Dynamics of Economic Well-Being: Moving Up and Down the Income Ladder, 1998 to 1999

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Household Economic Studies

Current Population Reports

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From year to year, the financial well-being of most Americans changes. Summary measures, such as median income, reflect the overall net gain or loss in income, but do not indicate the amount of movement up and down the income ladder. This report focuses on the issue of movements within the income ladder using data that represent the civilian noninstitutionalized population of the United States as measured by the 1996 panel of the Survey of Income and Program Participation (SIPP).[1] (See text box "SIPP—A Longitudinal Survey" for more information concerning SIPP.)

The measure of economic well-being used in this report is the income-to-poverty ratio—called the income ratio here—that is, the ratio of a person's annual

[1] The data in this report were collected from April 1996 through March 2000 in the 1996 panel of the Survey of Income and Program Participation (SIPP). The population represented (population universe) is the civilian noninstitutionalized population living in the United States. This report is an update of previous reports—P70-65: "Dynamics of Economic Well-Being: Income, 1993 to 1994, Moving Up and Down the Income Ladder," July 1998; P70-56: "Dynamics of Economic Well-Being: Income, 1992 to 1993, Moving Up and Down the Income Ladder," June 1996; and P70-49: "Dynamics of Economic Well-Being: Income, 1991 to 1992," August 1995. Due to the redesign of the 1996 SIPP panel, the reader should use caution in making comparisons between the 1996 SIPP panel and earlier SIPP panels.

SIPP—A Longitudinal Survey

SIPP is a longitudinal survey that captures changes for the same individual over a period of time. The 1996 SIPP panel attempted to interview 36,700 households 12 times at 4-month intervals from April 1996 through March 2000, following all members of the original sample household. Not all households responded to the survey for all twelve interviews that are needed to create a full picture over the 4 years of the panel. Efforts are made during the life of the panel to ensure that the remaining sample is representative of the noninstitutionalized population of the United States. The SIPP weighting procedure uses ratio estimation, whereby sample estimates are adjusted to independent estimates of the national population by age, race, sex, and Hispanic origin. This weighting partially corrects for bias due to undercoverage and attrition, but biases may still be present when people who are missed by the survey differ from those interviewed in ways other than age, race, sex, and Hispanic origin. How this weighting procedure affects other variables in the survey is not precisely known. All of these considerations affect comparisons across different surveys or data sources.

Demographic and economic characteristics were gathered during each interview, whereas special topics varied from interview to interview. The SIPP collects more detailed data than any other national survey on general income sources and amounts; program eligibility, access, and participation; transfer income; and in-kind benefits. More information on SIPP can be found at <www.sipp.census.gov/sipp/>.

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family income to the family's poverty threshold.[2] An income ratio of less than 1.0 indicates a person is in poverty, whereas an income ratio greater than 1.0 indicates that a person's income is above the poverty threshold. Changes in this measure of well-being are due not only to increases or declines in income but also to changes in personal circumstances, such as changes in the number of workers in a household, marital and family status, and other elements of household composition. This report focuses on people for whom poverty status is defined. In the following discussion, people aged 15 and older is the unit of analysis, using their individual characteristics, or the characteristics of their family or household, as appropriate.

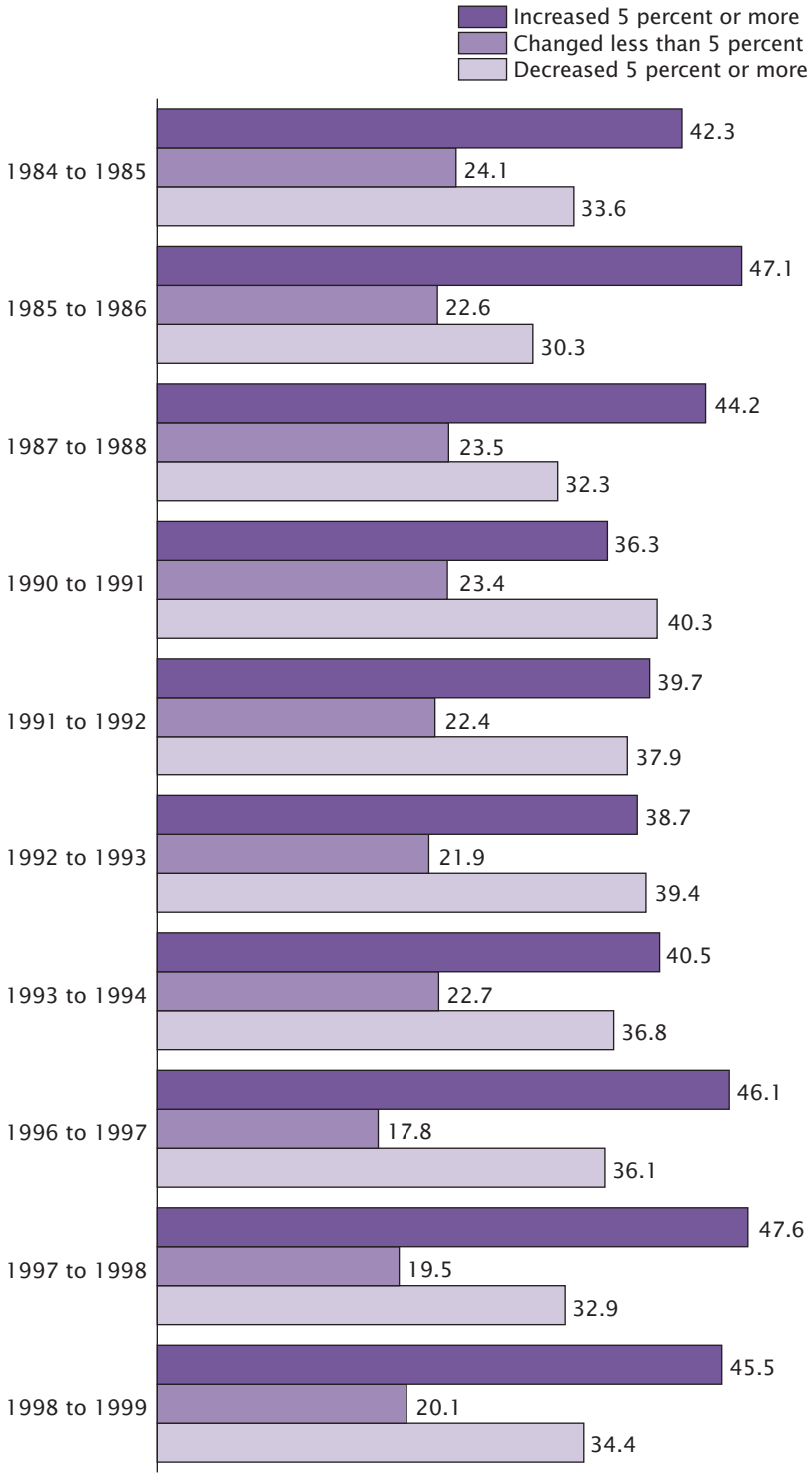
HISTORICAL COMPARISON OF CHANGES IN THE INCOME RATIO

A large majority of the population, roughly three-fourths to four-fifths, experiences either an increase or a decline in their income ratio of at least 5 percent or more from one year to the next.[3] Figure 1 shows that over the last two decades of the twentieth century, the percentage of people experiencing a change of 5 percent or more in their income ratio increased from

[2] Following the Office of Management and Budget's (OMB) Statistical Policy Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to determine who is in poverty. Guidelines are available at the following Census Bureau Web site: <www.census.gov/hhes/www/poverty.html>.

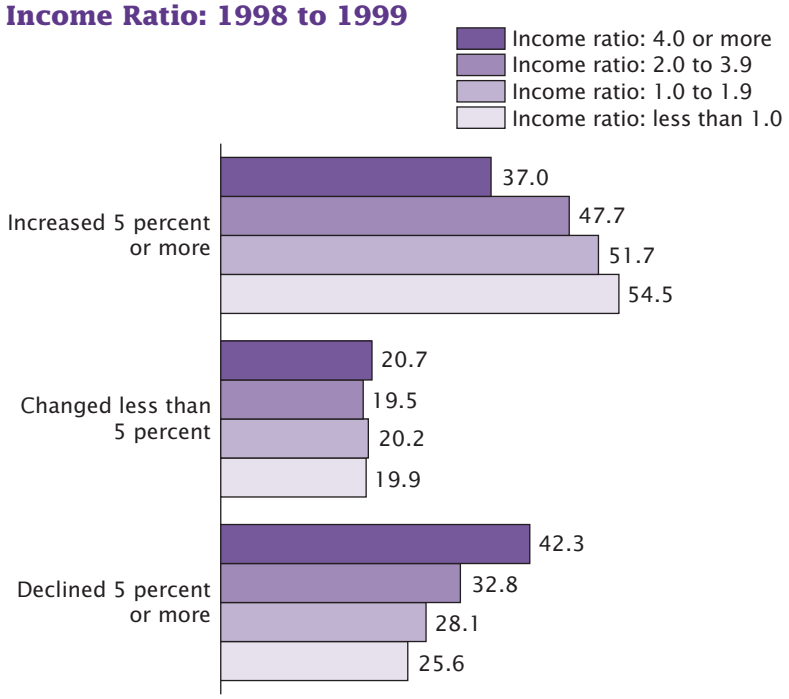
[3] The estimates in this report (which may be shown in text, figures, and tables) are based on responses from a sample of the population and may vary from the actual values because of sampling variability or other factors. As a result, apparent differences between estimates for two or more groups may not be statistically significant. All comparative statements have undergone statistical testing and are significant at the 90-percent confidence level unless otherwise noted.

Figure 1.
Percent Distribution of Individuals by Year-to-Year Changes in Their Income Ratios: 1984 to 1999



Note: Longitudinal data are not available for 1986-87, 1988-89, 1989-90, 1994-95, and 1995-96.
Source: U.S. Census Bureau, Survey of Income and Program Participation, 1984, 1985, 1987, 1990, 1992, 1993, and 1996 Panels.

Figure 2.
Percent Distribution of Changes in the Income Ratio for Individuals by Their Initial Income Ratio: 1998 to 1999



Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 Panel.

76 percent during 1984 to 1985 (the first two calendar years of SIPP) to 82 percent during 1996 to 1997.[4] This variability in economic status leveled off with about 81 percent of people for 1997 and 1998 and 80 percent of people from 1998 to 1999 experiencing changes of 5 percent or more in their income ratio.[5] During most of this period, the percentage of people seeing an improvement in their income ratio outpaced the percentage with a decline, with the exception of the period 1990 to 1993.

The years 1984 to 1999 can be divided into three time periods. First, the three pairs of years in the late 1980s were a period in which increases in the income ratio outnumbered declines. Second, the first half of the 1990s was characterized by little difference between the proportion of increases and declines in income ratios. Finally, in the late 1990s, increases in the income ratio once again exceeded decreases.

In looking at the proportion of people who experienced an annual change in their income ratio from 1996 to 1999, while the proportions are different, the magnitudes in each direction of change between the years are similar (see Figure 1). Because of this similarity, the following discussion of changes in the income ratios of individuals focuses on the most recent years of data available, 1998 to 1999.

The frequency of increases and declines in the income ratio vary by characteristics of the population. As tracked by this report and previous reports on the dynamics of economic well-being, some segments of the population are more likely to experience growth in their income ratios, while other parts are more likely to experience financial declines. Prior reports have identified a number of characteristics consistently associated with these increases and declines.

The change in the income ratio for an individual is related to the level of the income ratio in the first year. As Figure 2 shows, people with a higher income ratio in 1998 were more likely to experience an income ratio decline in the next year. Of those individuals with an income ratio of 4.0 or more, 42 percent experienced a decline in their income ratio from 1998 to 1999; of those with an income ratio less than 1.0, 26 percent had declines between 1998 and 1999.

Conversely, the lower one's income ratio, the more likely the income ratio is to rise from one year to the next. Of those with an income ratio less than 1.0, 55 percent saw their income ratio rise from 1998 to 1999; while of those with an income ratio of 4.0 or more, 37 percent experienced a rise in their income ratio.

[4] Income ratio changes of less than 5 percent from year to year are not counted as either an increase or a decrease, but are regarded as "stable." Inflation adjustment is implicit because the poverty thresholds are adjusted annually using the Consumer Price Index.

[5] The time trend for the percent of people who experience changes of 5 percent or more in their income ratio was tested using a regression model. The slope of the time coefficient was positive and statistically significant.

Table 1.
Changes in Income Ratio by Selected Characteristics: 1998 to 1999

Characteristics	Total (thousands)	Declined 5 percent or more		Changed less than 5 percent		Increased 5 percent or more	
		Percent	90 percent confidence interval (+/-)	Percent	90-percent confidence interval (+/-)	Percent	90-percent confidence interval (+/-)
All People	**273,326**	**34.4**	**0.4**	**20.1**	**0.3**	**45.5**	**0.4**
INCOME RATIO IN 1998							
Less than 1.0	26,684	25.6	1.2	19.9	1.1	54.5	1.3
1.00 to 1.99	52,901	28.1	0.9	20.2	0.8	51.7	0.9
2.00 to 3.99	100,155	32.8	0.6	19.5	0.5	47.7	0.7
4.00 or more	93,585	42.3	0.7	20.7	0.6	37.0	0.7
WORK EXPERIENCE (People 18 and over)							
Year-round, full-time in 1998 to not year-round, full-time in 1999	11,233	54.6	2.1	14.4	1.4	30.9	0.9
Not year-round, full-time in 1998 to year-round, full-time in 1999	12,698	23.7	1.6	12.9	1.3	63.5	1.9
NUMBER OF WORKERS IN FAMILY							
Fewer workers in 1999 than 1998	26,316	64.0	1.3	9.8	0.8	26.1	1.2
More workers in 1999 than 1998	30,561	18.0	1.0	11.0	0.8	71.0	1.1
MARITAL STATUS							
From married in 1998 to any other marital status in 1999	2,169	60.8	4.6	11.2	3.0	28.0	4.2
From any other marital status in 1998 to married in 1999	3,157	31.0	3.6	7.4	2.0	61.6	3.8
FAMILY STATUS							
From married-couple family in 1998 to other family type in 1999	2,756	61.1	4.1	9.4	2.4	29.6	3.8
From other family type in 1998 to married-couple family in 1999	2,014	29.6	4.5	7.6	2.6	62.8	4.7
FAMILY COMPOSITION							
No change in number of adults:							
Fewer children in 1999 than 1998	4,186	27.9	3.0	16.4	2.5	55.7	3.4
More children in 1999 than 1998	7,901	62.0	2.4	14.5	1.7	23.6	2.1
No change in number of children:							
Fewer adults in 1999 than 1998	12,653	52.4	1.9	10.6	1.2	37.0	1.9
More adults in 1999 than 1998	8,434	24.5	2.0	10.5	1.5	65.0	2.3
SEX							
Women	141,545	34.6	0.5	20.4	0.5	45.0	0.6
Men	131,781	34.2	0.6	19.8	0.5	45.9	0.6
RACE AND HISPANIC ORIGIN							
White	225,544	34.2	0.4	20.6	0.4	45.2	0.5
White, non-Hispanic	199,988	34.5	0.5	20.8	0.4	44.7	0.5
Black	34,753	34.6	1.1	17.9	0.9	47.4	1.2
Hispanic (of any race)	27,433	32.0	1.0	19.0	1.0	48.9	1.3
AGE (in 1998)							
Under 18 years	64,969	32.5	0.8	19.2	0.7	48.3	0.9
18 to 24 years	25,758	35.4	1.3	13.7	0.9	50.9	1.4
25 to 44 years	86,747	33.7	0.7	18.9	0.6	47.5	0.7
45 to 64 years	61,511	36.2	0.8	19.5	0.7	44.3	0.9
65 years and over	34,341	36.0	1.1	30.9	1.1	33.1	1.1

Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 Panel.

Figure 3.
Percent Distribution of Changes in the Income Ratio for Individuals by the Number of Workers in the Family: 1998 to 1999

Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 Panel.

CHANGES IN PERSONAL CIRCUMSTANCES AND CHANGES IN THE INCOME RATIO

Among workers 18 and older who changed from not being employed year-round, full-time in 1998 to year-round, full-time employment in 1999, 64 percent experienced an increase in their income ratio; while among workers whose employment experience was the reverse, 31 percent experienced a gain in their income ratio (Table 1). Similarly, among year-round, full-time workers in 1998 who were not so employed in 1999, 55 percent saw their income ratio decline; while 24 percent of workers in the opposite employment situation saw a decline in their income ratio.

Being in a family with more workers in 1999 than in 1998 is associated with an increase in the income ratio—71 percent had increases in their income ratio; while 26 percent of people in the opposite situation had such increases (see Figure 3). Similarly, among individuals in families with fewer year-round, full-time workers in 1999 than in 1998, 64 percent experienced declines in their income ratio, compared with 18 percent of people in the opposite situation.

The makeup of families has a strong effect on the income ratio; this was true for family status (being in a married-couple family or not) and for family composition as indicated by the number of children or the number of adults. Among people (of any age) in married-couple families in 1998 but not 1999, 61 percent saw their income ratio decline, compared with 30 percent of people who became part of married-couple families in 1999. The income ratio increased for 63 percent of people who became part of married-couple families in 1999 and for 30 percent of those who were no longer part of married-couple families in 1999.

Having a larger number of children in the second year than the first was associated with a lower income ratio. With the same income, the income ratio declines when families get larger, for example when they have more children. Of people in families with more children in 1999 than 1998, 62 percent experienced a decline in their income ratio, while this was the case for 28 percent with fewer children in 1999. Among people in families with fewer children in 1999 than 1998, 56 percent had a higher income ratio in 1999, compared with 24 percent with more children in 1999.

The data for the number of adults in a family show similar patterns to those for marital status. As one would expect, more adults implies more potential wage earners. Thus, of people residing in families with more adults in 1999 than in 1998, 65 percent realized gains in their income ratio; whereas 37 percent of those in the opposite situation experienced a rise in their income ratio. Among people in families with fewer adults in 1999 than 1998, 52 percent experienced declines in their income ratio; compared with 25 percent of those in the situation where there were more adults in 1999 than in 1998.

Among the five age cohorts examined here, fewer individuals aged 65 and older experienced an increase in their income ratio (33 percent) than any other age group. Those 65 and older also had the largest proportion with a stable income ratio from one year to the next, 31 percent. These results may be due in large part to this group often having income sources that are fixed, such as pensions and other retirement benefits. Even among this age cohort, about two-thirds experienced year-to-year changes in their income ratio.

Among the American population, one's sex had no effect on the change in one's income ratio. As demonstrated in Table 1, the same

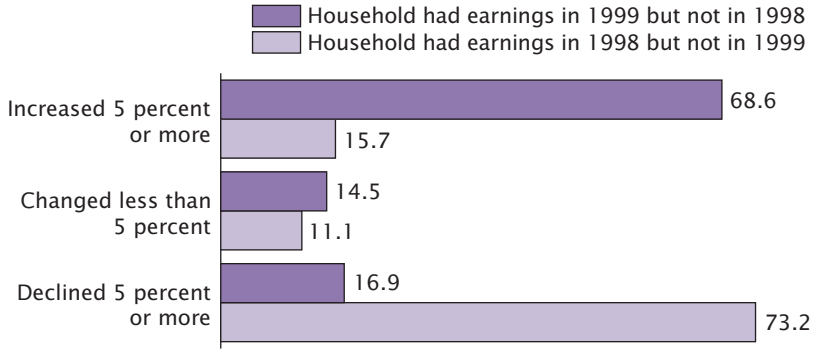
Table 2.
Changes in Income Ratio by Receipt of Selected Types of Income: 1998 to 1999

Household income source	Number of people in households (thousands)	Declined 5 percent or more		Changed less than 5 percent		Increased 5 percent or more	
		Percent	90-percent confidence interval (+/-)	Percent	90-percent confidence interval (+/-)	Percent	90-percent confidence interval (+/-)
EARNINGS							
Had earnings in 1999 but not 1998	3,145	16.9	2.9	14.5	2.7	68.6	3.6
Had earnings in 1998 but not 1999	4,580	73.2	2.9	11.1	2.0	15.7	1.1
ASSET INCOME							
Had asset income in 1999 but not 1998 ...	8,635	25.5	2.1	20.1	1.9	54.4	2.3
Had asset income in 1998 but not 1999 ...	11,729	44.6	2.0	13.4	1.4	42.0	2.0
UNEMPLOYMENT INSURANCE							
Received benefits in 1999 but not 1998 ...	8,227	44.3	2.4	12.2	1.6	42.5	2.4
Received benefits in 1998 but not 1999 ...	10,361	36.8	2.1	14.3	1.5	48.9	2.1
PENSION AND PRIVATE DISABILITY INCOME							
Received benefits in 1999 but not 1998 ...	9,535	31.4	2.1	9.9	1.3	58.7	2.2
Received benefits in 1998 but not 1999 ...	5,949	57.8	2.8	10.7	1.8	31.5	2.6
SOCIAL SECURITY (AND RAILROAD RETIREMENT)							
Received benefits in 1999 but not 1998 ...	5,336	37.9	2.9	9.8	1.8	52.3	3.0
Received benefits in 1998 but not 1999 ...	3,788	49.7	3.6	13.2	2.4	37.1	3.4
MEANS-TESTED BENEFITS[1]							
Received benefits in 1999 but not 1998 ...	9,548	37.7	2.2	15.0	4.6	47.3	2.2
Received benefits in 1998 but not 1999 ...	10,217	36.4	2.1	15.7	5.3	47.9	2.2
MEDICAID							
Received aid in 1999 but not 1998	9,482	37.8	2.2	16.3	1.7	45.8	2.2
Received aid in 1998 but not 1999	10,441	35.7	2.1	14.6	1.5	49.7	2.1
TEMPORARY ASSISTANCE FOR NEEDY FAMILIES (TANF) AND GENERAL ASSISTANCE							
Received aid in 1999 but not 1998	1,071	36.2	6.4	17.0	5.0	46.8	6.7
Received aid in 1998 but not 1999	4,606	39.2	3.2	12.7	2.1	48.1	3.2
SUPPLEMENTAL SECURITY INCOME (SSI)							
Received aid in 1999 but not 1998	2,841	27.6	3.7	18.8	3.2	53.6	4.1
Received aid in 1998 but not 1999	2,820	47.5	4.1	15.5	3.0	37.0	4.0
FOOD STAMPS							
Received stamps in 1999 but not 1998	4,429	37.6	3.2	16.8	6.4	45.6	3.3
Received stamps in 1998 but not 1999	6,314	27.4	2.5	13.3	1.9	59.3	2.7

[1]Means-tested benefits include Temporary Assistance for Needy Families (TANF), General Assistance, Supplemental Security Income (SSI), Medicaid, and food stamps.

Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 Panel.

Figure 4.
Percent Distribution of Changes in the Income Ratio for Individuals by the Availability of Household Earnings: 1998 to 1999



Source: U.S. Census Bureau, Survey of Income and Program Participation, 1996 Panel.

percentage of men and women had increases, decreases, and no changes in their income ratios between 1998 and 1999.

Among the racial and ethnic groups examined here, 45 percent of non-Hispanic Whites experienced increases in their income ratios from 1998 to 1999 compared with 47 percent of Blacks and 49 percent of Hispanics.[6]

CHANGES IN INCOME SOURCES AND CHANGES IN THE INCOME RATIO

The appearance or disappearance of a particular income source is often associated with an increase or decrease in the income ratio. The following discussion presents information on various sources of income and how they relate to economic well-being as measured by movements in an individual's income ratio from one year to the next.

Income from earnings had a large effect on the income ratio. In 1999, 94 percent of income was from earnings. As shown in Figure 4, among people who lived in households where someone received earnings in 1999 but not in 1998, 69 percent showed gains in their income ratio, while for those in the opposite situation, 16 percent experienced an increase in their income ratio. Similarly, of those who lived in a household where someone received earnings in 1998 but not in 1999, 73 percent experienced a decline in their income ratio, compared with 17 percent of people in the reverse situation.

Income from assets had some impact on the income ratio. In 1999, 3 percent of income was from assets. Of people living in households that received asset income in 1999 but not in 1998, 54 percent experienced an increase in their income ratio, compared with 42 percent of people who received asset income in 1998 but not in 1999. Declines in the income ratio were greater among people living in households without asset income in 1999 but with it in 1998 than among those who had income from assets in 1999 but not in 1998—45 percent compared with 26 percent (Table 2).

Income from pensions and disability benefits was also relevant. For people in households where someone obtained income from pensions and disability benefits in 1999 but not 1998, 59 percent experienced an increase in their income ratio; this was the case for 32 percent of those in households receiving pension and disability benefits in 1998 but not in 1999. By comparison, 58 percent of individuals in households that received income from pensions and disability benefits in 1998 but not in 1999, and 31 percent in households that received this type of income in 1999 but not in 1998, experienced a decline in their income ratio.

About 52 percent of people in households receiving social security payments in 1999 but not 1998 experienced an increase in their income ratio, compared with 37 percent of people who received social security payments in 1998 but not in 1999. For those in households receiving social security payments in 1998 but not 1999, 50 percent experienced a decline in their income ratio; while 38 percent of those in households receiving social security payments in 1999 but not in 1998 experienced a decline in their income ratio.

Various forms of means-tested financial assistance are made available to people with low incomes. For the years 1998 and 1999, households starting or ending

[6] Hispanics may be any race. For example, in the 1996 SIPP Panel, 12 percent of the White population, 3 percent of the Black population, 16 percent of the American Indian and Alaska Native population, and 3 percent of the Asian and Pacific Islander population also reported being Hispanic. The group Asians and Pacific Islanders and the group American Indians and Alaska Natives make up 3.1 percent of the sample; data about them are not shown in this report because their sample sizes are too small. The percent of Blacks and Hispanics that experienced an increase in their income ratio is not statistically different.

receipt of one or more of the means-tested benefits examined here were not differentially related to increases and declines in the income ratios of people in those households.[7] As Table 2 shows, 47 percent of people in households that received one or more types of means-tested benefits in 1999 but not in 1998 experienced an increase in their income ratio. By comparison, 48 percent of people in households that received one or more types of means-tested benefits in 1998 but not in 1999 experienced an increase in their income ratio. Similarly, 38 percent of those people in households that received one or more types of means-tested benefits in 1999 but not in 1998, and 36 percent of people in households that received benefits from one or more types of means-tested benefits in 1998 but not in 1999, experienced a decrease in their income ratio.

The results varied for specific types of benefits. Households that started receiving or lost income from Temporary Assistance for Needy Families (TANF) and General Assistance had no differential association with changes in their members' income ratios, as shown in Table 2. TANF is a federal program created by the Personal Responsibility and Work Opportunity Reconciliation Act of 1996 that delivers federal welfare funds to states in a single block grant. It replaced the former Aid to Families with Dependent Children (AFDC), Emergency Assistance (EA), and Job Opportunities and Basic Skills (JOBS) Training programs.

The Supplemental Security Income (SSI) program provides monthly payments to people who are aged, blind, or disabled; it requires a means test for eligibility, including a limit on current assets. Unlike the results for means-tested benefits such as TANF and General Assistance, among people in households receiving SSI in 1999 but not 1998, a majority (54 percent) experienced an increase in their income ratio, compared with one-third (37 percent) in the reverse situation.

The food stamp program is the major national program that provides food vouchers to low-income and low-resource households. Of those people living in households that received food stamps in 1999 but not in 1998, 38 percent experienced a decrease in their income ratio, while 27 percent of those in households that stopped receiving food stamps in 1999 experienced such a decrease. A majority (59 percent) of people living in households that received food stamps in 1998 but not in 1999 experienced an increase in their income ratio, compared with 46 percent of people who lived in households that received food stamps in 1999 but not in 1998.

SOURCE OF THE DATA

The population represented (the population universe) in the 1996 Survey of Income and Program Participation (SIPP) is the civilian noninstitutionalized population living in the United States. The data in this report were collected from April 1996 until March 2000. The institutionalized population, which is excluded from the population universe, is composed primarily of the population in correctional institutions and nursing homes (91 percent of the 4.1 million institutionalized population in Census 2000).

ACCURACY OF THE ESTIMATES

Statistics from surveys are subject to sampling and nonsampling error. All comparisons presented in this report have taken sampling error into account and are significant at the 90-percent confidence level. This means the 90-percent confidence interval for the difference between the estimates being compared does not include zero. Nonsampling errors in surveys may be attributed to a variety of sources, such as how the survey was designed, how respondents interpret questions, how able and willing respondents are to provide correct answers, and how accurately the answers are coded and classified. The Census Bureau employs quality control procedures throughout the production process including the overall design of surveys, the wording of questions, review of the work of interviewers and coders, and statistical review of reports to minimize these errors.

The Survey of Income and Program Participation weighting procedure uses ratio estimation, whereby sample estimates are adjusted to independent estimates of the national population by age, race, sex, and Hispanic origin. This weighting partially corrects for bias due to undercoverage and attrition, but biases may still be present when people who are missed by the survey differ from those interviewed in ways other than age, race, sex, and Hispanic origin. How this weighting procedure affects other variables in the survey is not precisely known. All of these considerations affect

[7] Means-tested benefits are financial assistance that requires income and/or assets of the individual or family to be below specified thresholds in order to qualify for benefits. Means-tested benefits examined here are Temporary Assistance for Needy Families (TANF), General Assistance, Supplemental Security Income (SSI), Medicaid, and food stamps.

comparisons across different surveys or data sources.

For further information on the source of the data and accuracy of the estimates including standard errors and confidence intervals, go to <www.sipp.census.gov/sipp/sourceac/s&a96_040501.pdf> or contact Dennis Sissel of the Census Bureau's Demographic Statistical Methods Division via e-mail at <charles.d.sissel@census.gov>.

Additional information on the SIPP can be found at the following Web site:

<www.sipp.census.gov/sipp/> (SIPP main Web site);

<www.sipp.census.gov/sipp/workpapr/wp230.pdf> (SIPP Quality Profiles);

<www.sipp.census.gov/sipp/usrguide/sipp2001.pdf> (SIPP Users' Guide).

USER COMMENTS

The Census Bureau welcomes the comments and advice of users of its data and reports. If you have suggestions or comments, please send an e-mail inquiry to: <hhes-info@census.gov> or contact John J. Hisnanick, Chief, Longitudinal Income Statistics Branch, via e-mail at <john.j.hisnanick@census.gov> or at 301-763-6685.

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