. The deductions that are not applicable are coded as missing.

[a] Before the enactment of the 2018 Farm Bill, the value of the homeless shelter deduction was $143. Beginning on December 20, 2018, the value increased to $147.55. States had a deadline of December 2018 to implement the change for newly certified or recertified homeless households and were given the flexibility to round this value up or down depending on their procedures for calculating net income.

Table F.4. Standard medical deduction demonstration, FY 2019

State	If medical expenses are less than or equal to (dollars)	Then medical expense deduction is[a] (dollars)
Alabama	200	165
Arkansas	138	103
California	155	120
Colorado	200	165
Georgia	185	150
Idaho	179	144
Illinois[b]	245	210
Iowa	140	105
Kansas	175	140
Massachusetts	190	155
Missouri	170	135
New Hampshire	150	115
North Dakota	175	140
Oregon	205	170
Rhode Island	176	141
South Carolina	210	175
South Dakota	200	165
Texas	137	102
Vermont	151	116
Virginia	235	200
Wyoming	138	103

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

[a] If medical expenses exceed the amount in column 2, the medical expense deduction is equal to the actual medical expenses minus $35.

[b] In Illinois, the standard medical deduction for residents of group homes or supportive living facilities was $450.

Table F.5. Maximum monthly SNAP benefit, FY 2019

Unit size	Maximum SNAP benefit (dollars)						
	Contiguous United States	Alaska Urban	Alaska Rural I	Alaska Rural II	Hawaii	Guam	Virgin Islands
1	192	232	295	360	358	283	247
2	353	425	542	660	656	520	454
3	505	609	776	945	940	745	650
4	642	773	986	1,200	1,193	946	825
5	762	918	1,171	1,425	1,417	1,123	980
6	914	1,102	1,405	1,711	1,701	1,348	1,176
7	1,011	1,218	1,553	1,891	1,880	1,490	1,300
8	1,155	1,392	1,775	2,161	2,148	1,703	1,485
Each additional person	+144	+174	+222	+270	+269	+213	+186

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

Note: These maximum benefit values are based on the cost of the Thrifty Food Plan in June 2018 for a reference family of four, rounded to the lowest dollar increment.

Table F.6. Minimum monthly SNAP benefit, FY 2019

Unit size	Minimum SNAP benefit (dollars)						
	Contiguous United States	Alaska Urban	Alaska Rural I	Alaska Rural II	Hawaii	Guam	Virgin Islands
1 to 2 people	15	19	24	29	29	23	20

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

Note: The minimum benefit, applicable to one- and two-person units, is equal to 8 percent of the maximum benefit for single-person units.

Table F.7. Standard utility allowances, FY 2019

State	HCSUA[a]	LUA[b]	Telephone allowance[c]	Electricity[d]	Water[d]	Sewer[d]	Trash[d]	Other standards[e]
				Standard utility allowances (dollars)				
Alabama	374	357	39					
Alaska[f]								
Central	390		40	107	50	43	32	118
Southeast	360		28	79	41	66	25	121
South central	445		31	128	44	47	51	144
Northern	589		31	136	51	60	30	281
Southwest	763		35	169	63	79	17	400
Northwest	826		38	149	61	58	33	487
Arizona								
1 to 3 people	278		36					
4 or more people	375		36					
Arkansas	284		25					
California	415	130	18					
Colorado	476	304	78	57	57	57	57	57
Connecticut	736	324	27					
Delaware	417	289	37	78	78	78	78	78
District of Columbia	331	276	69	69	69	69	69	69
Florida	359	290	52					
Georgia	377	323	41					
Hawaii								
1 person			27	193	45	88		
2 people			27	209	50	88		
3 people			27	240	55	88		
4 to 5 people			27	297	65	88		
6 people			27	349	75	88		
7 or more people			27	394	90	88		
Idaho	368	303	35	134	134	134	134	134
Illinois	466	319	30	72	72	72	72	72
Indiana								
10/2018–4/2019	421	253	31	56	56	56	56	56
5/2019–9/2019	419	251	30	55	55	55	55	55
Iowa	449	287	28					
Kansas	357	243	36					
Kentucky	321	274	38					
Louisiana	356	196	43					
Maine	699	231	45					
Maryland								
10/2018–12/2018	420	257	40					
1/2019–9/2019	404	247	40					
Massachusetts	643	396	45					
Michigan	543		31	135	91	91	19	44
Minnesota	493		47	126				

State	Standard utility allowances (dollars)							
	HCSUA[a]	LUA[b]	Telephone allowance[c]	Electricity[d]	Water[d]	Sewer[d]	Trash[d]	Other standards[e]
Mississippi	278	206	31					
Missouri	380	303	61	125	125	125	125	125
Montana	545	196	32	164	164	164	164	164
Nebraska	481	251	46	51	51	51	51	51
Nevada	285	252	29	56	56	56	56	56
New Hampshire	724	264	28	155				
New Jersey	542	316	29					
New Mexico	344	139	52					
New York								
New York City	800	316	30					
Long Island	744	292	30					
Rest of New York	661	268	30					
North Carolina								
1 person	437	246	38					
2 people	480	270	38					
3 people	528	297	38					
4 people	576	324	38					
5 or more people	628	353	38					
North Dakota	615	232	32	200	200	200	200	200
Ohio	544	351	39	78	78	78	78	78
Oklahoma	362	311	48					
Oregon	436	328	53	65	65	65	65	65
Pennsylvania	588	308	33	57	57	57	57	57
Rhode Island	635		23					
South Carolina	302	230	25					
South Dakota	732	206	49	85	85	85	85	85
Tennessee								
1 person	317	136	28					
2 people	328	136	28					
3 people	341	136	28					
4 people	353	136	28					
5 people	364	136	28					
6 people	376	136	28					
7 people	387	136	28					
8 people	399	136	28					
9 people	413	136	28					
10 or more people	423	136	28					
Texas	357	316	38					
Utah	360	283	64					
Vermont	822	235	36					
Virginia								
1 to 3 people	311		61					
4 or more people	387		61					
Washington	430	336	58					

State	Standard utility allowances (dollars)							
	HCSUA[a]	LUA[b]	Telephone allowance[c]	Electricity[d]	Water[d]	Sewer[d]	Trash[d]	Other standards[e]
West Virginia	421	275	74	74	74	74	74	74
Wisconsin	452	308	33	130	86		23	36
Wyoming	393	266	53					
Guam								
1 person			27	133	38	28	30	30
2 to 3 people			27	153	50	28	30	30
4 people			27	183	69	28	30	60
5 people			27	207	85	28	30	60
6 people			27	237	111	28	30	60
7 people			27	269	136	28	30	90
8 people			27	281	150	28	30	90
9 to 10 people			27	301	171	28	30	90
11 or more people			27	309	178	28	30	90
Virgin Islands			32					

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

[a] HCSUA is a Standard Utility Allowance used for units with heating and cooling expenses not included in rent. The HCSUA generally includes all utilities, including telephones.

[b] LUA is a Standard Utility Allowance used for units that do not have heating and cooling expenses separate from rent. The LUA generally includes all utilities, including telephones.

[c] The telephone allowance is a Standard Utility Allowance used for units that have telephone expenses but do not have any other utility expenses.

[d] Single-utility standard.

[e] A single utility is standard for gas/fuel unless otherwise noted.

[f] Alaska has six HCSUAs determined by utility regions.

Table F.8. Minnesota Family Investment Program (MFIP) benefits, FY 2019

Unit size	Family wage level (1.1 * transitional standard) (dollars)	Transitional standard (cash portion and food portion) (dollars)	Cash portion (dollars)	Food portion (dollars)
1	462	420	250	170
2	826	751	437	314
3	1,084	985	532	453
4	1,320	1,200	621	579
5	1,525	1,386	697	689
6	1,763	1,603	773	830
7	1,924	1,749	850	899
8	2,123	1,930	916	1,014
9	2,320	2,109	980	1,129
10	2,511	2,283	1,035	1,248
Each additional person	+189	+172	+53	+119

Source: Minnesota Department of Human Services (http://www.dhs.State.mn.us/).

Table F.9. Arizona SSI-CAP (AZSNAP) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)
$0 to $99	25
$100 to $199	62
$200 to $299	96
$300 or greater	150

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

Table F.10. Kentucky SSI-CAP (KYSAFE) benefit criteria, FY 2019

Unit size	Shelter expenses	Benefit (dollars)
One person	Less than $200	33
	$200 or greater	75
Two people	Less than $108	82
	$108 or greater	123

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

Note: When necessary, the data for units identified as KYSAFE participants have been edited to follow the pattern presented in this table.

Table F.11. Louisiana SSI-CAP (LaCAP) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)
Less than $400	35
$400 to less than $749	82
$749 or greater	173

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

Table F.12. Maryland SSI-CAP (MSNAP) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)
Less than $506	60
$506 or greater	144

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

Table F.13. Michigan SSI-CAP (MiCAP) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)	Gross income[a] (dollars)
October 2018–December 2018		
$1,000 or less	171	764
Greater than $1,000	185	764
January 2019–September 2019		
$1,000 or less	100	785
Greater than $1,000	190	785

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

[a] In FY 2018, Michigan had an SSI supplement of $15, making the combined Federal and State SSI amount $764.

Table F.14. Mississippi SSI-CAP (MSCAP) benefits by income and shelter expense patterns, FY 2019

Income type and shelter expenses	Benefit level (dollars)	Gross income (dollars)
October 2018–December 2018		
SSI only		
$335 or less	28	750
Greater than $335	75	750
SSI and other unearned income		
$335 or less	19	770
Greater than $335	66	770
January 2019–September 2019		
SSI only		
$335 or less	19	771
Greater than $335	65	771
SSI and other unearned income		
$335 or less	15	791
Greater than $335	56	791

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

Note: When necessary, the data for units identified as MSCAP participants have been edited to follow the pattern presented in this table.

Table F.15. New Jersey SSI-CAP (NJ SNAS) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)
$563 or less	30
Greater than $563	135

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

Table F.16. New York SSI-CAP (NYSNIP) benefit criteria, FY 2019

Income and shelter expenses	Monthly benefit amount (dollars)		
	New York	Long Island	Rest of State
October 2018–December 2018			
SSI only			
With positive utility costs			
Rent $251 or less	192	187	162
Rent greater than $251	192	192	192
With no utility costs			
Rent $251 or less	15	15	15
Rent greater than $251	19	19	19
With no shelter costs	15	15	15
SSI and other unearned income			
With positive utility costs			
Rent $251 or less	192	178	153
Rent greater than $251	192	192	192
With no utility costs			
Rent $251 or less	15	15	15
Rent greater than $251	15	15	15
With no shelter costs	15	15	15
January 2019–September 2019			
SSI only			
With positive utility costs			
Rent $257 or less	192	180	155
Rent greater than $257	192	192	192
With no utility costs			
Rent $257 or less	15	15	15
Rent greater than $257	15	15	15
With no shelter costs	15	15	15
SSI and other unearned income			
With positive utility costs			
Rent $257 or less	187	171	146
Rent greater than $257	192	192	190
With no utility costs			
Rent $257 or less	15	15	15
Rent greater than $257	15	15	15
With no shelter costs	15	15	15

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

Table F.17. North Carolina SSI-CAP (NCSNAP) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)
Less than $150	70
$150 or greater	130

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

Table F.18. Pennsylvania SSI-CAP (PACAP) benefit criteria, FY 2019

Income type and shelter expenses	Benefit (dollars)
October 2018–December 2018	
SSI only	
Shelter expenses less than $196	107
Shelter expenses $196 or greater	148
SSI and other unearned income	
Shelter expenses less than $196	98
Shelter expenses $196 or greater	139
January 2019–September 2019	
SSI only	
Shelter expenses less than $196	101
Shelter expenses $196 or greater	143
SSI and other unearned income	
Shelter expenses less than $196	92
Shelter expenses $196 or greater	134

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

Table F.19. South Carolina SSI-CAP (SCCAP) benefits by income and shelter expense patterns, FY 2019

Income type and shelter expenses	Benefits (dollars)	Gross income (dollars)
October 2018–December 2018		
SSI only		
Shelter expenses $290 or less	27	750
Shelter expenses greater than $290	71	750
SSI and other unearned income		
Shelter expenses $290 or less	18	770
Shelter expenses greater than $290	62	770
January 2019–September 2019		
SSI only		
Shelter expenses $290 or less	44	771
Shelter expenses greater than $290	54	771
SSI and other unearned income		
Shelter expenses $290 or less	35	791
Shelter expenses greater than $290	45	791

Source: U.S. Department of Agriculture, Food and Nutrition Service; FY 2019 raw SNAP QC data file.

Note: When necessary, the data for units identified as SCCAP participants have been edited to follow the pattern presented in this table.

Table F.20. South Dakota SSI-CAP (SD IN) benefit criteria, FY 2019

Earnings and medical expenses	Benefits (dollars)			
	Individuals with shelter expenses of $690 or greater	Couples with shelter expenses of $690 or greater	Individuals with shelter expenses less than $690	Couples with shelter expenses less than $690
No earnings				
Medical expenses less than or equal to $35	171	194	40	119
Medical expenses greater than $35	172	269	115	136
Earnings				
Medical expenses less than or equal to $35	149	169	23	21
Medical expenses greater than $35	174	120	120	192

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

Table F.21. Texas SSI-CAP (SNAP-CAP) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)
$400 or less	75
Greater than $400	130

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

Note: When necessary, the data for units identified as SNAP-CAP participants have been edited to follow the pattern presented in this table.

Table F.22. Virginia SSI-CAP (VaCAP) benefit criteria, FY 2019

Shelter expenses	Benefit (dollars)
Less than $500	66
$500 or greater	140

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

Table F.23. Florida (SUNCAP), Massachusetts (BAY STATE CAP), and Washington SSI-CAP (WASHCAP) shelter allowances, FY 2019

Rent/mortgage cutoff for high/low standard rent allowance	Standard rent/mortgage allowance (dollars)
Florida (SUNCAP)	
$305 or less	125
Greater than $305	330
Massachusetts (BAY STATE CAP)	
Less than $453	223
$453 or greater	453
Washington (WASHCAP)	
Less than $320	210
$320 or greater	425

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

Note: We only use the WASHCAP cutoffs for high and low standard rent allowances in our file editing process. The SUNCAP and BAYSTATECAP cutoffs are listed for reference.

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APPENDIX G

Quality Control Review Schedule

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OMB APPROVED NO. 0584-0299
Expiration Date: 07/31/2019

U.S. Department of Agriculture - Food and Nutrition Service

QUALITY CONTROL REVIEW SCHEDULE

PRIVACY ACT/PAPERWORK REDUCTION ACT. According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0584-0299. The time required to complete this collection is estimated to average 1.056 hours per response, including the time to review instructions, search existing data resources, gather the data needed, and complete and review the information collection. This report is required under provisions of 7 CFR 275.14. This information is needed for the review of State performance in determining recipient eligibility. The information is used to determine State compliance, and failure to report may result in a finding of non-compliance.

Section 1 - Review Summary

1. QC Review Number   2. Case Number   3. State   4. Local Agency   5. Sample Month and Year   6. Stratum

7. Disposition   8. Findings   9. SNAP Allotment Under Review   10. Error Amount   11. Case Classification

Section 2 - Detailed Error Findings

	12. Element	13. Nature	14. Cause	15. Error Finding	16. Error Amount	17. Discovery	18. Verified	19. Occurrence a. Date	b. Time Period
1									
2									
3									
4									
5									
6									
7									
8									

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1

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Section 3 - Household Characteristics

20. Most Recent Cert. Action
    Month, Day, Year

21. Type of Action

22. Length of Cert. Period
    #of months

23. Allotment Adjustment

24. Amount of
    Allotment Adjustment

25. Number of
    Household Members

26. Receipt of
    Expedited Service

27. Authorized Representative
    Used at Application

28. Categorical Eligibility

29. Reporting Requirement

Resources:

30. Liquid

31. Property
    (excluding home)

32a. Vehicle

32b. Status
    2nd Vehicle

33. Countable
    Vehicle Assets

34. Other Non-liquid

Income:

35. Gross

36. Net

Deductions:

37. Earned Income

38. Medical

39. Dependent Care

40. Child Support

41. Shelter

42. Homeless

Additional
Information on
Shelter Costs:

43. Rent/Mortgage

44. Use of SUA
    a. Usage   b. Proration

45. Utilities (SUA or Actual)

2

Mathematica

Section 4 - Information on Each Household Member

46. Person Number	47. SNAP Participation	48. Relation to Head of HH	49. Age	50. Sex	51. Race	52. Citizen Status	53. Edu. Level	54. Employment Status	54. Employment Hours	55. SNAP Work Reg.	56. SNAP E & T	57. ABAWD Status	58. Dependent Care Cost

You may record information on up to 16 individuals using additional pages.

3

Section 5 - Income Identified by Household Member

59. Person Number	Source 1 60. Income Type	61. Amount	Source 2 62. Income Type	63. Amount	Source 3 64. Income Type	65. Amount	Source 4 66. Income Type	67. Amount

You may record income on up to 10 individuals by using additional pages.

Section 6 - Reserved Coding

68.	69.	70.	71.	72.	73.	74.	75.	76.

Section 7 - Optional For State Use

1.

2.

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4.

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