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Current Perspectives on SNAP Participation

**Trends in Supplemental
Nutrition Assistance
Program Participation
Rates: Fiscal Year 2010 to
Fiscal Year 2017**

Final Report

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*Trends in Supplemental Nutrition Assistance
Program Participation Rates: Fiscal Year 2010
to Fiscal Year 2017*

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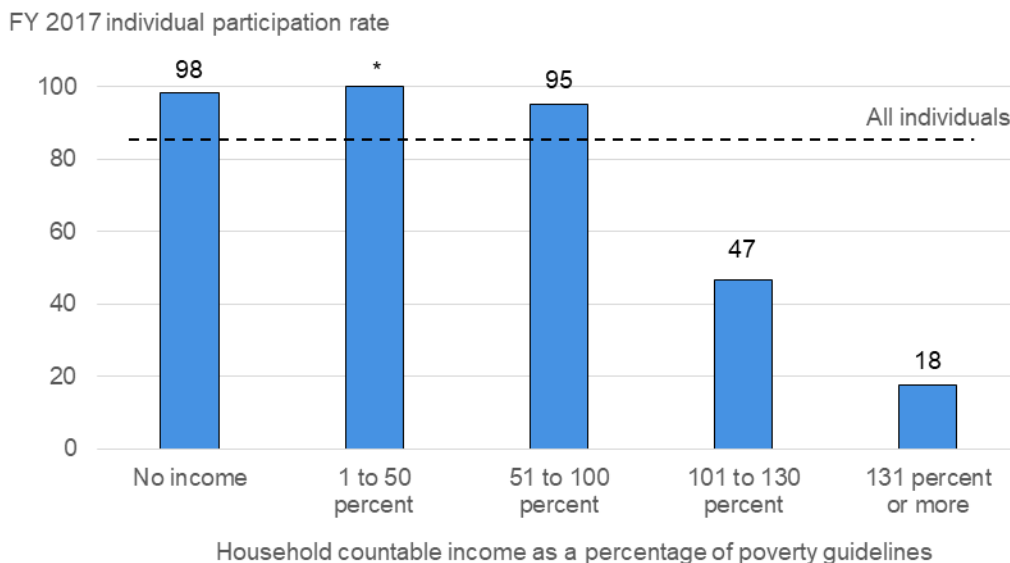
EXECUTIVE SUMMARY

The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance to eligible, low-income individuals and households in need. 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). In an average month in fiscal year (FY) 2017, SNAP provided benefits to 42.0 million people for a total annual benefit cost of \$63.7 billion.

The participation rates presented in this report are estimates of the percentage of individuals eligible for SNAP benefits under Federal income and resource rules who chose to participate in the program. Of the 45 million individuals eligible for SNAP in an average month in FY 2017, nearly 38 million (84 percent) participated, and more than 7 million did not.¹ The participation rate among individuals decreased by 1 percentage point—from 85 percent to 84 percent—from FY 2016 to FY 2017. This participation rate decrease was not statistically significant.

The neediest individuals participate in SNAP at higher rates than other eligible individuals (Figure ES.1). For example, individuals in households with incomes below 51 percent of poverty participated at more than twice the rate of individuals in households with incomes above the poverty line (Figure ES.1). Conversely, eligible individuals in households with incomes over 130 percent of poverty had a very low participation rate—just 18 percent in FY 2017.

Figure ES.1. The neediest individuals participate in SNAP at higher rates than other eligible individuals



Sources: FY 2017 SNAP Program Operations and SNAP QC data, and 2017 and 2018 CPS ASEC data.

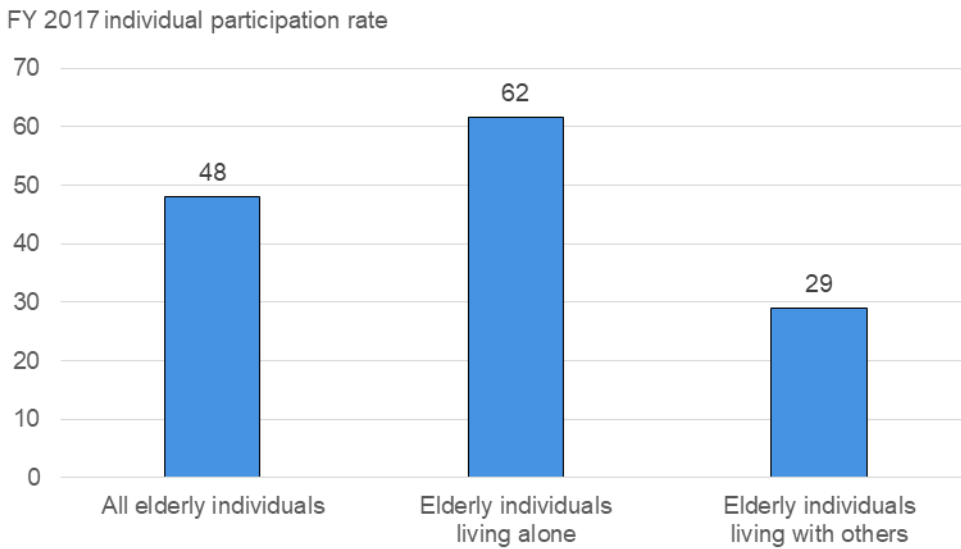
* In this report, we do not report estimated rates over 100 percent. See Appendix D for more information.

SNAP participation rates vary by demographic as well as economic subgroup. The participation rate for children has historically been relatively high; that remained true in FY 2017. Conversely, only 48 percent of eligible elderly adults (age 60 or older) participated in FY 2017 (Figure ES.2). The rate for elderly individuals living with others was particularly low

¹ The FY 2017 participant total presented in this report differs from the official participation total of 42.0 million because it excludes certain individuals, such as those who lived in Guam and the Virgin Islands; those who were categorically eligible under State policies and did not meet the Federal SNAP income or resource rules; or those who received temporary disaster benefits.

—less than half the rate of those living alone. The participation rate was also lower than average for individuals in households with earned income (73 percent).

Figure ES.2. Participation rates for elderly individuals vary by living situation



Sources: FY 2017 SNAP Program Operations and SNAP QC data, and 2017 and 2018 CPS ASEC data.

The approach used to estimate the rates presented in this report produced a series of methodologically consistent rates that allows the reader to observe and evaluate trends in SNAP participation over the period the report covers. We estimated participation rate denominators from Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) data. Because SNAP participation is underreported in survey data, we estimated rate numerators from SNAP Quality Control (QC) data. Differences between the two data sources—such as who is represented in the data, available data on household composition, when and how income is reported, and reported program participation—resulted in some estimated participation rates exceeding 100 percent.

INTRODUCTION

The Supplemental Nutrition Assistance Program (SNAP) provides nutrition assistance to eligible, low-income individuals and households in need. In an average month in fiscal year (FY) 2017, SNAP provided benefits to 42.0 million people for a total annual benefit cost of \$63.7 billion.²

Most individuals whose income and resources fall below certain thresholds are eligible for SNAP. Others are categorically eligible because they live in pure public assistance (PA) households. These are households in which each member receives Supplemental Security Income (SSI); Temporary Assistance for Needy Families (TANF) cash benefits; or, in some States, General Assistance (GA) cash benefits. The participation rates for individuals and households presented in this report are estimates of the percentages of those eligible under Federal income and resource rules who chose to participate in SNAP. The benefit receipt rates indicate the amount of benefits received as a proportion of total benefits that would have been paid if every eligible household had participated. Some individuals may be eligible for SNAP because they meet other, broader State criteria for categorical eligibility. However, those eligible solely based on State criteria are not included in these estimates.

We estimated SNAP participation rate denominators from Current Population Survey (CPS) Annual Social and Economic Supplement (ASEC) data. Because SNAP participation is underreported in survey data, we estimated rate numerators from SNAP Quality Control (QC) data. Differences between these two data sources resulted in some estimated participation rates exceeding 100 percent. The differences include who is represented in the data, when and how income is reported, information on household composition, and reported program participation. In this report, we use an asterisk to indicate estimated participation rates that exceed 100 percent and the associated estimates of eligible individuals, households, or potential benefits. Because of these and other estimation challenges, the rates presented in this report are best used to observe trends over time and differences among subgroups.

Appendix A includes detailed tables showing the participation rates for FY 2017. Appendix B includes tables showing subgroup participation rates for all years examined in this report. Appendix C includes historical SNAP participation rates. Appendices D and E provide detailed explanations of the methodology used to develop the rates and the sampling error of the participation rate estimates, respectively. Appendix F presents historical economic and policy influences on SNAP. Appendix G shows SNAP eligibility policies from 1976 to 2017. Appendix H lists all previous reports in this series.

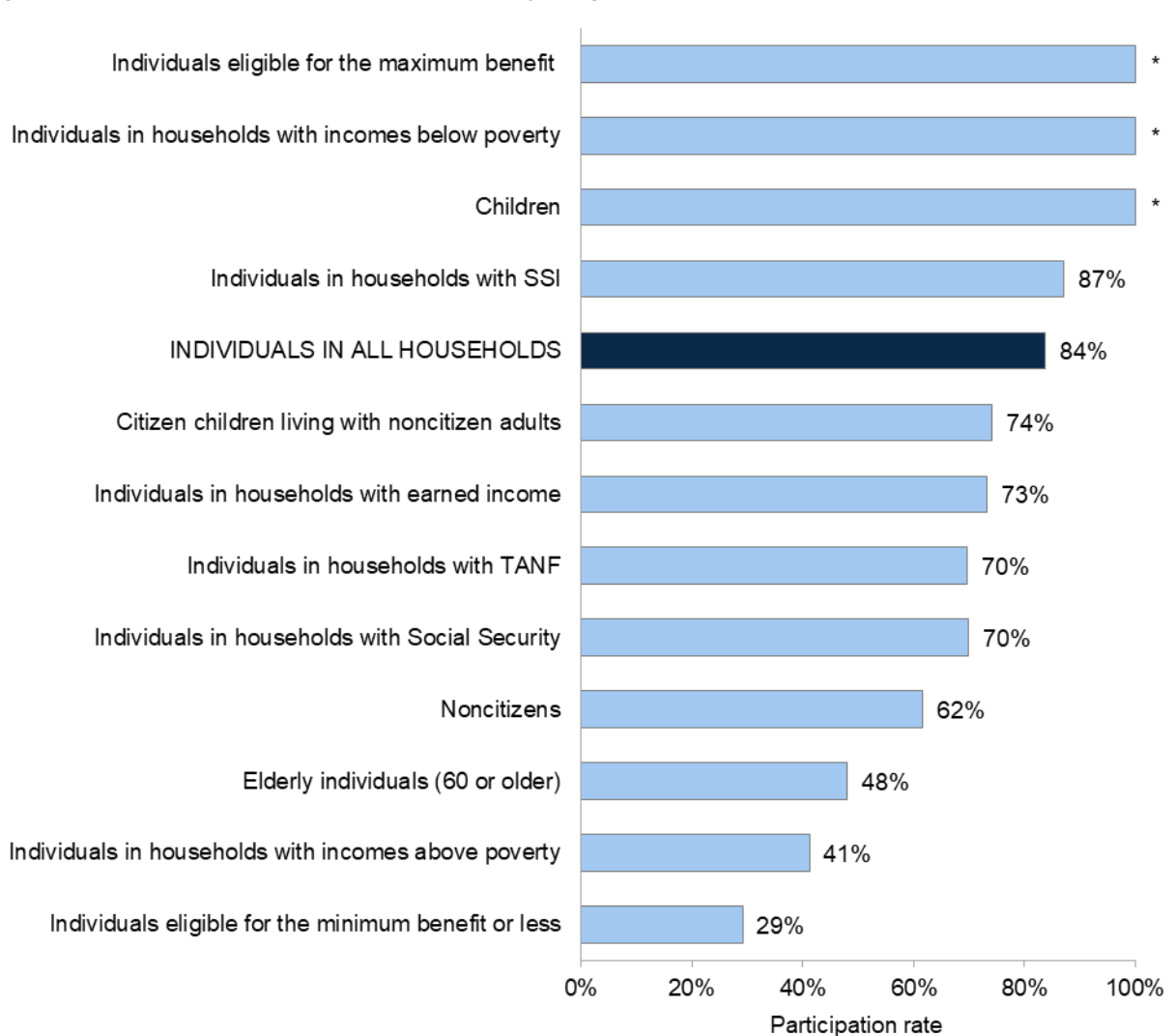
² The FY 2017 participant total presented elsewhere in this report differs from the official participation total of 42.0 million because it excludes certain individuals, such as those who (1) lived in Guam and the Virgin Islands, (2) were categorically eligible under State policies and did not meet the Federal SNAP income or resource rules, or (3) received temporary disaster benefits. See Appendix D for more information.

ESTIMATED PARTICIPATION RATES FOR FY 2017

Of the 45 million individuals eligible for SNAP in an average month of FY 2017 under Federal rules, nearly 38 million actually participated (Table 1).³ The individual participation rate was 84 percent, whereas the household rate was 88 percent—4 percentage points higher.

SNAP participation rates varied by demographic and economic subgroup (Table 2, Table 3, and Figure 1). Historically, the neediest individuals have participated at higher rates than other eligible individuals. This pattern continued in FY 2017; an estimated 95 percent of individuals in households with incomes between 51 and 100 percent of poverty participated, compared to only 41 percent in households with incomes greater than 100 percent of poverty. Additionally, only 29 percent of individuals eligible for the minimum benefit or less participated in FY 2017.⁴

Figure 1. Individual participation rate estimates, by subgroup, FY 2017



Sources: FY 2017 SNAP Program Operations and SNAP QC data, and 2017 and 2018 CPS ASEC data.

* In this report, we do not report estimated rates over 100 percent. See Appendix D for more information.

³ All tables are presented at the end of the main text.

⁴ The minimum benefit is applicable only to one- and two-person households.

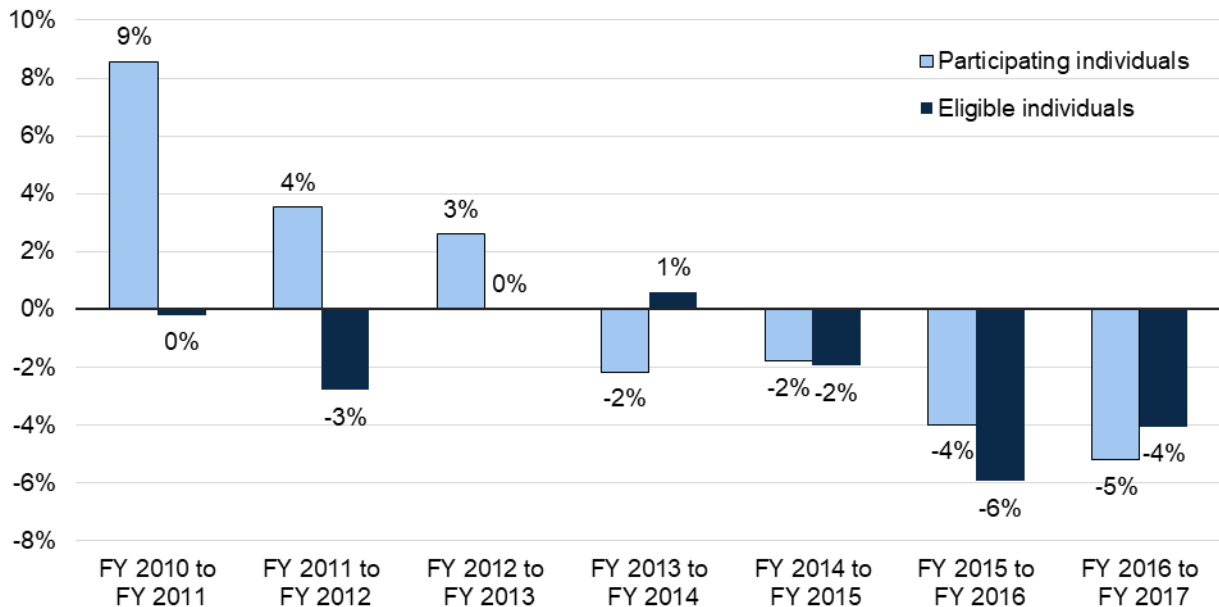
Elderly individuals (age 60 or older) typically participate in SNAP at lower than average rates—48 percent in FY 2017. Among elderly individuals, the FY 2017 participation rate for those living alone (62 percent) was more than twice the rate of those living with others (29 percent) (Table 2).

TRENDS IN PARTICIPATION RATES FROM FY 2010 TO FY 2017

The participation rate among eligible individuals did not have a statistically significant change between FY 2016 and FY 2017, although it did decrease by one percentage point to 84 percent (Tables 2 and 3). The participation rate in FY 2017 was 12 percentage points higher than the rate in FY 2010. Most of the increase in this time period occurred between FY 2010 and FY 2012, when the participation rate increased by 11 percentage points, from 72 percent to 83 percent. For the remainder of the period, the overall participation rate fluctuated between 83 percent and 85 percent.

The number of SNAP participants decreased by 5 percent between FY 2016 and FY 2017, the largest percentage decrease since FY 2010 (Table 4; Figure 2). This decrease followed a large increase in the number of SNAP participants during the first few years of the period and a decrease in the number of SNAP participants for the remainder of the period. The large increase in the number of participants between FY 2010 and FY 2013 may be attributable in part to long-term unemployment associated with the slow economic recovery, as well as continued efforts to facilitate access to the program. The decrease in the number of participants since FY 2013 may be partially attributable to improving economic conditions for low-income households as well as State reductions in time limit waivers for adults age 18-49 without disabilities living in childless households; such a decrease in SNAP participation had been seen in previous periods of recovery from economic recession. Overall, the number of SNAP participants in FY 2017 was within 1 percent of the number in FY 2010.

Figure 2. Percentage change in participating individuals and eligible individuals, FY 2010 to FY 2017



Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

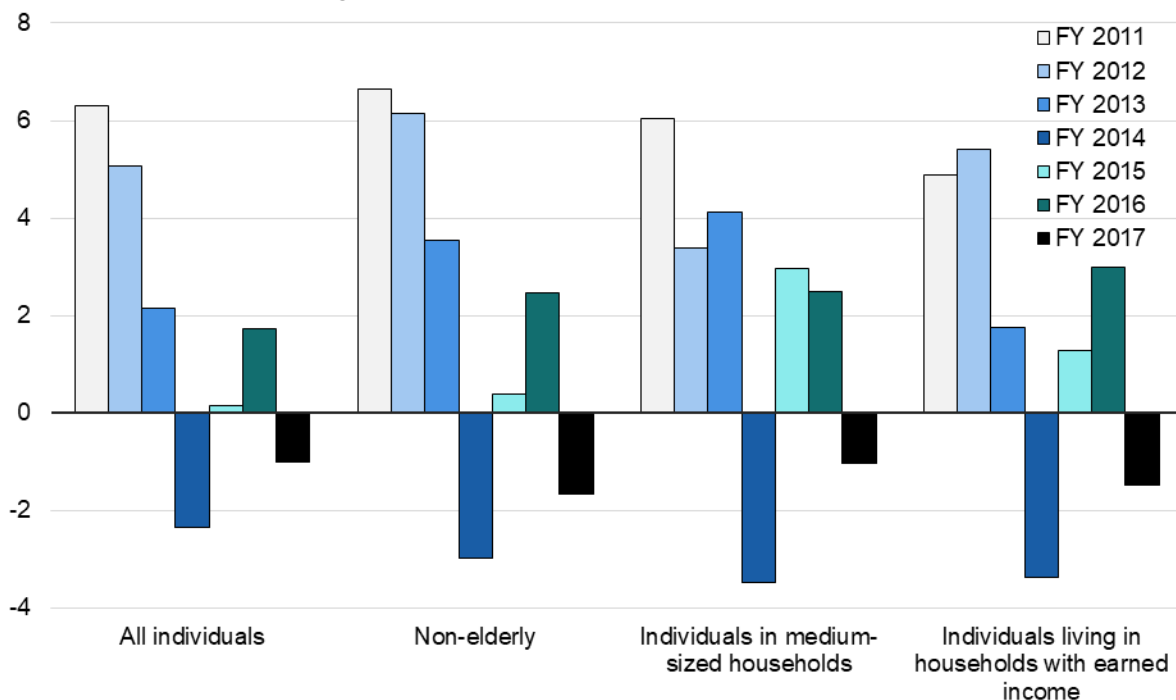
The number of eligible individuals decreased by 4 percent between FY 2016 and FY 2017 (Table 4; Figure 2). Eligibility also decreased in FY 2012 (3 percent), FY 2015 (2 percent), and FY 2016 (6 percent); in other years since FY 2010, eligibility essentially remained unchanged. Overall, the number of eligible individuals decreased by 14 percent between FY 2010 and FY 2017.

TRENDS IN PARTICIPATION RATES FOR SUBGROUPS

Similar to the overall participation rate, most subgroups did not experience a statistically significant change in their participation rate between FY 2016 and FY 2017. However, SNAP participation rates vary by some demographic and economic subgroups.

Some subgroups experienced trends similar to those for the overall participation rate between 2010 and 2017. Groups that experienced changes in participation rates from FY 2010 to FY 2017 that closely followed the trend in the overall participation rate include non-elderly adults, individuals in medium-sized households (three or four members), and individuals living in households with earned income. As shown in Figure 3, rates for these groups increased during the first three years, decreased in FY 2014, increased for the next two years, and then decreased in FY 2017. However, the magnitude of changes differed for some of the subgroups. For example, compared to other groups included in the figure, individuals in medium-sized households experienced the smallest percentage point change in the participation rate in FY 2012 (+3 points) and largest percentage point change in FY 2013 (+4 points), FY 2014 (-4 points), and FY 2015 (+3 points).

Figure 3. Change in participation rates for all individuals, non-elderly, individuals living in medium-sized households, and individuals living in households with earned income, FY 2010 to FY 2017



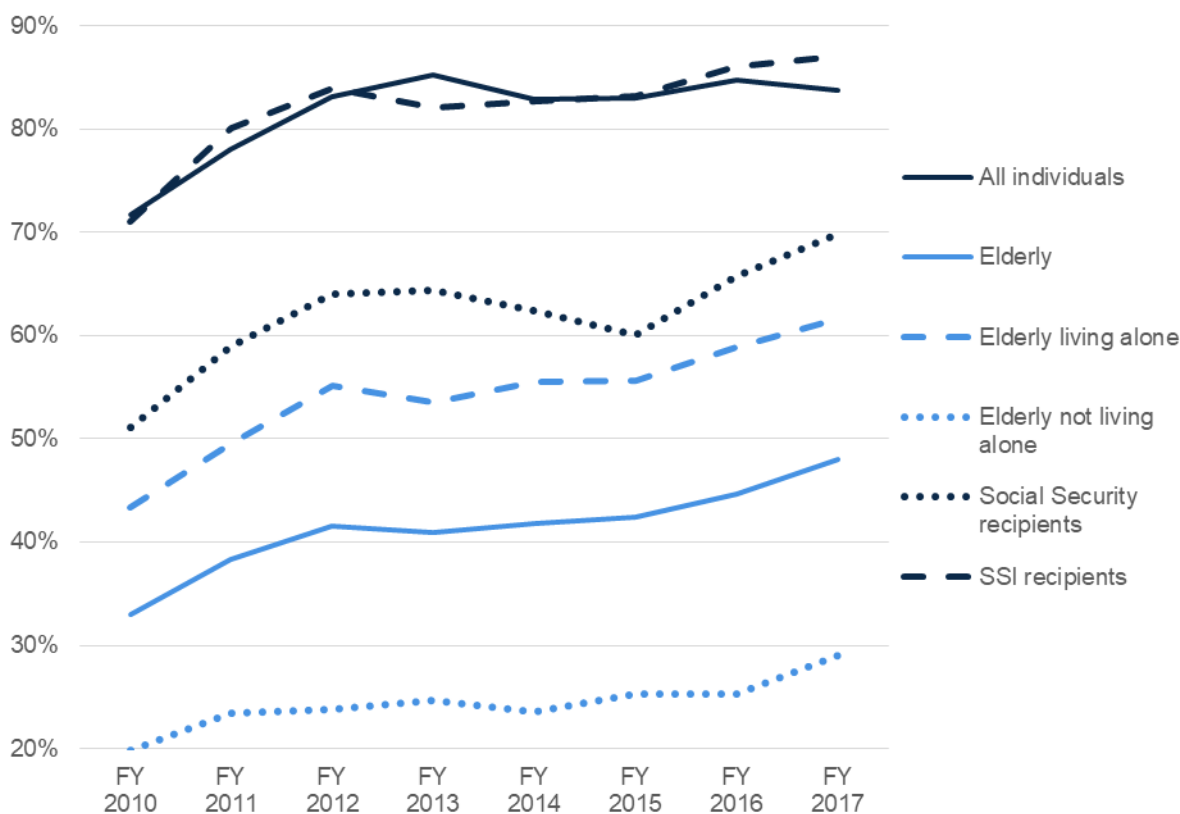
Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Trends in the participation rates for other subgroups followed a similar pattern, with slight deviations. For example, participation rates for individuals receiving the minimum benefit or less

or with incomes between 51 and 100 percent of poverty began fluctuating in FY 2013—a year earlier than the overall rate (Table 2).

Overall, the participation rate among elderly individuals, Social Security recipients, and SSI recipients increased to the highest level in the period examined in this report by FY 2017 (Figure 4). This increase occurred for all elderly individuals, as well as the subgroups of elderly individuals not living alone and elderly individuals living alone. It also occurred for Social Security recipients and SSI recipients, groups that include many elderly individuals. The increase in the participation rate from FY 2016 to FY 2017 was statistically significant for elderly individuals not living alone and Social Security recipients and was not statistically significant for elderly individuals living alone and SSI recipients (Tables 2 and 3; Figure 4).

Figure 4. Participation rates for all individuals, elderly individuals, elderly individuals living alone, elderly individuals not living alone, Social Security recipients, and SSI recipients, FY 2010 to FY 2017

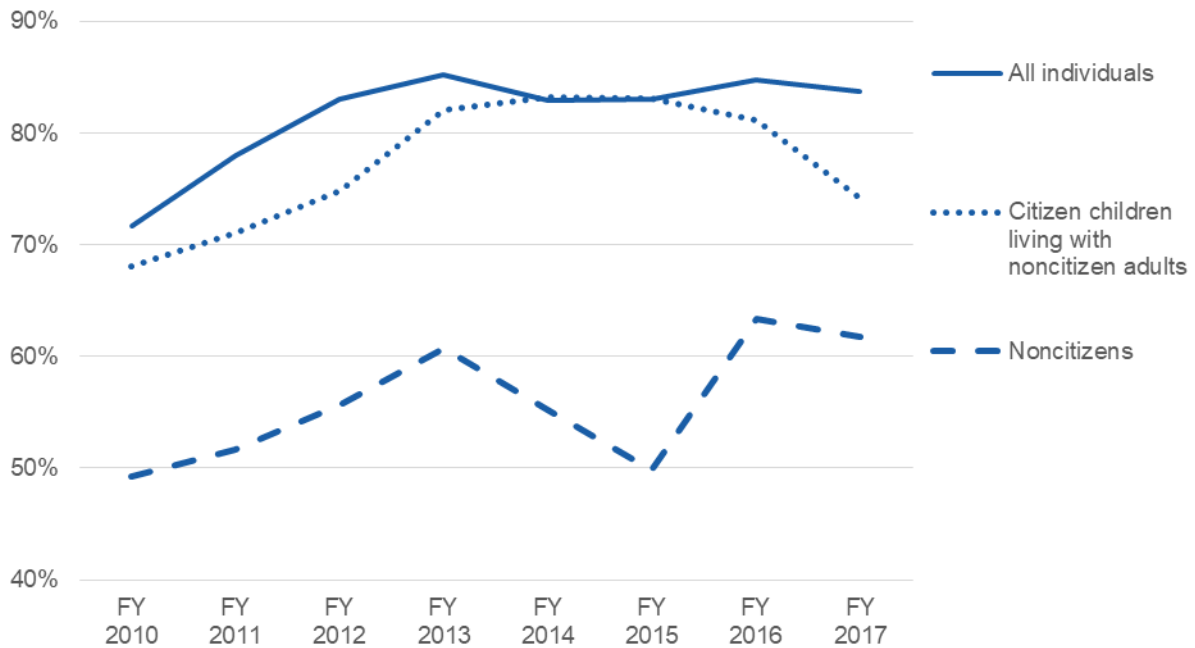


Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

The participation rates for two related subgroups, noncitizens and citizen children living with noncitizen adults, experienced differing trends from the overall participation rate and from each other (Figure 5). Unlike the individual participation rate, the rate for citizen children living with noncitizen adults exhibited a statistically significant decrease from FY 2016 to FY 2017 after mirroring the overall individual participation rate through FY 2015 and showing a decrease in FY 2016. This subgroup did not have a statistically significant change in the rate between the beginning and end of the eight-year period. At the same time, the participation rate for eligible noncitizens decreased between FY 2013 and FY 2015 before increasing to its highest levels of the period in FY 2016 and then decreasing slightly in FY

2017.⁵ Although the decrease in the FY 2017 participation rate for noncitizens was not statistically significant, the 13-percentage point increase over the eight-year time period was statistically significant.

Figure 5. Participation rate for noncitizens and citizen children living with noncitizen adults, FY 2010 to FY 2017

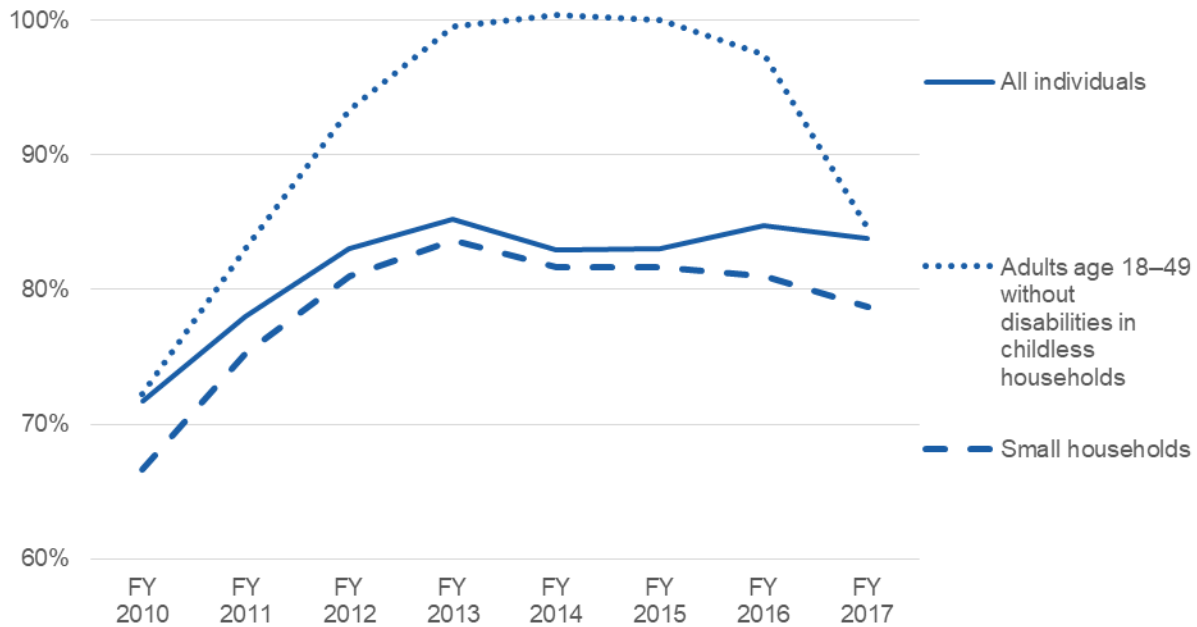


Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Two other subgroups examined in this report, individuals living in small households and adults age 18-49 without disabilities living in childless households, experienced statistically significant decreases in the participation rate in FY 2017 (Figure 6). The decrease in the participation rate for individuals living in small households in FY 2017 was preceded by a pattern similar to the overall participation rate through FY 2015 and a decline in FY 2016. The participation rate for adults age 18-49 without disabilities living in childless households held steady at approximately 100 percent from FY 2013 through FY 2015, decreased slightly in FY 2016, and decreased by a greater amount in FY 2017.

⁵ SNAP eligibility is limited to certain categories of lawfully present noncitizens. See Appendix D, Section A.2.a for more information.

Figure 6. Participation rate for individuals living in small households and adults age 18-49 without disabilities living in childless households, FY 2010 to FY 2017

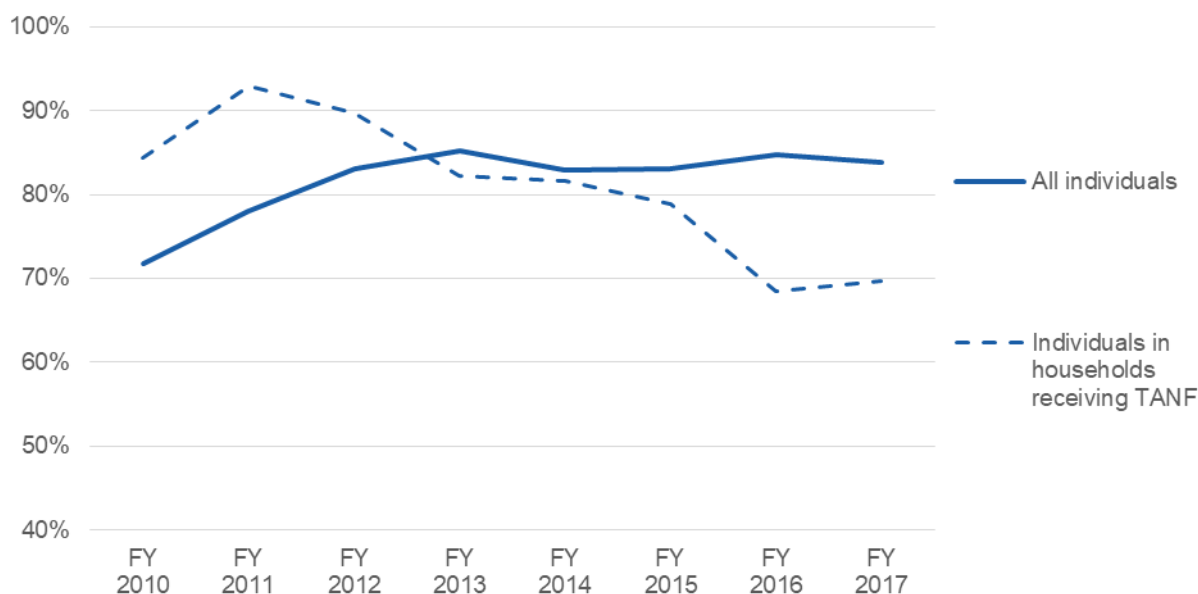


Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown

Most subgroups discussed in the preceding paragraphs had substantial and statistically significant increases in participation rates between FY 2010 and FY 2017, similar to the increase in the overall rate. The participation rates for most of these subgroups increased by 11 percentage points or more in that time period. However, despite not having as large of an increase in percentage points, some groups with relatively low participation rates had larger percentage increases. For example, although the increases in the participation rates for elderly adults not living alone and individuals in households receiving the minimum benefit or less were 9 and 6 percentage points, respectively, the percentage increase over the time period was more than 20 percent. Elderly adults living alone experienced a similarly large increase in participation rate—in both percentage points and percentage—between FY 2010 and FY 2017. One exception as noted above was citizen children living with noncitizen adults. This subgroup did not experience a statistically significant change from FY 2010 to FY 2017 and experienced a less substantial percentage increase over the time period.

In contrast to the overall increase in participation rates from FY 2010 to FY 2017 that most subgroups experienced, TANF recipients had decreasing rates during most of this period, after an initial increase between FY 2010 and FY 2011. Notably, this subgroup participated at a higher-than-average rate before FY 2013 but at a lower-than-average rate each year from FY 2013 onward. The FY 2017 rate stood at 70 percent, 15 percentage points lower than the subgroup’s rate at the beginning of the time period (Figure 7).

Figure 7. Participation rates among all individuals and individuals receiving TANF, FY 2010 to FY 2017



Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Several other subgroups experienced a non–statistically significant increase in the individual participation rate from FY 2016 to FY 2017; rates for these subgroups generally increased overall between FY 2010 and FY 2017. Individuals living in large households, in households with incomes between 101 and 130 percent of poverty, and in households receiving between 1 and 50 percent of the maximum benefit experienced increases in the participation rate between FY 2010 and FY 2012, decreases through FY 2014 or FY 2015, and increases back to FY 2012 levels in FY 2016 or FY 2017. The participation rate for individuals with income above 130 percent of poverty held steady from FY 2013 to FY 2015 before fluctuating in the last two years of the period. The FY 2017 participation rate for these groups was between 7 and 10 percentage points higher than their FY 2010 rates.

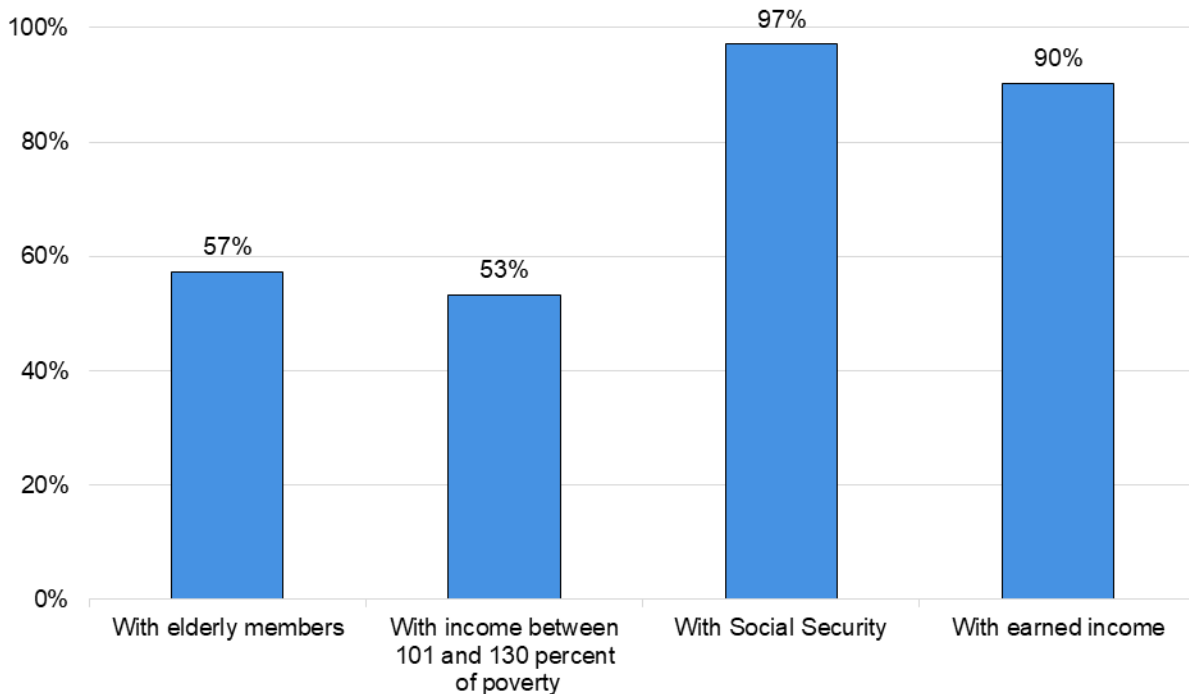
ESTIMATED BENEFIT RECEIPT RATES IN FY 2017

We calculated the benefit receipt rates by dividing benefits received by participating individuals or households by potential benefits to eligible individuals or households, respectively. Because individuals eligible for larger benefits tend to participate in SNAP at higher rates than those eligible for smaller benefits, prorated benefit receipt rates are higher than individual participation rates (Table 5). Among age groups, elderly individuals had the lowest individual or prorated benefit receipt rate (66 percent), although elderly individuals living alone had a much higher benefit receipt rate (92 percent) than those living with others (33 percent). Among non-elderly adults, those who were not employed had a higher benefit receipt rate than those who were employed.

Households with elderly members and those with household incomes between 101 and 130 percent of poverty had among the lowest benefit receipt rates (57 percent and 53 percent, respectively) (Table 6 and Figure 8). Households with earned income received approximately 90 percent of the benefits for which they were eligible; those receiving Social Security benefits received approximately 97 percent. Although benefit receipt rates tend to be higher than

household participation rates, this was not always the case in FY 2017. Households with non-elderly adults with disabilities as well as TANF recipients had lower benefit receipt rates (89 percent and 77 percent, respectively) than household participation rates (95 percent and 81 percent, respectively).

Figure 8. Household benefit receipt rates for selected subgroups, FY 2017



Sources: FY 2017 SNAP Program Operations, FY 2017 SNAP QC, and 2017 and 2018 CPS ASEC data.

METHODOLOGY

The denominator of the participation rate is the average monthly number of SNAP-eligible individuals during the 12 months of the fiscal year (October to September). We estimated the number of eligible individuals with a microsimulation model using two combined years of CPS ASEC data to simulate SNAP eligibility in an average month within the fiscal year. Because the CPS ASEC collects household income data for the previous calendar year, for the FY 2017 estimates we used data from the 2017 CPS ASEC to simulate October to December 2016 and data from the 2018 CPS ASEC to simulate January to September 2017.

In the simulation procedure, we applied Federal SNAP eligibility policies to each household in the CPS ASEC. These policies included SNAP household formation rules, gross and net income thresholds, and resource limits. We also considered State-specific policies on vehicle assessment when determining household resources. We imputed some information unavailable in the CPS ASEC, such as citizenship status, net income amounts, and resource eligibility. The methodology is described in more detail in Appendix D.

The numerator of the SNAP participation rate is the average monthly number of participants during the 12 months of the fiscal year. We based the estimates of participants for FY 2017 on the FY 2017 SNAP QC data file. This file is an edited version of the raw data file generated by

the SNAP Quality Control System and contains data on the demographic and economic characteristics of a sample of participating households.

We used the FY 2017 SNAP Statistical Summary of Operations (Program Operations) to weight the SNAP QC data. The Program Operations data provide counts of individuals and households issued benefits and the total dollar value of benefits in each month of the fiscal year. Before weighting, we adjusted the Program Operations data to exclude participants who received temporary disaster benefits in the wake of events such as hurricanes and floods that receive a Major Disaster Declaration with Individual Assistance, because these participants are not included in the SNAP QC data. In FY 2017, we removed approximately 75,000 people who received temporary disaster benefits from the average monthly individual totals. In addition, we removed approximately 557,000 individuals who received benefits in error from the FY 2017 participation numbers because this group is also not included in the SNAP QC data. These two groups amounted to approximately 1.5 percent of all participants.

We also excluded 3.6 million categorically eligible participants from the official rates because they did not meet the Federal SNAP income or resource rules. Because limitations of the SNAP QC data prevent us from identifying participating households with resources above the Federal limits, we used a regression equation based on data from the Survey of Income and Program Participation (SIPP) to predict resource ineligibility. Finally, we removed households in Guam and the Virgin Islands because they were not included in the CPS ASEC and thus are not part of the eligible totals.

Table 1. Estimated individual and household participation rates and benefit receipt rates, FY 2017

	Participating (000)	Eligible (000)	Participation rate (percent) with 90 percent confidence interval
Individuals	37,837	45,164	84 +/- 1.3
SNAP households	18,620	21,269	88 +/- 1.2
Benefits (in dollars)	4,783,394	*	*

Sources: FY 2017 SNAP Program Operations, FY 2017 SNAP QC, and 2017 and 2018 CPS ASEC data.

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received temporary disaster benefits or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table 2. Estimated SNAP individual participation rates by characteristics, FY 2010 to FY 2017

	Individual participation rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
All individuals	72	78	83	85	83	83	85	84
Household size								
Small (1 to 2 members)	67	75	81	84	82	82	81	79
Medium (3 to 4 members)	76	82	86	90	86	89	92	91
Large (5 or more members)	74	76	83	80	79	75	81	84
Age								
Children (17 or younger)	89	96	*	*	*	*	*	*
Non-elderly adults (18-59)	72	79	85	88	85	86	88	86
Elderly individuals (60 or older)	33	38	42	41	42	42	45	48
Living alone	43	50	55	54	56	56	59	62
Not living alone	20	23	24	25	23	25	25	29
Adults age 18-49 without disabilities in childless households^a	72	83	93	*	*	*	97	84
Noncitizens^b	49	52	56	61	55	50	63	62
Citizen children living with noncitizen adults^c	68	71	75	82	83	83	81	74
Household countable income source^d								
Earned income	62	67	72	74	70	72	75	73
TANF	84	93	90	82	82	79	68	70
SSI benefits	71	80	84	82	83	83	86	87
Non-elderly	71	83	86	85	85	86	87	87
Elderly	65	69	75	70	76	72	73	78
Social Security	51	59	64	64	62	60	66	70
Household countable income as a percentage of poverty guidelines								
100 percent of poverty or less	86	93	98	*	*	*	*	*
No income	69	75	83	98	*	*	*	98
1 to 50 percent	*	*	*	*	*	*	*	*
51 to 100 percent	82	87	93	92	87	91	95	95
Greater than 100 percent of poverty	34	41	43	42	38	40	42	41
101 to 130 percent	39	47	51	48	43	45	48	47
131 percent or more	11	16	18	19	19	19	17	18
Household benefit as a percentage of maximum benefit								
Minimum benefit or less	24	26	30	27	26	28	30	29
1 to 50 percent	45	49	52	51	47	48	51	52
51 to 99 percent	80	91	97	97	97	98	*	*
Maximum (100 percent)	88	90	96	*	*	*	*	*

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

^b These estimates do not include noncitizens who are outside the SNAP household but reside in the same dwelling unit.

^c These estimates include citizen children living in a household with a noncitizen adult, regardless of SNAP participation or eligibility of the adult.

^d These income sources are not mutually exclusive.

Table 3. Differences in estimated SNAP individual participation rates and 90-percent confidence intervals by characteristics, FY 2010 to FY 2017 and FY 2016 to FY 2017

	FY 2010 to FY 2017			FY 2016 to FY 2017		
All individuals	12	+/-	1.6†	-1	+/-	1.3
Household size						
Small (1 to 2 members)	12	+/-	2.0†	-2	+/-	1.8†
Medium (3 to 4 members)	14	+/-	4.3†	-1	+/-	4.6
Large (5 or more members)	10	+/-	7.8†	2	+/-	8.2
Age						
Children (17 or younger)	*			*		
Non-elderly adults (18-59)	15	+/-	2.1†	-2	+/-	1.9
Elderly individuals (60 or older)	15	+/-	1.9†	3	+/-	1.8†
Living alone	18	+/-	2.8†	3	+/-	2.8
Not living alone	9	+/-	2.8†	4	+/-	3.1†
Adults age 18-49 without disabilities in childless households^a	12	+/-	5.0†	-13	+/-	5.4†
Noncitizens^b	13	+/-	5.8†	-2	+/-	6.3
Citizen children living with noncitizen adults^c	6	+/-	6.2	-7	+/-	6.6†
Household countable income source^d						
Earned income	11	+/-	2.5†	-1	+/-	2.5
TANF	-15	+/-	7.1†	1	+/-	7.2
SSI benefits	16	+/-	4.6†	1	+/-	4.4
Non-elderly	16	+/-	5.7†	-1	+/-	5.6
Elderly	12	+/-	6.3†	4	+/-	5.8
Social Security	19	+/-	3.1†	4	+/-	2.9†
Household countable income as a percentage of poverty guidelines						
100 percent of poverty or less	*			*		
No income	30	+/-	5.4†	-4	+/-	5.8
1 to 50 percent	*			*		
51 to 100 percent	13	+/-	3.6†	0	+/-	3.7
Greater than 100 percent of poverty	8	+/-	2.2†	-1	+/-	2.4
101 to 130 percent	8	+/-	2.6†	-2	+/-	3.0
131 percent or more	7	+/-	2.3†	1	+/-	2.7
Household benefit as a percentage of maximum benefit						
Minimum benefit or less	6	+/-	2.4†	-1	+/-	2.2
1 to 50 percent	7	+/-	2.2†	1	+/-	2.2
51 to 99 percent	*			*		
Maximum (100 percent)	*			*		

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

† Indicates significance at the .10 level using a two-tailed t-test.

^a With some exceptions, these participants are subject to work requirements and time limits.

^b These estimates do not include noncitizens who are outside the SNAP household but reside in the same dwelling unit.

^c These estimates include citizen children living in a household with a noncitizen adult, regardless of SNAP participation or eligibility of the adult.

^d These income sources are not mutually exclusive.

Table 4. Estimated number of eligible and participating individuals and households, benefits, and participation rates, FY 2010 to FY 2017

	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Participating individuals								
Total (000)	37,482	40,694	42,129	43,231	42,300	41,554	39,904	37,837
Percent change	n.a.	8.6	3.5	2.6	-2.2	-1.8	-4.0	-5.2
Cumulative percent change	n.a.	8.6	12.4	15.3	12.9	10.9	6.5	0.9
Eligible individuals								
Total (000)	52,264	52,161	50,708	50,716	51,026	50,036	47,070	45,164
Percent change	n.a.	-0.2	-2.8	0.0	0.6	-1.9	-5.9	-4.0
Cumulative percent change	n.a.	-0.2	-3.0	-3.0	-2.4	-4.3	-9.9	-13.6
Households (000)								
Participating	17,361	19,221	20,201	20,914	20,620	20,436	19,556	18,620
Eligible	23,268	23,495	23,162	23,212	23,415	23,021	21,982	21,269
Benefits (000)								
Benefits received by participants	5,071,095	5,525,832	5,694,917	5,841,269	5,371,005	5,380,918	5,071,716	4,783,394
Potential benefits to eligibles	6,008,963	6,118,029	5,957,258	*	*	*	*	*
Participation rate (percent)								
Individual rate	71.7	78.0	83.1	85.2	82.9	83.0	84.8	83.8
Household rate	74.6	81.8	87.2	90.1	88.1	88.8	89.0	87.5
Benefit receipt rate (percent)	84.4	90.3	95.6	*	*	*	*	*

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received temporary disaster benefits or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

n.a. = not applicable.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table 5. Estimated participation rates and benefit receipt rates, by person-level demographic characteristics, FY 2017

Demographic characteristic	Individual participation rate (percent)	Prorated benefit receipt rate (percent)
Age		
Children (17 or younger)	*	*
Non-elderly adults (18-59)	86	*
Elderly individuals (60 or older)	48	66
Living alone	62	92
Not living alone	29	33
Noncitizens	62	75
Citizen children living with noncitizen adults	74	90
Employment status of non-elderly adults		
Employed	73	88
Not employed	94	*

Note: An individual's prorated benefits are calculated by dividing the household benefit by the number of people in the household. Benefit receipt rates by individual-level characteristics are calculated by summing the prorated benefits of individuals with the selected characteristic.

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Table 6. Estimated participation rates and benefit receipt rates, by household-level demographic and economic characteristics, FY 2017

Household characteristic	Household participation rate (percent)	Benefit receipt rate (percent)
All households	88	*
Household composition		
Children	*	*
Elderly individuals	50	57
Non-elderly adults with disabilities	95	89
Countable income source		
Earned income	74	90
TANF	81	77
SSI	*	*
Social Security	74	97
Countable income as a percentage of poverty guidelines		
No income	*	*
1 to 50 percent	*	*
51 to 100 percent	*	*
101 to 130 percent	41	53

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

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APPENDIX A

DETAILED PARTICIPATION RATE ESTIMATES FOR FY 2017

Table A.1. Estimated individual and household participation rates and benefit receipt rates, FY 2017

	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
Individuals	37,837,083	45,164,254	83.78
SNAP households	18,620,073	21,268,626	87.55
Benefits	4,783,393,715	*	*

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table A.2. Estimated individual participation rates by household size, FY 2017

	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
Individuals by household size			
1 person	9,917,811	10,287,872	96.40
2 people	6,537,904	10,616,969	61.58
3 people	7,638,699	8,191,024	93.26
4 people	6,228,710	7,070,275	88.10
5 people	4,015,147	4,802,334	83.61
6 or more people	3,498,812	4,195,780	83.39
Individuals in all households	37,837,083	45,164,254	83.78

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table A.3. Estimated individual participation rates by demographic characteristics, FY 2017

Demographic characteristic	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
All individuals	37,837,083	45,164,254	83.78
Age			
Children (17 or younger)	16,722,660	*	*
Preschool-age (0-4)	5,162,850	*	*
School-age (5-17)	11,559,810	*	*
Non-elderly adults (18-59)	16,448,348	19,023,404	86.46
Elderly individuals (60 or older)	4,666,076	9,707,929	48.06
Living alone	3,500,251	5,683,485	61.59
Not living alone	1,165,825	4,024,443	28.97
Adults age 18-49 without disabilities in childless households^a	2,891,101	3,422,292	84.48
Noncitizens	1,591,988	2,578,862	61.73
Citizen children living with noncitizen adults	3,143,280	4,239,780	74.14
Employment status of non-elderly adults			
Employed	4,770,865	6,579,040	72.52
Not employed	11,677,483	12,444,364	93.84
Household composition			
Living with children	25,901,107	27,210,052	95.19
Single-adult household	14,067,776	*	*
Married-head household	6,227,521	9,710,994	64.13
Other households	5,605,810	6,664,181	84.12
Not living with children	11,935,976	17,954,202	66.48
Gender			
Male	16,243,178	19,776,334	82.13
Female	21,593,905	25,387,920	85.06
Metropolitan status			
Urban	31,105,557	37,704,554	82.50
Rural	6,731,527	7,459,701	90.24

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

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^a With some exceptions, these participants are subject to work requirements and time limits.

Table A.4. Estimated individual participation rates by economic characteristics of households, FY 2017

Economic characteristic	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
All individuals	37,837,083	45,164,254	83.78
Household countable income sources			
No earned income	21,607,885	23,017,745	93.87
Earned income	16,229,198	22,146,509	73.28
No TANF	15,429,916	20,188,915	76.43
TANF	799,283	1,957,595	40.83
TANF	2,890,733	4,145,877	69.73
SSI benefits ^a	7,459,438	8,567,617	87.07
Non-elderly	5,444,152	6,267,473	86.86
Elderly	2,098,173	2,698,132	77.76
Social Security	7,546,019	10,802,311	69.86
Countable income as a percentage of poverty guidelines			
100 percent of poverty or less	32,122,130	*	*
No income	5,872,352	5,974,918	98.28
1 to 50 percent	9,904,568	*	*
51 to 100 percent	16,345,210	17,200,513	95.03
Greater than 100 percent of poverty	5,714,953	13,865,523	41.22
101 to 130 percent	5,249,630	11,241,367	46.70
131 percent or more	465,323	2,624,156	17.73
Monthly SNAP benefit			
Minimum benefit or less	1,202,493	4,121,867	29.17
Greater than the minimum to \$100	2,845,987	5,120,142	55.58
\$101 to \$200	9,372,960	*	*
\$201 to \$300	3,681,581	5,135,056	71.70
\$301 to \$400	6,367,502	7,788,522	81.75
\$401 or more	14,366,560	*	*
Benefit as a percentage of maximum benefit			
Low benefits (1 to 50 percent)	9,267,401	17,898,442	51.78
1 to 25 percent	3,543,193	8,997,185	39.38
26 to 50 percent	5,724,208	8,901,257	64.31
High benefits (51 to 99 percent)	15,965,299	*	*
51 to 75 percent	7,634,291	8,964,845	85.16
76 to 99 percent	8,331,007	*	*
Maximum (100 percent)	12,604,384	*	*

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^a Households may receive both non-elderly and elderly SSI income.

Table A.5A. Estimated individual participation rates for individuals living with children, FY 2017

Demographic or economic characteristic	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
Individuals living with children	25,901,107	27,210,052	95.19
Age			
Children (17 or younger)	16,722,660	*	*
Non-elderly adults (18-59)	8,998,286	10,212,187	88.11
Elderly individuals (60 or older)	180,162	564,943	31.89
Household countable income source			
No income	3,317,364	3,397,269	97.65
No earned income	11,347,762	*	*
Earned income	14,553,345	17,902,906	81.29
TANF	2,847,810	4,103,507	69.40
Earned income	797,544	1,936,621	41.18
No earned income	2,050,267	2,166,886	94.62
No TANF	23,053,297	23,106,545	99.77
Earned income	13,755,801	15,966,285	86.16
No earned income	9,297,496	*	*
Social Security	2,528,464	*	*
Countable income as a percentage of poverty guidelines			
100 percent of poverty or less	22,045,006	*	*
No income	3,317,364	3,397,269	97.65
1 to 50 percent	8,575,089	*	*
51 to 100 percent	10,152,554	*	*
Greater than 100 percent of poverty	3,856,101	7,675,349	50.24
101 to 130 percent	3,771,928	6,970,575	54.11
131 percent or more	84,173	704,774	11.94
Earned income as a percentage of poverty guidelines			
100 percent of poverty or less	23,318,922	*	*
No earnings	11,361,557	*	*
1 to 50 percent	4,869,394	*	*
51 to 100 percent	7,087,972	8,678,315	81.67
Greater than 100 percent of poverty	2,582,185	6,130,366	42.12
101 to 130 percent	2,567,136	5,685,878	45.15
131 percent or more	15,049	444,488	3.39

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table A.5B. Estimated individual participation rates for individuals not living with children, FY 2017

Demographic or economic characteristic	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
Individuals not living with children	11,935,976	17,954,202	66.48
Age			
Children (17 or younger)	0	0	0.00
Non-elderly adults (18-59)	7,450,063	8,811,217	84.55
Elderly individuals (60 or older)	4,485,914	9,142,985	49.06
Household countable income source			
No income	2,554,988	2,577,649	99.12
No earned income	10,260,123	13,710,600	74.83
Earned income	1,675,854	4,243,603	39.49
TANF	42,923	*	*
Earned income	1,739	20,973	8.29
No earned income	41,184	*	*
No TANF	11,893,053	17,911,832	66.40
Earned income	1,674,115	4,222,629	39.65
No earned income	10,218,939	13,689,203	74.65
Social Security	5,017,556	8,294,598	60.49
Countable income as a percentage of poverty guidelines			
100 percent of poverty or less	10,077,124	11,764,029	85.66
No income	2,554,988	2,577,649	99.12
1 to 50 percent	1,329,480	1,741,155	76.36
51 to 100 percent	6,192,656	7,445,226	83.18
Greater than 100 percent of poverty	1,858,852	6,190,173	30.03
101 to 130 percent	1,477,702	4,270,792	34.60
131 percent or more	381,151	1,919,382	19.86
Earned income as a percentage of poverty guidelines			
100 percent of poverty or less	11,624,681	16,124,740	72.09
No earnings	10,260,123	13,710,600	74.83
1 to 50 percent	706,249	720,738	97.99
51 to 100 percent	658,309	1,693,402	38.87
Greater than 100 percent of poverty	311,296	1,829,462	17.02
101 to 130 percent	289,113	1,362,604	21.22
131 percent or more	22,183	466,859	4.75

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

n.a. = not applicable

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table A.6. Estimated household participation rates, FY 2017

Household characteristic	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
Household composition			
Children (17 or younger)	7,895,745	*	*
Single-adult	4,731,808	*	*
Married-head	1,399,437	2,215,887	63.15
Other	1,764,500	1,919,335	91.93
No children	10,724,328	13,523,036	79.30
Households containing			
Elderly individuals	4,266,294	8,475,615	50.34
Non-elderly adults with disabilities	4,090,012	4,289,686	95.35
Adults age 18-49 without disabilities and no children ^a	2,692,316	*	*
Noncitizens	1,122,302	1,897,331	59.15
Household countable income source			
Earned income	5,586,681	7,564,930	73.85
TANF	951,943	1,179,713	80.69
SSI	4,481,244	*	*
Social Security	5,189,437	7,013,179	74.00
Countable income as a percentage of poverty guidelines			
No income	3,579,784	*	*
1 to 50 percent	3,795,868	*	*
51 to 100 percent	8,526,762	*	*
101 percent or more	2,717,658	6,552,874	41.47

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

Table A.7. Estimated benefit receipt rates, by household-level demographic and economic characteristics, FY 2017

Household characteristic	Benefits received by participating households (QC)	Potential benefits to eligible households (CPS)	Benefit receipt rate (percent)
All benefits	4,783,393,715	*	*
Household composition			
Children (17 or younger)	3,204,971,354	*	*
Single-adult	1,843,356,663	*	*
Married-head	655,608,200	928,963,198	70.57
Other	706,006,490	*	*
No children	1,578,422,361	928,963,198	70.57
Households containing			
Elderly individuals	571,711,607	997,242,074	57.33
Non-elderly adults with disabilities	781,664,334	881,498,445	88.67
Countable income source			
No earned income	2,990,842,118	*	*
Earned income	1,792,551,597	1,985,740,847	90.27
TANF	385,750,975	501,343,330	76.94
SSI	834,134,119	*	*
Social Security	730,104,177	751,611,222	97.14
Countable income as a percentage of poverty guidelines	725,677,225	751,611,222	97.14
No income	1,053,221,247	*	*
1 to 50 percent	1,570,987,759	*	*
51 to 100 percent	1,821,512,452	*	*
101 to 130 percent	316,095,919	593,485,002	53.26
131 percent or more	21,576,338	57,918,942	37.25
Monthly SNAP benefit			
Minimum benefit or less	17,625,834	56,655,293	31.11
Greater than the minimum to \$100	141,773,029	201,127,244	70.49
\$101 to \$200	1,372,242,417	*	*
\$201 to \$300	334,109,563	436,275,488	76.58
\$301 to \$400	884,813,916	1,013,970,203	87.26
\$401 or more	2,032,828,956	*	*
Benefits as a percentage of maximum benefit			
1 to 25 percent	87,992,996	191,791,209	45.88
26 to 50 percent	382,240,336	565,167,565	67.63
51 to 75 percent	825,274,243	919,422,322	89.76
76 to 99 percent	1,244,820,957	*	*
Maximum (100 percent)	2,243,065,182	*	*

Note: The benefit totals are monthly averages. The benefit totals in this table exclude participants who received disaster assistance, replacement benefits, or who were ineligible for SNAP. The potential benefit totals exclude those ineligible for SNAP under Federal SNAP income or resource rules and some categorically eligible participants who did not meet the Federal SNAP income or resource rules. Total potential benefits to eligible households in this table do not exactly match prorated potential benefits to eligible individuals in Table A.8 because of differences between household weights and the sum of individual weights in the CPS ASEC.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table A.8. Estimated benefit receipt rates, by individual-level demographic characteristics, FY 2017

Demographic characteristic	Prorated benefits received by participating individuals (QC)	Prorated potential benefits to eligible individuals (CPS)	Benefit receipt rate (percent)
All benefits	4,783,393,715	*	*
Age			
Children (17 or younger)	2,084,681,181	*	*
Preschool-age (0-4)	674,144,615	*	*
School-age (5-17)	1,410,536,566	*	*
Non-elderly adults (18-59)	2,193,498,699	*	*
Elderly individuals (60 or older)	505,213,835	767,582,305	65.82
Living alone	393,045,166	429,120,744	91.59
Not living alone	112,168,669	338,461,561	33.14
Adults age 18-49 without disabilities in childless households^a	490,885,632	*	*
Noncitizens	206,602,574	276,249,858	74.79
Citizen children living with noncitizen adults	416,430,000	464,412,064	89.67
Gender			
Male	2,061,478,743	2,082,662,846	98.98
Female	2,721,914,972	*	*
Employment status of non-elderly adults			
Employed	542,571,629	619,814,376	87.54
Not employed	1,650,927,069	*	*

Note: The prorated benefit totals are monthly averages. The benefit totals in this table exclude participants who received disaster assistance, replacement benefits, or who were ineligible for SNAP. The potential benefit totals exclude those ineligible for SNAP under Federal SNAP income or resource rules and some categorically eligible participants who did not meet the Federal SNAP income or resource rules. An individual's prorated benefits are calculated by dividing the household benefit by the number of people in the household. Benefit receipt rates by individual-level characteristics are calculated by summing the prorated benefits of individuals with the selected characteristic. Prorated potential benefits to eligible individuals in this table do not exactly match potential benefits to eligible households in Table A.7 because of differences between household weights and the sum of individual weights in the CPS ASEC.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^aWith some exceptions, these participants are subject to work requirements and time limits.

APPENDIX B

PARTICIPATION RATE ESTIMATES FOR FY 2010 TO FY 2017

Table B.1. Estimated individual and household participation rates and benefit receipt rates, FY 2010 to 2017

	Participating (QC)	Eligible (CPS)	Participation rate (QC/CPS)
Individuals			
FY 2010	37,481,880	52,263,519	71.72
FY 2011	40,693,688	52,160,864	78.02
FY 2012	42,129,048	50,708,090	83.08
FY 2013	43,230,759	50,716,212	85.24
FY 2014	42,300,155	51,025,996	82.90
FY 2015	41,554,023	50,036,073	83.05
FY 2016	39,904,292	47,070,082	84.78
FY 2017	37,837,083	45,164,254	83.78
SNAP Households			
FY 2010	17,360,712	23,268,233	74.61
FY 2011	19,221,395	23,494,729	81.81
FY 2012	20,200,576	23,162,329	87.21
FY 2013	20,914,011	23,211,904	90.10
FY 2014	20,619,887	23,415,261	88.06
FY 2015	20,436,146	23,021,388	88.77
FY 2016	19,556,198	21,982,112	88.96
FY 2017	18,620,073	21,268,626	87.55
Benefits			
FY 2010	5,071,094,843	6,008,962,855	84.39
FY 2011	5,525,831,734	6,118,029,194	90.32
FY 2012	5,694,916,726	5,957,257,523	95.60
FY 2013	5,841,268,819	*	*
FY 2014	5,371,005,381	*	*
FY 2015	5,380,918,063	*	*
FY 2016	5,071,716,084	*	*
FY 2017	4,783,393,715	*	*

Note: Participating and eligible totals represent monthly averages. The participant totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. The eligible totals include only those eligible for SNAP under Federal income or resource rules.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table B.2. Estimated individual participation rates by household size, FY 2010 to FY 2017

	Individual participation rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
All individuals	72	78	83	85	83	83	85	84
Individuals by household size								
1 person	81	90	98	100	*	*	98	96
2 people	55	63	66	69	65	64	65	62
3 people	77	83	87	91	87	89	89	93
4 people	75	82	84	89	86	90	95	88
5 people	77	79	80	79	82	77	83	84
6 or more people	70	72	85	82	77	73	80	83

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

Table B.3. Estimated individual participation rates by demographic characteristics, FY 2010 to FY 2017

	Individual participation rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
All individuals	72	78	83	85	83	83	85	84
Age								
Children (17 or younger)	89	96	*	*	*	*	*	*
Preschool-age (0-4)	89	*	*	*	*	*	*	*
School-age (5-17)	89	93	99	*	*	*	*	*
Non-elderly adults (18-59)	72	79	85	88	85	86	88	86
Elderly individuals (60 or older)	33	38	42	41	42	42	45	48
Living alone	43	50	55	54	56	56	59	62
Not living alone	20	23	24	25	23	25	25	29
Adults age 18-49 without disabilities in childless households^a	72	83	93	*	*	*	97	84
Noncitizens	49	52	56	61	55	50	63	62
Citizen children living with noncitizen adults	68	71	75	82	83	83	81	74
Employment status of non-elderly adults								
Employed	60	69	75	76	70	70	74	73
Not employed	77	83	89	94	93	94	96	94
Household composition								
Living with children	83	89	94	97	93	93	96	95
Single-adult household	*	*	*	*	*	*	*	*
Married-head household	56	59	64	64	61	56	63	64
Other households	77	82	83	90	84	88	88	84
Not living with children	53	60	65	66	66	68	67	66
Gender								
Male	70	76	82	84	82	81	84	82
Female	73	79	84	87	83	84	85	85
Metropolitan status								
Urban	70	76	82	84	83	83	85	82
Rural	82	87	87	91	84	84	85	90

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

Table B.4. Estimated individual participation rates by economic characteristics of households, FY 2010 to FY 2017

	Individual participation rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
All individuals	72	78	83	85	83	83	85	84
Household countable income sources								
No earned income	80	88	93	95	95	94	94	94
Earned income	62	67	72	74	70	72	75	73
No TANF	62	67	73	76	72	73	79	76
TANF	55	69	62	53	54	53	36	41
TANF	84	93	90	82	82	79	68	70
SSI benefits ^a	71	80	84	82	83	83	86	87
Non-elderly	71	83	86	85	85	86	87	87
Elderly	65	69	75	70	76	72	73	78
Social Security	51	59	64	64	62	60	66	70
Countable income as a percentage of poverty guidelines								
100 percent of poverty or less	86	93	98	*	*	*	*	*
No income	69	75	83	98	*	*	*	98
1 to 50 percent	*	*	*	*	*	*	*	*
51 to 100 percent	82	87	93	92	87	91	95	95
Greater than 100 percent of poverty	34	41	43	42	38	40	42	41
101 to 130 percent	39	47	51	48	43	45	48	47
131 percent or more	11	16	18	19	19	19	17	18
Monthly SNAP benefit								
Minimum benefit or less	24	26	30	27	26	28	30	29
Greater than the minimum to \$100	39	48	52	52	53	51	55	56
\$101 to \$200	88	94	*	*	*	*	99	*
\$201 to \$300	57	67	68	67	63	65	74	72
\$301 to \$400	70	78	80	85	87	84	86	82
\$401 or more	82	86	94	99	*	*	*	*
Benefit as a percentage of maximum benefit								
Low benefits (1 to 50 percent)	45	49	52	51	47	48	51	52
1 to 25 percent	31	34	38	38	36	36	39	39
26 to 50 percent	52	58	62	61	58	58	63	64
High benefits (51 to 99 percent)	80	91	97	97	97	98	*	*
51 to 75 percent	66	76	83	79	78	81	88	85
76 to 99 percent	*	*	*	*	*	*	*	*
Maximum (100 percent)	88	90	96	82	*	*	*	*

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

^a Households may receive both non-elderly and elderly SSI income.

Table B.5A. Estimated individual participation rates for individuals living with children, FY 2010 to FY 2017

	Individual participation rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Individuals living with children	83	89	94	97	93	93	96	95
Age								
Children (17 or younger)	89	96	*	*	*	*	*	*
Non-elderly adults (18-59)	75	81	86	89	83	82	88	88
Elderly individuals (60 or older)	30	30	31	31	34	31	31	32
Household countable income source								
No income	62	69	73	84	*	*	99	98
No earned income	*	*	*	*	*	*	*	*
Earned income	70	74	80	83	77	79	83	81
TANF	84	93	90	82	81	78	68	69
Earned income	55	69	63	53	54	53	35	41
No earned income	98	*	*	98	97	94	96	95
No TANF	82	88	95	100	95	95	*	*
Earned income	71	74	82	86	79	82	89	86
No earned income	*	*	*	*	*	*	*	*
Social Security	82	93	*	*	87	84	95	*
Countable income as a percentage of poverty guidelines								
100 percent of poverty or less	94	99	*	*	*	*	*	*
No income	62	69	73	84	*	*	99	98
1 to 50 percent	*	*	*	*	*	*	*	*
51 to 100 percent	93	95	*	*	95	99	*	*
Greater than 100 percent of poverty	46	56	57	55	48	51	54	50
101 to 130 percent	48	59	61	58	50	53	57	54
131 percent or more	17	23	22	21	26	25	17	12
Earned income as a percentage of poverty guidelines								
100 percent of poverty or less	93	*	*	*	*	*	*	*
No earnings	*	*	*	*	*	*	*	*
1 to 50 percent	*	*	*	*	*	*	*	*
51 to 100 percent	71	72	79	82	79	83	87	82
Greater than 100 percent of poverty	33	40	44	44	37	41	44	42
101 to 130 percent	35	42	47	47	38	43	46	45
131 percent or more	3	5	5	9	12	6	6	3

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

Table B.5B. Estimated individual participation rates for individuals not living with children, FY 2010 to FY 2017

	Individual participation rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Individuals not living with children	53	60	65	66	66	68	67	66
Age								
Children (17 or younger)	0	0	0	0	0	0	0	0
Non-elderly adults (18-59)	68	75	83	87	88	90	88	85
Elderly individuals (60 or older)	33	39	42	41	42	43	45	49
Household countable income source								
No income	78	83	97	*	*	*	*	99
No earned income	60	67	73	76	74	76	75	75
Earned income	30	36	41	39	42	40	40	39
TANF	*	*	*	*	99	*	*	*
Earned income	27	36	21	44	9	44	40	8
No earned income	*	*	*	*	*	*	*	*
No TANF	53	59	65	66	66	67	67	66
Earned income	30	36	41	39	42	40	40	40
No earned income	60	67	73	76	74	76	75	75
Social Security	40	46	52	52	53	52	56	60
Countable income as a percentage of poverty guidelines								
100 percent of poverty or less	70	79	85	88	87	90	87	86
No income	78	83	97	*	*	*	*	99
1 to 50 percent	80	99	89	89	86	85	84	76
51 to 100 percent	65	73	79	76	76	78	80	83
Greater than 100 percent of poverty	19	23	29	27	27	27	28	30
101 to 130 percent	24	28	35	32	32	31	34	35
131 percent or more	9	14	17	18	17	17	17	20
Earned income as a percentage of poverty guidelines								
100 percent of poverty or less	57	64	70	72	71	74	72	72
No earnings	60	67	73	76	74	76	75	75
1 to 50 percent	64	88	88	92	99	*	96	98
51 to 100 percent	28	34	39	35	39	39	39	39
Greater than 100 percent of poverty	13	14	19	17	18	16	18	17
101 to 130 percent	16	17	23	21	21	18	22	21
131 percent or more	2	6	6	6	4	6	5	5

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

Table B.6. Estimated household participation rates, FY 2010 to FY 2017

	Household participation rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Household composition								
Children (17 or younger)	90	97	*	*	*	*	*	*
Single-adult	*	*	*	*	*	*	*	*
Married-head	56	59	61	63	60	55	62	63
Other	87	93	91	99	95	98	97	92
No children	64	72	79	81	80	82	80	79
Households containing								
Elderly individuals	35	41	44	43	44	45	48	50
Non-elderly adults with disabilities	76	84	89	93	91	90	93	95
Adults age 18-49 without disabilities and no children ^a	87	100	*	*	*	*	*	*
Noncitizens	50	51	55	60	55	51	59	59
Household countable income source								
Earned income	62	69	73	76	74	74	76	74
TANF	95	*	98	94	92	91	81	81
SSI	86	93	97	98	99	*	*	*
Social Security	52	60	66	66	65	65	71	74
Countable income as a percentage of poverty guidelines								
No income	84	91	*	*	*	*	*	*
1 to 50 percent	*	*	*	*	*	*	*	*
51 to 100 percent	85	92	98	96	93	97	*	*
101 percent or more	32	38	42	42	39	40	42	41

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

Table B.7. Estimated benefit receipt rates, by household-level demographic and economic characteristics, FY 2010 to FY 2017

	Benefit receipt rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
All benefits	84	90	96	*	*	*	*	*
Household composition								
Children (17 or younger)	90	96	*	*	*	*	*	*
Single-adult	*	*	*	*	*	*	*	*
Married-head	59	63	65	69	69	62	70	71
Other	90	91	94	*	*	*	*	*
No children	73	80	87	93	97	99	95	94
Households containing								
Elderly individuals	40	44	46	45	49	49	51	57
Non-elderly adults with disabilities	67	76	79	84	84	81	82	89
Countable income source								
No earned income	92	98	*	*	*	*	*	*
Earned income	74	79	85	91	89	90	95	90
TANF	85	93	90	87	87	82	75	77
SSI	82	92	96	96	*	*	*	*
Social Security	65	73	77	82	86	80	87	97
Countable income as a percentage of poverty guidelines								
No income	72	78	86	*	*	*	*	*
1 to 50 percent	*	*	*	*	*	*	*	*
51 to 100 percent	88	94	99	*	99	*	*	*
101 to 130 percent	44	50	55	52	50	53	57	53
131 percent or more	23	23	27	33	41	37	34	37
Monthly SNAP benefit								
Minimum benefit or less	24	25	30	28	27	30	32	31
Greater than the minimum to \$100	47	58	62	64	68	65	69	70
\$101 to \$200	*	*	*	*	*	*	*	*
\$201 to \$300	58	70	73	71	68	71	78	77
\$301 to \$400	76	83	84	92	95	90	92	87
\$401 or more	86	89	95	*	*	*	*	*
Benefits as a percentage of maximum benefit								
1 to 25 percent	35	38	42	44	42	41	44	46
26 to 50 percent	54	61	64	64	60	61	66	68
51 to 75 percent	68	79	85	82	80	84	93	90
76 to 99 percent	*	*	*	*	*	*	*	*
Maximum (100 percent)	93	*	*	*	*	*	*	*

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Note: Benefit receipt rates by individual-level characteristics are calculated by summing the prorated benefits of individuals with the selected characteristic.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

Table B.8. Estimated benefit receipt rates, by individual-level demographic characteristics, FY 2010 to FY 2017

	Benefit receipt rate (percent)							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
All benefits	82	88	94	*	*	*	*	*
Age								
Children (17 or younger)	93	*	*	*	*	*	*	*
Preschool-age (0-4)	96	*	*	*	*	*	*	*
School-age (5-17)	92	97	*	*	*	*	*	*
Non-elderly adults (18-59)	81	88	96	*	*	*	*	*
Elderly individuals (60 or older)	46	51	53	52	57	56	59	66
Living alone	66	71	76	73	83	79	82	92
Not living alone	23	26	26	26	25	29	29	33
Adults age 18-49 without disabilities in childless households^a	93	*	*	*	*	*	*	*
Noncitizens	55	58	62	72	69	63	78	75
Citizen children living with noncitizen adults	78	83	86	*	*	*	*	90
Gender								
Male	80	87	93	*	*	*	*	99
Female	83	89	95	*	*	*	*	*
Employment status of non-elderly adults								
Employed	71	81	88	93	89	89	93	88
Not employed	85	91	98	*	*	*	*	*

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Note: Benefit receipt rates by individual-level characteristics are calculated by summing the prorated benefits of individuals with the selected characteristic.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

APPENDIX C

HISTORICAL SNAP PARTICIPATION RATE ESTIMATES

Table C.1. Estimated number of eligible and participating individuals, households, and benefits, and participation rates, 1976 to 2017

	Eligible (000)			Participating (000)			Participation rates (percent)		
	Individuals	Households	Benefits	Individuals	Households	Benefits	Individuals	Households	Benefits
September 1976 ^a	50,061	16,282	\$1,075,819	15,880	5,308	\$375,461	31.7	32.6	34.9
February 1978	40,175	13,984	934,427	15,387	5,286	398,066	38.3	37.8	42.6
August 1980	36,567	14,042	1,108,330	20,185	7,372	689,381	55.2	52.5	62.2
August 1982	39,364	14,538	1,352,251	20,548	7,487	785,658	52.2	51.5	58.1
August 1984	38,591	14,194	1,386,231	19,990	7,324	841,442	51.8	51.6	60.7
August 1986	40,061	15,273	1,544,833	19,069	7,102	860,472	47.6	46.5	55.7
August 1988	38,166	14,896	1,646,310	18,358	7,016	907,117	48.1	47.1	55.1
August 1990	37,631	14,523	1,905,141	20,396	7,973	1,188,808	54.2	54.9	62.4
August 1991	40,989	15,574	2,229,403	23,364	9,204	1,471,406	57.0	59.1	66.0
August 1992	43,474	16,627	2,491,671	25,759	10,238	1,749,058	59.3	61.6	70.2
August 1993	45,241	17,031	2,515,761	27,260	10,900	1,839,469	60.3	64.0	73.1
August 1994	44,327	17,040	2,473,299	27,207	11,005	1,873,953	61.4	64.6	75.8
September 1994	35,053	15,305	2,028,290	26,229	10,659	1,747,990	74.8	69.6	86.2
September 1995	34,665	14,994	2,017,983	25,213	10,374	1,751,560	72.7	69.2	86.8
September 1996	34,478	15,264	2,060,242	23,874	9,934	1,706,230	69.2	65.1	82.8
September 1997	31,818	14,692	1,913,367	20,365	8,446	1,407,148	64.0	57.5	73.5
September 1998	30,350	14,024	1,836,184	18,152	7,606	1,253,632	59.8	54.2	68.3
September 1999	29,502	13,723	1,779,829	17,081	7,280	1,199,679	57.9	53.0	67.4
FY 1999 ^b	30,857	14,508	1,812,128	17,705	7,481	1,256,625	57.4	51.6	69.3
FY 2000	29,458	14,235	1,741,177	16,701	7,146	1,193,970	56.7	50.2	68.6
FY 2001	31,223	15,107	1,912,260	16,834	7,250	1,240,961	53.9	48.0	64.9
FY 2002(a)	34,388	16,693	2,230,454	18,500	7,951	1,451,229	53.8	47.6	65.1
FY 2002(b)	34,182	15,989	2,144,408	18,478	7,954	1,455,518	54.1	49.7	67.9
FY 2003	36,462	17,070	2,426,022	20,577	8,892	1,712,175	56.4	52.1	70.6
FY 2004	37,342	17,489	2,579,462	23,090	9,991	1,976,344	61.8	57.1	76.6
FY 2005	37,735	17,727	2,765,622	24,510	10,737	2,255,976	65.0	60.6	81.6
FY 2006	36,460	17,124	2,683,513	25,136	11,186	2,346,568	68.9	65.3	87.4
FY 2007	37,167	17,454	2,770,779	25,461	11,427	2,437,438	68.5	65.5	88.0
FY 2008	38,575	17,985	3,012,995	27,229	12,297	2,759,830	70.6	68.4	91.6
FY 2009	44,512	20,330	4,443,998	32,146	14,685	4,040,195	72.2	72.2	90.9

Table C.1. (continued)

	Eligible (000)			Participating (000)			Participation rates (percent)		
	Individuals	Households	Benefits	Individuals	Households	Benefits	Individuals	Households	Benefits
FY 2010	52,264	23,268	6,008,963	37,482	17,361	5,071,095	71.7	74.6	84.4
FY 2011	52,161	23,495	6,118,029	40,694	19,221	5,525,832	78.0	81.8	90.3
FY 2012	50,708	23,162	5,957,258	42,129	20,201	5,694,917	83.1	87.2	95.6
FY 2013	50,716	23,212	*	43,231	20,914	5,841,269	85.2	90.1	*
FY 2014	51,026	23,415	*	42,300	20,620	5,371,005	82.9	88.1	*
FY 2015	50,036	23,021	*	41,554	20,436	5,380,918	83.0	88.8	*
FY 2016	47,070	21,982	*	39,904	19,556	5,071,716	84.8	89.0	*
FY 2017	45,164	21,269	*	37,837	18,620	4,783,394	83.8	87.5	*

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Note: Participating and eligible totals represent monthly averages. There are two estimates for 1994 and 1999 due to revised methodologies for determining SNAP eligibility and two estimates for 2002 due to revised methodologies for determining both SNAP eligibility and the number of participants. The September 1976 to August 1994 estimates are methodologically consistent, as are the September 1994 to September 1999 estimates, the FY 1999 to FY 2002(a) estimates, the FY 2002(b) to FY 2009 estimates, and the FY 2010 to FY 2017 estimates. The FY 2010 to FY 2017 estimates should not be compared with any prior estimates.

The totals in this table do not include participants who received disaster assistance or were ineligible for SNAP. Also excluded are some categorically eligible participants who were not eligible under the Federal rules. See Appendix D for details.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^a The benefit rates for 1976 and 1978 are based on the net benefit amount left after subtracting the amount paid for food stamps (see Table G.3H for a description of the purchase requirement) and thus are consistent throughout all years.

^b All fiscal year numbers are average monthly values.

Table C.2. Change in estimated individual SNAP participation rates, 1988 to 2017

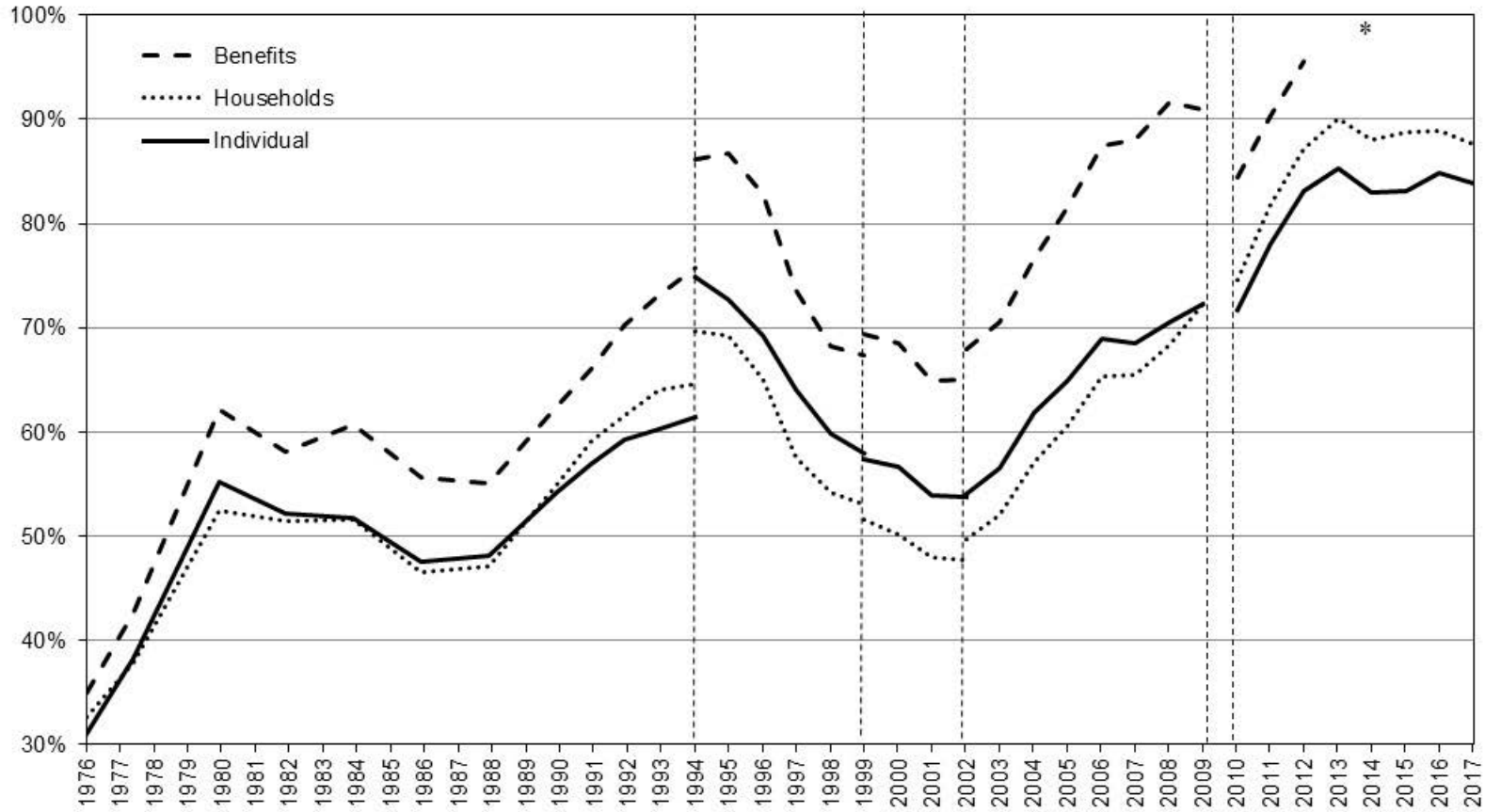
Time period	Change in participation rate	Change in participants (percent)	Change in eligible individuals (percent)
1988 to 1990	6.1 points	11.1	-1.4
1990 to 1991	2.8 points	14.6	8.9
1991 to 1992	2.3 points	10.3	6.1
1992 to 1993	1.0 points	5.8	4.1
1993 to 1994	1.1 points	-0.2	-2.0
1994 to 1995	-2.1 points	-3.9	-1.1
1995 to 1996	-3.5 points	-5.3	-0.5
1996 to 1997	-5.2 points	-14.7	-7.7
1997 to 1998	-4.2 points	-10.9	-4.6
1998 to 1999	-1.9 points	-5.9	-2.8
FY 1999 to FY 2000	-0.7 points	-5.7	-4.5
FY 2000 to FY 2001	-2.8 points	0.8	6.0
FY 2001 to FY 2002(a)	-0.1 points	9.9	10.1
FY 2002(b) to FY 2003	2.4 points	11.4	6.7
FY 2003 to FY 2004	5.4 points	12.2	2.4
FY 2004 to FY 2005	3.1 points	6.1	1.1
FY 2005 to FY 2006	4.0 points	2.6	-3.4
FY 2006 to FY 2007	-0.4 points	1.3	1.9
FY 2007 to FY 2008	2.1 points	6.9	3.8
FY 2008 to FY 2009	1.6 points	18.1	15.4
FY 2010 to FY 2011	6.3 points	8.6	-0.2
FY 2011 to FY 2012	5.1 points	3.5	-2.8
FY 2012 to FY 2013	2.2 points	2.6	0.0
FY 2013 to FY 2014	-2.3 points	-2.2	0.6
FY 2014 to FY 2015	0.1 points	-1.8	-1.9
FY 2015 to FY 2016	1.7 points	-4.0	-5.9
FY 2016 to FY 2017	-1.0 points	-5.2	-4.0

Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Note: There were revisions to the methodology in 1994, 1999, FY 2002, and FY 2010. For years with multiple estimates shown, the rate calculated with the revised methodology is used for comparison with the year following the change in methodology. For example, the original 1994 estimate is used to calculate the change between 1993 and 1994 whereas the revised 1994 estimate is used to calculate the change between 1994 and 1995.

Figure C.1. Trends in SNAP participation rate estimates, 1976 to 2017

Participation rate



Sources: SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown.

Note: There are breaks in the time series in 1994 and 1999 due to revisions in the methodology for determining eligibility and in 2002 and 2009 due to revisions in the methodology for determining eligibility and the number of participants.

* In this report, we do not report estimated rates over 100 percent. See Appendix D for more information.

APPENDIX D
METHODOLOGY

METHODOLOGY

The participation rates presented in this report are based on estimates of the numbers of individuals who were eligible for and participated in SNAP. Because SNAP participation is underreported in survey data, we estimated rate numerators from a different data source than rate denominators: we estimated the number of participants using SNAP QC data and the number of eligible individuals from a microsimulation model based on data from the U.S. Census Bureau's CPS ASEC. The resulting participation rates estimate the percentage of individuals eligible for SNAP under applicable Federal rules who chose to participate in the program.⁶ The rates do not include individuals eligible solely through State expanded categorical eligibility policies.

The estimation approach used for the FY 2010 through FY 2017 rates presented in this report produced a series of methodologically consistent rates, allowing the reader to observe and evaluate trends in SNAP participation over this time period. The FY 2010 through FY 2016 rates in this report are identical to those presented in Farson Gray and Cunnyngham (2017) and Cunnyngham (2018). Because of methodological updates to the FY 2010 through FY 2013 rates presented in the 2016 report (presenting rates through FY 2014), the rates in this report should not be compared to those published before Farson Gray and Cunnyngham (2016).⁷

In the remainder of this appendix, we describe the methodology used to estimate SNAP eligibility (Section A), SNAP participation (Section B), and SNAP participation rates (Section C) for FY 2010 through FY 2017. Section D describes differences between the SNAP QC and CPS ASEC data that resulted in some estimated participation rates exceeding 100 percent. In this report, we use an asterisk to indicate estimated rates over 100 percent and the associated eligibility estimates.

A. Determining the number of SNAP-eligible individuals

The CPS ASEC provides detailed demographic and economic information on individuals potentially eligible for SNAP in all 50 States and the District of Columbia for the previous calendar year. We estimated the number of SNAP-eligible individuals with a microsimulation model that combined two years of CPS ASEC data to simulate SNAP eligibility in an average month within the fiscal year (October to September). For FY 2017, we used data from the 2017 CPS ASEC to simulate October to December 2016 and from the 2018 CPS ASEC to simulate January to September 2017. We derived estimates for previous fiscal years using the two CPS ASEC files appropriate for each of those years. Table D.1 lists the unweighted counts of households in the CPS ASEC files that we used for this series of reports. Table D.2 lists

⁶ In an average month in FY 2017, approximately 93,000 individuals participated in the Food Distribution Program on Indian Reservations (FDPIR). FDPIR participants are not eligible for SNAP, even though many meet the SNAP income and resource eligibility standards. We did not exclude them from estimates of SNAP-eligible individuals, however, because of the substantial error associated with estimating numbers of FDPIR participants in the CPS ASEC. As a result, participation rates are slightly underestimated—by 0.17 percentage points at most.

⁷ We present consistent rates for FY 2002 through FY 2009 in Leftin et al. (2011), for FY 1999 through FY 2002 in Wolkwitz (2007), for September 1994 through September 1999 in Cunnyngham (2002), and for September 1976 through August 1995 in Trippe and Cody (1997).

unweighted counts of households by their probability of having been eligible in FY 2017. A summary of changes in the CPS ASEC over time is presented in Table D.3.

In the simulation procedure, we applied SNAP eligibility guidelines to each household in the CPS ASEC. The SNAP guidelines include household formation rules, resource limits, and income limits. Because several types of information necessary for determining SNAP eligibility are missing from the CPS ASEC data, we imputed some information to improve the model estimates of eligible households. We explain this estimation procedure below.

1. Simulating the composition of the SNAP household

We simulated the formation of SNAP households within each CPS ASEC dwelling unit, following SNAP rules about which individuals must apply for SNAP together. Spouses living together must apply together for SNAP, and parents must apply together with their children under age 22 who reside with them, even if the children have spouses or children of their own. In addition, all individuals who share living quarters and purchase and prepare food together are required to apply together. We assign every member of a CPS ASEC dwelling unit to a SNAP household, even members we later exclude as ineligible, as described below.

The CPS ASEC defines dwelling units according to shared living quarters but does not identify who applies for SNAP together. Therefore, we imputed SNAP household formation following the rules described above. In most cases, we simulated all members of a dwelling unit as being in the same SNAP household; however, for the relatively small percentage of households with multiple families or unrelated individuals, we sometimes simulated two or more groups of people to form separate SNAP households. We did so according to patterns observed in our SIPP-based microsimulation model, which contained information on how dwelling unit members shared food expenses.

According to Federal SNAP eligibility criteria, certain groups of people are ineligible for SNAP. We simulate this ineligibility by excluding the following individuals from SNAP households:

- Simulated SSI recipients in California who were ineligible for SNAP because they received an additional State SSI cash supplement to be used for food instead of SNAP benefits
- Individuals living in group quarters
- Full-time postsecondary students who were age 18-49 and did not have a disability, TANF income, or children younger than age 6 (but not full-time postsecondary students who were either married with children younger than age 12 or working at least 20 hours per week)
- Any individual living in a household headed by a member of the armed forces⁸
- Certain noncitizens, described in Section A.2

⁸ We excluded all individuals living in households headed by members of the armed forces because limitations in the CPS ASEC do not allow us to determine which of these households would be eligible.

- Certain adults age 18-49 without disabilities in childless households subject to work registration who had reached the time limit for receiving SNAP benefits, described in Section A.2

To match household composition patterns in the SNAP QC data file more closely, our SNAP household formation methodology allowed a small number of child-only SNAP households to be headed by an older teen if that individual was not living with a parent and not related to the household head. We also ensured unmarried parents living together formed a single SNAP household with their children.

2. Identifying potentially eligible noncitizens and adults age 18-49 without disabilities in childless households

The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) made most noncitizens ineligible for SNAP and required many adults age 18-49 without disabilities in childless households either to work or face three-month time limits on receiving benefits. Subsequently, the Agricultural Research, Extension, and Education Reform Act of 1998 and the Farm Security and Rural Investment Act of 2002 restored SNAP eligibility to certain categories of lawfully present noncitizens based on their immigration status, length of time legally in the country, work status, age, disability status, and other criteria.

The American Recovery and Reinvestment Act of 2009 (ARRA) allowed States to suspend the time limits on nonworking adults age 18-49 without disabilities in childless households from April 2009 to September 2010. After September 2010, States that had an unemployment rate over 10 percent or did not have a sufficient number of jobs to provide employment were eligible to request further waivers of the time limits. In FY 2010, 47 States and the District of Columbia received a statewide waiver from the time limits. By the end of FY 2017, this number had dropped to 8 States, although many States continued to have partial waivers covering certain counties or cities in their States. States are also allowed to provide discretionary exemptions for up to 15 percent of the State's cases who are subject to the time limit. Further, adults potentially subject to the time limit are exempt if they participate in certain work activities.

Because the CPS ASEC does not include all the information needed to identify the noncitizens and adults age 18-49 without disabilities in childless households who were ineligible for SNAP, we made assumptions (detailed below) about how many and which of these individuals in our sample remained potentially eligible. To retain sample size, we implemented our eligibility assumptions for these populations through weighting adjustments. The weighting adjustments reflect the probability that a household of a certain composition is eligible for SNAP. Specifically, if a household had one noncitizen, we duplicated the record for that household. In the first copy of the record, we retained the noncitizen in the household and multiplied the household weight by the probability that the noncitizen was eligible for SNAP benefits. In the second copy, we excluded the noncitizen from the household and multiplied the household weight by the probability that the noncitizen was ineligible.

a. Identifying potentially eligible noncitizens

SNAP eligibility is limited to certain categories of lawfully present noncitizens, who are also subject to the same income and resource limits as regular participants. Unlawfully present

noncitizens and noncitizen visitors, such as tourists, students, and those on a temporary work visa, are never eligible for SNAP. The following types of lawfully present noncitizens were eligible for SNAP during the time period covered by this report:

- Noncitizens who had lived legally in the United States for more than five years from their date of entry⁹
- Noncitizens receiving disability benefits, regardless of date of entry
- Noncitizen children under age 18, regardless of date of entry
- Noncitizens admitted as refugees or granted asylum or a stay of deportation
- Other groups of noncitizens, including but not limited to active duty members of the U.S. armed forces, honorably discharged veterans, and dependents of service members and veterans

Some noncitizens are brought to the United States by a sponsor who has signed a legally-binding agreement to provide the noncitizen with enough financial support so they do not have to rely on public benefits, typically until the noncitizen has 40 quarters of work history or naturalizes. In most cases, when a noncitizen with a sponsor applies for SNAP, a portion of the sponsor's income and resources is deemed to the noncitizen, meaning the income and resources are considered available to the noncitizen and included when determining their eligibility and benefits. These deeming provision apply even if the sponsor receives SNAP. If the sponsor lives in the same household as the sponsored noncitizen, deeming does not apply because the sponsor's income and resources are already counted.

The CPS ASEC distinguishes between citizens and noncitizens, but does not specify whether a noncitizen is in the United States lawfully. To simulate some noncitizens as unlawfully present, and thus ineligible for SNAP, we randomly assigned unlawfully present immigration status according to estimates of the number of unlawfully present noncitizens in the CPS ASEC.¹⁰ First, we estimated, by State, the probability that a noncitizen was unlawfully present. We defined the probability as the ratio of the estimated number of unlawfully present noncitizens age 18 or older to the total number of foreign-born noncitizens age 18-64 reported in the CPS ASEC. (Because there are very few elderly unlawfully present noncitizens, the numerator of the probability is essentially undocumented noncitizens age 18-64.)¹¹ We then applied the estimated probabilities to individuals age 18-64 to randomly select unlawfully present noncitizens. To improve the consistency of citizenship status within CPS ASEC

⁹ Lawfully-present noncitizens also could qualify for benefits by attaining 40 qualifying quarters of work, including work attained by the applicant's spouse (if attained when the applicant was married to the spouse) or parents (if the parents attained the quarters before the applicant turned 18). However, almost all of the individuals meeting the work requirement would also have met the five-year residency requirement.

¹⁰ We used Dr. Jeffrey Passel's unpublished estimates, prepared for the Pew Hispanic Center, of the number of unauthorized migrants included in the CPS ASEC supplements.

¹¹ Passel and Cohn (2009) estimated that only around 1 percent of unlawfully present noncitizens were age 65 or older.

households, we recoded as citizens any children who were reported to be noncitizens but were born after their mothers arrived in the United States.

We used CPS ASEC information on noncitizens' ages and years of arrival in the United States to identify those potentially eligible for SNAP, including qualified noncitizens who had been in the country for at least five years, were under age 18, or were receiving disability benefits. The CPS ASEC does not include data on whether a noncitizen was admitted as a refugee; to simulate eligibility for refugees, we randomly assigned refugee status by year of entry, according to estimates derived from United States Citizenship and Immigration Services data (Table D.4).

It is also impossible to determine from the CPS ASEC which noncitizens are subject to having a portion of their sponsor's income and resources deemed available, and thus likely either to be ineligible or choose to remove themselves from the SNAP household to avoid negative repercussions for their sponsor. Using data from the New Immigrant Survey, a nationally representative, multicohort, longitudinal study of new legal noncitizens and their children, we estimated that 26.4 percent of lawfully present nonrefugee noncitizens who had been in the country between 5 and 10 years had a sponsor who was required to sign an affidavit of support, and lived in a household separate from at least one sponsor. To simulate the sponsor-deeming provisions, we randomly assigned 26.4 percent of noncitizens who had arrived after December 1997 and had been in the country for less than 10 years as subject to deeming from a sponsor (we used 10 years as an approximation of how long it would take to accumulate 40 quarters of work).

We excluded from the SNAP household those noncitizens who did not meet the eligibility requirements, were unlawfully present, or were subject to deeming. We assigned a prorated portion of excluded noncitizens' income to the SNAP household and included their resources in the household's countable resources.

b. Identifying adults age 18-49 without disabilities in childless households subject to time limits

Many working-age SNAP participants are required to register for work, with some exceptions. SNAP participants age 18-49 who are subject to work registration, living in a SNAP household with no children, and are not pregnant are restricted to three months of SNAP benefits in any 36-month period unless they either (1) work or participate in an employment and training or other work program for at least 20 hours per week, or (2) participate in a workfare program for the number of hours equivalent to their SNAP benefit divided by the minimum wage. They are exempt from the three-month time limit if they live in an area that has been approved for a waiver from the time limit due to high unemployment or insufficient jobs (a waiver area). States are also allowed to provide discretionary exemptions for up to 15 percent of the State's cases who are subject to the time limit.

We identified adults age 18-49 without disabilities in childless households by examining basic demographic characteristics in the CPS ASEC. Because it is not possible to determine from the CPS ASEC which of these individuals were ineligible due to time limits, we randomly assigned a percentage of them to be eligible based on estimates of the eligible proportion in each State. We estimated the proportion that had received no more than three months of benefits while not working, with separate estimates for individuals who participated in SNAP in the past year

and those who did not, based on SIPP data. We estimated the proportions eligible due to residence in a waiver area, participation in an employment and training program, or receipt of the 15 percent exemption based on Federal and State administrative data and, in the case of waiver areas, American Community Survey (ACS) data. Table D.5 presents the percentage of adults age 18-49 without disabilities in childless households imputed to be eligible, by State, year, and past year participant status.

3. Simulating SSI and TANF receipt

Because SSI and TANF are underreported in the CPS ASEC, we simulated SSI and TANF eligibility, participation, and benefits based on program rules and the most recently available administrative data.¹² We imputed resource eligibility for SSI and TANF using equations estimated from our 2011 SIPP-based microsimulation model. We calibrated SSI receipt to administrative totals in the Social Security Administration (SSA) statistical report, using SSA data for December 2017 for the FY 2017 estimates. We calibrated TANF receipt to administrative totals in the Administration for Children and Families (ACF) data file, using ACF data for FY 2016 for the FY 2017 estimates. We adjusted the ACF data so that estimates in the ACF file of TANF households with SNAP were consistent with estimates in the SNAP QC data file of SNAP households with TANF.

4. Categorically eligible SNAP households

Certain households are categorically eligible for SNAP and not subject to Federal income or resource limits. A household is categorically eligible if it is pure PA, meaning all of its members receive SSI, TANF cash benefits, or, where provided, GA. In addition, States are required to confer categorical eligibility on SNAP households receiving benefits or services at least 50 percent funded by TANF or Maintenance of Effort (MOE) funds. States have the option of conferring categorical eligibility on SNAP households receiving benefits or services less than 50 percent funded by TANF/MOE funds. They also may confer categorical eligibility on SNAP households in which one member receives the benefit or service when the State determines that the whole household would benefit.

Many States have broad TANF/MOE-funded programs that provide a simple service or noncash benefit—a brochure on domestic violence, for example—to confer categorical eligibility on a large number of households. These programs are known as broad-based categorical eligibility (BBCE) policies. The number of States implementing BBCE policies varied slightly over the time period covered in this report, rising from 37 in FY 2010 to 41 in FY 2013 and then dropping back to 40 by FY 2017. These totals include the District of Columbia but exclude Guam and the Virgin Islands.

States have some flexibility in setting the eligibility criteria for the TANF/MOE-funded noncash benefit. Some States with BBCE policies have retained the Federal SNAP gross income limit for households without an elderly member or a member with a disability, whereas others have raised the gross income limit for those households to between 160 and 200 percent of the SNAP poverty guidelines. Most States with BBCE policies have eliminated the net income test, although participants must still qualify for a positive benefit, and have eliminated or relaxed the

¹² Simulated SSI and TANF program rules are available upon request.

resource test. Instead of or in addition to BBCE policies, some States have smaller TANF/MOE-funded programs, such as job training or after-school programs, which have specific eligibility requirements and confer categorical eligibility on only the small number of households they serve.

We used simulated TANF and SSI receipt, along with reported GA receipt, to identify pure PA households in the CPS ASEC. Those that qualified for a positive SNAP benefit were included in the denominator of the participation rates presented in this report. We did not include other categorically eligible households that were not eligible under SNAP Federal income and resource rules.

5. Determining income eligibility

To be included in the participation rates presented in this report, most SNAP households must have had income at or below Federal income limits. Pure PA households are not subject to the SNAP income limits. A SNAP household that does not contain an elderly member or a member with a disability must have gross monthly income at or below 130 percent of the Federal poverty guidelines. A household with an elderly member or a member with a disability is not subject to the gross income standard. All households that are not pure PA must have net monthly income at or below 100 percent of the Federal poverty guidelines. The FY 2017 maximum allowable gross and net monthly income standards are presented in Table D.7. Corresponding values for previous years are presented in Appendix G.

Simply dividing annual income by 12 would underestimate the number of eligible individuals in any given month. Therefore, to estimate monthly income, we distributed the annual income amounts reported in the CPS ASEC to simulated months based on the number of weeks worked as reported in the CPS ASEC, income receipt shown by SIPP data, and Bureau of Labor Statistics (BLS) data on employment and unemployment spells. We then summed the estimated monthly income for each person in the household to determine the SNAP household's gross income for each month.

The CPS ASEC does not include information on the expenses deducted from gross income to compute net income, so we modeled net income as a function of the household's demographic and economic characteristics for each year. The net income model for the estimates in this report was based on patterns observed in our SIPP-based microsimulation model. The estimated relationships (the regression coefficients) are presented in Table D.6.

6. Determining resource eligibility

To be included in the participation rates presented in this report, SNAP households that were not pure PA must have had countable resources at or below the applicable SNAP resource limit. From FY 2012 to FY 2017, the resource limit was \$3,250 for households containing an elderly member or a member with a disability. Before FY 2012, the resource limit for these households was \$3,000. Households not containing an elderly member or a member with a disability faced a resource limit of \$2,250 starting in FY 2015 and \$2,000 in previous years.

Under Federal vehicle rules, vehicles with equity of less than \$1,500 or used as a home or to produce income, transport a disabled household member, or carry fuel or water are excluded

from the resource test. In addition, one vehicle per adult household member and any vehicle used by a minor household member to drive to work, school, or training is counted at the fair market value (FMV) in excess of \$4,650. Remaining vehicles are valued at the vehicle's FMV in excess of \$4,650 or equity, whichever is higher.

States are permitted to align their SNAP vehicle rules with those from a TANF/MOE-funded assistance program as long as the rules are less restrictive than Federal SNAP vehicle rules. In FY 2016, almost all States had aligned their vehicle rules with those of other programs and over half had adopted rules that exclude all vehicles from the resource test.

Because resource balances are not reported in the CPS ASEC, we used equations estimated from our 2011 SIPP-based microsimulation model to impute the probability that income-eligible households subject to the resource test were resource eligible and thus fully eligible. For FY 2017, we simulated 29 States as excluding the value of all vehicles when determining resources, and all States except Delaware, Minnesota, North Dakota, and Washington as excluding some or all of the value of at least one vehicle per household. For the remaining States, we modeled eight different vehicle rules to fully capture State-level differences. Because we did not include in the participation rate categorically eligible households not otherwise eligible under SNAP Federal income and resource rules or through receipt of pure PA, the vehicle rules we modeled reflected those used for non-BBCE households in each State.

7. Determining SNAP benefit amount

Monthly SNAP benefits for eligible households are calculated by subtracting 30 percent of a household's net income from the maximum benefit amount to which it is entitled. If a household has zero net income, it receives the maximum SNAP benefit. Eligible one- and two-person households are guaranteed a minimum benefit. Historically, SNAP maximum benefits have been based on 100 percent of the cost of the Thrifty Food Plan (TFP) for a family of four in June of the previous fiscal year, adjusted for household size and geographic areas outside of the contiguous United States. However, as specified in ARRA, the maximum benefits were set to 113.6 percent of the June 2008 TFP from April 2009 through October 2013. The FY 2017 maximum and minimum SNAP benefit amounts are presented in Table D.8. Corresponding values for previous years are presented in Appendix G.

B. Determining the number of SNAP participants

For the participation rate numerator, we used the average monthly number of participants eligible under Federal income and resource rules across the 12 months in the fiscal year. Because SNAP participation is underreported in the CPS ASEC, we estimated the numerator from SNAP QC data files. These files are edited versions of the raw data file generated by the SNAP Quality Control System and contain data on the demographic and economic characteristics of a sample of participating households. We based estimates of SNAP participants in FY 2017 on FY 2017 SNAP QC data and derived estimates for previous years from data for those years. Sample sizes are shown in Table D.9.

We weighted the SNAP QC data files to match adjusted Program Operations counts of individuals and households that were issued SNAP benefits and the total dollar value of these benefits in each month of the fiscal year. We adjusted them to exclude temporary disaster

benefits issued in response to Major Disaster Declarations with Individual Assistance and benefits issued to individuals found to be ineligible because those groups are not represented in the edited SNAP QC data file. We used data from USDA to determine the numbers of households and individuals who received temporary disaster benefits, the amounts of temporary disaster benefits issued to those households, and the amounts of supplemental disaster benefits issued to existing SNAP participants. We reduced the Program Operations counts by the disaster-related counts in the months and States in which the disaster relief occurred.¹³

To adjust the Program Operations counts for benefits issued in error, we first used the raw unweighted SNAP QC data file to calculate disqualification rates for households, individuals, and benefits, and then reduced the Program Operations counts by those percentages, by State and month. The household disqualification rate is the percentage of all participating households that are either ineligible or eligible but do not qualify for a positive benefit. The individual disqualification rate is the percentage of all participating individuals in households not eligible for a positive benefit.¹⁴ The benefit disqualification rate is slightly more complex—it considers over- and under-issuances to eligible households as well as benefits issued to disqualified households.

We removed households in Guam and the Virgin Islands from the participation rate numerator because they are not included in the CPS ASEC. The procedure for estimating the number and characteristics of SNAP participants eligible under Federal income and resource rules is described below.

1. Predicting the resource ineligibility under Federal rules of some households eligible for SNAP through State BBCE policies

We were able to identify and remove from the participation rate numerator categorically eligible households that had income above the Federal income limits. However, QC reviewers do not collect data on resources from households not subject to the resource test, so we were not able to directly identify and remove from the numerator categorically eligible households with resources over the Federal resource limit. Instead, we used a regression equation to predict the probability that households that met the Federal income guidelines and were not pure PA would fail the SNAP Federal resource test, and removed them from the numerator. We estimated the equation using our 2011 SIPP-based microsimulation model and households simulated to participate in SNAP.

In FY 2017, we removed 2.0 million individuals in households with incomes that exceeded the Federal SNAP income limits and an additional 1.6 million in income-eligible households that we estimated would fail the Federal SNAP resource test. In total, we estimated that 3.6 million participants, or 9 percent of total participants, were eligible through BBCE policies and would not otherwise have been eligible for SNAP in FY 2017. We did not include these individuals in the participation rates.

¹³ In FY 2017, approximately 322,000 households not previously receiving SNAP benefits received temporary benefits through the Disaster Supplemental Nutrition Assistance Program.

¹⁴ The individual disqualification rate in FY 2017 was 1.3 percent (approximately 557,000 ineligible participants).

2. Identifying pure PA participating SNAP households

The SNAP QC data file provides individual-level data on receipt of an SSI, TANF, or GA benefit. Whereas an SSI or GA benefit is generally for the person who receives it, TANF benefits may cover additional family members. Because the SNAP QC data do not identify which additional household members are covered by a TANF benefit received by a household member, we used an algorithm to determine program coverage, as follows:

- TANF received by the household head or the head’s spouse covers the household head, spouse, and children (as identified by the relationship codes and ages).
- TANF received by a child of the household head covers that child and other relatives.
- In child-only households, TANF received by anyone in the household covers all of the children.

We identified a household as pure PA if all members were covered by TANF, SSI, or GA, or if it had TANF income and all adults were covered by TANF, SSI, or GA. Although pure PA households are categorically eligible for SNAP and thus exempt from the income and resource tests, they still had to qualify for a positive SNAP benefit to be counted as participating. We included participating pure PA households in the rate numerator.

3. Identifying SNAP household composition

Certain disqualified household members cannot be identified in the CPS ASEC data; thus, we accounted for them in the participation rate denominator. These members could have been disqualified for any of the following reasons:

- Not paying child support or cooperating with a child support agency
- Being an ineligible striker
- Violating program rules or failing to meet work requirements
- Being a fleeing felon, parole or probation violator, or convicted drug felon
- Having a disqualified Social Security number
- Some other unknown reason

We accounted for the presence of these individuals in the denominator by also considering them in the numerator when categorizing SNAP participating households by their composition. For example, we categorized a dwelling unit with two children in the SNAP household and an adult outside of the SNAP household who was disqualified for not meeting work requirements as a “single adult with children” rather than a “child-only” SNAP household. We did not include disqualified members considered for household composition purposes in counts of participating individuals.

Only disqualified SNAP household members whom we could not identify and remove from the denominator were considered for numerator household composition purposes. Disqualified SNAP household members whom we were able to identify in the CPS ASEC data remained

excluded from consideration when defining household composition. For example, a SNAP household with an eligible citizen child inside and an ineligible noncitizen adult outside of it was still considered a child-only SNAP household.

C. Calculating SNAP participation rates

We calculated participation rates by dividing the estimated number of participants by the estimated number of eligible individuals. SNAP participation rates for FY 2017, along with the numbers of participants and eligible individuals used to calculate them, are presented in Appendix A. SNAP participation rates for FY 2010 through FY 2017 are presented in Appendix B.

D. Differences between the CPS ASEC and SNAP QC data

The use of different data sources to estimate participation rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic that are lower than the corresponding estimates of participants. When this happens, estimated participation rates exceed 100 percent. This situation is particularly likely to occur when there are substantial differences between the two data sources.

Differences between the SNAP QC data and the CPS ASEC that may cause rates exceeding 100 percent include (1) who is represented in the data, (2) data on household composition, (3) when and how income is reported, and (4) reported program participation. These differences are described below.

Differences in who is represented in the data. The universe for the participant estimates based on the SNAP QC data is slightly different than that for the eligibility estimates based on the CPS ASEC. For example, homeless individuals, those in group quarters, and some members of the armed forces and their families are included in the SNAP QC data but are not captured in the CPS ASEC. In addition, the CPS ASEC includes individuals who are categorically ineligible for SNAP (such as intentional program violators) but does not contain sufficient information to identify and remove them from the rate denominator. The SNAP QC data, appropriately, do not include categorically ineligible individuals.¹⁵ Finally, certain subgroups in either the SNAP QC file or the CPS ASEC could be either over- or underrepresented due to sampling or weighting methods.

Differences in data on household composition. The SNAP QC file includes information on who applies together for SNAP (the SNAP household) but not on individuals who live in the same dwelling unit but are not part of the SNAP household. Conversely, the CPS ASEC includes information on all individuals in the dwelling unit but not on how these individuals would form SNAP households. To handle the CPS ASEC limitations, we simulated SNAP household formation in those data (described in Section A.1). However, the SNAP QC limitations meant we could not use data on actual SNAP household formation to develop the simulation. Furthermore, differences between the simulated CPS ASEC and actual SNAP QC SNAP household compositions may have affected subgroup participation rates. For instance, the estimated FY 2017 participation rate for SNAP households consisting of one adult and one or more children

¹⁵ In Section B.3 of this appendix, we describe a method we used to lessen the impact of this difference.

was over 100 percent, implying an underestimation of how often this type of eligible SNAP household was formed.

In addition, the time period represented by the SNAP household composition may differ between the two data sets. For example, the SNAP QC data may not capture household composition changes that occur between the certification and sampling dates. Similarly, although the CPS ASEC provides information on household composition at the time of the interview, changes may occur after the calendar year (the CPS ASEC income reporting period) but before the interview date in February, March, or April of the next calendar year.

Differences in reported income. There are several differences in how income is reported in the SNAP QC file versus the CPS ASEC. Two that directly affect the estimation of participation rates are the income reporting period and how income is counted. The SNAP QC file uses a monthly income reporting period, whereas the CPS records annual income. The monthly income estimation process we applied to the CPS ASEC data, described in Section A.5, was intended to minimize the resulting inconsistencies, but the results likely differ from actual monthly income.

Additionally, the SNAP QC file and the CPS ASEC use different methods of counting income. For the SNAP QC sample, countable income is measured according to SNAP certification rules and procedures (for example, pertaining to anticipating income, prospective budgeting, and change reporting). It is reasonable to expect these amounts to differ from those in the CPS ASEC, which are based on households' reports of income they received in the previous year.

Differences in reported program participation. The SNAP QC file includes high quality information on income received by SNAP households from other government programs, such as SSI and TANF. In the CPS ASEC, however, participation in those programs is underreported, so we simulated SSI and TANF eligibility, participation, and benefits as described in Section A. The SSI administrative data we used for calibration are available only on an annual basis and for a single month (December). Furthermore, the TANF data we used for calibration are typically for the previous fiscal year. For these and other reasons, estimates of eligible individuals receiving SSI or TANF benefits are not entirely consistent with corresponding estimates of participants.

Table D.1. Unweighted sample sizes for the CPS ASEC, 1977 to 2018

CPS ASEC year	All households	Analysis year(s)
1977	68,294	1976
1979	68,455	1978
1981	81,451	1980
1983	73,195	1982
1985	74,568	1984
1987	73,843	1986
1989	70,454	1988
1991	75,076	1990
1992	74,236	1991
1993	73,878	1992
1994	73,126	1993
1995	72,152	1994
1996	63,339	1995
1997	64,046	1996
1998	64,659	1997
1999	65,377	1998
2000	51,016	1999
2001	78,054	2000
2002	78,265	2001, 2002
2003	78,310	2002, 2003
2004	77,149	2003, 2004
2005	76,447	2004, 2005
2006	75,939	2005, 2006
2007	75,477	2006, 2007
2008	75,872	2007, 2008
2009	76,185	2008, 2009
2010	76,260	2009, 2010
2011	75,188	2010, 2011
2012	74,383	2011, 2012
2013	74,821	2012, 2013
2014	74,170	2013, 2014
2015	74,257	2014, 2015
2016	69,484	2015, 2016
2017	69,957	2016, 2017
2018	67,909	2017

Table D.2. Median monthly unweighted counts of households, by the probability of being eligible, FY 2017

	Unweighted counts
All households ^a	66,506
Households with a probability of being eligible greater than zero	14,257
Total	
Probability of being eligible	
Greater than 0.0 to 0.25	874
Greater than 0.25 to 0.50	469
Greater than 0.50 to 0.75	2,254
Greater than 0.75 to less than 1.00	8,524
1.00	2,136

Note: Estimates in this table reflect median monthly numbers of CPS households. We calculate a household's probability of being eligible for SNAP benefits by determining whether it passes the appropriate income tests and then estimating the probability of it passing the resource test. In dwelling units with multiple SNAP households, the probabilities of each household are combined into one dwelling unit probability. We multiply the final probability of being eligible by the weight to determine the household's contribution to the total (weighted) number of eligible households.

^a This count of unweighted households is lower than that presented in Table D.1 because it includes only dwelling units that have potentially eligible individuals. Excluded from the table are dwelling units that contain only undocumented noncitizens, California SSI recipients, full-time students, and those living in group quarters or in dwelling units headed by a member of the armed forces.

Table D.3. Changes in the CPS ASEC over time

CPS ASEC year	Data year	Changes in design or weighting from previous year
1979	1978	Changes in metro/nonmetro definitions; new, more detailed income questions introduced for two rotation groups
1980	1979	Definition of adult changed from age 14 to age 15; new concept of families and headship status; new income questions introduced for all rotation groups
1981	1980	New weighting procedure based on 1980 Census introduced that increased the overall population by 2.3% and had a disproportionate impact on Hispanics
1982	1981	Top-coding of income variables increased from \$50,000 to \$75,000
1983	1982	New industry and occupation coding; new definition of group quarters; poverty index modified slightly (deleting the farm/nonfarm dimension)
1984	1983	A second (unofficial) version of the file introduced the revised weighting procedure developed for the March 1985 CPS
1985	1984	Revised weighting procedures (specifically, the control on Hispanics changed, causing a slight increase in poverty with disproportionate impacts on the Hispanic population, male unrelated individuals, and individuals in related subfamilies); changes in the designation of metro/nonmetro, farm/nonfarm, central city/noncentral city status
1986	1985	More metro/nonmetro changes
1987–1988	1986–1987	None
1989	1988	Revised processing procedures increased income overall and reduced poverty; poverty rate changed more severely for blacks and selected age ranges
1990–1992	1989–1991	None
1993	1992	New population controls based on 1990 census and adjustments for the census undercount increased the poverty population; largest increases in poverty rates for Hispanic families, families with single female householders, white children, and individuals in unrelated subfamilies
1994	1993	Survey redesigned to improve the measurement of labor force concepts and wording of questions, and to implement a computerized questionnaire
1995	1994	None
1996	1995	Sample reduction; revised earnings top-coding (instead of top-coding earnings variables at 99,999, top-coded records were assigned the mean earnings for top-coded individuals with similar characteristics); revised race edit and allocation (caution urged when comparing 1995 and 1996 data on race groups)
1997–1999	1996–1998	None
2000	1999	Reweight based on Census 2000
2001	2000	Reweight based on Census 2000, expanded sample size
2002	2001	Weights based on Census 2000
2003	2002	Expanded racial categories
2004–2009	2003–2008	None
2010	2009	Replicate weights added to the file, retroactive to 2005
2011–2013	2010–2012	None
2014	2013	Approximately three-eighths of the sample received redesigned income questions; objectives of redesigning income questions were to improve income reporting, include income from resources, improve resource reporting, increase response rates, and reduce errors resulting from respondent fatigue
2015	2014	Full sample received the redesigned income questions introduced in 2014
2016–2018	2015–2017	None

Note: Each CPS ASEC year corresponds to the preceding data year.

Table D.4. Percentage of noncitizens imputed to be refugees, by analysis year and year of arrival

Year of arrival	Percentage imputed to be refugees, by analysis year					
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
2017	n.a.	n.a.	n.a.	n.a.	n.a.	10
2016	n.a.	n.a.	n.a.	n.a.	11	11
2015	n.a.	n.a.	n.a.	11	11	11
2014	n.a.	n.a.	11	11	11	11
2013	n.a.	11	11	11	11	11
2012	10	11	11	11	11	11
2011	10	10	10	10	10	n.a.
2010	10	10	10	10	n.a.	n.a.
2009	11	11	11	n.a.	n.a.	n.a.
2008	11	11	n.a.	n.a.	n.a.	n.a.
2007	8	n.a.	n.a.	n.a.	n.a.	n.a.
2006	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
2005	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.

Note: The CPS ASEC identifies a two- to three-year range for year of arrival in the United States. Refugee status is not imputed for noncitizens meeting the five-year residency requirement.

n.a. = not applicable.

Table D.5. Percentage of adults age 18-49 without disabilities in childless households imputed to be potentially eligible, by SNAP participation in past year

	Percentage imputed to be eligible (participant / nonparticipant)					
	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Alabama	100	100	100	100	64.3 / 73.8	61.7 / 71.9
Arizona	100	100	100	100	81.2 / 86.2	74.3 / 81.2
Arkansas	100	100	100	100	62.4 / 72.5	61.8 / 72.0
Connecticut	100	100	100	100	91.7 / 93.9	93.4 / 95.1
Florida	100	100	100	100	61.7 / 71.9	62.0 / 72.1
Georgia	100	100	100	100	94.0 / 95.6	89.0 / 91.9
Hawaii	100	100	100	62.3 / 72.4	62.7 / 72.7	62.5 / 72.5
Idaho	100	100	100	100	67.4 / 76.1	67.2 / 75.9
Indiana	100	100	100	100	61.8 / 72.0	61.8 / 71.9
Iowa	100	100	61.7 / 71.9	61.7 / 71.9	61.7 / 71.9	61.7 / 71.9
Kansas	100	100	61.7 / 71.9	61.7 / 71.9	61.8 / 72.0	61.8 / 72.0
Kentucky	100	100	100	100	85.6 / 89.4	85.5 / 89.4
Maine	100	100	100	61.7 / 71.9	61.7 / 71.9	61.7 / 71.9
Maryland	100	100	100	100	74.8 / 81.5	74.9 / 81.6
Massachusetts	100	100	100	100	75.8 / 82.2	76.9 / 83.0
Michigan	100	100	100	100	100	93.0 / 94.9
Minnesota	100	100	63.1 / 72.9	62.5 / 72.5	63.3 / 73.1	65.3 / 74.5
Mississippi	100	100	100	100	63.2 / 73.0	64.1 / 73.7
Montana	100	100	100	70.1 / 78.0	71.7 / 79.2	74.1 / 81.0
Nebraska	62.0 / 72.1	62.3 / 72.3	61.7 / 71.9	61.7 / 71.9	61.8 / 72.0	62.1 / 72.2
New Hampshire	100	61.8 / 72.0	61.9 / 72.0	61.9 / 72.1	62.0 / 72.1	62.1 / 72.2
New Jersey	100	100	100	100	92.2 / 94.3	64.9 / 74.2
North Carolina	100	100	100	100	81.2 / 86.2	61.7 / 71.9
North Dakota	65.0 / 74.3	63.7 / 73.3	63.6 / 73.3	64.5 / 73.9	65.1 / 74.4	65.3 / 74.5
Ohio	100	100	64.4 / 73.9	66.1 / 75.1	68.2 / 76.7	65.1 / 74.4
Oklahoma	100	100	61.7 / 71.9	61.8 / 72.0	61.8 / 72.0	61.8 / 72.0
Pennsylvania	100	100	100	100	80.3 / 85.5	85.1 / 89.1
South Carolina	100	100	100	100	80.9 / 86.0	61.8 / 71.9
Tennessee	100	100	100	100	91.0 / 93.4	90.8 / 93.2
Utah	100	100	100	62.3 / 72.4	62.4 / 72.5	62.8 / 72.7
Vermont	100	68.1 / 76.6	67.1 / 75.8	68.0 / 76.5	69.5 / 77.7	65.1 / 74.4
Virginia	100	100	100	65.5 / 74.7	68.2 / 76.7	71.0 / 78.7
West Virginia	100	100	100	100	86.2 / 89.9	86.2 / 89.9
Wyoming	100	61.7 / 71.9	63.0 / 72.8	61.7 / 71.9	61.7 / 71.9	61.7 / 71.9

Notes: This table shows the percentage of people subject to a time limit that we impute to be potentially eligible for SNAP because they had received no more than three months of benefits while not working, lived in a waiver area, participated in an employment and training program, or received a State exemption.

States not listed here are those in which 100 percent of adults age 18-49 without disabilities in childless households were imputed to be eligible. These States either obtained permission to suspend time limits Statewide or pledged to make employment and training opportunities available to every participant facing time limits.

Table D.6. SNAP net income regression coefficients

Explanatory variable	Coefficients estimated using administrative data for:							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Constant	-598.9115* (56.08854)	-581.39560* (56.39159)	-580.64390* (57.73218)	-579.36300* (55.70796)	-579.07050* (54.77166)	-581.97130* (55.85276)	-595.76940* (53.85937)	-559.99700* (49.32054)
Gross income minus standard and earned income deductions	0.38194 (0.32709)	0.37599 (0.34320)	0.42244 (0.34610)	0.29194 (0.33287)	0.31771 (0.32312)	0.38278 (0.32730)	0.27125 (0.31398)	0.06808 (0.32182)
Amount of earned income	-0.12172 (0.06544)	-0.12103 (0.06866)	-0.11129 (0.06923)	-0.13568* (0.06659)	-0.13131* (0.06464)	-0.11868 (0.06546)	-0.14009* (0.06282)	-0.17744* (0.06438)
Received TANF income	-216.72260 (130.74490)	-211.60330 (129.04450)	-206.73360 (129.16230)	-211.04350 (128.39590)	-202.93320 (128.66260)	-206.44200 (129.19750)	-206.21960 (129.76090)	-192.64370 (247.46950)
Amount of TANF income	0.42706 (0.21913)	0.41384 (0.21605)	0.38814 (0.21635)	0.40491 (0.21480)	0.39123 (0.21519)	0.40816 (0.21605)	0.39986 (0.21704)	0.43795 (1.36330)
Amount of TANF income squared	-0.00046* (0.00024)	-0.00046* (0.00023)	-0.00043 (0.00023)	-0.00045* (0.00023)	-0.00044 (0.00023)	-0.00046* (0.00023)	-0.00046 (0.00023)	0.00004 (0.00179)
Number of TANF units in SNAP unit	149.06970 (114.98050)	147.89470 (113.54070)	145.41310 (113.59160)	145.67910 (112.97300)	141.56950 (113.20110)	140.08040 (113.66940)	146.40920 (114.16560)	-2.25375 (14.87894)
Did not receive SSI income	10.82913 (33.15430)	-3.97129 (32.77149)	4.45534 (32.75375)	9.18707 (32.53153)	6.64468 (32.11384)	5.10387 (32.23056)	18.90618 (31.46311)	-23.09896 (20.12369)
Amount of SSI income	-0.00581 (0.03266)	-0.00150 (0.03267)	-0.00478 (0.03227)	0.00770 (0.03202)	0.00807 (0.03206)	0.00783 (0.03221)	0.00358 (0.03238)	0.01062 (0.04086)
Amount of SSI income squared	-0.00001 (0.00002)	-0.00001 (0.00002)	-0.00001 (0.00002)	-0.00001 (0.00002)	-0.00001 (0.00002)	-0.00001 (0.00002)	-0.00001 (0.00002)	0.00001 (0.00002)
Received maximum monthly SSI benefit for one person	0.66504* (16.47567)	-3.46874 (16.48535)	2.52201 (16.27156)	0.09715 (16.15876)	-1.43117* (16.15423)	-2.22178* (16.22051)	-4.18555 (16.25837)	-398.87570 (247.07910)
Member under age 60 and receiving SSI	41.77176* (9.07511)	44.89936* (8.94115)	46.07955* (8.89017)	43.58848* (8.72213)	45.21664* (8.62906)	45.52850* (8.62198)	46.96030* (8.59381)	50.64155* (8.39096)
Member age 60 or older and receiving SSI	-8.35354 (10.70577)	-3.40867 (10.54073)	-5.07992 (10.51948)	-11.03803 (10.33970)	-9.80143 (10.28592)	-8.90862 (10.31957)	-18.90446* (9.27849)	-8.07711 (9.09203)

Table D.6. (continued)

Explanatory variable	Coefficients estimated using administrative data for:							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Number of SSI units in SNAP unit	43.03166 (30.95200)	32.47063 (30.67870)	36.84144 (30.57902)	33.36575 (30.39194)	30.91895 (29.92210)	30.24601 (30.04695)	39.39321 (29.47331)	8.53376 (9.38168)
Amount of interest income	-0.09815* (0.03374)	-0.10040* (0.03332)	-0.10711* (0.03313)	-0.10448* (0.03241)	-0.14181* (0.02975)	-0.14173* (0.02969)	-0.12019* (0.02810)	-0.11989* (0.02724)
Amount of dividend income	-0.07006* (0.02204)	-0.07014* (0.02177)	-0.06782* (0.02173)	-0.06409* (0.02113)	-0.04972* (0.02047)	-0.04323* (0.01995)	-0.04060* (0.01993)	-0.04208* (0.01944)
Amount of rental income	-0.01945 (0.02295)	-0.02169 (0.02266)	-0.02106 (0.02264)	-0.02192 (0.02176)	-0.03236 (0.02064)	-0.02807 (0.02025)	-0.02756 (0.02010)	-0.02906 (0.01952)
Amount of gross income	0.68530* (0.33115)	0.68837* (0.34725)	0.63973 (0.35043)	0.77707* (0.33686)	0.74723* (0.32708)	0.67268* (0.33101)	0.78670* (0.31759)	0.98427* (0.32594)
Amount of gross income squared	0.00000* (0.00000)	0.00000* (0.00000)	0.00000* (0.00000)	0.00000* (0.00000)	0.00000* (0.00000)	0.00000* (0.00000)	0.00000* (0.00000)	0.00000* (0.00000)
Gross income between \$101 and \$200	226.81910* (35.28837)	211.14910* (34.05010)	215.08590* (34.55063)	202.61390* (34.31201)	209.11960* (34.59329)	226.81910* (34.97983)	222.57030* (34.80518)	206.08100* (30.55902)
Gross income between \$201 and \$300	192.55010* (25.43053)	178.20970* (25.11523)	177.83000* (25.10162)	171.36890* (24.89975)	175.66410* (24.97536)	181.02610* (25.14550)	188.92770* (25.06595)	170.09310* (22.52236)
Gross income between \$301 and \$400	107.23660* (21.11777)	94.95005* (20.90408)	95.14126* (20.89535)	89.69376* (20.72035)	93.06221* (20.66076)	98.74878* (20.66028)	105.95600* (20.74219)	88.39560* (19.14108)
Gross income between \$401 and \$500	72.77285* (21.01321)	61.51953* (20.80792)	60.00427* (20.80923)	54.12209* (20.65060)	55.43841* (20.65819)	59.50360* (20.83253)	65.53764* (20.68466)	45.04486* (19.04197)
Gross income as percentage of poverty	0.07813 (0.30572)	0.06586 (0.30227)	0.05757 (0.30055)	-0.15774 (0.29302)	-0.08455 (0.29339)	0.05551* (0.28934)	0.05249 (0.28737)	0.08510 (0.28186)
Gross income as percentage of poverty, squared	0.00032 (0.00056)	0.00027 (0.00055)	0.00036 (0.00055)	0.00090 (0.00054)	0.00086 (0.00054)	0.00084 (0.00053)	0.00083 (0.00053)	0.00060 (0.00052)
Resided in Alaska	104.22830 (77.28599)	94.45423 (72.45780)	120.43060 (75.95861)	93.44005 (76.55063)	111.82270 (72.22122)	60.29152 (74.21898)	53.17249 (58.35780)	137.35490* (51.33626)

Table D.6. (continued)

Explanatory variable	Coefficients estimated using administrative data for:							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Resided in Hawaii	-2.13824 (50.77783)	7.86026 (43.88561)	-16.94366 (52.44734)	10.42874 (52.12061)	3.84993 (48.62992)	-13.07553 (48.99542)	-42.06778 (38.68246)	30.58223 (33.32622)
Resided in the Northeast region	-77.40868* (8.14772)	-46.64827* (8.07619)	-50.78245* (8.02139)	-43.32802* (7.87991)	-46.27600* (7.81487)	-53.75706* (7.81250)	-45.10645* (7.80519)	36.89460* (7.58571)
Resided in the Mid-Atlantic region	-1.43110 (7.41854)	12.18100 (7.33506)	8.75492 (7.29974)	4.34832 (7.16476)	9.45732 (7.09626)	5.85385 (7.08440)	5.44833 (7.07549)	31.23673* (6.88496)
Resided in the Southeast region	72.26628* (6.70242)	74.58909* (6.62549)	72.49147* (6.59738)	68.99399* (6.49736)	73.30463* (6.44373)	72.71442* (6.43176)	74.02007* (6.43079)	66.69665* (6.24267)
Resided in the Midwest Region	22.41466* (6.87431)	29.58824* (6.79824)	33.19585* (6.76771)	35.45641* (6.65471)	39.02824* (6.58486)	37.52436* (6.57302)	40.83063* (6.56330)	56.89524* (6.37806)
Resided in the Southwest region	64.05447* (7.46575)	67.21683* (7.38016)	67.85191* (7.35352)	73.88016* (7.24229)	74.61697* (7.17858)	74.69652* (7.17037)	74.31483* (7.16199)	67.80223* (6.96609)
Resided in the Mountain Plains region	42.55208* (8.54860)	47.07337* (8.45157)	50.42482* (8.41333)	53.42218* (8.26885)	54.96628* (8.18412)	53.73517* (8.17194)	53.22002* (8.15265)	56.84812* (7.93364)
SNAP unit size	-36.91356* (7.41378)	-35.24038* (7.30725)	-32.79291* (7.12226)	-36.61019* (7.14484)	-34.70364* (7.02387)	-30.24263* (7.01681)	-34.30532* (7.09122)	-35.24137* (6.93713)
More than one SNAP unit in household	65.29514* (6.00804)	59.58058* (5.99641)	59.08952* (5.98030)	57.20323* (5.90275)	57.73988* (5.88886)	60.52465* (5.88092)	61.19807* (5.87913)	51.02567* (5.86828)
Single-parent household	-102.3404* (9.58284)	-103.29180* (9.45387)	-106.00600* (9.29480)	-103.22220* (9.29106)	-102.98070* (9.20437)	-103.19100* (9.21832)	-100.35020* (9.28162)	-92.68406* (8.95489)
Multiple-adult household	-100.0663* (9.38331)	-102.88650* (9.25642)	-102.75820* (9.11333)	-100.95520* (9.04994)	-99.98539* (8.94534)	-100.36070* (8.92187)	-96.26396* (9.00509)	-86.93366* (8.73461)
Number of never-married adults	18.78699* (4.01065)	17.82784* (3.96151)	17.41829* (3.93589)	18.15671* (3.87521)	17.58458* (3.85434)	17.72656* (3.84806)	18.33609* (3.85825)	17.27495* (3.81389)
Number of high school graduates or equivalent	-21.25256* (3.58723)	-20.98556* (3.54045)	-20.71177* (3.53218)	-20.40331* (3.48157)	-19.85109* (3.46853)	-19.85236* (3.47472)	-19.87166* (3.47529)	-20.51136* (3.41923)

Table D.6. (continued)

Explanatory variable	Coefficients estimated using administrative data for:							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Number of adults not in the labor force	30.04482* (3.76888)	30.26866* (3.71956)	29.09241* (3.70499)	29.01998* (3.63518)	28.53849* (3.61579)	27.89930* (3.61413)	26.82667* (3.55790)	26.46279* (3.51002)
Head of household is African American/black	21.57214* (5.79377)	22.56563* (5.72956)	23.91816* (5.71664)	21.47754* (5.64247)	21.06261* (5.61960)	20.95576* (5.60929)	21.34510* (5.61757)	19.06569* (5.52497)
Head of household is Hispanic	6.59574 (6.72813)	6.64071 (6.65137)	6.84837 (6.63777)	7.26826 (6.55094)	7.87302 (6.51141)	6.62509 (6.51352)	9.45874 (6.50357)	8.50630 (6.42478)
Head of household is Asian	-16.59059 (12.44307)	-16.67930 (12.30129)	-20.14210 (12.22920)	-20.10079 (12.03151)	-22.09242 (11.92199)	-24.67123* (11.87745)	-21.28828 (11.86625)	-26.18771* (11.89884)
Head of household is other race	18.69665 (11.20846)	20.34478 (11.07085)	20.11224 (11.00678)	20.08481 (10.88694)	17.94419 (10.80615)	18.43299 (10.80437)	20.36529 (10.79373)	21.46561* (10.67537)
No housing expenses	253.86660* (6.53954)	250.00410* (6.46345)	248.15430* (6.45061)	244.84890* (6.36032)	241.06630* (6.30144)	241.95730* (6.28279)	241.67990* (6.29403)	224.52750* (6.12913)
Maximum allowable excess shelter expense deduction	-0.03287* (0.00444)	-0.03115* (0.00436)	-0.03111* (0.00429)	-0.03060* (0.00412)	-0.03206* (0.00401)	-0.03255* (0.00397)	-0.03287* (0.00355)	-0.03775* (0.00351)
Maximum excess shelter expense deduction equal to zero	0.57749 (25.14897)	7.65083 (24.87812)	8.22409 (24.80920)	11.25727 (24.60288)	8.90770 (24.57851)	7.02143 (24.65642)	-6.13582 (23.73117)	-25.71655 (23.75039)
Maximum excess shelter expense deduction equal to cap for contiguous States	29.37892* (10.24737)	34.87868* (10.07909)	31.12739* (10.11918)	25.22473* (9.93653)	23.78739* (9.88555)	23.28506* (9.87387)	(omitted)	-105.77470 (246.73010)
Maximum excess shelter expense deduction equal to cap for Hawaii	-24.55622 (56.46623)	-33.57647 (34.14912)	6.39033 (60.47866)	-62.43259 (59.74749)	-30.87697 (52.55934)	-23.39969 (53.91672)	68.91795 (90.27708)	174.46660 (100.79040)
Maximum excess shelter expense deduction equal to cap for Alaska	-56.46160 (81.03719)	-22.37136 (67.65708)	-64.60987 (76.38615)	-47.20127 (79.64536)	-71.35494 (74.95803)	25.37086 (78.80856)	199.30520 (126.67980)	96.42300 (123.35690)

Table D.6. (continued)

Explanatory variable	Coefficients estimated using administrative data for:							
	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017
Sample size	17,367	17,339	17,474	17,872	18,228	18,417	18,625	18,372
R2	0.9576	0.9586	0.9596	0.9622	0.9635	0.9640	0.9649	0.9664
Adjusted R2	0.9575	0.9585	0.9595	0.9621	0.9634	0.9639	0.9648	0.9663

* Indicates significance at the .05 level using a two-tailed t-test. Coefficients identified as significant at the .05 level are those with t-values greater than 1.96.

Table D.7. FY 2017 Federal SNAP gross and net income limits, by SNAP household size and geography

	Contiguous states	Alaska	Hawaii
Gross income limit by household size			
1	\$1,287	\$1,608	\$1,481
2	1,736	2,169	1,997
3	2,184	2,730	2,513
4	2,633	3,292	3,028
5	3,081	3,853	3,544
6	3,530	4,414	4,060
7	3,980	4,975	4,575
8	4,430	5,538	5,093
Each additional member	+451	+564	+518
Net income limit by household size			
1	\$990	\$1,237	\$1,140
2	1,335	1,669	1,536
3	1,680	2,100	1,933
4	2,025	2,532	2,330
5	2,370	2,964	2,726
6	2,715	3,395	3,123
7	3,061	3,827	3,520
8	3,408	4,260	3,918
Each additional member	+347	+434	+399

Source: U.S. Department of Agriculture.

Table D.8. FY 2017 maximum and minimum monthly SNAP benefit amounts, by SNAP household size and geography

	Contiguous states	Alaska	Hawaii
Maximum benefit by household size			
1	\$194	\$237	\$354
2	357	435	650
3	511	622	931
4	649	790	1,182
5	771	939	1,404
6	925	1,127	1,685
7	1,022	1,245	1,862
8	1,169	1,423	2,128
Each additional member	+146	+178	+266
Minimum benefit by household size			
1 to 2	\$16	\$19	\$28
3 or more	0	0	0

Source: U.S. Department of Agriculture.

Table D.9. Unweighted sample sizes of SNAP QC case records

Month/year	Number of SNAP QC case records
September 1976	11,038
February 1978	14,211
August 1980	4,140
August 1982	7,224
August 1984	6,918
July/August 1986	11,010
July/August 1988	10,695
July/August 1990	10,639
July/August 1991	10,602
July/August 1992	9,586
July/August 1993	9,389
August/September 1994	8,933
August/September 1995	8,313
August/September 1996	8,304
August/September 1997	7,907
August/September 1998	7,336
August/September 1999	7,558
FY 1999	46,935
FY 2000	46,336
FY 2001	46,412
FY 2002	47,602
FY 2003	48,896
FY 2004	48,806
FY 2005	46,673
FY 2006	45,734
FY 2007	47,469
FY 2008	50,214
FY 2009	51,250
FY 2010	52,289
FY 2011	51,115
FY 2012	50,027
FY 2013	49,569
FY 2014	48,250
FY 2015	48,022
FY 2016	46,595
FY 2017	45,530

APPENDIX E

SAMPLING ERROR OF PARTICIPATION RATE ESTIMATES

SAMPLING ERROR OF PARTICIPATION RATE ESTIMATES

The participation rates in this report represent the ratio of SNAP participants to SNAP-eligible individuals. Participant counts are based on SNAP Program Operations data and SNAP QC data. Eligible counts are based on CPS ASEC data. Both counts are derived from samples and are subject to statistical sampling error, as are the resulting participation rate estimates.

Standard errors of participation rates

One indicator of the magnitude of the sampling error associated with a given estimate is its standard error. Standard errors measure the variation in estimated values that would be observed if multiple replications of the sample were drawn. The magnitude of the standard errors depends on three factors: (1) the degree of variation in the variable within the population from which the sample is drawn; (2) the design of the sample, including such issues as stratification and sampling probabilities; and (3) the size of the sample on which the estimate is based.

Generally, the standard error of a nonlinear variable, such as a participation rate, cannot be estimated directly. Rather, one must estimate the standard error of a linear approximation of the nonlinear variable. To estimate the standard error of participation rates contained in this report, we use a Taylor series expansion to produce a linear approximation of the participation rate. The variance of the participation rate, $\text{var}(r)$, can be expressed as a function of the number of participants (p), the number of eligible individuals (e), and their respective variances:

$$(1) \quad \text{var}(r) = \text{var}(p/e)^2 = (p/e)^2[\text{var}(p)/p^2 + \text{var}(e)/e^2].$$

The standard error of the participation rate is simply the square root of the variance.

In the SNAP QC data file, we directly calculate the variance of the number of participants using replicate weights.¹⁶ In the CPS, the Census Bureau produces a set of replicate weights, which we have incorporated into the estimation of the variance of the number of eligible individuals using the CPS-recommended replicate weight method.

Confidence intervals

Standard errors can be used to compute confidence intervals for the estimated participation rates. A confidence interval is a range of values that will contain the true value of an estimated participation rate with a known probability. For instance, a 90 percent confidence interval extends 1.645 standard errors above and below the estimated rate, and indicates there is a 90 percent chance that the confidence interval will contain the true value. Tables E.1 through E.8 show standard errors and confidence intervals for selected participation rates for FY 2017 through FY 2010, respectively.

¹⁶ More details are available in Appendix E of Cronquist and Lauffer (2018).

Table E.1. Sampling error associated with selected participation rate estimates, FY 2017

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	83.8	+/-	1.3	45,164,252	394,668	37,837,083	104,728
Households	87.5	+/-	1.2	21,268,626	175,726	18,620,073	33,764
Benefits	*			*		4,783,393,715	9,522,094
Children (17 or younger)	*			*		16,722,660	100,144
Non-elderly adults (18-59)	86.5	+/-	1.6	19,023,403	194,458	16,448,348	87,888
Elderly individuals (60 or older)	48.1	+/-	1.5	9,707,929	136,902	4,666,076	62,106
Adults age 18-49 without disabilities in childless households ^a	84.5	+/-	4.1	3,422,291	76,610	2,891,101	54,697
Noncitizens	61.7	+/-	4.8	2,578,862	73,621	1,591,988	59,827
Citizen children living with noncitizen adults	74.1	+/-	5.0	4,239,780	113,827	3,143,280	98,492
Household countable income source							
Earned income	73.3	+/-	2.0	22,146,508	277,230	16,229,198	173,197
TANF	69.7	+/-	5.4	4,145,877	128,944	2,890,733	102,124
SSI benefits	87.1	+/-	3.7	8,567,617	169,728	7,459,438	125,641
Elderly	86.9	+/-	4.7	6,267,473	155,853	5,444,152	116,093
Non-elderly	77.8	+/-	4.8	2,698,132	74,724	2,098,173	52,348
Household countable income as a percentage of poverty guidelines							
1 to 50 percent	*			*		9,904,568	136,178
101 to 130 percent	46.7	+/-	2.2	11,241,366	178,134	5,249,630	121,435

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

Table E.2. Sampling error associated with selected participation rate estimates, FY 2016

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	84.8	+/-	1.1	47,070,082	356,007	39,904,292	72,343
Households	89.0	+/-	1.2	21,982,112	181,152	19,556,198	33,071
Benefits	*			*		5,071,716,084	8,406,263
Children (17 or younger)	*			*		17,873,833	85,201
Non-elderly adults (18-59)	88.1	+/-	1.6	19,986,274	199,187	17,613,399	86,701
Elderly individuals (60 or older)	44.7	+/-	1.3	9,890,480	125,450	4,417,060	58,064
Adults age 18-49 without disabilities in childless households ^a	97.4	+/-	4.4	3,543,950	75,716	3,451,717	59,094
Noncitizens	63.3	+/-	4.6	2,787,936	61,507	1,765,722	68,431
Citizen children living with noncitizen adults	81.1	+/-	5.2	4,382,312	104,356	3,555,517	109,001
Household countable income source							
Earned income	74.8	+/-	1.9	23,117,299	241,998	17,283,211	188,884
TANF	68.4	+/-	5.2	4,519,144	131,856	3,091,532	109,086
SSI benefits	86.0	+/-	3.5	8,933,662	165,390	7,685,531	123,982
Elderly	87.4	+/-	4.5	6,653,460	154,766	5,815,004	119,530
Non-elderly	73.5	+/-	4.4	2,639,426	69,835	1,939,138	49,635
Household countable income as a percentage of poverty guidelines							
1 to 50 percent	*			*		10,604,673	158,994
101 to 130 percent	48.2	+/-	2.1	11,045,225	165,746	5,328,260	113,819

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

Table E.3. Sampling error associated with selected participation rate estimates, FY 2015

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	83.0	+/-	1.1	50,036,073	401,655	41,554,023	78,569
Households	88.8	+/-	1.1	23,021,388	174,242	20,436,146	32,374
Benefits	*			*		5,380,918,063	7,321,179
Children (17 or younger)	*			*		18,493,183	88,419
Non-elderly adults (18-59)	85.7	+/-	1.5	21,990,421	213,419	18,835,720	94,023
Elderly individuals (60 or older)	42.4	+/-	1.4	9,955,582	125,699	4,225,120	62,440
Adults age 18-49 without disabilities in childless households ^a	*			*		4,207,308	65,138
Noncitizens	49.8	+/-	3.6	3,402,528	80,316	1,696,142	63,225
Citizen children living with noncitizen adults	83.1	+/-	5.4	4,375,821	111,428	3,634,823	109,739
Household countable income source							
Earned income	71.8	+/-	1.8	24,708,657	277,094	17,731,877	179,315
TANF	78.9	+/-	5.3	4,658,554	119,465	3,674,240	115,169
SSI benefits							
Elderly	72.2	+/-	4.6	2,597,912	72,123	1,876,868	49,602
Non-elderly	85.5	+/-	4.2	7,208,048	162,386	6,163,731	122,296
Household countable income as a percentage of poverty guidelines							
1 to 50 percent	*			*		11,179,026	162,668
101 to 130 percent	44.5	+/-	1.8	12,153,606	175,676	5,408,685	108,370

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

Table E.4. Sampling error associated with selected participation rate estimates, FY 2014

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	82.9	+/-	1.0	51,025,996	366,220	42,300,155	71,176
Households	88.1	+/-	1.2	23,415,261	185,089	20,619,887	30,357
Benefits	*			*		5,371,005,381	7,672,350
Children (17 or younger)	*			*		18,888,829	85,988
Non-elderly adults (18-59)	85.3	+/-	1.5	22,625,377	211,514	19,293,002	88,671
Elderly individuals (60 or older)	41.7	+/-	1.4	9,867,805	126,355	4,118,324	62,821
Adults age 18-49 without disabilities in childless households ^a	*			*		4,284,996	64,359
Noncitizens	55.2	+/-	4.0	3,144,415	75,380	1,735,475	64,100
Citizen children living with noncitizen adults	83.2	+/-	5.0	4,602,968	105,087	3,829,632	110,895
Household countable income source							
Earned income	70.5	+/-	1.7	24,681,803	243,202	17,395,081	183,184
TANF	81.6	+/-	5.5	4,865,408	136,004	3,968,850	119,750
SSI benefits							
Elderly	76.0	+/-	5.0	2,536,146	71,774	1,927,838	55,026
Non-elderly	84.7	+/-	4.1	7,412,080	166,382	6,278,734	118,346
Household countable income as a percentage of poverty guidelines							
1 to 50 percent	*			*		11,809,207	163,198
101 to 130 percent	42.8	+/-	1.7	12,169,016	186,541	5,211,134	100,676

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

^a With some exceptions, these participants are subject to work requirements and time limits.

Table E.5. Sampling error associated with selected participation rate estimates, FY 2013

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	85.2	+/-	1.2	50,716,212	416,888	43,230,759	71,037
Households	90.1	+/-	1.2	23,211,904	187,169	20,914,011	30,461
Benefits	*			*		5,841,268,819	7,414,527
Children (17 or younger)	*			*		19,325,492	83,935
Non-elderly adults (18-59)	88.2	+/-	1.6	22,718,030	237,124	20,047,496	88,451
Elderly individuals (60 or older)	40.9	+/-	1.3	9,436,616	117,041	3,857,771	57,724
Adults age 18-49 without disabilities in childless households ^a	99.5	+/-	3.6	4,518,523	102,845	4,497,078	66,615
Noncitizens	60.8	+/-	4.3	2,676,697	68,864	1,626,188	55,623
Citizen children living with noncitizen adults	82.1	+/-	4.8	4,690,514	110,206	3,850,590	101,966
Household countable income source							
Earned income	73.9	+/-	2.0	23,978,839	298,370	17,708,695	188,188
TANF	82.2	+/-	4.9	5,200,072	137,393	4,274,147	108,054
SSI benefits							
Elderly	70.4	+/-	4.7	2,505,636	69,546	1,764,676	51,343
Non-elderly	85.3	+/-	4.1	7,527,584	170,784	6,419,112	116,378
Household countable income as a percentage of poverty guidelines							
1 to 50 percent	*			*		12,224,398	160,273
101 to 130 percent	47.6	+/-	2.0	11,567,871	202,608	5,507,838	104,863

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

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^aWith some exceptions, these participants are subject to work requirements and time limits.

Table E.6. Sampling error associated with selected participation rate estimates, FY 2012

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	83.1	+/-	1.2	50,708,090	419,717	42,129,048	73,438
Households	87.2	+/-	1.1	23,162,329	180,977	20,200,576	27,898
Benefits	95.6	+/-	1.5	5,957,257,523	56,538,540	5,694,916,726	7,497,606
Children (17 or younger)	*			*		18,903,254	83,616
Non-elderly adults (18-59)	84.7	+/-	1.5	23,025,637	221,114	19,505,506	79,481
Elderly individuals (60 or older)	41.6	+/-	1.4	8,944,627	111,780	3,720,288	57,809
Noncitizens	55.7	+/-	4.2	2,795,163	78,064	1,556,861	56,270
Citizen children living with noncitizen adults	74.8	+/-	4.6	4,705,523	117,333	3,519,770	96,755
Household countable income source							
Earned income	72.1	+/-	1.9	23,769,733	283,864	17,134,766	176,759
TANF	89.8	+/-	5.6	5,180,417	146,277	4,651,130	118,820
SSI benefits							
Elderly	75.0	+/-	4.7	2,449,969	63,815	1,836,470	50,199
Non-elderly	86.4	+/-	4.0	7,319,195	150,262	6,321,234	120,689
Household countable income as a percentage of poverty guidelines							
1 to 50 percent	*			*		11,755,252	153,862
101 to 130 percent	50.6	+/-	2.1	10,872,860	177,391	5,501,066	105,022

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

* The use of different data sources to estimate rate numerators and denominators can result in estimates of eligible individuals with a particular characteristic or of potential benefits to eligible individuals that are lower than the corresponding estimates of participants or benefits received by participants. When this happens, estimated rates exceed 100 percent. In this report, we do not report estimated rates over 100 percent or the associated estimates of eligible individuals, households, or potential benefits. See Appendix D for more information.

Table E.7. Sampling error associated with selected participation rate estimates, FY 2011

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	78.0	+/-	0.9	52,160,864	368,888	40,693,688	70,600
Households	81.8	+/-	1.0	23,494,729	179,556	19,221,395	27,677
Benefits	90.3	+/-	1.3	6,118,029,194	52,509,189	5,525,831,734	7,063,832
Children (17 or younger)	95.6	+/-	1.6	19,303,251	176,391	18,454,519	75,678
Non-elderly adults (18-59)	78.6	+/-	1.2	23,985,346	197,954	18,843,764	75,784
Elderly individuals (60 or older)	38.3	+/-	1.3	8,872,267	122,607	3,395,405	51,762
Noncitizens	51.6	+/-	3.7	3,107,684	81,557	1,603,676	56,590
Citizen children living with noncitizen adults	71.1	+/-	4.0	4,830,747	109,175	3,433,421	86,552
Household countable income source							
Earned income	66.7	+/-	1.7	24,185,835	258,839	16,128,295	176,739
TANF	93.0	+/-	5.3	5,007,123	127,595	4,657,101	109,161
SSI benefits							
Elderly	69.5	+/-	4.9	2,479,081	80,714	1,722,350	48,341
Non-elderly	83.1	+/-	4.0	7,368,223	166,258	6,122,628	113,680
Household countable income as a percentage of poverty guidelines							
1 to 50 percent			*		*	11,718,302	150,072
101 to 130 percent	47.0	+/-	1.9	11,613,210	173,150	5,453,471	104,256

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

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Table E.8. Sampling error associated with selected participation rate estimates, FY 2010

Variable	Participation rate with 90% confidence interval			Eligibles		Participants	
				Number	Standard error	Number	Standard error
Individuals	71.7	+/-	1.0	52,263,519	418,001	37,481,880	50,830
Households	74.6	+/-	1.0	23,268,233	194,193	17,360,712	20,156
Benefits	84.4	+/-	1.3	6,008,962,855	53,707,026	5,071,094,843	5,963,597
Children (17 or younger)	89.0	+/-	1.5	19,628,745	192,073	17,471,918	59,941
Non-elderly adults (18-59)	71.9	+/-	1.3	23,736,712	240,333	17,072,854	64,638
Elderly individuals (60 or older)	33.0	+/-	1.1	8,898,062	112,123	2,936,925	44,808
Noncitizens	49.2	+/-	3.3	2,965,901	71,401	1,459,301	47,690
Citizen children living with noncitizen adults	68.0	+/-	3.7	4,921,037	107,483	3,347,555	81,888
Household countable income source							
Earned income	61.8	+/-	1.5	23,972,638	277,885	14,816,134	143,772
TANF	84.3	+/-	4.6	5,163,266	127,013	4,353,095	97,688
SSI benefits							
Elderly	65.3	+/-	4.1	2,438,337	66,044	1,593,247	42,026
Non-elderly	70.9	+/-	3.3	7,501,279	167,464	5,321,631	95,070
Household countable income as a percentage of poverty guidelines							
1 to 50 percent			*		*	10,990,436	133,477
101 to 130 percent	38.9	+/-	1.5	11,665,483	187,993	4,536,182	79,884

Sources: SNAP Program Operations, SNAP QC, and CPS ASEC data.

Note: Participant, eligible, and benefit totals represent monthly averages.

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APPENDIX F

ECONOMIC AND POLICY INFLUENCES ON SNAP

Table F.1. Summary of major influences on SNAP participation rate estimates, 1976 to 2017

Period of change	Major influences	Effect on number of participants and eligible individuals	Participation rate change
1978 to 1980	Food Stamp Act of 1977	Substantial increase in participants; decrease in eligible individuals	Up 17 points
1980 to 1982	Recession	Almost no change in participants; substantial increase in eligible individuals	Down 3 points
1982 to 1984	Economic recovery	Slight decrease in both participants and eligible individuals	No change
1984 to 1986	1985 Food Security Act	Almost no change in participants; substantial increase in eligible individuals	Down 4 points
1986 to 1988	Growth in economy	Small decrease in participants and eligible individuals	No change
1988 to 1990	Medicaid expansion, Homeless Assistance Act, IRCA, worsening economy	Increase in participants; small decrease in eligible individuals	Up 6 points
1990 to 1992	Continued Medicaid expansion, recession	Increase in participants; smaller percent increase in eligible individuals	Up 5 points
1992 to 1993	Improving economy	Increase in participants; smaller percent increase in eligible individuals	Up 1 point
1993 to 1994	Improving economy	No change in participants; small drop in eligible individuals	Up 1 point
1994 to 1995	Improving economy	Decrease in eligible individuals; relatively larger decrease in participants	Down 2 points
1995 to 1996	Improving economy	No change in eligible individuals; decrease in participants	Down 3 points
1996 to 1997	Welfare reform, improving economy	Large decrease in participants and eligible individuals; larger decrease in participants	Down 5 points
1997 to 1998	Welfare reform, improving economy	Large decrease in participants and eligible individuals; larger decrease in participants	Down 4 points
1998 to 1999	Welfare reform, improving economy	Decrease in participants and eligible individuals; larger decrease in participants	Down 2 points
1999 to 2000	Welfare reform, improving economy	Decrease in participants and eligible individuals; larger decrease in participants	Down less than 1 point
2000 to 2001	Expanded vehicle exclusions, worsening economy	Slight increase in participants; large increase in eligible individuals	Down 3 points
2001 to 2002(a)	Expanded vehicle exclusions, increased poverty	Large increase in participants and eligible individuals; larger increase in eligible individuals	Down less than 1 point
2002(b) to 2003	Increased outreach, increased eligibility for noncitizens, increased poverty, expanded vehicle exclusions	Increase in both participants and eligible individuals	Up 2 points
2003 to 2004	Increased outreach, increased poverty, increased eligibility for immigrant children, expanded vehicle exclusions	Increase in both participants and eligible individuals; larger increase in participants	Up more than 5 points

Table F.1. (continued)

Period of change	Major influences	Effect on number of participants and eligible individuals	Participation rate change
2004 to 2005	Increased outreach, expanded vehicle exclusions	Increase in both participants and eligible individuals; larger increase in participants	Up 3 points
2005 to 2006	Increased outreach, decreased poverty, expanded vehicle exclusions	Increase in participants; decrease in eligible individuals	Up 4 points
2006 to 2007	Increased outreach, increased poverty, expanded vehicle exclusions	Increase in participants; larger increase in eligible individuals	Down less than 1 point
2007 to 2008	Worsening economy, increased outreach, expanded vehicle exclusions	Increases in both participants and eligible individuals	Up 2 points
2008 to 2009	Recession, increased outreach, increase in minimum benefit allotments, midyear increase in maximum benefit allotments, midyear State option to eliminate time-limited benefits, expanded vehicle exclusions	Large increases in both participants and eligible individuals	Up more than 1 point
2010 to 2011	Slow economic recovery	Large increase in participants; very minor decrease in eligible individuals	Up more than 6 points
2011 to 2012	Improving economy	Increase in participants; decrease in eligible individuals	Up 5 points
2012 to 2013	Improving economy	Increase in participants; very minor decrease in eligible individuals	Up 2 points
2013 to 2014	Agricultural Act of 2014, decrease in maximum benefit allotments	Decrease in participants; minor increase in eligible individuals.	Down 2 points
2014 to 2015	Improving economy	Small decrease in participants and eligible individuals	No change
2015 to 2016	Improving economy	Decrease in participants; larger decrease in eligible individuals	Up 2 points
2016 to 2017	Improving economy	Decrease in participants; smaller decrease in eligible individuals	Down 1 point

Note: Estimates for FY 2010 through FY 2017 should not be compared with estimates for any prior years due to a revised methodology for those years.

Table F.2. Major economic indicators, 1976 to 2017

Year	Real GDP increase ^a	Productivity increase ^b	Unemployment rate ^c	Inflation rate ^d	Poverty rate	Individuals in poverty (000)
1976	5.4	3.3	7.7	5.5	11.8	24,975
1977	4.6	1.8	7.1	6.2	11.6	24,720
1978	5.6	1.2	6.1	7.0	11.4	24,497
1979	3.2	0.1	5.9	8.3	11.7	26,072
1980	-0.2	-0.1	7.2	9.0	13.0	29,272
1981	2.6	2.3	7.6	9.4	14.0	31,822
1982	-1.9	-0.8	9.7	6.1	15.0	34,398
1983	4.6	3.7	9.6	3.9	15.2	35,303
1984	7.3	2.8	7.5	3.6	14.4	33,700
1985	4.2	2.2	7.2	3.2	14.0	33,064
1986	3.5	2.8	7.0	2.0	13.6	32,370
1987	3.5	0.5	6.2	2.4	13.4	32,221
1988	4.2	1.5	5.5	3.5	13.0	31,745
1989	3.7	1.2	5.3	3.9	12.8	31,528
1990	1.9	2.0	5.6	3.7	13.5	33,585
1991	-0.1	1.6	6.9	3.3	14.2	35,708
1992	3.6	4.6	7.5	2.3	14.8	38,014
1993	2.7	0.1	6.9	2.4	15.1	39,265
1994	4.0	0.7	6.1	2.1	14.5	38,059
1995	2.7	0.8	5.6	2.1	13.8	36,425
1996	3.8	2.5	5.4	1.8	13.7	36,529
1997	4.5	2.2	4.9	1.7	13.3	35,574
1998	4.5	3.0	4.5	1.1	12.7	34,476
1999	4.7	3.9	4.2	1.4	11.9	32,791
2000	4.1	3.1	4.0	2.3	11.3	31,581
2001	1.0	2.7	4.7	2.3	11.7	32,907
2002	1.8	4.3	5.8	1.5	12.1	34,570
2003	2.8	3.9	6.0	2.0	12.5	35,861
2004	3.8	3.2	5.5	2.7	12.7	37,040
2005	3.3	2.1	5.1	3.2	12.6	36,950
2006	2.7	0.9	4.6	3.1	12.3	36,460
2007	1.8	1.4	4.6	2.7	12.5	37,276
2008	-0.3	0.8	5.8	1.9	13.2	39,829
2009	-2.8	3.3	9.3	0.8	14.3	43,569
2010	2.6	3.3	9.6	1.2	15.1	46,343
2011	1.6	-0.1	8.9	2.1	15.0	46,247
2012	2.2	0.8	8.1	1.9	15.0	46,496
2013	1.8	0.9	7.4	1.8	14.8	46,269
2014	2.5	0.7	6.2	1.9	14.8	46,657
2015	2.9	1.2	5.3	1.0	13.5	43,123
2016	1.6	0.2	4.9	1.1	12.7	40,616
2017	2.2	1.1	4.4	1.9	12.3	39,698

Sources: Real Gross Domestic Product (GDP) increase: Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts*. Productivity increase: Department of Labor, Bureau of Labor Statistics, "Major Sector Productivity and Costs Index." Unemployment rate: Department of Labor, Bureau of Labor Statistics. Inflation rate: Department of Commerce, Bureau of Economic Analysis, *National Income and Product Accounts*. Individuals below poverty line: U.S. Census Bureau.

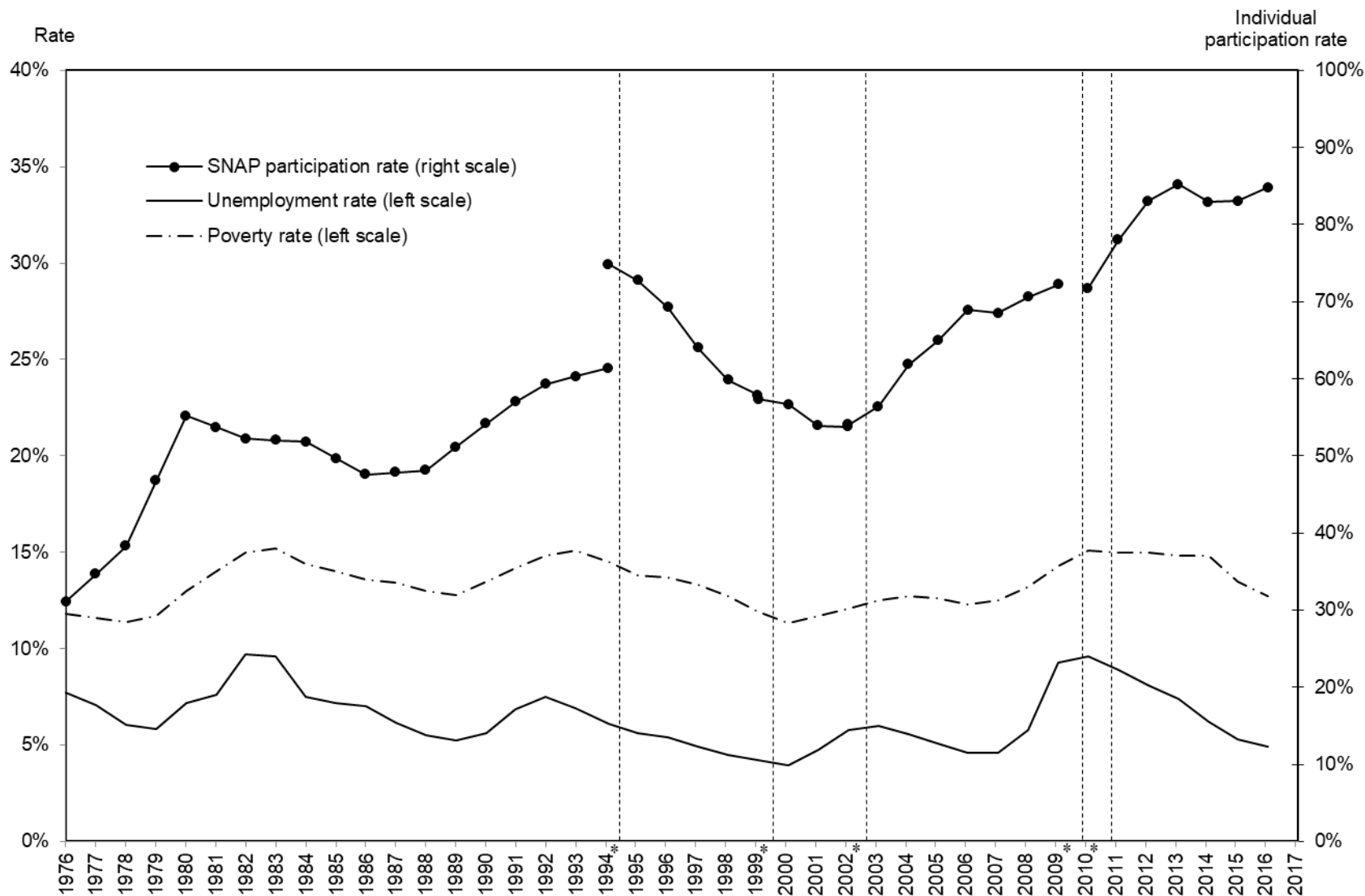
^a Percentage change from preceding year.

^b Percentage change from preceding year in output per hour, business sector.

^c All civilian workers.

^d Percentage change from preceding year in the implicit price deflator for GDP.

Figure F.1. Trends in SNAP individual participation rate estimates, poverty rates, and unemployment rates, 1976 to 2017



Sources: Participation rates from SNAP Program Operations data, SNAP QC data, and CPS ASEC data for the years shown. Poverty rates from U.S. Bureau of the Census, Poverty in the United States. Unemployment rates from Department of Labor, Bureau of Labor Statistics.

* There are breaks in the time series in 1994 and 1999 due to revisions in the methodology for determining eligibility and in 2002 and 2009 due to revisions in the methodology for determining eligibility and the number of participants.

Table F.3A. Selected features of SNAP under past legislation—Income limits

Legislation	Income limits
Food Stamp Act of 1964, as amended (PL 88-525)	Net income had to be less than or equal to the maximum SNAP net income, which was tied to the maximum coupon allotment
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	Net income had to be less than or equal to the poverty line
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	Excluded energy assistance as income; included income of ineligible aliens less prorated share
Omnibus Budget Reconciliation Act (OBRA) of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL 97-98), effective 10/1/81	Gross income had to be less than or equal to 130 percent of the poverty line, except for elderly and disabled, who kept previous net income limit
Food Stamp amendments of 1982 (PL 97-253), effective 10/82, and Continuing Resolution of 1984 (PL 84-473)	Nonelderly and nondisabled subjected to both net and gross income limits
1985 Food Security Act (PL 99-198), effective 5/86	Minor changes in treatment of income
1987 Homeless Assistance Act (PL 100-77)	Moved annual adjustment in income eligibility guidelines from July 1 to October 1 of each year
Hunger Prevention Act (HPA) of 1988 (PL 100-435)	No change
Farm, Agriculture, Conservation and Trade Act of 1990 and 1991 (FACTA) (PL 102-237)	Certain types of educational assistance not counted as income
Amendments to FACTA of 1991	No change
The Mickey Leland Childhood Hunger Relief Act of 1993 (MLCHRA) (PL 103-66)	Earnings of students excluded from income through age 21; excluded as income 100 percent of vendor payments made to transitional housing facilities on behalf of homeless households and GA vendor payments for assistance with utility costs
The Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PRWORA) (PL 104-193)	Earnings of students excluded from income through age 17
The Balanced Budget Act of 1997 (BBA) (PL 105-33)	No change
Agricultural Research, Extension, and Education Reform Act of 1998 (AREERA) (PL 105-185)	No change
Agriculture Appropriations Act of 2001 (PL 106-387)	No change
Farm Security and Rural Investment Act of 2002	State options to exclude certain types of income not counted under the State's TANF cash assistance or Medicaid programs and to treat legally obligated child support payments to a non-household member as an income exclusion rather than a deduction
Food, Conservation, and Energy Act of 2008 (2008 Farm Bill) (PL 110-246)	Combat-related military pay excluded from income
American Recovery and Reinvestment Act of 2009 (PL 111-5)	No change
Agricultural Act of 2014 (2014 Farm Bill) (PL 113-79)	No change

Table F.3B. Selected features of SNAP under past legislation—Resource limits

Legislation	Resource limits
Food Stamp Act of 1964, as amended (PL 88-525)	\$1,500; \$3,000 for elderly household of at least two individuals; excluded vehicles used for employment or handicapped transportation
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	\$1,750; \$3,000 for elderly household of at least two individuals; excluded first \$4,500 of the FMV for vehicles
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	\$1,500; \$3,000 for elderly household of at least two individuals; excluded vehicles used for handicapped
OBRA of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL 97-98), effective 10/1/81	No change
Food Stamp amendments of 1982 (PL 97-253), effective 10/82 and Continuing Resolution of 1984 (PL 84-473)	State option to waive resource test for pure AFDC households passing gross income test. IRA KEOGH accounts counted as resources
1985 Food Security Act (PL 99-198), effective 5/86	\$2,000; \$3,000 for households with elderly member(s) (including one-person households); changed definition of countable resources
1987 Homeless Assistance Act (PL 100-77)	No change
HPA of 1988 (PL 100-435)	No change
FACTA (PL 102-237)	Nonliquid resources and those exempted by AFDC and SSI not counted
Amendments to FACTA of 1991	Same limits; resource holding of AFDC and SSI recipients not counted
MLCHRA (PL 103-66)	Raised the vehicle FMV resource limit to \$4,550 on 9/1/94, to \$4,600 on 10/1/95, and to \$5,000 on 10/1/96, with annual cost-of-living adjustments thereafter; excluded vehicles necessary to carry food or water
PRWORA (PL 104-193)	Vehicle FMV resource limit raised to \$4,650, with no planned future cost-of-living adjustments
BBA (PL 105-33)	No change
AREERA (PL 105-185)	No change
Agriculture Appropriations Act of 2001 (PL 106-387)	Allowed States to use the vehicle limit they used in a TANF assistance program if it would result in a lower attribution of resources for the household
Farm Security and Rural Investment Act of 2002	Increased the resource limit for household with a disabled member from \$2,000 to \$3,000
2008 Farm Bill (PL 110-246)	Indexed resource limits to inflation; excluded all tax-preferred education accounts and retirement accounts from countable resources
ARRA (PL 111-5)	No change
2014 Farm Bill (PL 113-79)	No change

Table F.3C. Selected features of SNAP under past legislation—Benefits

Legislation	Maximum benefit	Minimum benefit	Benefit reduction rate
Food Stamp Act of 1964, as amended (PL 88-525)	Thrifty Food Plan; indexed since 1971; indexed semiannually from 1973 to 1979 based on BLS food price index	Minimum benefit varied by household size	Basis of issuance tables (average 30 percent above lowest levels)
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	Indexed semiannually based on Thrifty Food Plan components	\$10 for one- and two-person households only	30 percent
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	Indexed annually in January based on September cost-of-plan components	No change	No change
OBRA of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL97-98), effective 10/1/81	Indexing frozen until 7/1/83; next adjustment 10/1/84 based on June cost-of-plan components	No change	No change
Food Stamp amendments of 1982 (PL 97-253), effective 10/82, and Continuing Resolution of 1984 (PL 84-473)	Indexed to 99 percent of Thrifty Food Plan cost; changed back to 100 percent by PL 98-473; last step in benefit calculation rounded down	No change	No change
1985 Food Security Act (PL 99-198), effective 5/86	No change	No change	No change
1987 Homeless Assistance Act (PL 100-77)	No change	No change	No change
HPA of 1988 (PL 100-435)	Incremental indexing to 103 percent of Thrifty Food Plan by FY 1991 and thereafter	No change	No change
FACTA (PL 102-237)	No change	Required annual adjustments to the \$10 minimum benefit	No change
Amendments to FACTA of 1991	No change*	No change	No change
MLCHRA (PL 103-66)	No change	No change	No change
PRWORA (PL 104-193)	Reduced to 100 percent of Thrifty Food Plan for contiguous U.S. and District of Columbia; Alaska and Hawaii remained at 1996 levels	Removed requirement for indexing of minimum benefit	No change
BBA (PL 105-33)	No change	No change	No change
AREERA (PL 105-185)	No change	No change	No change
Agriculture Appropriations Act of 2001 (PL 106-387)	No change	No change	No change
Farm Security and Rural Investment Act of 2002	No change	No change	No change
2008 Farm Bill (PL 110-246)	No change	Increased for one- and two-person households from \$10 to 8 percent of maximum benefit of one-person households	No change
ARRA (PL 111-5)	Increased to 113.6 percent of June 2008 value of Thrifty Food Plan, effective April 2009 until October 31, 2013	Adjusted for one- and two-person households, April 2009 until October 31, 2013	No change
2014 Farm Bill (PL 113-79)	No change	No change	No change

Table F.3D. Selected features of SNAP under past legislation—Deductions

Legislation	Deductions
Food Stamp Act of 1964, as amended (PL 88-525)	Payroll; 10 percent of earnings up to \$30; child care; education; medical over \$10; alimony or child support; casualty losses; shelter in excess of 30 percent of net income
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	Standard \$60; indexed semi-annually to CPI nonfood components; 20 percent of earnings; child care up to \$75; shelter in excess of 50 percent of net, not to exceed \$80 in combination with child care; limit indexed annually in July based on shelter-fuel-utilities component of the CPI
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	1980 act: standard deduction and shelter/child care cap indexed annually in January based on September to September change; 1979 act: elderly and disabled not subjected to the excess shelter expense deduction maximum and allowed medical expenses over \$35*
OBRA of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL97-98), effective 10/1/81	18 percent of earnings; shelter/child care cap set at \$115 with next inflation adjustment on 7/1/83, then on 10/1/84, and each October thereafter
Food Stamp amendments of 1982 (PL 97-253), effective 10/82, and Continuing Resolution of 1984 (PL 84-473)	Standard deduction raised to \$89; next inflation adjustment delayed until 10/1/83; limited use of standard utility expense allowances
1985 Food Security Act (PL 99-198), effective 5/86	20 percent of earnings; separate cap of \$147 on excess shelter expense deduction with indexed increases; separate cap of \$160 on dependent care not indexed
1987 Homeless Assistance Act (PL 100-77)	Increased cap on excess shelter expense deduction for all households certified after 10/1/87
HPA of 1988 (PL 100-435)	Dependent care deduction increased to \$160 per month per dependent, rather than per household
FACTA (PL 102-237)	No change
Amendments to FACTA of 1991	No change
MLCHRA (PL 103-66)	Increased cap on excess shelter expense deductions for all households to \$231 after 7/1/94 and to \$247 after 10/1/95; raised the dependent care deduction cap to \$200 a month for each child under age 2 and \$175 a month for all other dependents
PRWORA (PL 104-193)	Standard deduction frozen at current levels; raised excess shelter expense deduction to \$250 on 1/1/97, to \$275 on 10/1/98, to \$300 on 10/1/00
BBA (PL 105-33)	No change
AREERA (PL 105-185)	No change
Agriculture Appropriations Act of 2001 (PL 106-387)	Increased the excess shelter cap to \$340 in FY 2001 and then indexed the cap to changes in the CPI for all consumers each year, beginning in fiscal year 2002
Farm Security and Rural Investment Act of 2002	Changed standard deduction to vary according to household size and be adjusted annually for cost-of-living increases; allowed States to simplify the standard utility allowance if they elected to use it rather than actual utility costs for all households; also allowed States to use a standard deduction of \$143 per month for homeless households with some excess shelter expense deductions
2008 Farm Bill (PL 110-246)	Raised the minimum standard deduction for households with one to three members from \$134 to \$144 for FY 2009 and indexed it to inflation starting in FY 2010; eliminated the dependent care deduction cap
ARRA (PL 111-5)	No change
2014 Farm Bill (PL 113-79)	Tightened standards for households qualifying for standard utility allowances based on receipt of energy assistance

* A provision to reduce the medical deduction from \$35 to \$25 was repealed in OBRA and never implemented.

Table F.3E. Selected features of SNAP under past legislation—Accounting period, categorical eligibility

Legislation	Accounting period	Categorical eligibility
Food Stamp Act of 1964, as amended (PL 88-525)	Prospective month	Public assistance households automatically eligible
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	Prospective month	Public assistance households not automatically eligible
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	State option to use either prospective or retrospective with monthly report	No change
OBRA of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL 97-98), effective 10/1/81	Retrospective becomes mandatory 10/1/83 for some households, prospective for others	No change
Food Stamp amendments of 1982 (PL 97-253), effective 10/82, and Continuing Resolution of 1984 (PL 84-473)	Migrant workers and elderly and disabled households with no earnings exempted from monthly reporting	No change
1985 Food Security Act (PL 99-198), effective 5/86	Retrospective budgeting and monthly reporting required for households with earnings or work history except migrant farmers and elderly or disabled	Categorical eligibility for pure AFDC or SSI households
1987 Homeless Assistance Act (PL 100-77)	Exempted seasonal farm workers and households in which all members were homeless from monthly reporting requirements	No change
HPA of 1988 (PL 100-435)	No change	No change
FACTA (PL 102-237)	No change	Expanded categorical eligibility to recipients of certain State and local general assistance payments
Amendments to FACTA of 1991	No change	No change
MLCHRA (PL 103-66)	No change	No change
PRWORA (PL 104-193)	No change	Categorical eligibility for pure TANF (instead of pure AFDC) households
BBA (PL 105-33)	No change	No change
AREERA (PL 105-185)	No change	No change
Agriculture Appropriations Act of 2001 (PL 106-387)	No change	No change
Farm Security and Rural Investment Act of 2002	No change	No change
2008 Farm Bill (PL 110-246)	No change	No change
ARRA (PL 111-5)	No change	No change
2014 Farm Bill (PL 113-79)	No change	No change

Table F.3F. Selected features of SNAP under past legislation—Work registration requirements and time limits

Legislation	Work registration requirements and time limits
Food Stamp Act of 1964, as amended (PL 88-525)	Required work registration and employment as a condition of eligibility for able-bodied adults between 18 and 65 years of age, except for individuals with responsibility for care of a dependent child or incapacitated adult; students; or individuals employed 30 hours/week
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	Lowered age for individuals required to work from 65 to 60 years of age; added job search as a work requirement; lowered age for caretaker exemption from 18 to 12 years
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	No change
OBRA of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL 97-98), effective 10/1/81	Applied disqualification for voluntarily quitting a job to participants as well as applicants; lowered age for caretaker exemption to 6 years of age
Food Stamp amendments of 1982 (PL 97-253), effective 10/82, and Continuing Resolution of 1984 (PL 84-473)	No change
1985 Food Security Act (PL 99-198), effective 5/86	Disqualified only violating member rather than entire household unless that member was also head of household; required all States to implement an employment and training (E&T) program by April 1, 1987
1987 Homeless Assistance Act (PL 100-77)	No change
HPA of 1988 (PL 100-435)	No change
FACTA (PL 102-237)	No change
Amendments to FACTA of 1991	No change
MLCHRA (PL 103-66)	No change
PRWORA (PL 104-193)	Able-bodied adults without dependents required to work at least 20 hours per week in a job or qualified training program; if individual is subject to, but not complying with, the requirement, he or she is limited to 3 months of benefits in any 36-month period; minimum disqualification periods for individuals who fail to comply with work requirements range from 1 month to permanently, depending on the number of violations
BBA (PL 105-33)	Increased funds for SNAP E&T programs but restricted the use of the funds (requiring them to earmark 80 percent for adults age 18-49 without disabilities in childless households); made the funds available until expended; allowed States to grant discretionary exemptions from the time limits for up to 15 percent of the State's unwaived able-bodied caseload
AREERA (PL 105-185)	No change
Agriculture Appropriations Act of 2001 (PL 106-387)	No change
Farm Security and Rural Investment Act of 2002	Authorized additional funding for States that pledge to offer work slots to all unemployed childless adults subject to the 3-month time limit and eliminated the requirement that 80 percent of unmatched funds be used for nondisabled childless adults
2008 Farm Bill (PL 110-246)	Permitted the use of E&T funds for job retention services for up to 90 days after individuals who received E&T services gain employment
ARRA (PL 111-5)	Allowed States to temporarily suspend the time limit on benefits for nondisabled adults without dependents
2014 Farm Bill (PL 113-79)	No change

Table F.3G. Selected features of SNAP under past legislation—Treatment of legally resident noncitizens

Legislation	Treatment of legally resident noncitizens*
Food Stamp Act of 1964, as amended (PL 88-525)	No disqualifications
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	No disqualifications
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	No disqualifications
OBRA of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL 97-98), effective 10/1/81	The 1980 amendments required certification workers to report an ineligible alien to INS; income and resources of aliens' sponsors were deemed to alien for three years after entry into the country
Food Stamp amendments of 1982 (PL 97-253) effective 10/82 and Continuing Resolution of 1984 (PL 84-473)	No disqualifications
1985 Food Security Act (PL 99-198), effective 5/86	No disqualifications
1987 Homeless Assistance Act (PL 100-77)	No disqualifications
HPA of 1988 (PL 100-435)	No disqualifications
FACTA (PL 102-237)	No disqualifications
Amendments to FACTA of 1991	No disqualifications
MLCHRA (PL 103-66)	No disqualifications
PRWORA (PL 104-193)	Permanent resident aliens disqualified unless they have 40 quarters of qualified work history in the U.S. or are currently or were formerly members of the U.S. armed forces; members of their families also exempt; refugees, asylees, and deportees eligible for five years after entering the U.S.
BBA (PL 105-33)	No change
AREERA (PL 105-185)	Restored eligibility to permanent resident aliens lawfully in the U.S. on August 22, 1996, and disabled, blind, or under age 18, or 65 or older on August 22, 1996; extended eligibility for refugees, asylees, and deportees from five to seven years after entering U.S.
Agriculture Appropriations Act of 2001 (PL 106-387)	No change
Farm Security and Rural Investment Act of 2002	Restored eligibility to qualified noncitizens otherwise eligible for SNAP and who are receiving disability benefits regardless of date of entry (effective FY 2003); are under 18 regardless of date of entry (effective FY 2004); or have lived in the U.S. for five years as qualified noncitizens (effective April 2003)
2008 Farm Bill (PL 110-246)	No change
ARRA (PL 111-5)	No change
2014 Farm Bill (PL 113-79)	No change

* Unauthorized immigrants have always been ineligible for SNAP.

Table F.3H. Selected features of SNAP under past legislation—Other changes

Legislation	Other changes
Food Stamp Act of 1964, as amended (PL 88-525)	Nationwide program
Food Stamp Act of 1977 (PL 95-113), effective 1/1/79	Eliminated the “purchase requirement,” which required that all participating households purchase their food stamps, paying an amount commensurate with their income and expenses
Food Stamp amendments of 1979 and 1980 (PL 96-58 and PL 96-249)	Increased State incentives for reducing error; SSNs required; limits on eligible students; residents of shelters for battered women and disabled in small groups may participate; established quality control system
OBRA of 1981 (PL 86-35) and Food Stamp amendments and Reauthorization Act of 1981 (PL 97-98), effective 10/1/81	Tightened definition of household, no extra benefits for strikers, prorated first month benefits; for Puerto Rico, replaced the Food Stamp Program with a block grant Nutrition Assistance Program
Food Stamp amendments of 1982 (PL 97-253), effective 10/82 and Continuing Resolution of 1984 (PL 84-473)	Replaced three-tiered incentive system with increased administrative funding for States with error rates below 5 percent, limited student eligibility, benefits rounded down, job search requirements, Puerto Rico cashout prohibited; SNAP household definition altered; no initial-month benefits less than \$10; SSI and Social Security cost of living adjustments disregarded up to three months; new definition of disabled
1985 Food Security Act (PL 99-198), effective 5/86	New definition of disabled; Puerto Rico block grant funds; Job Training Partnership Act students exempted from categorical restriction; residents of publicly operated mental health centers may participate
1987 Homeless Assistance Act (PL 100-77)	Outreach efforts for homeless individuals and other hard-to-serve groups; simplified application process for these groups; expanded eligibility for expedited source
HPA of 1988 (PL 100-435)	Expanded the definition of disabled; excluded advanced earned income tax credit payments as income
FACTA (PL 102-237)	Rules for student eligibility modified
Amendments to FACTA of 1991	All Title IV payments and Bureau of Indian Affairs educational assistance excluded from the program’s countable income (Higher Education Amendments of 1992 [PL 102-325])
The Mickey Leland Childhood Hunger Relief Act of 1993 (PL 103-66), effective 9/1/94	Simplified the household definition by allowing individuals who live together but do not purchase and prepare food together to be in separate program households; spouses still must be in the same household
PRWORA (PL 104-193)	A child under age 22 living with parents must apply as part of the parents’ household even if the child is married or has children of his/her own, and all States must convert food stamp benefits from paper coupons to electronic benefit transfer (EBT) systems by 10/1/02
BBA (PL 105-33)	None
AREERA (PL 105-185)	None
Agriculture Appropriations Act of 2001 (PL 106-387)	None
Farm Security and Rural Investment Act of 2002	Allowed States to offer transitional SNAP benefits for up to five months after households lose TANF cash assistance and allowed States to extend semiannual reporting of changes to all households not exempt from periodic reporting
2008 Farm Bill (PL 110-246)	Renamed the Food Stamp Program the “Supplemental Nutrition Assistance Program”; renamed the Food Stamp Act of 1977 the Food and Nutrition Act of 2008; prohibited issuance of paper coupons effective 6/18/08; food stamp coupons no longer redeemable at stores after 8/17/09; allowed States to place all households on simplified reporting; allowed State agencies to provide transitional food stamp benefits to households that cease to receive cash assistance; and allowed applicants to sign an application through a recorded verbal assent over the telephone
ARRA (PL 111-5)	None
2014 Farm Bill (PL 113-79)	None

APPENDIX G
HISTORICAL SNAP ELIGIBILITY PARAMETERS

Table G.1. Monthly SNAP gross income screen, 1982 to 2017

Analysis period	Household size								Each additional
	1	2	3	4	5	6	7	8	
August 1982									
Contiguous states	\$507	\$674	\$841	\$1,008	\$1,175	\$1,342	\$1,508	\$1,675	+ 167
Alaska	636	844	1,052	1,260	1,468	1,676	1,884	2,092	+ 208
Hawaii	584	776	968	1,160	1,351	1,543	1,735	1,927	+ 192
August 1984									
Contiguous states	540	728	917	1,105	1,294	1,482	1,671	1,859	+ 189
Alaska	676	912	1,147	1,382	1,617	1,852	2,087	2,322	+ 236
Hawaii	621	838	1,055	1,271	1,488	1,705	1,921	2,138	+ 217
August 1986									
Contiguous states	582	786	988	1,193	1,397	1,599	1,804	2,008	+ 205
Alaska	727	982	1,235	1,490	1,745	2,000	2,252	2,509	+ 255
Hawaii	670	904	1,138	1,372	1,606	1,840	2,074	2,308	+ 234
August 1988									
Contiguous states	596	802	1,008	1,214	1,420	1,625	1,831	2,037	+ 206
Alaska	744	1,001	1,259	1,517	1,775	2,033	2,291	2,548	+ 258
Hawaii	684	921	1,159	1,396	1,633	1,870	2,108	2,345	+ 238
August 1990									
Contiguous states	648	869	1,090	1,311	1,532	1,753	1,974	2,195	+ 221
Alaska	811	1,087	1,363	1,640	1,916	2,192	2,468	2,745	+ 277
Hawaii	745	999	1,254	1,508	1,763	2,018	2,272	2,527	+ 255
August 1991									
Contiguous states	681	913	1,144	1,376	1,608	1,840	2,072	2,304	+ 232
Alaska	850	1,140	1,430	1,721	2,011	2,301	2,592	2,882	+ 291
Hawaii	784	1,050	1,317	1,583	1,850	2,116	2,383	2,649	+ 267
August 1992									
Contiguous states	718	962	1,207	1,452	1,697	1,942	2,187	2,431	+ 245
Alaska	899	1,204	1,510	1,815	2,121	2,426	2,732	3,037	+ 306
Hawaii	825	1,107	1,388	1,670	1,952	2,233	2,515	2,797	+ 282
August 1993									
Contiguous states	738	996	1,254	1,512	1,770	2,027	2,285	2,543	+ 258
Alaska	921	1,244	1,567	1,890	2,213	2,535	2,858	3,181	+ 323
Hawaii	849	1,146	1,442	1,739	2,036	2,333	2,630	2,927	+ 297
September 1994									
Contiguous states	756	1,022	1,289	1,555	1,822	2,088	2,355	2,621	+ 267
Alaska	943	1,277	1,610	1,944	2,278	2,611	2,945	3,279	+ 334
Hawaii	871	1,177	1,482	1,788	2,093	2,399	2,704	3,010	+ 306
September 1995									
Contiguous states	798	1,066	1,335	1,604	1,872	2,141	2,410	2,678	+ 269
Alaska	997	1,333	1,669	2,005	2,340	2,676	3,012	3,348	+ 336
Hawaii	918	1,227	1,536	1,844	2,153	2,462	2,771	3,079	+ 309
September 1996									
Contiguous states	810	1,087	1,364	1,642	1,919	2,196	2,474	2,751	+ 278
Alaska	1,012	1,359	1,706	2,052	2,399	2,746	3,092	3,439	+ 347
Hawaii	933	1,252	1,570	1,889	2,207	2,526	2,844	3,163	+ 319
September 1997									
Contiguous states	839	1,123	1,407	1,690	1,974	2,258	2,542	2,826	+ 284
Alaska	1,047	1,402	1,758	2,113	2,468	2,824	3,179	3,534	+ 356
Hawaii	966	1,292	1,618	1,944	2,270	2,596	2,922	3,248	+ 327
September 1998									
Contiguous states	855	1,150	1,445	1,739	2,034	2,329	2,623	2,918	+ 295
Alaska	1,070	1,438	1,806	2,175	2,543	2,911	3,280	3,648	+ 369
Hawaii	983	1,322	1,661	2,000	2,339	2,678	3,018	3,357	+ 340
September 1999									
Contiguous states	873	1,176	1,479	1,783	2,086	2,389	2,693	2,996	+ 304
Alaska	1,091	1,471	1,850	2,229	2,608	2,987	3,366	3,746	+ 380
Hawaii	1,004	1,352	1,701	2,050	2,399	2,748	3,097	3,445	+ 349

Table G.1. (continued)

Analysis period	Household size								Each additional
	1	2	3	4	5	6	7	8	
September 2000									
Contiguous states	893	1,199	1,504	1,810	2,115	2,421	2,726	3,032	+ 306
Alaska	1,118	1,500	1,881	2,262	2,644	3,025	3,406	3,788	+ 382
Hawaii	1,029	1,380	1,731	2,082	2,433	2,784	3,135	3,486	+ 351
FY 2001									
Contiguous states	905	1,219	1,533	1,848	2,162	2,476	2,790	3,104	+ 315
Alaska	1,130	1,524	1,917	2,310	2,703	3,097	3,490	3,883	+ 394
Hawaii	1,039	1,401	1,763	2,125	2,487	2,849	3,210	3,572	+ 362
FY 2002									
Contiguous states	931	1,258	1,585	1,913	2,240	2,567	2,894	3,221	+ 328
Alaska	1,163	1,572	1,982	2,391	2,801	3,210	3,620	4,029	+ 410
Hawaii	1,072	1,448	1,824	2,200	2,576	2,951	3,327	3,703	+ 376
FY 2003									
Contiguous states	960	1,294	1,628	1,961	2,295	2,629	2,962	3,296	+ 334
Alaska	1,201	1,618	2,035	2,452	2,869	3,286	3,703	4,120	+ 418
Hawaii	1,105	1,489	1,872	2,256	2,639	3,023	3,406	3,790	+ 384
FY 2004									
Contiguous states	973	1,313	1,654	1,994	2,334	2,674	3,014	3,354	+ 341
Alaska	1,215	1,641	2,066	2,492	2,918	3,344	3,769	4,195	+ 426
Hawaii	1,120	1,511	1,902	2,293	2,684	3,075	3,466	3,857	+ 392
FY 2005									
Contiguous states	1,009	1,354	1,698	2,043	2,387	2,732	3,076	3,421	+ 345
Alaska	1,260	1,692	2,123	2,554	2,985	3,416	3,847	4,279	+ 432
Hawaii	1,160	1,556	1,953	2,349	2,746	3,142	3,539	3,935	+ 397
FY 2006									
Contiguous states	1,037	1,390	1,744	2,097	2,450	2,803	3,156	3,509	+ 354
Alaska	1,295	1,737	2,179	2,621	3,063	3,505	3,947	4,389	+ 442
Hawaii	1,193	1,599	2,006	2,412	2,818	3,224	3,631	4,037	+ 407
FY 2007									
Contiguous states	1,062	1,430	1,799	2,167	2,535	2,904	3,272	3,640	+ 369
Alaska	1,328	1,788	2,248	2,709	3,169	3,630	4,090	4,550	+ 461
Hawaii	1,221	1,645	2,069	2,492	2,916	3,339	3,763	4,186	+ 424
FY 2008									
Contiguous states	1,107	1,484	1,861	2,238	2,615	2,992	3,369	3,746	+ 377
Alaska	1,384	1,855	2,326	2,798	3,269	3,740	4,211	4,683	+ 472
Hawaii	1,273	1,707	2,140	2,573	3,007	3,440	3,873	4,307	+ 434
October 2008 to March 2009									
Contiguous states	1,127	1,517	1,907	2,297	2,687	3,077	3,467	3,857	+ 390
Alaska	1,409	1,896	2,384	2,871	3,359	3,846	4,334	4,821	+ 488
Hawaii	1,296	1,745	2,193	2,642	3,090	3,539	3,987	4,436	+ 449
April 2009 to September 2009									
Contiguous states	1,127	1,517	1,907	2,297	2,687	3,077	3,467	3,857	+ 390
Alaska	1,409	1,896	2,384	2,871	3,359	3,846	4,334	4,821	+ 488
Hawaii	1,296	1,745	2,193	2,642	3,090	3,539	3,987	4,436	+ 449
FY 2010									
Contiguous states	1,174	1,579	1,984	2,389	2,794	3,200	3,605	4,010	+ 406
Alaska	1,466	1,973	2,480	2,987	3,494	4,001	4,508	5,015	+ 507
Hawaii	1,350	1,816	2,282	2,748	3,214	3,679	4,145	4,611	+ 466
FY 2011									
Contiguous states	1,174	1,579	1,984	2,389	2,794	3,200	3,605	4,010	+ 406
Alaska	1,466	1,973	2,480	2,987	3,494	4,001	4,508	5,015	+ 507
Hawaii	1,350	1,816	2,282	2,748	3,214	3,679	4,145	4,611	+ 466
FY 2012									
Contiguous states	1,180	1,594	2,008	2,422	2,836	3,249	3,663	4,077	+ 414
Alaska	1,474	1,992	2,509	3,027	3,545	4,063	4,581	5,099	+ 518
Hawaii	1,359	1,835	2,310	2,786	3,261	3,737	4,212	4,688	+ 476

Table G.1. (continued)

Analysis period	Household size								Each additional
	1	2	3	4	5	6	7	8	
FY 2013									
Contiguous states	1,211	1,640	2,069	2,498	2,927	3,356	3,785	4,214	+ 429
Alaska	1,514	2,050	2,586	3,123	3,659	4,195	4,731	5,268	+ 537
Hawaii	1,394	1,887	2,379	2,872	3,365	3,858	4,351	4,844	+ 493
FY 2014									
Contiguous states	1,245	1,681	2,116	2,552	2,987	3,423	3,858	4,294	+ 436
Alaska	1,555	2,100	2,645	3,190	3,735	4,280	4,825	5,369	+ 545
Hawaii	1,434	1,934	2,435	2,935	3,436	3,936	4,437	4,937	+ 501
FY 2015									
Contiguous states	1,265	1,705	2,144	2,584	3,024	3,464	3,904	4,344	+440
Alaska	1,580	2,130	2,681	3,231	3,781	4,332	4,882	5,432	+551
Hawaii	1,454	1,960	2,466	2,972	3,478	3,984	4,490	4,996	+506
FY 2016									
Contiguous states	1,276	1,726	2,177	2,628	3,078	3,529	3,980	4,430	+451
Alaska	1,595	2,158	2,722	3,285	3,848	4,412	4,975	5,538	+564
Hawaii	1,468	1,986	2,504	3,022	3,540	4,058	4,575	5,093	+518
FY 2017									
Contiguous states	1,287	1,736	2,184	2,633	3,081	3,530	3,980	4,430	+451
Alaska	1,608	2,169	2,730	3,292	3,853	4,414	4,975	5,538	+564
Hawaii	1,481	1,997	2,513	3,028	3,544	4,060	4,575	5,093	+518

Source: U.S. Department of Agriculture.

Table G.2. Monthly SNAP net income screen, 1976 to 2017

Analysis period	Household size								Each additional
	1	2	3	4	5	6	7	8	
September 1976									
Contiguous states	\$245	\$322	\$433	\$553	\$660	\$787	\$873	\$993	+ 127
Alaska	307	413	593	753	893	1,073	1,187	1,353	+ 167
Hawaii	273	407	580	740	880	1,053	1,167	1,333	+ 166
February 1978									
Contiguous states	262	344	460	580	687	827	913	1,047	+ 133
Alaska	328	447	633	807	960	1,147	1,273	1,453	+ 180
Hawaii	286	427	607	773	920	1,100	1,220	1,393	+ 173
August 1980									
Contiguous states	316	418	520	621	723	825	926	1,028	+ 102
Alaska	397	524	650	777	904	1,030	1,157	1,284	+ 127
Hawaii	365	481	598	715	831	948	1,065	1,181	+ 117
August 1982									
Contiguous states	390	519	647	775	904	1,032	1,160	1,289	+ 129
Alaska	490	650	810	970	1,130	1,290	1,450	1,610	+ 160
Hawaii	450	597	745	892	1,040	1,187	1,335	1,482	+ 148
August 1984									
Contiguous states	415	560	705	850	995	1,140	1,285	1,430	+ 145
Alaska	520	701	882	1,063	1,244	1,425	1,605	1,786	+ 181
Hawaii	478	645	811	978	1,145	1,311	1,478	1,645	+ 167
August 1986									
Contiguous states	447	604	760	917	1,074	1,230	1,387	1,544	+ 157
Alaska	559	755	950	1,146	1,342	1,538	1,732	1,930	+ 196
Hawaii	515	695	875	1,055	1,235	1,415	1,595	1,775	+ 180
August 1988									
Contiguous states	459	617	775	934	1,092	1,250	1,409	1,567	+ 158
Alaska	572	770	969	1,167	1,365	1,564	1,762	1,960	+ 198
Hawaii	526	709	891	1,074	1,256	1,439	1,621	1,804	+ 183
August 1990									
Contiguous states	499	669	839	1,009	1,179	1,349	1,519	1,689	+ 170
Alaska	624	836	1,049	1,261	1,474	1,686	1,899	2,111	+ 213
Hawaii	573	769	965	1,160	1,356	1,552	1,748	1,944	+ 196
August 1991									
Contiguous states	524	702	880	1,059	1,237	1,415	1,594	1,772	+ 179
Alaska	654	877	1,100	1,324	1,547	1,770	1,994	2,217	+ 224
Hawaii	603	808	1,013	1,218	1,423	1,628	1,833	2,038	+ 205
August 1992									
Contiguous states	552	740	929	1,117	1,305	1,494	1,682	1,870	+ 189
Alaska	691	926	1,161	1,396	1,631	1,866	2,101	2,336	+ 235
Hawaii	635	851	1,068	1,285	1,501	1,718	1,935	2,151	+ 217
August 1993									
Contiguous states	568	766	965	1,163	1,361	1,560	1,758	1,956	+ 199
Alaska	709	957	1,205	1,454	1,702	1,950	2,199	2,447	+ 249
Hawaii	653	881	1,110	1,338	1,566	1,795	2,023	2,251	+ 229
September 1994									
Contiguous states	581	786	991	1,196	1,401	1,606	1,811	2,016	+ 205
Alaska	725	982	1,239	1,495	1,752	2,009	2,265	2,522	+ 257
Hawaii	670	905	1,140	1,375	1,610	1,845	2,080	2,315	+ 235
September 1995									
Contiguous states	614	820	1,027	1,234	1,440	1,647	1,854	2,060	+ 207
Alaska	767	1,025	1,284	1,542	1,800	2,059	2,317	2,575	+ 259
Hawaii	706	944	1,181	1,419	1,656	1,894	2,131	2,369	+ 238
September 1996									
Contiguous states	623	836	1,050	1,263	1,476	1,690	1,903	2,116	+ 214
Alaska	779	1,045	1,312	1,579	1,845	2,112	2,379	2,645	+ 267
Hawaii	718	963	1,208	1,453	1,698	1,943	2,188	2,433	+ 245

Table G.2. (continued)

Analysis period	Household size								Each additional
	1	2	3	4	5	6	7	8	
September 1997									
Contiguous states	645	864	1,082	1,300	1,519	1,737	1,955	2,174	+ 219
Alaska	805	1,079	1,352	1,625	1,899	2,172	2,445	2,719	+ 274
Hawaii	743	994	1,245	1,495	1,746	1,997	2,248	2,499	+ 251
September 1998									
Contiguous states	658	885	1,111	1,338	1,565	1,791	2,018	2,245	+ 227
Alaska	823	1,106	1,390	1,673	1,956	2,240	2,523	2,806	+ 284
Hawaii	756	1,017	1,278	1,539	1,800	2,060	2,321	2,582	+ 261
September 1999									
Contiguous states	671	905	1,138	1,371	1,605	1,838	2,071	2,305	+ 234
Alaska	840	1,131	1,423	1,715	2,006	2,298	2,590	2,881	+ 292
Hawaii	772	1,040	1,309	1,577	1,845	2,114	2,382	2,650	+ 269
September 2000									
Contiguous states	687	922	1,157	1,392	1,627	1,862	2,097	2,332	+ 235
Alaska	860	1,154	1,447	1,740	2,034	2,327	2,620	2,914	+ 294
Hawaii	791	1,061	1,331	1,601	1,871	2,141	2,411	2,681	+ 270
FY 2001									
Contiguous states	696	938	1,180	1,421	1,663	1,905	2,146	2,388	+ 242
Alaska	870	1,172	1,475	1,777	2,080	2,382	2,685	2,987	+ 303
Hawaii	800	1,078	1,356	1,635	1,913	2,191	2,470	2,748	+ 279
FY 2002									
Contiguous states	716	968	1,220	1,471	1,723	1,975	2,226	2,478	+ 252
Alaska	895	1,210	1,525	1,840	2,155	2,470	2,785	3,100	+ 315
Hawaii	825	1,114	1,403	1,692	1,981	2,270	2,560	2,849	+ 290
FY 2003									
Contiguous states	739	995	1,252	1,509	1,765	2,022	2,279	2,535	+ 257
Alaska	924	1,245	1,565	1,886	2,207	2,528	2,849	3,170	+ 321
Hawaii	850	1,145	1,440	1,735	2,030	2,325	2,620	2,915	+ 295
FY 2004									
Contiguous states	749	1,010	1,272	1,534	1,795	2,057	2,319	2,580	+ 262
Alaska	935	1,262	1,590	1,917	2,245	2,572	2,900	3,227	+ 328
Hawaii	861	1,162	1,463	1,764	2,065	2,365	2,666	2,967	+ 301
FY 2005									
Contiguous states	776	1,041	1,306	1,571	1,836	2,101	2,366	2,631	+ 265
Alaska	970	1,301	1,633	1,965	2,296	2,628	2,960	3,291	+ 332
Hawaii	892	1,197	1,502	1,807	2,112	2,417	2,722	3,027	+ 305
FY 2006									
Contiguous states	798	1,070	1,341	1,613	1,885	2,156	2,428	2,700	+ 272
Alaska	996	1,336	1,676	2,016	2,356	2,696	3,036	3,376	+ 340
Hawaii	918	1,230	1,543	1,855	2,168	2,480	2,793	3,105	+ 313
FY 2007									
Contiguous states	817	1,100	1,384	1,667	1,950	2,234	2,517	2,800	+ 284
Alaska	1,021	1,375	1,730	2,084	2,438	2,792	3,146	3,500	+ 355
Hawaii	940	1,265	1,591	1,917	2,243	2,569	2,895	3,220	+ 326
FY 2008									
Contiguous states	851	1,141	1,431	1,721	2,011	2,301	2,591	2,881	+ 290
Alaska	1,065	1,427	1,790	2,152	2,515	2,877	3,240	3,602	+ 363
Hawaii	980	1,313	1,646	1,980	2,313	2,646	2,980	3,313	+ 334
October 2008 to March 2009									
Contiguous states	867	1,167	1,467	1,767	2,067	2,367	2,667	2,967	+ 300
Alaska	1,084	1,459	1,834	2,209	2,584	2,959	3,334	3,709	+ 375
Hawaii	997	1,342	1,687	2,032	2,377	2,722	3,067	3,412	+ 345
April 2009 to September 2009									
Contiguous states	867	1,167	1,467	1,767	2,067	2,367	2,667	2,967	+ 300
Alaska	1,084	1,459	1,834	2,209	2,584	2,959	3,334	3,709	+ 375
Hawaii	997	1,342	1,687	2,032	2,377	2,722	3,067	3,412	+ 345

Table G.2. (continued)

Analysis period	Household size								Each additional
	1	2	3	4	5	6	7	8	
FY 2010									
Contiguous states	903	1,215	1,526	1,838	2,150	2,461	2,773	3,085	+ 312
Alaska	1,128	1,518	1,908	2,298	2,688	3,078	3,468	3,858	+ 390
Hawaii	1,039	1,397	1,755	2,114	2,472	2,830	3,189	3,547	+ 359
FY 2011									
Contiguous states	903	1,215	1,526	1,838	2,150	2,461	2,773	3,085	+ 312
Alaska	1,128	1,518	1,908	2,298	2,688	3,078	3,468	3,858	+ 390
Hawaii	1,039	1,397	1,755	2,114	2,472	2,830	3,189	3,547	+ 359
FY 2012									
Contiguous states	908	1,226	1,545	1,863	2,181	2,500	2,818	3,136	+ 319
Alaska	1,134	1,532	1,930	2,329	2,727	3,125	3,524	3,922	+ 399
Hawaii	1,045	1,411	1,777	2,143	2,509	2,875	3,240	3,606	+ 366
FY 2013									
Contiguous states	931	1,261	1,591	1,921	2,251	2,581	2,911	3,241	+ 330
Alaska	1,165	1,577	1,990	2,402	2,815	3,227	3,640	4,052	+ 413
Hawaii	1,072	1,451	1,830	2,210	2,589	2,968	3,347	3,726	+ 380
FY 2014									
Contiguous states	958	1,293	1,628	1,963	2,298	2,633	2,968	3,303	+ 335
Alaska	1,196	1,615	2,035	2,454	2,873	3,292	3,711	4,130	+ 420
Hawaii	1,103	1,488	1,873	2,258	2,643	3,028	3,413	3,798	+ 385
FY 2015									
Contiguous states	973	1,311	1,650	1,988	2,326	2,665	3,003	3,341	+339
Alaska	1,215	1,639	2,062	2,485	2,909	3,332	3,755	4,179	+424
Hawaii	1,119	1,508	1,897	2,286	2,675	3,065	3,454	3,843	+390
FY 2016									
Contiguous states	981	1,328	1,675	2,021	2,368	2,715	3,061	3,408	+347
Alaska	1,227	1,660	2,094	2,527	2,960	3,394	3,827	4,260	+434
Hawaii	1,130	1,528	1,926	2,325	2,723	3,121	3,520	3,918	+399
FY 2017									
Contiguous states	990	1,335	1,680	2,025	2,370	2,715	3,061	3,408	+347
Alaska	1,237	1,669	2,100	2,532	2,964	3,395	3,827	4,260	+434
Hawaii	1,140	1,536	1,933	2,330	2,726	3,123	3,520	3,918	+399

Source: U.S. Department of Agriculture.

Table G.3. Monthly maximum SNAP benefit, 1976 to 2017

Analysis period	Household size								
	1	2	3	4	5	6	7	8	Each additional
September 1976									
Contiguous states	\$50	\$92	\$130	\$166	\$198	\$236	\$262	\$298	+ 38
Alaska	68	124	178	226	268	322	356	406	+ 50
Hawaii	66	122	174	222	264	316	350	400	+ 50
February 1978									
Contiguous states	52	96	138	174	206	248	274	314	+ 40
Alaska	72	134	190	242	288	344	382	436	+ 54
Hawaii	70	128	182	232	276	330	366	418	+ 52
August 1980									
Contiguous states	63	115	165	209	248	298	329	376	+ 47
Alaska	98	180	258	327	388	466	515	589	+ 74
Hawaii	84	158	226	287	341	409	452	517	+ 65
August 1982									
Contiguous states	70	128	183	233	277	332	367	419	+ 53
Alaska	108	197	293	359	426	512	565	646	+ 81
Hawaii	95	175	250	318	378	453	501	572	+ 72
August 1984									
Contiguous states	76	139	199	253	301	361	399	457	+ 57
Alaska	109	200	286	364	432	518	473	655	+ 82
Hawaii	108	198	283	360	427	513	567	648	+ 81
August 1986									
Contiguous states	80	147	211	268	318	382	422	483	+ 60
Alaska	111	204	293	372	442	530	586	670	+ 84
Hawaii	124	228	327	415	493	592	654	748	+ 94
August 1988									
Contiguous states	87	159	228	290	344	413	457	522	+ 65
Alaska	113	207	297	378	448	538	595	680	+ 85
Hawaii	133	244	350	444	527	633	700	800	+ 100
August 1990									
Contiguous states	99	182	260	331	393	472	521	596	+ 75
Alaska	123	227	325	413	490	588	650	743	+ 93
Hawaii	151	276	396	503	598	717	793	906	+ 113
August 1991									
Contiguous states	105	193	277	352	418	502	555	634	+ 79
Alaska	137	252	361	459	545	655	723	827	+ 103
Hawaii	172	316	452	574	682	819	905	1,034	+ 129
August 1992									
Contiguous states	111	203	292	370	440	528	584	667	+ 83
Alaska	142	261	374	475	564	677	748	855	+ 107
Hawaii	181	333	477	606	720	864	955	1,091	+ 136
August 1993									
Contiguous states	111	203	292	370	440	528	584	667	+ 83
Alaska	143	262	376	477	567	680	752	859	+ 107
Hawaii	182	335	480	609	724	868	960	1,097	+ 137
September 1994									
Contiguous states	112	206	295	375	446	535	591	676	+ 85
Alaska	147	271	388	492	585	702	776	887	+ 111
Hawaii	187	343	492	625	742	890	984	1,125	+ 141
September 1995									
Contiguous states	115	212	304	386	459	550	608	695	+ 87
Alaska	147	271	388	492	585	702	776	887	+ 111
Hawaii	193	354	508	645	766	919	1,016	1,161	+ 145
September 1996									
Contiguous states	119	218	313	397	472	566	626	716	+ 90
Alaska	153	280	401	510	605	726	803	918	+ 115
Hawaii	198	364	522	663	787	945	1,044	1,193	+ 149

Table G.3. (continued)

Analysis period	Household size								
	1	2	3	4	5	6	7	8	Each additional
September 1997									
Contiguous states	120	220	315	400	475	570	630	720	+ 90
Alaska	153	280	401	510	605	726	803	918	+ 115
Hawaii	198	364	522	663	787	945	1,044	1,193	+ 149
September 1998									
Contiguous states	122	224	321	408	485	582	643	735	+ 92
Alaska	154	283	405	514	611	733	810	926	+ 116
Hawaii	197	361	517	657	780	936	1,035	1,183	+ 148
September 1999									
Contiguous states	125	230	329	419	497	597	659	754	+ 94
Alaska	157	287	412	523	621	746	824	942	+ 118
Hawaii	197	362	518	658	781	938	1,036	1,185	+ 148
September 2000									
Contiguous states	127	234	335	426	506	607	671	767	+ 96
Alaska	158	290	415	528	627	752	831	950	+ 119
Hawaii	199	365	523	664	789	947	1,047	1,196	+ 150
FY 2001									
Contiguous states	130	238	341	434	515	618	683	781	+ 98
Alaska	160	294	421	535	635	762	842	963	+ 120
Hawaii	199	366	524	665	790	948	1,048	1,198	+ 150
FY 2002									
Contiguous states	135	248	356	452	537	644	712	814	+ 102
Alaska	167	307	440	559	663	796	880	1,006	+ 126
Hawaii	204	374	536	680	808	970	1,072	1,225	+ 153
FY 2003									
Contiguous states	139	256	366	465	553	664	733	838	+ 105
Alaska	169	309	443	563	669	803	887	1,014	+ 127
Hawaii	212	389	557	707	840	1,008	1,114	1,273	+ 159
FY 2004									
Contiguous states	141	259	371	471	560	672	743	849	+ 106
Alaska	167	307	439	558	663	795	879	1,005	+ 126
Hawaii	210	386	553	702	834	1,001	1,106	1,264	+ 158
FY 2005									
Contiguous states	149	274	393	499	592	711	786	898	+ 112
Alaska	177	324	465	590	701	841	930	1,063	+ 133
Hawaii	222	408	585	742	882	1,058	1,170	1,337	+ 167
FY 2006									
Contiguous states	152	278	399	506	601	722	798	912	+ 114
Alaska	181	333	477	606	720	864	955	1,091	+ 136
Hawaii	229	421	602	765	909	1,090	1,205	1,378	+ 172
FY 2007									
Contiguous states	155	284	408	518	615	738	816	932	+ 117
Alaska	183	336	482	612	726	872	964	1,101	+ 138
Hawaii	240	440	630	800	950	1,140	1,260	1,440	+ 180
FY 2008									
Contiguous states	162	298	426	542	643	772	853	975	+ 122
Alaska	194	356	510	648	770	924	1,021	1,167	+ 146
Hawaii	258	473	678	861	1,022	1,227	1,356	1,549	+ 194
October 2008 to March 2009									
Contiguous states	176	323	463	588	698	838	926	1,058	+ 132
Alaska	210	385	552	701	833	999	1,105	1,263	+ 158
Hawaii	276	506	725	921	1,094	1,313	1,451	1,658	+ 207
April 2009 to September 2009^a									
Contiguous states	200	367	526	668	793	952	1,052	1,202	+ 150
Alaska	239	438	627	797	946	1,135	1,255	1,434	+ 179
Hawaii	314	575	824	1,046	1,243	1,491	1,648	1,884	+ 236

Table G.3. (continued)

Analysis period	Household size								
	1	2	3	4	5	6	7	8	Each additional
FY 2010									
Contiguous states	200	367	526	668	793	952	1,052	1,202	+ 150
Alaska	239	438	627	797	946	1,135	1,255	1,434	+ 179
Hawaii	314	575	824	1,046	1,243	1,491	1,648	1,884	+ 236
FY 2011									
Contiguous states	200	367	526	668	793	952	1,052	1,202	+ 150
Alaska	239	438	627	797	946	1,135	1,255	1,434	+ 179
Hawaii	314	575	824	1,046	1,243	1,491	1,648	1,884	+ 236
FY 2012									
Contiguous states	200	367	526	668	793	952	1,052	1,202	+ 150
Alaska	239	438	627	797	946	1,135	1,255	1,434	+ 179
Hawaii	314	575	824	1,046	1,243	1,491	1,648	1,884	+ 236
FY 2013									
Contiguous states	200	367	526	668	793	952	1,052	1,202	+ 150
Alaska	239	438	627	797	946	1,135	1,255	1,434	+ 179
Hawaii	319	585	839	1,065	1,265	1,518	1,678	1,917	+ 240
October 2013^a									
Contiguous states	200	367	526	668	793	952	1,052	1,202	+ 150
Alaska	239	438	627	797	946	1,135	1,255	1,434	+ 179
Hawaii	330	605	867	1,100	1,307	1,568	1,734	1,981	+ 248
November 2013 to September 2014									
Contiguous states	189	347	497	632	750	900	995	1,137	+ 142
Alaska	226	415	594	755	896	1,076	1,189	1,359	+ 170
Hawaii	330	605	867	1,100	1,307	1,568	1,734	1,981	+ 248
FY 2015									
Contiguous states	194	357	511	649	771	925	1,022	1,169	+146
Alaska	227	417	598	759	902	1,082	1,196	1,367	+171
Hawaii	332	609	872	1,107	1,315	1,578	1,744	1,994	+249
FY 2016									
Contiguous states	194	357	511	649	771	925	1,022	1,169	+146
Alaska	237	435	622	790	939	1,127	1,245	1,423	+178
Hawaii	343	630	902	1,146	1,361	1,633	1,805	2,063	+258
FY 2017									
Contiguous states	194	357	511	649	771	925	1,022	1,169	+146
Alaska	237	435	622	790	939	1,127	1,245	1,423	+178
Hawaii	354	650	931	1,182	1,404	1,685	1,862	2,128	+266

Source: U.S. Department of Agriculture.

^a ARRA increased maximum benefits from April 2009 through October 2013.

Table G.4. Minimum monthly SNAP benefit, 1980 to 2017

Analysis period	Household size		
	1	2	3 +
August 1980 to FY 2008			
Contiguous states	\$10	\$10	\$0
Alaska	10	10	0
Hawaii	10	10	0
First half of FY 2009 (October 2008 to March 2009)			
Contiguous states	14	14	0
Alaska	17	17	0
Hawaii	22	22	0
Second half of FY 2009 (April to September 2009) to FY 2012			
Contiguous states	16	16	0
Alaska	19	19	0
Hawaii	25	25	0
FY 2013 to October 2013			
Contiguous states	16	16	0
Alaska	19	19	0
Hawaii	26	26	0
FY 2014			
Contiguous states	15	15	0
Alaska	18	18	0
Hawaii	26	26	0
FY 2015			
Contiguous states	16	16	0
Alaska	18	18	0
Hawaii	27	27	0
FY 2016			
Contiguous states	16	16	0
Alaska	19	19	0
Hawaii	28	28	0
FY 2017			
Contiguous states	16	16	0
Alaska	19	19	0
Hawaii	28	28	0

Source: U.S. Department of Agriculture.

Table G.5. Resource eligibility, 1976 to 2017

Analysis period	Resource eligibility
September 1976 to August 1984	\$1,500; \$3,000 for elderly households with at least 2 members
August 1986 to FY 2002	\$2,000; \$3,000 for elderly households
FY 2003 to FY 2011	\$2,000; \$3,000 for households containing elderly individuals or individuals with disabilities
FY 2012 to FY 2014	\$2,000; \$3,250 for households containing elderly individuals or individuals with disabilities
FY 2015 to FY 2017	\$2,250; \$3,250 for households containing elderly individuals or individuals with disabilities

Source: U.S. Department of Agriculture.

APPENDIX H
PREVIOUS REPORTS IN THIS SERIES

Current Perspectives on SNAP Participation

Previous reports in this series:

Trends in Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2010 to Fiscal Year 2016 Karen Cunnyingham	July 2018
Trends in Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2010 to Fiscal Year 2015 Kelsey Farson Gray and Karen Cunnyingham	June 2017
Trends in Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2010 to Fiscal Year 2014 Kelsey Farson Gray and Karen Cunnyingham	June 2016
Trends in Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2010 to Fiscal Year 2013 Esa Eslami	August 2015
Trends in Supplemental Nutrition Assistance Program Participation Rates: Fiscal Year 2010 to Fiscal Year 2012 Esa Eslami	July 2014
Supplemental Nutrition Assistance Program Participation Rates: Fiscal Years 2010 and 2011 Esa Eslami and Karen Cunnyingham	February 2014
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Trends in Supplemental Nutrition Assistance Program Participation Rates: 2001 to 2008 Joshua Leftin	June 2010
Trends in Supplemental Nutrition Assistance Program Participation Rates: 2000 to 2007 Joshua Leftin and Kari Wolkwitz	June 2009
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Trends in Food Stamp Program Participation Rates: 1999 to 2005 Kari Wolkwitz	June 2007
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Food Stamp Program Participation Rates Among the Poverty Population, 1980–1987 Carole Trippe and Harold Beebout	November 1988