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Income Volatility Is Rising, With Mixed Effects on Nutrition Assistance Participation

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- Income volatility among U.S. households is higher today than 40 years ago, especially among households with the lowest incomes.
- Income volatility has mixed effects on participation in nutrition assistance programs, with some households not applying when eligible and others leaving while still eligible.
- In recent years, the effects of income volatility were eased when major nutrition assistance programs extended the periods for which households receive benefits.



Photos: Jupiterimages

By almost all measures, household income and earnings have become more volatile over the past 40 years. The exact cause is unknown, but increased competition and deregulation in many U.S. industries, the decline of labor unions, and increases in temporary work and self-employment have been suggested. Greater year-to-year income fluctuations can affect well-being by making it harder for households to maintain a stable pattern of consumption and living expenses. While higher income households may have savings to weather periods of reduced earnings, lower income households may be less able to meet basic needs during these periods.

USDA's food and nutrition assistance programs can be important sources of temporary help for low-income families in times of need. Income volatility, however, can lead to fluctuations in a household's eligibility for income-based assistance programs, even over a few months. Volatility complicates the functioning of the food and

nutrition assistance safety net by making it difficult for program administrators to target benefits accurately and define sensible eligibility periods.

As the number of households affected by income volatility grows, and as the amount of volatility experienced by a typical household increases, the problem of getting benefits to those who are eligible becomes more acute. Greater income volatility expands the pool of potentially eligible households as households higher up the income distribution become temporarily eligible.

Increasing Income Volatility Causes More Fluctuation in Eligibility

An ERS study and research from the University of Michigan found that the lower a household's average income, the more likely the household is to face large swings in income. Low-income groups also had the most rapid increases in volatility. The ERS study found that, during the late 1990s, changes in

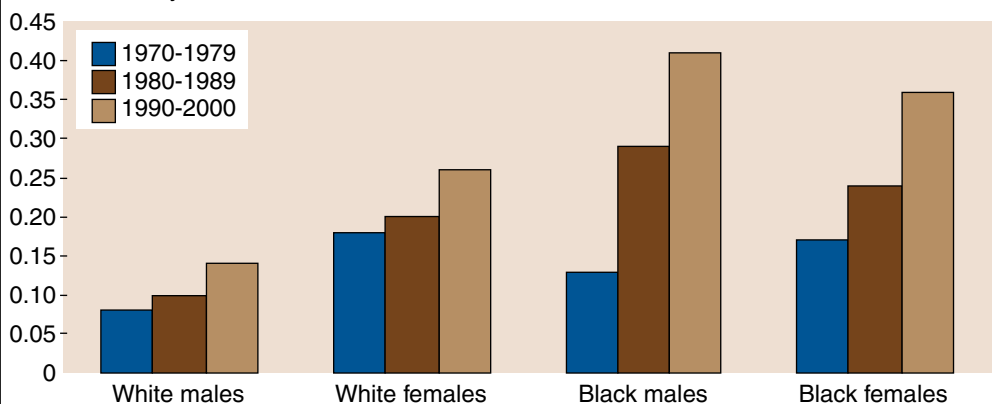
total household hours worked and in the share of adults working were the primary causes of changes in monthly household income.

The research from the University of Michigan found that female and Black heads of households, who are both disproportionately represented among the low-income population, had more than double the levels of income volatility of White male heads of households in 1970-2000. Income volatility was measured as year-to-year variance in household income, adjusted for the fact that people's earnings generally rise with age.

The study further showed that Black male household heads had a 228-percent increase in income volatility during this period from relatively low levels in the 1970s. Volatility for Black female household heads, already high in the 1970s, more than doubled over 1970-2000. White male household heads with low levels of education and low incomes saw greater increases in income volatility from 1970 to 2000 than did other White male household heads.

Black household heads faced higher income volatility. . .

Income volatility, variance¹



. . . and saw largest increases in income volatility

	1970-79	1980-89	1990-2000	Change, 1970-2000
	<i>Income volatility, variance¹</i>			<i>Percent</i>
All household heads				
White males	0.08	0.10	0.14	80
White females	0.18	0.20	0.26	46
Black males	0.13	0.29	0.41	228
Black females	0.17	0.24	0.36	106
White male household heads by average family income				
Lowest quartile	0.11	0.15	0.20	90
Middle two quartiles	0.07	0.09	0.12	73
Top quartile	0.06	0.06	0.09	66
White male household heads by years of education				
<12	0.09	0.15	0.21	120
12+	0.07	0.09	0.12	74
16+	0.06	0.07	0.11	78

¹ A measure of the transitory variance of income, which is a summary statistic of year-to-year deviations in household income, adjusted for the fact that people's earnings generally increase with age. Source: USDA, Economic Research Service from "Trends in Income and Consumption, 1970-2000," by Ben Keys, in *Income Volatility and Food Assistance in the United States*, Dean Jolliffe and James Ziliak (eds.), Kalamazoo, MI: W.E. Upjohn Institute for Employment Research, 2008.

Household eligibility for nutrition assistance programs can fluctuate because of income volatility. Eligible households are certified to receive benefits for a specific time period, and the specific time periods can differ by program and by State. In the National School Lunch Program (NSLP), for example, participants are certified to receive benefits for the school year, even if household income subsequently rises after the first month of

eligibility. The average certification period for the Supplemental Nutrition Assistance Program (SNAP, formerly the Food Stamp Program) was 12 months in 2007. There are some differences by State and by household type; households with earnings tend to have shorter certification periods and households with elderly members have longer ones. When the certification period is over, a household must reapply for continued benefits.

An ERS study found that among households with school-aged children in 1996-97 that were eligible for the NSLP at least once during the year, two-thirds had incomes that cycled above and below the income eligibility threshold during the school year. An estimated 27 percent of households that were income-eligible for subsidized lunches at the beginning of the 1996-97 school year were no longer income-eligible 4 months later due to monthly income changes. However, because of the 12-month certification period instituted in 2004, students in such households are now eligible for benefits. The same patterns of income volatility were found in the late 1990s and early 2000s.

Effects of Income Volatility on Participation Are Mixed

Program participation among households with volatile incomes may be affected by many factors, and research to date is mixed about the overall impact. While income volatility may encourage some households to apply for benefits, it may discourage participation by other households. If an income shortfall is likely to be short lived, a household may choose not to apply for a program despite temporary eligibility. Another household may expect to be cycling in and out of eligibility, and the prospect of short, interrupted eligibility periods may be enough to discourage them from applying.

Volatility may also affect participation directly through changes in eligibility, and this effect can differ by a household's income position relative to the eligibility threshold. Consider the case of households that are eligible for most of a year. Households that have stable incomes will remain eligible all year, while households that have less stable incomes may become ineligible for a few months. The households with more volatile earnings would be less likely to participate because of their periodic ineligibility.

On the other side of the eligibility threshold, among households that are

ineligible for most of the year, the effect is the opposite: among these households, income volatility would lead to relatively more months of eligibility, and thus more chances for participation. Researchers at the Johns Hopkins University and the University of North Carolina found evidence for this asymmetry: from 1999 to 2005, higher earnings variability reduced SNAP participation among households that were eligible for most of the year, and it increased participation among households that were ineligible for most of the year.

Research from the University of North Carolina and the South Carolina Department of Social Services found that only one-fifth of households left SNAP from 1997 to 2005 because their incomes had risen above eligibility limits. Most households that left did so because their certification period had ended. The households that left for reasons other than income ineligibility had higher income volatility than households that remained in SNAP. This means that many high-volatility households left SNAP prematurely—though still eligible, they left at the end of their certification period.

On the other hand, research from the University of Illinois and the University of Kentucky examined changes in yearly income from 1979 to 2002 and found that SNAP participation was generally higher when income was more volatile. This result is consistent with previous findings that food stamps help to maintain basic expenditure levels in the face of rapid income declines.

Income Volatility Effects Muted by Longer Certification Periods

A key policy question is how increased income volatility affects the design and implementation of nutrition assistance programs. A program can save payments to households whose incomes rise above the income threshold by examining eligibility at more frequent intervals. Shorter certification periods, however, entail staff time and equipment costs, as well as time and travel costs to participants.

An ERS model of program cost tradeoffs showed that income volatility could reduce the optimal certification period for the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC). In the model, which used data from the late 1990s, the higher administration costs of shorter certification periods were balanced against the extra cost of benefits paid to households whose income rose above the threshold during the certification period. The research found that the optimal certification period when cost is the main consideration was 14 months at low levels of income volatility and 7 months at high levels of volatility.

Reducing costs, however, is not the only goal of assistance programs. The programs' main goal is to ensure access to eligible households. In the late 1990s, eligible households with earnings had much lower rates of SNAP participation than eligible households without earnings. To encourage participation by households with earnings, certification periods were extended, and income reporting requirements were simplified.

Since the early 2000s, most State SNAP programs have moved from requiring monthly (or quarterly) income reporting to every 6 months. Most States now require a report only if household income has increased to the point of program ineligibility. Before the early 2000s, any change in income in excess of \$25 had to be reported. In 2004, the eligibility period for the NSLP and School Breakfast Program was extended from a month to the whole school year, largely in response to the effect of income volatility on program eligibility.

In sum, income volatility has increased over the last four decades, with the greatest increase among households with the lowest incomes. The interaction of income volatility and program design has important implications for eligibility and participation. New policies in the major nutrition assistance programs, such as longer certification periods, can help to reduce the negative effects of income volatility. \mathbb{W}

This article is drawn from . . .

Income Volatility and Food Assistance in the United States, by Dean Jolliffe and James P. Ziliak (eds.), W.E. Upjohn Institute for Employment Research, Kalamazoo, MI, 2008.

You may also be interested in . . .

The Income Volatility See-Saw: Implications for School Lunch, by Constance Newman, ERR-23, USDA, Economic Research Service, August 2006, available at: www.ers.usda.gov/publications/err23/

"Income Volatility Complicates Food Assistance," by Constance Newman, in *Amber Waves*, Vol. 4, Issue 4, September 2006, available at: www.ers.usda.gov/amberwaves/september06/features/incomevolatility.htm