

**Does the Decline in Food Stamp Use by Rural Low-Income Households
Represent Less Need or Less Access?
Evidence from New Data on Food Insecurity and Hunger**

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Abstract

Changes in food insecurity and hunger among low-income nonmetropolitan households that did not receive food stamps are analyzed to assess the extent to which the decline in food stamp caseloads among these households resulted from reduced need for food assistance versus reduced access to food stamps. Changes in nonmetropolitan areas are compared to those at the national level. Food insecurity increased substantially among low-income non-food-stamp households indicating that the decline in food stamp use by low-income households resulted primarily from reduced access to food stamps. The lack of a corresponding increase in hunger, however, suggests that the most needy households, those facing hunger without food assistance, were generally still able to access food stamps. The patterns in nonmetropolitan areas did not differ substantially from those at the national level.

Introduction

Both cash welfare caseloads and food stamp caseloads declined dramatically from 1994 to 1998. In nonmetropolitan (hereafter nonmetro) areas also, declines were substantial, although somewhat smaller than in metropolitan (metro) areas, at least in the early part of the period (RUPRI 1999; Reinschmiedt et al. 1999).

A great deal of research has looked at the causes of these declines, especially focusing on the relative importance of the economy, intended effects of welfare reform, and unintended effects of welfare reform. A smaller number of studies has assessed whether the changes in cash welfare use have resulted in improved or deteriorated economic well-being of potential users, generally finding that economic well-being has not improved and may have deteriorated for these households (Primus et al. 1999). To date, no such assessment of the effects of changes in food stamp use has been made. Here I use data from the Current Population Survey Food Security Supplements of April 1995 and April 1999 to assess whether the decline in food stamp use was associated with changes in food insecurity or hunger among low-income households. The analysis is carried out at both the national level and for nonmetro areas, because outcomes of welfare program changes may differ between metro and nonmetro areas (RUPRI 1999).

Food stamp caseloads declined substantially from their peak in 1994 through at least 1998 (Wilde et al. 2000; Genser 1999). Much of this decline resulted from the economic expansion, which lowered unemployment and raised incomes, thus reducing both eligibility for food stamps and the perceived need for food stamps among eligible households (Wilde et al. 2000). However, even among lower income, mostly eligible households,¹ food stamp participation declined. Wilde et al. (2000) found that, at the national level, about 55 percent of the overall decline in food stamp caseload from 1994 to 1998 resulted from a decline in food stamp use rates among low-income households.

It is unclear to what extent this decline in food stamp use among low-income households resulted from reduced need for food stamps versus reduced access to food stamps. There are several credible reasons why food stamp participation among eligibles would be expected to decline because of an improved economy. Eligible households may have more stable income, even though still below the eligibility level, and may therefore feel less need for food assistance. They may, on average, have higher income, and therefore be eligible for a smaller total food stamp benefit, thus reducing their incentive to apply for food stamps. They

¹ Income information in the data sources used for that study as well as for the present study refer to annual income. Food stamp eligibility is based on income during the previous month, and there are asset tests for eligibility as well. This means that some households with annual income above 130 percent of poverty were eligible for food stamps in some months. Conversely, some households with annual income below 130 percent of poverty were ineligible because of asset holdings.

may have more confidence in their ability to get a job in the near future and may therefore spend down assets or borrow to meet immediate food needs rather than apply for food stamps. On the other hand, changes in the food stamp program under the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 (PROWRA) decreased access to food stamps for some groups, especially for aliens and for able-bodied working-age persons without dependents, and slightly reduced benefit levels available to most eligible persons. Further, there is evidence that changes in cash welfare programs have indirectly reduced food stamp participation because families losing cash welfare assistance, or not qualifying to get cash assistance, do not always know they are eligible for food stamps (Zedlewski and Brauner 1999).

The short term effects of changes in cash welfare use on well-being have been assessed by comparing income (combining non-welfare and welfare income) of recipients and non-recipients in two time periods, or, using longitudinal data, for welfare leavers and continued welfare users. A similar assessment could be carried out by imputing income value to food stamps received. However, a more appropriate outcome variable is now available in the form of the food security scale in the Current Population Survey Food Security Supplements. This scale is a direct measure of conditions that the Food Stamp Program is designed to ameliorate - food insecurity and hunger. The food security supplements also include information about food program use, including receipt of food stamps. These data are available beginning in 1995, not long after food stamp caseloads peaked, and before the recent major changes in the welfare system began.

A simple model of the decision to apply (or reapply) for food stamps might include the following causal variables:

- Eligibility
- Potential benefit
- Knowledge about the program and about own eligibility
- Perceived stigma
- Perceived cost of applying (in time and money)
- Perceived need of food assistance

Assessing the reasons for the recent caseload decline during a period when all of these variables have changed is a daunting task. Here I pursue a more limited objective. I control for eligibility by restricting the analysis to low-income (generally income-eligible) households. For this population, I assess the extent to which caseloads have declined due to less perceived need for food assistance (by potential applicants) versus all other reasons combined (i.e. decreased access). I then repeat the analysis for just the nonmetro low-income population to

assess the extent to which the relative importance of decreased need versus decreased access may be different in rural and urban areas.

I use food security status as a measure of perceived need for food assistance, and I focus attention on non-recipients of food stamps. If food stamp use declined among low-income households because their perceived need of food assistance declined, either due to improved economic situations or for other reasons, then the prevalence of food insecurity and hunger among low-income households not receiving food stamps should have remained unchanged (or perhaps declined). On the other hand, if food stamp use declined among low-income households because they found it more difficult to get food stamps, or because some of them were not eligible, or were not aware that they were eligible, then the prevalence of food insecurity and hunger among low-income households not receiving food stamps should have increased.

I focus on non-recipients of food stamps because the interpretation of changes in the prevalence of food insecurity among food stamp recipients is somewhat ambiguous. Improvements in the economy would be expected to shift the income distribution upward among those still receiving food stamps, thus reducing average food insecurity and hunger. Reduced access to cash welfare would shift the income distribution downward, increasing the prevalences of food insecurity and hunger. Reduced value of food stamp benefits due to program changes might also tend to increase food insecurity and hunger among recipients. However, all of these effects are likely to be swamped by changes in the well-being composition of food stamp recipient households that resulted from the decline in food stamp participation among low-income households. If households left the food stamp program (or did not apply to the food stamp program) because of reduced need for food stamps, it is likely to have been the least needy who left. This would leave behind those with higher levels of food insecurity and hunger, thus increasing the prevalence of these conditions among food stamp recipients. On the other hand, if households left the food stamp program (or did not apply to the food stamp program) because of reduced access to food stamps, it is not certain whether the “leavers” would have been primarily the least needy, or would have included a substantial proportion of more needy households as well. Because of these uncertainties, it is not possible to unambiguously relate changes in food security status of food stamp recipients to reduced need for food stamps versus reduced access to food stamps. I partially overcome this analytic difficulty by assessing changes over time in food insecurity and hunger among food stamp recipients and non-recipients while controlling for changes in income distribution, but controlling for income only partly controls for well-being, and the meaning of the observed changes for food stamp recipient households remains somewhat ambiguous.

Data and Methods

Data used in this analysis are from the April 1995 and April 1999 Current Population Survey (CPS) Food Security Supplements. The Food Security Supplements are sponsored by USDA and conducted by the Census Bureau along with the Current Population Survey once each year. The CPS includes a nationally representative sample of some 50,000 households, about 44,000 of which complete the Food Security Supplements. The Supplements include questions about household food expenditures, sources of food assistance, food insecurity, and hunger.

The food insecurity and hunger questions ask about a wide range of experiences and behaviors that are known to characterize households having difficulty meeting their food needs. A scale based on 18 of these questions has been developed to measure the severity of food insecurity and hunger across a wide range, from food secure at one extreme to severe hunger at the other (Hamilton et al. 1997a; Hamilton et al. 1997b; Price, Hamilton, and Cook 1997; Bickel et al. 2000). All of the scale questions refer to the 12 months prior to the survey and include a qualifying phrase reminding the respondent to report only those occurrences due to limited financial resources. Restrictions to food intake due to dieting or busy schedules are excluded.

For analytic purposes, each household is classified into one of three categories based on their food security scale score: (1) food secure, (2) food insecure with no hunger evident, and (3) food insecure with hunger (Hamilton et al. 1997a; Bickel et al. 2000). For this study, I use as the primary analytic tool prevalences of food insecurity (including food insecure with and without hunger) and prevalences of hunger among various subpopulations.

Comparisons of food security data across years are complicated by year-to-year changes in screening protocols that are implemented in the CPS Food Security Supplements to reduce respondent burden. The 1995 and 1999 Food Security Supplements used nearly the same screening, especially for low-income households, so I used the “maximum sample” measures of food security status (Bickel, Carlson, and Nord 1999). That is, I did not apply any *post hoc* screening in addition to that used in the questionnaire administration. I checked the tabulated results for all households and for all low-income households against results using the common screen for 1995-1999 to verify that the changes from 1995 to 1999 were not biased by the slight differences in screening that did exist.

Low-income households were identified as those with household income (based on CPS “control card” income category) below 130 percent of the poverty threshold for the household. Household demographic

categories (two-parent families with children, single-mother families with children, multi-adult households without children, men living alone, and women living alone) were identified as in Bickel, Carlson, and Nord (1999), except that households in which the reference person was not a citizen were analyzed as a separate category irrespective of their household composition. Separate analysis of non-citizens was necessary because most non-citizens became ineligible for cash assistance and food stamps during the period under study.

All households with income below 185 percent of poverty were asked about food stamp receipt.² Food stamp receipt was referenced to the previous 30 days in the 1995 CPS but to the previous year in the 1999 CPS.³ In 1999, affirmative responses were followed up with a question that asked in which month food stamps were last received. If the response was July or August (i.e., the month of the survey or the previous month), then a second follow-up asked on what date food stamps were received. To make the 1999 data comparable to 1995, I constructed from the three questions in 1999 a variable identifying whether the household received food stamps in the previous 30 days.

Prevalences of food insecurity (with or without hunger) and of hunger were then calculated for categories defined by income, food stamp receipt, and household composition. These prevalences were compared between 1995 and 1999. Household supplement weights⁴ were used for calculating prevalences, and standard errors of the estimates were calculated based on the number of unweighted cases and an assumed design factor of 1.6 for national prevalences and 2.4 for nonmetro prevalences. At the national level, the design factor of 1.6 is consistent with variances calculated using replication (“bootstrap”) methods. I applied an additional design factor of 1.5 for nonmetro estimates in accordance with CPS general variance estimation procedures.

²Higher-income households were asked about food stamp receipt only if they indicated some level of food stress on preliminary screener questions. These same screener questions determined if the high-income households were asked the food security core questions or whether they were assumed to be food secure. For higher-income households, then, recorded receipt of food stamps and food security status would be artifactually associated. This was not problematic for the present study, since the association between food stamp use and food security status was only analyzed for low-income households.

³The wording of the question in 1999 was, “In the past 12 months, since [month] last year, did anyone in this household get food stamp benefits that is, either food stamps or a food-stamp benefit card?”

⁴For the 1999 data, the “food security prevalence weights” were used. These weights are based on supplement household weights, adjusted for some households to correct for a small number of households which received experimental questions and whose food security status could not, therefore, be ascertained.

To assess the extent to which food insecurity prevalences were affected by changes in income-composition of a subpopulation, I first estimated a logistic regression model of the association of food insecurity with income for that subpopulation in 1995. I entered food security status in dichotomous form (food insecure/food secure) as the dependent variable, and regressed this on income, entered as the income-to-poverty ratio in cubic functional form (i.e., including the first, second, and third powers of the income-to-poverty ratio) to control for income as completely as possible. To calculate the income-to-poverty ratio, household income was taken as the midpoint of the “control card” income range for the household, and the poverty threshold for the household was the official poverty threshold for that year based on the number of adults, number of children, and, for one and two person households, the age of the household reference person (64 or less/65 or more). The regression coefficients from the 1995 logistic regression were then applied to the 1999 data for the corresponding subpopulation. The sum of predicted probabilities that households were food insecure in 1999, based on regression coefficients from 1995, provided an estimate of what the prevalence of food insecurity would have been in 1999 if nothing had changed except the income composition of the subpopulation. The difference between this estimated 1999 rate and the observed 1995 rate represents the change in the prevalence of food insecurity that resulted from change in the income distribution of the subpopulation. The extent to which the prevalence of hunger was affected by change in income-composition of a subpopulation was similarly estimated, with food security status dichotomized at the hunger threshold.

Findings

National Level

Increasing incomes clearly contributed substantially to the decline in food stamp use. The proportion of households with income below 130 percent of the poverty line declined from 24.2 percent in 1995 to 19.1 percent in 1999 (table 1). Adjusted for population growth, this represented a decline of 21.0 percent in the low-income, generally food-stamp-eligible, population. However, even among low-income households, food stamp use declined by more than one-third (consistent with Wilde et al. 2000). Declines were largest for non-citizens (57.3 percent) and for two-parent families with children (41.2 percent) and smallest for women living alone (23.8 percent). In absolute terms, the decline was largest for single mothers with children (21.1 percentage points). This large decline is of particular interest analytically because single mothers with children represented about 40 percent of all low-income households that received food stamps in 1995. Further, there is concern that some of these families stopped receiving food stamps because they did not know they were still eligible after leaving cash welfare (Zedlewski 1999).

At the national level, food insecurity declined by 1.7 percentage points from 1995 to 1999 (table 2). Food insecurity is closely linked to income, and the decline in food insecurity from 1995 to 1999 can be accounted for entirely by the higher incomes in 1999. The association between income and food insecurity was virtually unchanged from 1995 to 1999 (figure 1). In fact, the small change that did occur would have resulted in a slight increase (about 0.1 percentage point, analysis not shown) in food insecurity during the period, but this was more than offset by the upward shift in the income distribution.

The important role of higher income in the decline of food insecurity is reflected also by the changes in food insecurity when disaggregated by income level (table 2). The prevalence of food insecurity declined slightly among medium-income and higher-income households (income more than 130 percent of the poverty line), and registered a statistically insignificant increase of 0.9 percentage points among low-income households (income less than 130 percent of the poverty line). Obviously, the major factor in the decline was the reduced proportion of households falling in the low-income category.

It is not clear *a priori* how, or to what extent, the distribution of income within the low-income category may have changed from 1995 to 1999. An improved economy might generally raise incomes throughout the lower end of the distribution. On the other hand, the improved economy might benefit primarily those who were most attached to the labor market and thus not too far below the low-income cutoff. If those “escaping” from low-income status were primarily from among this less needy group, the remaining low-income households might have lower average income in 1999 than in 1995. Analysis of the relationship between income and food insecurity indicated that, in fact, the overall income situation of the low-income category improved slightly from 1995 to 1999. Holding constant the relationship between income and food insecurity as observed in 1995, changes in income from 1995 to 1999 would have resulted in a small decline in food insecurity (-0.31 percentage points). This was more than offset by other factors so that food insecurity registered a small (not statistically significant) increase of 0.84 percentage points.

For low-income households not receiving food stamps, the category of primary analytic focus for this study, the prevalence of food insecurity increased by 5 percentage points (table 2). Adjusting for the decline in the number of low-income households, this represented an increase in food insecurity of 21.6 percent (5.02 as a percentage of 23.19). This rather large increase in food insecurity suggests that most of the decline in food stamp receipt by low-income households resulted from decreased access to food stamps, not from decreased need for food assistance by these households. Income distribution did not change very much within this

group, and only 0.32 percentage points of the increase in the prevalence of food insecurity was due to the change in income distribution.

The increase in food insecurity among low-income, non-food-stamp households was widespread, affecting all household types (table 2). Among low-income, non-food-stamp households headed by U.S. citizens, increases in the prevalence of food insecurity were substantial and similar in magnitude for all household types except women living alone. Even for this latter category, observed food insecurity increased by 3 percentage points. Women living alone also experienced the smallest proportional decline in food stamp receipt (table 1), which may explain the smaller deterioration in food security observed in this category.

Alien-headed low-income, non-food-stamp households registered a smaller, and statistically insignificant, increase in food insecurity compared with that of U.S.-citizen-headed households. This is unexpected, since aliens were impacted more by welfare program changes than were citizens and experienced a sharper decline in food stamp receipt.

Changes in the prevalence of hunger were less consistent, and the meaning of the changes is more difficult to interpret. The prevalence of hunger declined among low-income households by 1.2 percentage points (table 2). Low-income, non-food-stamp households taken together registered almost no change in the hunger rate. The largest, and only statistically significant, change in the hunger rate among low-income non-food-stamp households was for single-mother families with children (a decline of 3.8 percentage points). The combination of widespread increases in food insecurity, but little or no change (or even declines) in hunger among low-income non-food-stamp households, suggests that the most needy households - those facing hunger without food assistance - were still able to access food stamps even though food stamp use declined generally because of reduced access to food stamps. Even so, it is a sobering thought that in 8.8 percent of low-income households not receiving food stamps, people were hungry at times during the year because they couldn't afford enough food.

Among low-income households that received food stamps, there was almost no change in the measured prevalence of food insecurity and the slight reduction observed in the prevalence of hunger was not statistically significant. Interpretation of changes in food security for food-stamp-recipient households is complicated by uncertainty about the effects of change in composition of this category due to changes in food stamp program participation. However, analysis of the association of income and food insecurity indicate that the income situation of low-income food-stamp-recipient households changed only slightly from 1995 to

1999. The slight change that occurred would have reduced food insecurity in the category by 0.25 percentage points in the absence of any other changes, and was, therefore, an increase in income. Thus, to the extent that income stands as a proxy for overall need, either changes in composition of the food stamp population due to the smaller caseload were small, or they were offset by changes in income due either to the improved economy, or to changes in cash welfare programs, or to the combined effects of both.

The most remarkable change among food stamp recipients was the large increase in the prevalence of both food insecurity and hunger for low-income women living alone. Low-income women living alone registered a smaller decline in receipt of food stamps than other groups (table 1), so change in composition seems unlikely to account for these large increases. This is confirmed by the fact that the income distribution of low-income food-stamp-recipient women living alone hardly changed at all from 1995 to 1999, and the small change that did occur was positive, that is, it would have resulted in a slight reduction in food insecurity in the absence of any other changes (analysis not shown). The reduction in food stamp benefit levels required by PROWRA could be a partial explanation of the increase in food insecurity and hunger among women who received food stamps, but that reduction also was relatively small.

Nonmetropolitan Households

In nonmetro areas, as at the national level, increasing incomes contributed substantially to the decline in food stamp use. The proportion of nonmetro households with income below 130 percent of the poverty line declined from 30.7 percent in 1995 to 25.1 percent in 1999 (table 3). Adjusted for population change, this represented a decline of 18.1 percent in the size of the nonmetro low-income population - a decline somewhat smaller than that for the nation as a whole (21.0 percent; table 1).⁵

As at the national level, food stamp use among low-income nonmetro households also declined substantially. For citizen-headed households, the observed decline in nonmetro areas was somewhat smaller than at the national level (33.9 percent in nonmetro areas compared with 37.4 percent at the national level) but this nonmetro-national difference was not statistically significant. In all citizen-headed household categories, the differences between nonmetro and national declines were small and not statistically significant. The large decline in food stamp use registered for nonmetro low-income alien-headed households should be interpreted with caution since this sample was quite small (N=69 households).

⁵The proportion of nonmetropolitan households with low income (below 130 percent of the poverty line) was above the national average in both years, consistent with the higher poverty rate registered in nonmetro areas.

Food insecurity and hunger declined somewhat among nonmetro households from 1995 to 1999 (table 4). As at the national level, this was primarily a result of improved incomes. Among nonmetro households, 91 percent of the decline in food insecurity could be accounted for by the higher incomes in 1999.

Among low-income nonmetro households, food insecurity was unchanged, and the slight decline in hunger was not statistically significant. As at the national level, income distribution changed very little within the low-income category and its effect on food insecurity in nonmetro areas was negligible.

Food insecurity increased among nonmetro low-income non-food-stamp households, and for citizen-headed households in this category the increase (4.7 percentage points) was only slightly smaller than the corresponding increase at the national level (5.3 percentage points). The increase in food insecurity measured as a percent of the 1995 rate was essentially the same in nonmetro areas as it was for the nation as a whole. The increase in food insecurity was less consistent across household types in nonmetro areas than it was at the national level. Increases in food insecurity for households with children were smaller in nonmetro areas than in the nation as a whole, while the reverse was true for women living alone. For multi-adult households without children and for men living alone, observed increases in food insecurity were similar in nonmetro and metro areas. However, these differences across household types in nonmetro areas may be mostly an artifact of higher sampling variation due to the small nonmetro sample sizes.

The change from 1995 to 1999 in the prevalence of hunger among low-income non-food-stamp households was very small and statistically insignificant in nonmetro areas as at the national level. The observed increase among nonmetro households amounted to only 0.41 percentage points for citizen-headed households and to 0.15 percentage points if alien-headed households are included. Among nonmetro citizen-headed households, the largest observed changes were a decline in hunger among two-parent families with children (2.9 percentage points) and an increase in hunger among women living alone (2.8 percentage points). These were not statistically significant, but were large enough to merit further thought and investigation. The corresponding changes at the national level were in the same direction, but were smaller and also not statistically significant. The substantial decline in hunger for single-mother families at the national level was not observed among nonmetro households.

Changes in food insecurity and hunger among nonmetro low-income households that received food stamps were not statistically significant (table 4). The large observed decline for two-parent families with children and increase for multi-adult households without children merit further examination, however.

Summary

Food insecurity declined substantially from 1995 to 1999 both at the national level and in nonmetro areas. At the national level, this was entirely due to rising incomes over the four-year period, which reduced the size of the low-income population by about one-fourth. In nonmetro areas, rising income accounted for nine-tenths of the decline in food insecurity, reducing the size of the low-income population by one-fifth. Among households with income below 130 percent of the poverty line - households generally eligible for the Food Stamp Program - the prevalence of food insecurity was unchanged, or perhaps increased slightly, at the national level and was unchanged in nonmetro areas.

Much of the food stamp caseload decline also resulted from higher incomes. However, the proportion of low-income households that received food stamps also declined substantially, and this decline did not result from changes in income within the low-income category. Increased food insecurity among low-income households that did not receive food stamps indicate that much of this part of the food stamp caseload decline resulted from reduced access to food stamps rather than from less need for food assistance. At the national level this pattern was consistent for all household types with the exception of alien-headed, for whom the increase in food insecurity was smaller and not statistically significant. In nonmetro areas, the same general pattern of increased levels of food insecurity was observed for citizen-headed low-income non-food-stamp households. Increases were less consistent across household types in nonmetro areas, likely due in part to the smaller nonmetro sample size. Differences between nonmetro and national changes in food stamp use and food security were not statistically significant, and, in general, there is little evidence of important differences in causes and consequences of declining food stamp caseloads between nonmetro and metro areas.

Changes in the prevalence of hunger among low-income non-food-stamp households were small overall and inconsistent across household types, generally suggesting that the most needy households were still able to access food stamps. This was especially true for single-mothers with children, among whom the prevalence of hunger declined significantly at the national level.

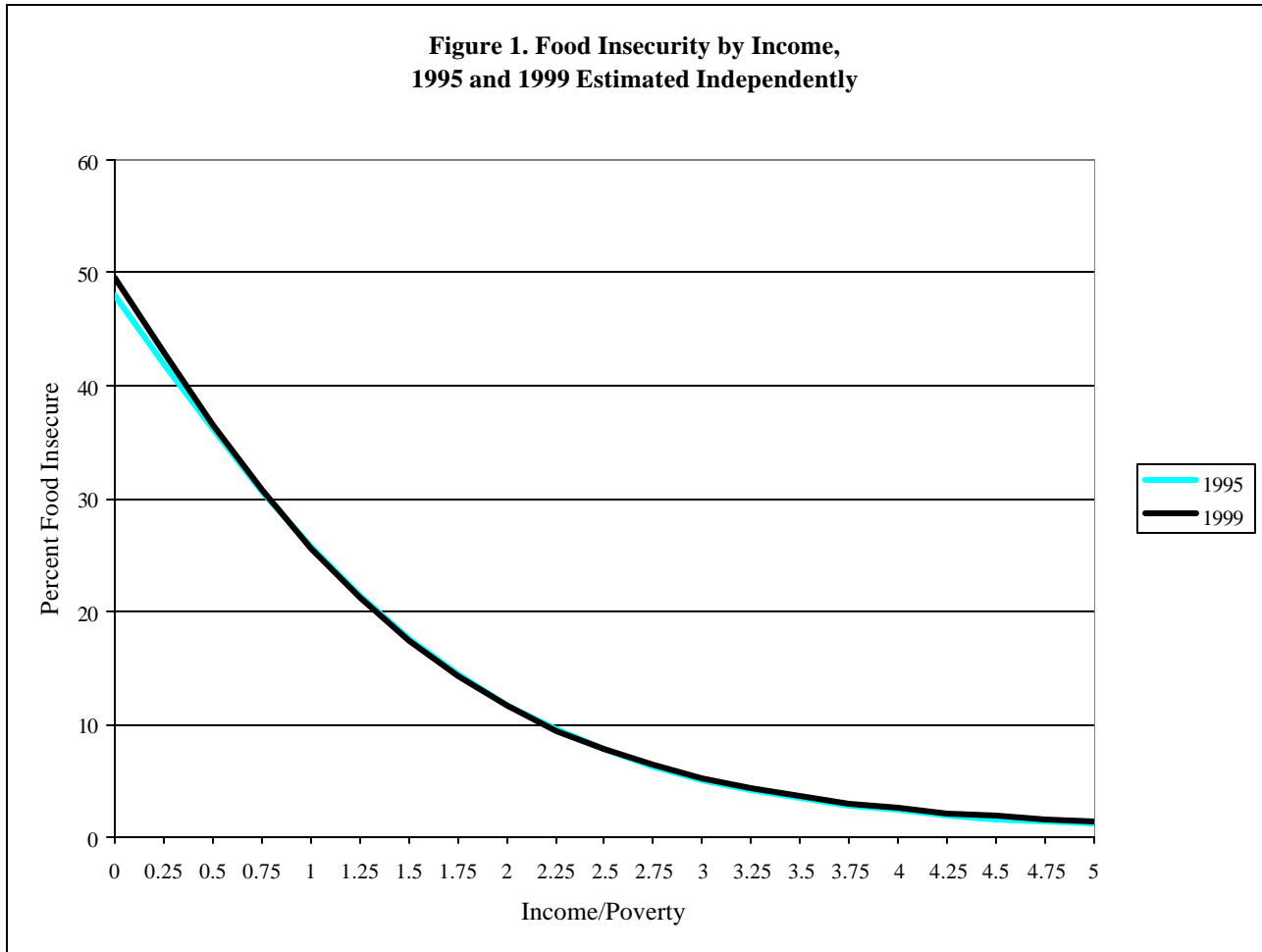
Food insecurity and hunger increased among low-income women living alone, both nationally and in nonmetro areas. This did not appear to be associated with changes in food stamp participation, however. Food stamp receipt by low-income women living alone declined less sharply than for most other groups, and food insecurity and hunger increased among both food stamp recipients and non-recipients.

In summary, much of the decline in the food stamp caseload from 1995 to 1999 resulted from decreased need for, and eligibility for, food assistance due to higher incomes. However, a substantial part of the caseload decline resulted from decreased food stamp use among low-income households, and much of this decline appears to have resulted from decreased access to food stamps, rather than from decreased need for food assistance.

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**Figure 1. Food Insecurity by Income,
1995 and 1999 Estimated Independently**



Note: The curves are predicted prevalence rates of food insecurity based on logistic regressions of food insecurity on income-to-poverty ratio, with the latter entered as a third power polynomial. The regressions were estimated independently for the two years.

Source: Calculated by ERS using data from Current Population Survey Food Security Supplements, April 1995 and April 1999.

Table 1. Changes in income and food stamp use, 1995 - 1999				
	1995 (%)	1999 (%)	Change (%-age points)	Change (%)
Proportion of households with income below 130 % of poverty	24.21	19.12	-5.09	-21.02
Proportion of low-income households that received food stamps during the previous month:				
All low-income households	32.22	20.17	-12.05	-37.40
Aliens	33.11	14.14	-18.97	-57.29
Citizens	32.12	20.95	-11.17	-34.78
Two-parent with children	31.53	18.55	-12.98	-41.17
Single mother with children	63.53	42.46	-21.07	-33.17
Multi-adult with no children	15.76	10.05	-5.71	-36.23
Men living alone	18.25	11.23	-7.02	-38.47
Women living alone	21.79	16.61	-5.18	-23.77

Source: Calculated by ERS using data from Current Population Survey Food Security Supplements, April 1995 and April 1999.

Table 2. Changes in food insecurity and hunger, 1995 - 1999						
	Food insecurity (with or without hunger)			Hunger		
	1995 (%)	1999 (%)	Change (%-age points)	1995 (%)	1999 (%)	Change (%-age points)
All households	11.78	10.06	-1.72*	4.17	2.97	-1.20*
Medium- and high-income households	6.20	5.56	-0.64*	1.91	1.34	-0.57*
Low-income households	31.48	32.37	.89	11.93	10.71	-1.23*
Low-income households not receiving food stamps during the previous month	23.19	28.21	5.02*	8.76	8.88	0.13
Aliens	33.31	34.16	0.85	12.12	9.33	-2.79
Citizens	22.07	27.37	5.30*	8.38	8.82	0.44
Two-parent with children	26.57	32.04	5.48*	6.41	6.10	-0.31
Single mother with children	36.33	41.40	5.08	14.91	11.09	-3.82*
Multi-adult with no children	16.83	20.89	4.06*	6.32	8.31	1.99
Men living alone	23.87	29.67	5.81*	12.82	12.06	-0.75
Women living alone	16.87	19.91	3.04*	6.67	7.95	1.28
Low-income households receiving food stamps during the previous month	48.91	48.84	-0.06	18.62	17.92	-0.69
Aliens	51.53	52.67	1.15	17.30	17.72	0.42
Citizens	48.60	48.51	-0.09	18.77	17.94	-0.83
Two-parent with children	49.50	52.41	2.91	17.41	10.94	-6.47
Single mother with children	51.28	47.50	-3.78	18.95	15.28	-3.67
Multi-adult with no children	46.81	43.56	-3.26	16.72	23.62	6.89
Men living alone	54.85	55.60	0.74	33.84	24.66	-9.17
Women living alone	38.62	50.22	11.60*	15.27	24.59	9.31*

Notes:

*Change was significant at 90 percent confidence level

Source: Calculated by ERS using data from Current Population Survey Food Security Supplements, April 1995 and April 1999.

Table 3. Changes in income and food stamp use in nonmetropolitan households, 1995 - 1999				
	1995 (%)	1999 (%)	Change (%-age points)	Change (%)
Proportion of households with income below 130 % of poverty	30.69	25.12	-5.57	-18.15
Proportion of low-income households that received food stamps during the previous month:				
All low-income households	30.27	20.01	-10.26	-33.89
Aliens	27.35	1.86	-25.49	-93.20
Citizens	30.35	20.56	-9.79	-32.26
Two-parent with children	30.18	20.93	-9.25	-30.65
Single mother with children	59.82	40.13	-19.69	-32.92
Multi-adult with no children	17.45	9.18	-8.27	-47.39
Men living alone	16.66	13.88	-2.78	-16.69
Women living alone	24.89	18.97	-5.92	-23.78

Source: Calculated by ERS using data from Current Population Survey Food Security Supplements, April 1995 and April 1999.

Table 4. Changes in food insecurity and hunger in nonmetropolitan households, 1995 - 1999

	Food insecurity (with or without hunger)			Hunger		
	1995 (%)	1999 (%)	Change (%-age points)	1995 (%)	1999 (%)	Change (%-age points)
All households	12.07	10.15	-1.92*	4.11	2.71	-1.40*
Medium- and high-income households	5.84	5.06	-0.78	1.65	1.02	-0.63*
Low-income households	28.12	28.18	0.07	10.12	8.78	-1.34
Low-income households not receiving food stamps during the previous month	19.59	23.88	4.29*	6.45	6.61	0.15
Aliens	32.17	23.13	-9.03	13.47	4.99	-8.48
Citizens	19.24	23.91	4.67*	6.26	6.67	0.41
Two-parent with children	26.80	28.07	1.27	5.78	2.87	-2.91
Single mother with children	38.02	39.81	1.79	10.27	10.80	0.54
Multi-adult with no children	14.93	18.11	3.17	5.01	4.63	-0.39
Men living alone	19.95	24.78	4.83	11.78	12.01	0.23
Women living alone	9.99	17.06	7.07*	3.80	6.63	2.84
Low-income households receiving food stamps during the previous month	47.75	45.38	-2.38	18.55	17.46	-1.09
Aliens	NA	NA	NA	NA	NA	NA
Citizens	48.05	45.50	-2.55	18.50	17.51	-1.00
Two-parent with children	51.97	55.21	3.25	17.06	6.75	-10.31
Single mother with children	51.69	45.08	-6.61	20.48	17.36	-3.12
Multi-adult with no children	47.55	36.88	-10.67	13.04	25.34	12.30
Men living alone	55.52	54.35	-1.17	36.50	29.08	-7.42
Women living alone	36.83	42.80	5.97	14.32	21.75	7.43

Notes:

*Change was significant at 90 percent confidence level

The nonmetro sample of alien-headed low-income food-stamp-recipient households was too small for reliable estimates of food insecurity and hunger prevalences.

Source: Calculated by ERS using data from Current Population Survey Food Security Supplements, April 1995 and April 1999.