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Poverty amidst plenty: food insecurity in the United States

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Abstract

The United States faces domestic food security issues that differ from those encountered by many countries. Yet, in 2001, 10.7% of U.S. households were estimated to be food insecure at some point during the year. Food security, poverty, and food insecurity are strongly linked by economic conditions. Job transitions, layoffs, and family disruptions result in periods of low income and vulnerability to food insecurity. Economic and food assistance programs have helped protect many U.S. households when the market economy has failed to do so. These programs have reduced vulnerability to falling income and food insecurity during economic downturns in the business cycle. However effective food assistance programs have been for reducing short-term vulnerability, they do not enhance a household's ability to achieve sustainable food security. Prospects for improving long-term food security are tied to the same economic forces shaping a household's income and budget, particularly those related to labor productivity and wages.

JEL classification: I-Health, Education, and Welfare

Keywords: poverty; food security; household income; labor market

> The fault, Dear Brutus, is not in our stars, but in ourselves.
>
> —William Shakespeare (Julius Caesar)

1. Introduction

The latest estimates by the Food and Agriculture Organization (FAO) indicate some 840 million people were undernourished in 1998–2000—11 million in the industrialized countries, 30 million in countries in transition, and 799 million in the developing world (FAO, 2002a). Undernourishment occurs when food intake falls below a minimum calorie (energy) requirement or when people exhibit physical symptoms caused by energy and nutrient deficiencies resulting from an inadequate or unbalanced diet.[1] A variety of factors, alone or in combination, exists when people are undernourished. Food can be physically unavailable, people can lack social or economic access to adequate food, and food utilization by the body may be inadequate.

Food security—access by all people at all times to enough food for an active healthy life—is an important objective of every nation, formalized in the "Rome Declaration." The United States faces domestic food security issues that differ from those encountered by many countries. Only a small proportion of the U.S. population is food insecure in any given year, and, in most cases, their food insecurity is occasional or episodic, not chronic. Undernourishment as a result of poverty is unusual and health effects like wasting and stunting are rare. Indeed, health problems resulting from overweight are far more widespread than health problems resulting from undernutrition.[2]

Nevertheless, not all U.S. households have achieved food security. Each year, a small proportion of the country's population is food insecure and a smaller number experience hunger at times because they cannot afford enough food. In 2001, 10.7% of U.S. households were estimated to be food insecure at some point

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[1] Energy and nutrient deficiencies may also result from the body's inability to use food effectively because of infection or disease.

[2] Undernutrition results from undernourishment, poor absorption, and/or poor biological use of consumed nutrients.

during the year (Nord et al., 2002). Research suggests that even the food insecurity that exists in the United States—in most cases occasional or episodic occurrences of disrupted eating patterns and reduced food intake—can have deleterious effects on nutrition, health, and children's psychosocial development and learning.

Food security and the economy are strongly linked. In countries with a high prevalence of undernourishment, a comparably high proportion of the population lives on less than US$1 per day. In higher income countries, including the United States, the relationship between relative poverty and increased risk of food insecurity and hunger is well recognized. Although poverty is undoubtedly a cause of hunger, hunger can deprive people of the strength and skill to engage in work and production. Hunger in childhood impairs mental and physical growth, limiting capacity to learn and earn. Recent estimates suggest that halving the number of undernourished by 2015 would yield over US$120 billion per year in increased income (FAO, 2002a).

Poverty and food insecurity are affected by economic conditions in the business cycle. Job transitions, layoffs, and family disruptions result in periods of low income and vulnerability to food insecurity. Government transfer programs in the United States provide an economic safety net to buffer people from the vagaries of the market, but are not typically viewed as mechanisms for permanently or sustainably lifting people out of poverty. Instead, economic growth has long been considered as the most effective instrument to reduce poverty. Over the last 20 to 40 years, however, critics have questioned the continued efficacy of growth for improving the incomes of the poor in the United States (Blank, 1997).

Since the mid-1960s considerable attention in the United States has focused on alternative approaches for alleviating poverty. The anti-poverty program of the 1960s was built on targeted measures like increased education, improvements in public and individual health, vocational training, and community development initiatives, to improve the earning capacities of individuals and communities.

Complementing the anti-poverty programs has been the growth of food-related assistance programs. Born of the Great Depression, but growing to maturity during the 1960s and 1970s, food assistance programs in the United States are meant to protect households' food security when the market economy may fail to do so. In addition to farm programs that promote crop production and lower food prices, the core food assistance programs include the Food Stamp Program, the school meals program, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and commodity distribution programs.

Economic and food assistance programs have helped protect many U.S. households when the market economy has failed to do so. These programs have reduced vulnerability to falling income and food insecurity during economic downturns in the business cycle. However effective food assistance programs have been for reducing short-term vulnerability, they do not enhance a household's ability to achieve sustainable food security. Prospects for improving long-term food security are tied to the same economic forces shaping a household's income and budget, particularly those related to labor productivity and wages.

2. Poverty in the United States

Each society defines poverty in its own terms. Conventional measures of poverty count the number of people below the poverty line and define the poverty rate as the proportion of the total population below the poverty line. Poverty is, therefore, a normative concept, not a statistical one and setting the poverty level requires a judgment about social norms.

In 1968, the U.S. government adopted an official definition of poverty that it uses to publish statistics on income and set eligibility standards for public programs. The official definition of poverty compares a family's cash income with an estimate of its needs. Family needs are calculated as a function of the number of family members and their ages and sex. At the heart of the original definition of poverty was the economy food plan, the least costly of four nutritionally adequate food plans designed by the Department of Agriculture. It was determined from the Department of Agriculture's 1955 Household Food Consumption Survey that families of three or more persons spent approximately one third of their after-tax money income on food. Poverty thresholds for families of three or more persons were set at three times the cost of the economy food plan.

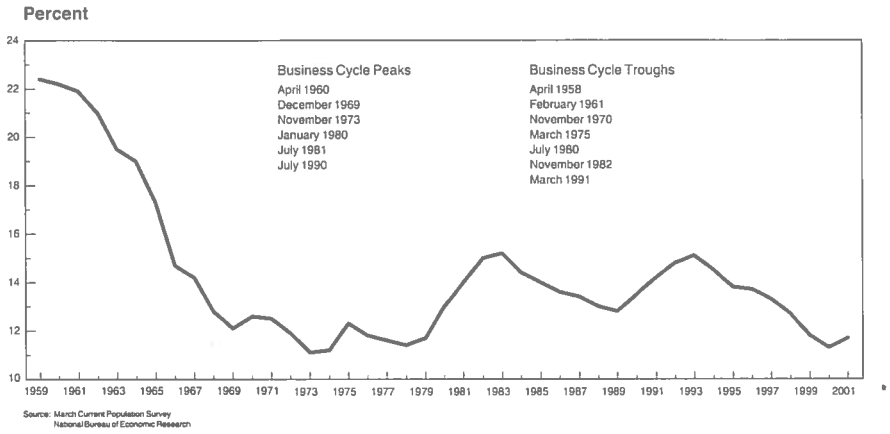


Figure 1. Poverty status of persons (1959–2001). *Source:* U.S. Bureau of the Census, Statistical Abstract of the United States.

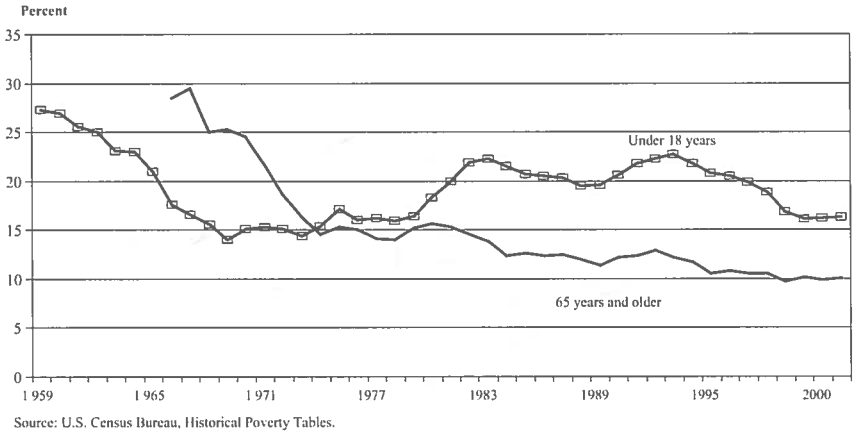


Figure 2. Poverty status by age (1959–2001). *Source:* U.S. Bureau of the Census, Poverty in the United States.

During the rapid growth of the postwar era, poverty fell dramatically and the United States enjoyed its longest period of uninterrupted growth. From 1959 through 1973 poverty declined from over 22% to 11% (Figure 1). So precipitous was the decline in poverty that it gave rise to hopes of eliminating poverty. As incomes grew rapidly many poor and near-poor families were lifted out of poverty into the middle class. Indeed, the entire income distribution was moved toward higher income levels. Since 1973, however, the U.S. poverty rate has increased and then fluctuated around a narrow range.

The poor are not homogeneous. Poverty rates differ significantly by race, sex, and household head. In general, the relative disparities among demographic subgroups have persisted over the last 30 years. The only exception is that the poverty rate for children now exceeds the poverty rate for the elderly (Figure 2).[3] Over the last two decades, the elderly have experienced rising incomes and declining poverty.

There is a dramatic difference in poverty rates for black and white populations (Figure 3). In the mid-1960s the black rate was nearly 4 times the white poverty rate. From 1966 through 1997 the average black poverty rate was about 2.5 times greater than

[3] Many U.S. federal income and food assistance programs (School lunch, WIC, TANF) target children or families with children.

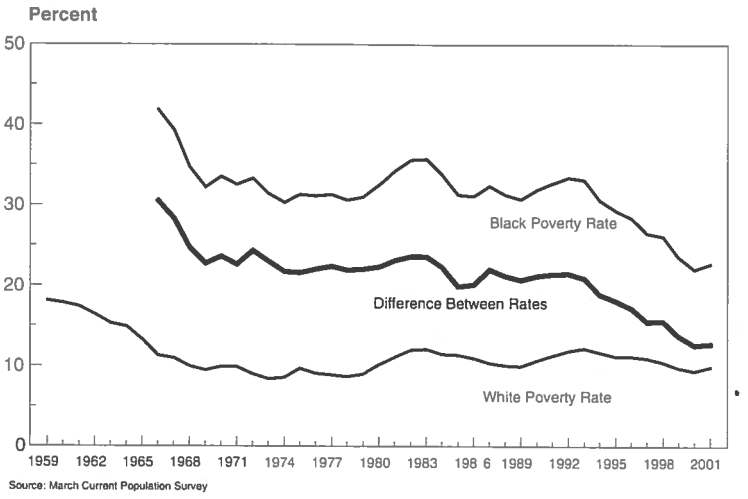


Figure 3. Poverty status by race (1959–2001). *Source:* U.S. Bureau of the Census, Poverty in the United States.

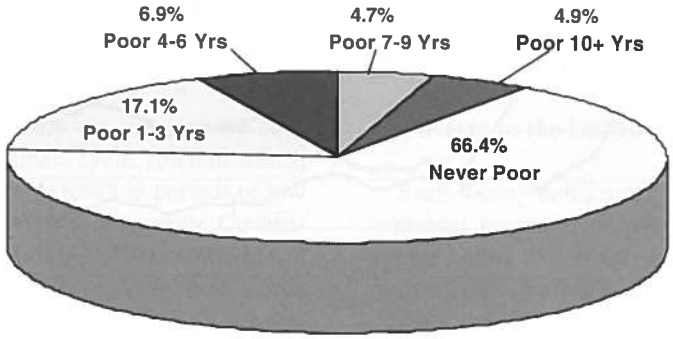


Figure 4. The extent of poverty among Americans (1979–1991). *Source:* Blank, 1997.

white poverty rate. More recently, the differences between the black and white poverty rates have been decreasing as white poverty rates have increased and the black poverty rate has fallen to about 27%. During the 1990s the mean difference between black and white poverty rates was 19%.

Popular notions often cast the poor in the United States as a persistently poor underclass where those in poverty typically remained poor from year to year. Evidence suggests poverty is a much more dynamic condition (Duncan, 1984). Individuals with persistently low incomes are not predominantly an "underclass" of young adults living in large urban areas. Rather, the designation persistently poor falls disproportionately on blacks, on the elderly, and on those living in rural areas and in the South. The persistently poor are more sharply defined by these demographic characteristics than those found to be poor in a given year (Figures 4–7).

3. Measuring food security

The relationship between poverty and food security has been long recognized. For many years, however, constructive discussions about the level and distribution of food security and hunger were hampered by the lack of an adequate measurement and monitoring methodology. There are many methods for measuring food insecurity, each with different strengths and weaknesses.[4] Alternative approaches can generally be

[4] FAO suggests using a suite of approaches. See FAO (June 2002b).

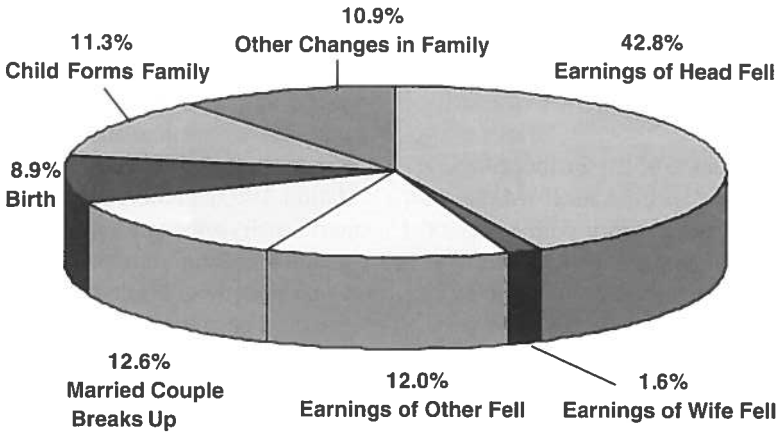


Figure 5. Reasons why poverty spells begin. *Source:* Blank, 1997.

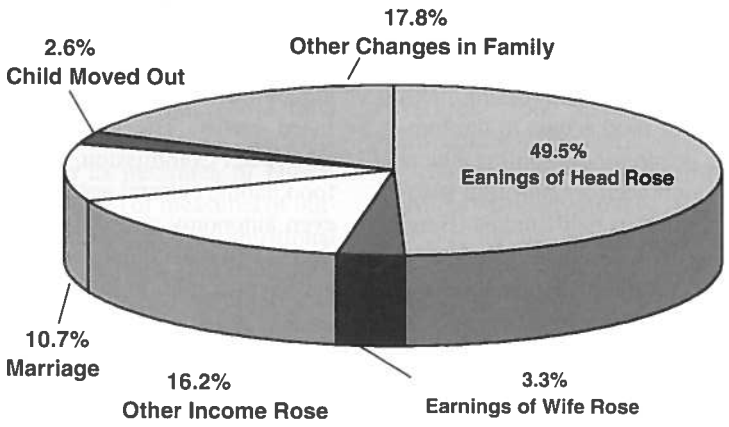


Figure 6. Reasons why poverty spells end. *Source:* Blank, 1997.

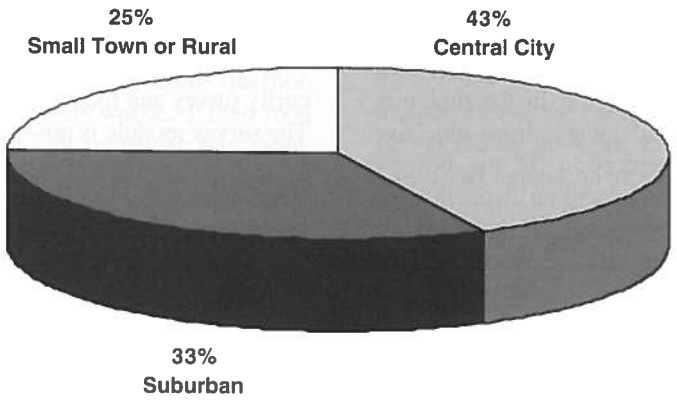


Figure 7. Composition of poor in the United States by geographic location (1993). *Source:* Blank, 1997.

characterized in three ways: those comparing estimates of dietary energy availability or intakes with energy requirements; those measuring nutritional outcomes; and those measuring perceptions of food insecurity and hunger.

There have been substantial shifts in the thinking about the definition of food security itself (Maxwell, 2001), principally away from concern with issues of global and national food supply adequacy and toward household and individual food access. The 1975 World Food Conference definition reflected policy concerns with national food self-sufficiency and proposals for world food stocks and import stabilization schemes. That era also witnessed the establishment of institutions, the World Food Council and the FAO Committee on Food Security, to promote a policy agenda aimed at augmenting food supply. It was evident, however, that widespread hunger could and did coexist with the presence of adequate food supply.

Sen (1981) is often credited with expressing ideas that helped move the issue of food access to the forefront. Sen's work gave an economic and philosophical voice to ideas that were embraced by nutrition planners and empirically supported in field studies (Berg, 1973; Joy, 1973; Levinson, 1974; Kielman et al., 1983). In Sen's view, it is more useful to define food security as being foremost a problem of food access, with food production at best a route to food entitlement. Most current definitions of food security begin with the individual entitlement, though recognizing the complex interlinkages between the individual, the household, the community, the nation, and the international community.

In addition to a paradigm shift from national food supply adequacy and toward household and individual food access, there has been a shift in the measurement of food insecurity and hunger from objective indicators to subjective perception. In the poverty literature there has been a long-standing distinction between "the conditions of deprivation" referring to objective analysis, and "feelings of deprivation," related to the subjective (Townsend, 1974). Kabeer (1998), for example, identifies lack of self-esteem as an element of poverty, and Chambers (1989) talks similarly of self-respect. It is particularly difficult to establish a metric for an experiential state of well-being like food security. The predicament is that states of mind are involved.

Most conventional approaches to food security have relied on what is viewed as objective (actually physical) measurement. These measures include target levels of consumption (Siamwalla and Valdes, 1980); consumption of less than 80% of World Health Organization average required daily calorie intake (Reardon and Matlon, 1989); or more generally, a timely, reliable and nutritionally adequate supply of food (Staaz, 1990).

Physical definitions present two major difficulties. First, the notion of nutritional adequacy is itself problematic. For any individual, nutritional adequacy depends on age, health, size, workload, environment, and behavior. Estimates of calorie requirements for average activity patterns in average years are subject to constant revision (Payne, 1990). Adding adaptation strategies complicates the calculation. Estimating precise calorie needs for different groups in the population is, therefore, difficult.

A second problem arises because qualitative aspects are omitted from the kind of quantitative measures listed earlier. The issues here include food quality (European Commission, 1988) consistency with local food habits, cultural acceptability, and human dignity, even autonomy and self-determination. The implication is that nutritional adequacy is a necessary but not sufficient condition for food security.

4. Food security in the United States

The United States measures household food security with a survey of the behaviors and experiences that are thought to characterize households in the United States having difficulty meeting their food needs. During the 1990s, the Unites States developed and tested a food security survey and food security scale for domestic use. The survey module is now in regular use in household surveys both for research and monitoring purposes. A large, nationally representative food security survey is fielded annually, and findings are published as a statistical series by the U.S. Department of Agriculture (Nord et al., 2002).

The survey is an annual supplement to the monthly Current Population Survey (CPS), the survey that provides data for monthly unemployment statistics and annual poverty rates. A nationally representative sample of about 43,000 households responds to questions about food expenditures, use of federal and community

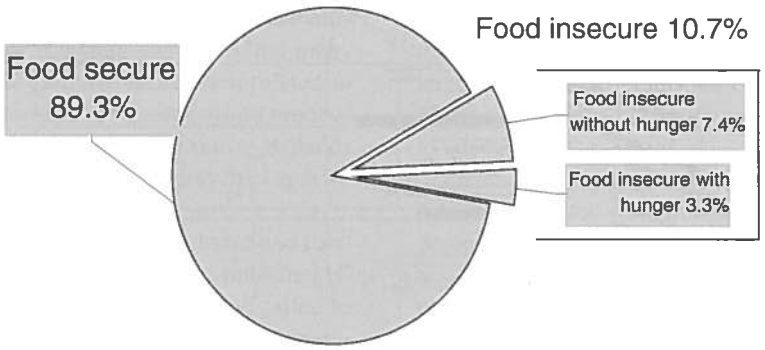


Figure 8. Prevalence of food insecurity and hunger in the United States, 2001. *Source:* Nord et al. (2002).

food programs, and whether they are consistently able to meet their food needs. Other surveys in the United States also utilize the food security survey module for monitoring and research.

The U.S. Food Security Scale is a "direct" experiential measure of the severity of household food stress or food deprivation. This approach contrasts with indirect indicators such as measures of household resources (generally income) or measures of outcomes of inadequate food access such as nutritional anthropometry. It is based on self-reported behaviors, experiences, and conditions collected by interviewing one member of each household using a standardized survey instrument, the U.S. Food Security Survey Module.

The food security status of a household is assessed by its responses to 18 questions about food-related behaviors, experiences, and conditions that are known to characterize households having difficulty meeting their food needs. The questions cover a range of food deprivation. For example, the least severe question asks whether household members worried if their food would run out before they got money to buy more; the most severe question asks whether any child in the household did not eat for a whole day because there was not enough money for food. Each question identifies a lack of money or other resources to obtain food as the reason for the condition. All questions are referenced to the previous 12 months.

Responses to the 18 questions are combined into a scale using nonlinear statistical methods based on the Rasch measurement model. The scale provides a continuous, graduated measure of the severity of food deprivation across the range of severity encountered in U.S. households. Based on their food security scale scores, households are classified into three categories for monitoring and statistical analysis of the food security status of the population. The categories are "food secure," "food insecure without hunger," and "food insecure with hunger."

Based on the most recent food security survey data available, nearly 9 out of 10 U.S. households were food secure throughout the entire year, while 10.7% of the households were food insecure at some time during the year (Figure 8). Most food-insecure households obtained enough food to avoid hunger, but 3.3% of U.S. households were food insecure to the extent that one or more household members reported being hungry at least some time during the year because they could not afford enough food.

Food insecurity and hunger are not usually chronic conditions for those U.S. households that are affected by them. The U.S. food security measure classified households as food insecure, or food insecure with hunger, even if the condition occurred only for a brief period during the year. Thus, the rates of food insecurity and hunger on any given day are far below the measured annual rates. For example, the prevalence of hunger on a typical day in 2001 was estimated to be less than one fifth the annual rate, or about 0.5% of households.

In 2001, rates of food insecurity and hunger were low for households with elderly members and for married-couple families with children (Figure 9). In contrast, rates of food insecurity were higher than the national average for the following household types:

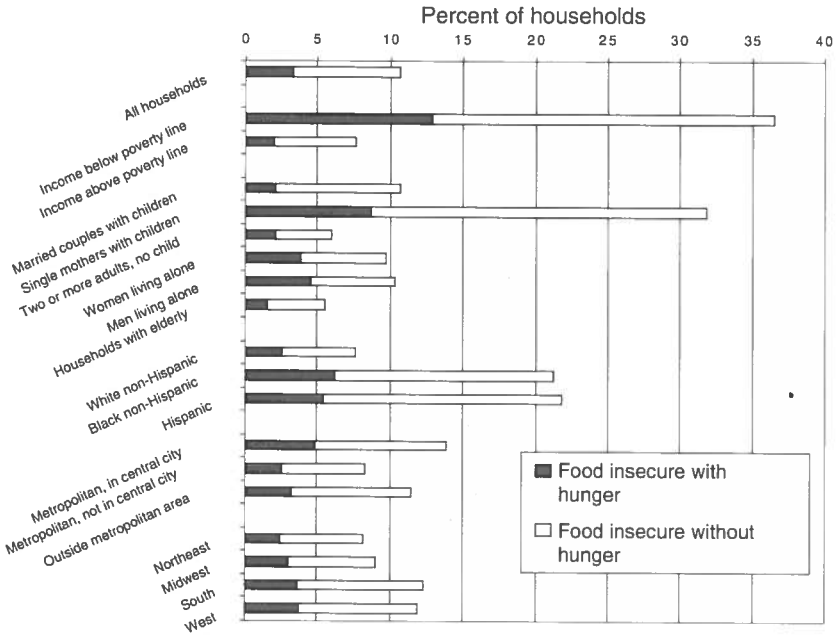


Figure 9. Prevalence of food insecurity by subgroup, 2001. *Source:* Nord et al. (2002).

- Households with incomes below the official poverty line
- Households with children, headed by a single woman
- Households headed by black or Hispanic persons

Also, food insecurity is a greater problem for households located in central cities and nonmetropolitan areas and in the southern and western regions of the country.

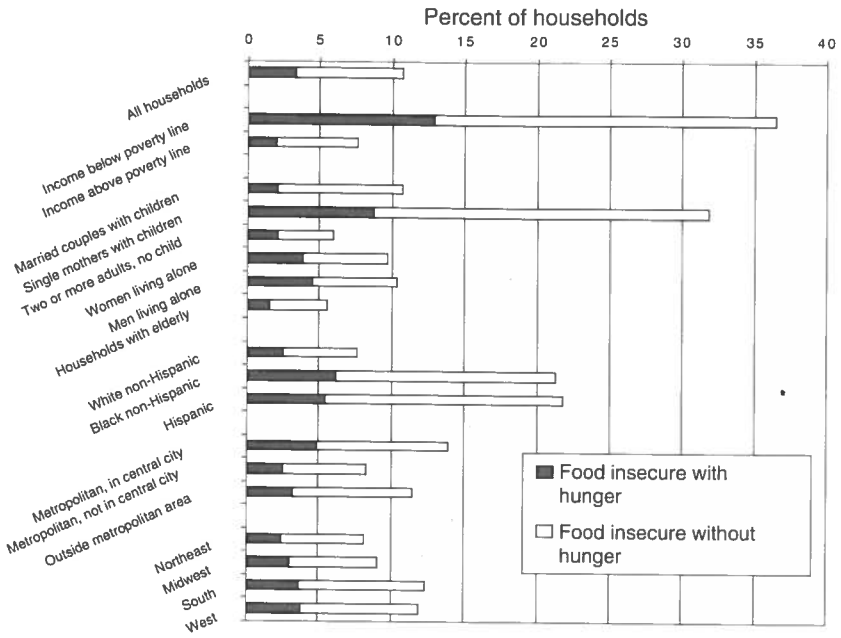
5. Adapting the U.S. measure for other countries

Methods based on similar approaches to those applied in the United States have been developed in other countries. In some cases, these have been based on translating questions in the U.S. module. Other applications have been based on additional research, including focus groups and cognitive testing of proposed questions and statistical analysis of survey data (Chung et al., 1997; Gittlesohn et al., 1998; Maxwell et al., 1999; Webb et al., 2002; Wolfe and Frongillo, 2001). Food security modules have been adapted for three low-income populations: Orissa, India; Kampala, Uganda; and Bangladesh.

To achieve acceptable results the U.S. measure must be adapted to a new setting that is culturally, linguistically, and economically distinct from the United States. For use in low-income settings, additional attention may need to be given to incorporating the dimensions of frequency and duration of food deprivation into the measure (Hoddinott, 1999; Maxwell et al., 1999). In many poorer societies, a majority of the population faces food stress at times. The most important differences among households may be in how often this occurs and over how much of the year. Additionally, countries that face frequent acute shocks, droughts for example, are likely to differ from countries where exogenous shocks are rare.

6. Transfers and safety nets

Transfers and safety nets are created for moral, economic, and political reasons. The moral or humanitarian justification is "the removal or reduction of deprivation or vulnerability: food insecurity and hunger." The stated aim of many redistribution schemes is to



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reduce inequality and relative poverty. Economic efficiency justifications for transfers and safety net interventions rely on market failures most often related to the connection between health, education, and productivity. Selecting an appropriate intervention depends on the objectives of the intervention and the capacity of the country to implement it.

Over the past 30 years economic assistance and food assistance programs have helped protect households' food security when the market economy had failed to do so. These programs are intended to reduce vulnerability to food insecurity during economic downturns in the business cycle. Individuals with longer-term needs resulting from chronic illness, disability, or old age also rely on these assistance programs to maintain food security. Each program has its own objectives, its own eligibility criteria, its own benefit structure, and its own legislative oversight.

7. Economic and food assistance programs in the United States

Money income is an incomplete measure of a family's potential ability to fulfill basic needs. It often omits many goods and services such as housework and child care provided for within the household rather than purchased. In addition, it neglects any in-kind benefits that families receive from the government in the form of goods or services rather than cash. The largest of these programs are Food Stamps, Medicare, Medicaid, various housing subsidy programs, and aid to education.

Federally sponsored economic security programs in the United States were first enacted in response to the depressed economic situation in the 1930s. The Social Security Act of 1935 established two social insurance programs on a national scale to help prevent deprivation associated with old age and unemployment: a federal system of old age benefits for retired workers who had been employed in industry and commerce, and a federal–state system of unemployment insurance. The Social Security Act also provided federal grants to states for means-tested programs for the aged, blind, and disabled to supplement the incomes of persons who were either ineligible for Social Security or whose benefits could not provide a basic living. In 1972, the federally administered Supplemental Security Income (SSI) program replaced these grants (Table 1).

The original Social Security Act also provided for grants to enable states to extend and strengthen maternal and child health and welfare services. This provision evolved into the Aid to Families with Dependent Children program, which was replaced in 1996 with a new grant program to states for Temporary Assistance for Needy Families. U.S. workers with dependent

Table 1
Government transfer payments to individuals by type: 1990–2000 (million $)

Item	1990	1995	2000
Total	561,399	841,041	1,013,424
Retirement and disability insurance benefits payments	263,854	350,027	425,333
Medical payments	189,099	337,532	423,180
Income maintenance benefit payments	63,481	100,444	106,421
Supplemental Security Income (SSI)	16,670	27,637	31,675
Family assistance[a]	19,187	22,637	18,277
Food stamps	14,741	22,447	14,939
Other income maintenance[b]	12,883	27,634	41,530
Unemployment insurance benefit payments	18,208	21,864	20,707
Veterans benefit payments	17,687	20,545	24,939
Federal education and training assistance payments	7,300	9,007	10,729
Other payments to individuals	1,770	1,622	2,115

[a] Through 1995, consists of emergency assistance and aid to families with dependent children. Beginning with 1998, consists of benefits—known as Temporary Assistance for Needy Families (TANF).

[b] Consists largely of general assistance, expenditures for food under the supplemental program for women, infants, and children; refugee assistance; foster home care and adoption assistance; earned income tax credits; and energy assistance.

Source: U.S. Bureau of the Census, Statistical Abstract of the United States.

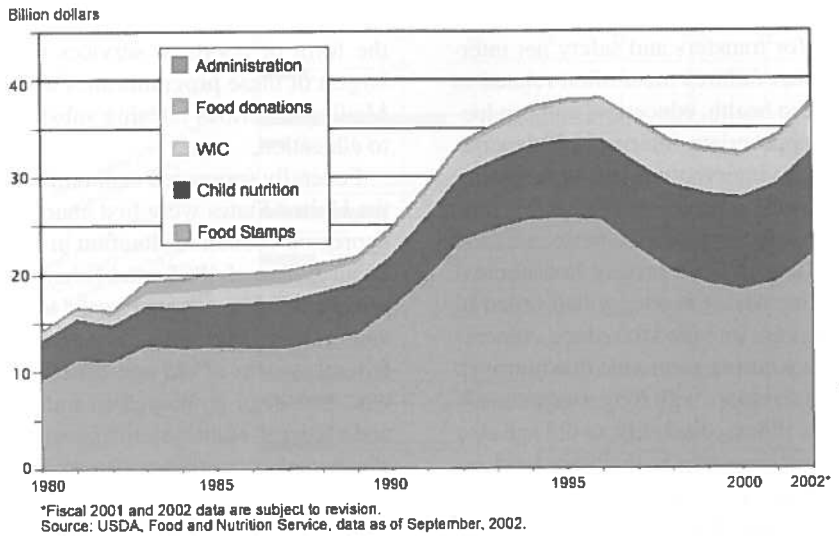

Figure 10. USDA expenditures on food assistance programs, fiscal 1980–2002*. Spending on food assistance programs increased in fiscal 2002.

children are given deductions in the computation of their federal income tax liability. In addition, since the enactment of the Earned Income Tax Credit in 1975, the working poor receive an additional reduction in their tax liability and, in some cases, a wage supplement.

U.S. agriculture and nutrition policy includes a number of farm program and food assistance and nutrition programs that lower food prices and also contribute to the social safety net. The core food assistance programs, managed by the U.S. Department of Agriculture, include the Food Stamp Program, the school meals programs, the Special Supplemental Nutrition Program for Women, Infants, and Children (WIC), and commodity distribution programs. These programs serve one in every six Americans at some point during the year. The federal government relies on state and local, public, and private agencies to administer, and in some cases contribute to the funding of, its food assistance efforts.

The Food Stamp Program is the foundation of the food assistance safety net. It provides benefits to qualifying families and supports markets for agricultural products. With program costs of $17.8 billion in fiscal 2001, it is the country's largest food assistance program. Using normal retail marketing channels, the Food Stamp Program provides qualified households with increased food purchasing power to acquire food. It offers the only form of assistance available nationwide to all households on the basis only of financial need, irrespective of family type, age, or disability. For many low-income households, the Food Stamp Program represents a major share of their household resources. For a typical low-income family with children, food stamps provide 25% of the family's total purchasing power (Figure 10).

The National School Lunch Program provides lunches free or at low cost to more than 27 million children each school day. In 1998, the program was expanded to offer snacks to children in after-school programs. Since 1972, the School Breakfast Program has also supported provision of breakfasts at schools. School districts and independent schools that choose to participate in one or more of the school meals programs receive cash subsidies from the federal government for each meal they serve. In return, they must serve meals that meet federal nutritional requirements, and they must offer free or reduced-price meals to low-income children.

Established in 1972 as a pilot program, WIC has grown rapidly and matured into a core component of the U.S. nutrition safety net. The program targets low-income women, infants, and children (up to the age of 5 years) who are at nutritional risk. WIC achieves this objective by providing (1) nutritious foods to supplement diets; (2) information on healthy eating; and (3) referrals to health care. It seeks to provide early intervention

during critical times of growth and development that can help prevent future medical and developmental problems. In fiscal 2001, the program served an average of 7.3 million participants per month. Almost half of all infants and about one quarter of all children aged 1–4 years in the United States participate. Federal program costs totaled $4.2 billion in fiscal 2001, making WIC the country's third largest food assistance program, behind the Food Stamp Program and the school meals programs ($7.9 billion).

8. A food safety net

Social safety nets can be viewed as income insurance to help people through temporary livelihood shocks and stresses, such as those caused by drought, illness, unemployment, or displacement. Redistributive income transfers to chronically poor groups (e.g., the old or disabled) can be separated from systems of income insurance or safety nets for people who are acutely vulnerable to adverse events. A safety net targets two distinct sets of people: those unable to participate in the growth process and those who may be temporarily aversely affected when events take an unfavorable turn.

To provide an economic buffer, payments or transfers should rise during periods of economic downturn and contract during economic expansion. During both the recession of the early 1980s and the downturn of the 1990s estimates suggest that U.S. government transfers were responsible for significantly reducing the number of poor.

Recent increases in food stamp outlays highlight the role of food stamp programs as an important component of the social safety net both for the persistently poor and the working poor. Food stamps remain the sole federal entitlement program and, therefore, will likely be the primary personal income buffer operating during economic downturns, particularly for households that may have stronger ties to the workforce and move in an out of poverty.

The primary channel through which general economic conditions influence a household's income is earnings from employment. During an economic downturn unemployment rises. For the households whose members lose their job, their income falls. If these households have little unearned income and few savings they are likely to become eligible for food stamps, increasing the program's caseload. Unemployment is the primary channel through which an economic downturn affects the Food Stamp Program caseload for those attached to the labor force. There are other households that have little labor force attachment, and for them the economic conditions in the labor market are not as significant a determinant of their participation decision.

Recent evidence (Jolliffe et al., 2003) suggests the depth and severity of child poverty and poverty overall are significantly reduced by the Food Stamp Program. From 1988 to 2000, a time period capturing a recession and recovery, the Food Stamp Program evidenced large increases and then a subsequent decline in participation. Interestingly, adding Food Stamp Program benefits to income results in a small decrease in the incidence of poverty because the benefit structure is constructed so that as household income increases, food stamp benefits decrease. In general, for every dollar increase in income, food stamp benefits decrease by 30 cents. In addition, participation rates among poor households at the upper end of the poverty continuum are lower. A headcount measure of the effects on poverty status suggests little change in the poverty rate (Table 2).

By way of contrast, supplementing income by the value of food stamps has the effect of reducing the depth and severity of poverty, as measured by a poverty gap index, by 16% to 17%.[5] The results for child poverty are more striking yet. Supplementing income with food stamp benefits results in a mild reduction in the incidence of child poverty (from 4% to 7%). The severity and depth of child poverty ranges from 14% to 23% (Figure 11).

9. Sustainable reductions in poverty and food insecurity

In the lexicon of entitlements (Dreze and Sen, 1989), social safety nets are "entitlement protection" measures. The objective of these measures is to prevent or offset an acute decline in living standards following an economic shock. This contrasts with measures that

[5] The poverty gap index can be interpreted as the product of the headcount index and the income gap, where the income gap is the average shortfall of the poor as a fraction of the poverty line.

Table 2
Percentage reduction in poverty from food stamps, 1988–2000

Year	Head count index			Poverty gap index		
	Income only	Income + food stamps	Decline (%)	Income only	Income + food stamps	Decline (%)
1988	13.0	12.6	3.5	5.7	4.8	15.2
1989	12.8	12.3	4.4	5.5	4.6	15.6
1990	13.5	12.9	4.4	5.8	4.8	16.4
1991	14.2	13.4	5.4	6.2	5.2	17.2
1992	14.5	13.7	5.6	6.5	5.4	16.7
1993	15.1	14.3	5.4	6.8	5.7	16.6
1994	14.5	13.7	6.1	6.5	5.4	17.1
1995	13.8	13.0	6.2	6.1	5.1	16.4
1996	13.7	13.0	5.1	6.0	5.1	15.7
1997	13.3	12.6	4.8	6.0	5.2	13.4
1998	12.7	12.1	4.7	5.8	5.1	11.6
1999	11.8	11.3	4.3	5.3	4.8	10.6
2000	11.3	10.9	3.3	5.1	4.6	9.4

Source: Jolliffe et al. (2003).

enhance living standards to reduce chronic poverty and economic insecurity in the long term. A policy intervention such as food aid or a cash grant will allow the beneficiary to bridge their consumption deficit for as long as the transfer program continues. This welfare transfer will not reduce poverty sustainably, because it has no impact on productivity, it is not a livelihood-enhancing intervention.

Relying on undifferentiated economic growth is likely to prove increasingly inefficient for permanently or sustainably mitigating U.S. poverty and food insecurity. Macroeconomic progress was a powerful engine for reducing poverty in the United States during the 1940s and 1950s. It has been less successful in reducing poverty since the mid-1970s and early 1980s. Obvious possible explanations—poor aggregate economic performance during the 1970s and 1980s and a changing distribution of the gains from growth even with improved growth during the 1990s—apparently hold. Figure 12 plots the percentage of the population with incomes less than 125% of the official poverty rate against real personal income per capita for 1959 through 2001. Extending the measure of poverty to include people who are at 125% of the official poverty

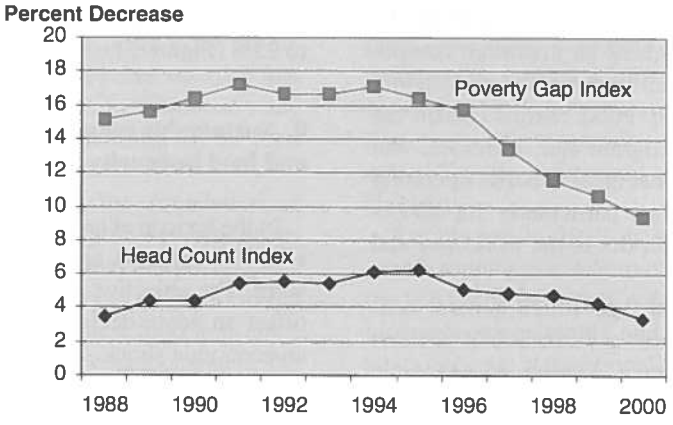

Figure 11. Percentage reduction in poverty from food stamps (1988–2000). *Source:* Jolliffe et al. (2003).

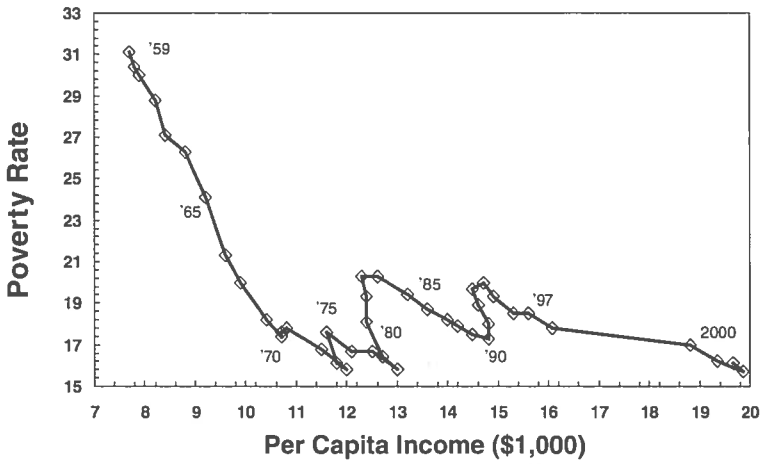

Figure 12. Relationship between poverty and income (1959–2001).

threshold captures a larger number of the working poor, low-income people whose poverty status is more sensitive to changes in the macroeconomy.

From 1959 until the late 1970s, fluctuations in the poverty rate paralleled changes in the performance of the macroeconomy. Business cycle upswings significantly reduced poverty while business cycle troughs increased poverty. Since the late 1970s the relationship between economic performance and poverty is less clear. From 1959 to 1989 per capita growth averaged a fairly constant 2.7%. From 1959 to 1969 the poverty rate declined dramatically but only modestly during the 1980s. During the high-growth period of the 1990s, where real per capita GDP increased by 34%, the U.S. poverty rate declined by only 13%. This contrasts with the 1960s where a 35% increase in per capita income was associated with a 43% decrease in poverty.

Although many reasons for the divergence between the historical poverty rate and economic growth have been advanced, only three or four are compelling. Some leading candidates include changing institutional wage-setting mechanisms with the decline of labor unions, a changing labor cohort, globalization of production and markets, shifting relative expenditures for goods and services, technological change associated with the digital revolution, and increased earnings instability (Levy and Murnane, 1992). No single cause is likely large enough to account for the divergence between economic growth and poverty, but labor market changes fostered by technological change and economic restructuring and shifts in relative wages are important.

Increasing wages for high-skilled individuals and deteriorating wage and career opportunities for many less-skilled workers over the past 15 years have resulted in increased earnings inequality. Earnings inequality has taken the form of polarization and the apparent hollowing-out of the income distribution, where the middle of the distribution has declined and the upper and lower tails have increased. The observed increase in earnings inequality has been driven by increased wage variation rather than changing hours of work. Polarization combined with nearly stagnant growth in average earnings has meant the proportion of men with earnings below $20,0000 and over $40,000 per year has both increased.

Research conducted during the early 1990s suggested low wages and not less work was responsible for lower earnings. For the working poor, low numbers of work hours appeared not to be a major factor in the incidence of poverty among households headed by either men or women. Instead, evidence suggested that, based on the characteristics of the heads of poor households, the expected average wage rates were low (Levy and Murnane, 1992).

Over the last two to three decades the demand-side forces of industrial restructuring, technological change, and shifting relative expenditures on services have reinforced the effects of the entry into the

workforce of a well-educated generation of employees. The combination of these changes has increased the relative demand for highly skilled labor and increased earning inequality. Industrial restructuring cannot be separated from technological change. They are dual manifestations of the same phenomenon. The comparative advantage of the United States in the global market place is its highly skilled and well-educated workforce. The increased internationalization of product markets does not mean only industries in the United States that primarily export their production are subject to increased competition. Rather, workers in general have seen their relative compensation affected by profits and wages in other countries.

There are several studies that indicate recent technological change has favored the more skilled over the less skilled (Welch, 1970; Davis and Haltiwnager, 1991; Katz and Murphy, 1992; Sachs and Shatz, 1994). Faster technological change linked with greater spending on research and development has been associated with increasing pay differentials between less-educated and highly educated workers (Bartel and Lichtenberg, 1987). More recent studies indicate workers who use computers in the execution of their job received higher wages than those that did not (Krueger, 1993). These studies suggest the shift in demand away from unskilled and toward skilled labor in U.S. manufacturing is explained by the adoption of labor-saving technological change and a reallocation of production away from industries with a high labor production component (Berman et al., 1994).

10. Conclusions

Although food assistance programs are a critical component of the U.S. food security and income safety net, renewed economic growth will be critical for improving the sustainable level of food security of U.S. households. Targeted policies and programs that improve employment and earnings opportunities for the types of households that are most vulnerable to food insecurity—especially those with less-skilled or less-educated workers and those headed by single women with children—can also contribute to improving food security. Achievement of the targeted reductions in food insecurity and hunger will also require continued federal, state, and private commitments to the country's food assistance safety net. Innovative and principled improvements in the economic and nutrition safety net programs can further improve the likelihood of reaching food security goals.

The key to sustainably reducing poverty and food insecurity is to improve the returns to labor. Although the U.S. economy has generated many jobs, wages and benefits are often not sufficient to lift a family out of poverty. Improvements in education and job training are the primary venue for improving wages for the poor. The connections between education and the economy are complex and interdependent. The economy affects the attractiveness of education by creating incentives for the poor to continue schooling. In addition, family structure and stress and access to learning resources and experiences have important implications for educational success. We cannot focus solely on educational institutions to increase the quality of workers. Attention and, more importantly, financial resources must be focused on the lives of children in and out of school if we are to improve the knowledge, abilities, and attitudes of the future work force.

Looking toward the future, the long-term prospects for improving food security are likely to be driven by the same general forces shaping the U.S. economy—globalization of markets and cultures; advances in information and technology; and fundamental changes in the workforce. In the end, however, it is clear that the persistence of food insecurity in wealthy societies cannot be fully understood if attention is confined only to income. Food insecurity in the United States is associated with many causal factors of which low income is only one, although an important one. The social environment, the provision of medical care, the pattern of family life, and a variety of other factors affect food insecurity.

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