### A Chance to Advance: A Look at Income Variability in the U.S.

by

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Income variability in the United States has increased over time, primarily because income levels, especially among individuals with lower income, have shown year-over-year increases.

#### Introduction

People, over time, generally experience changes in income and economic well-being. Measures such as poverty rates and median income are useful for understanding general economic trends; however, these aggregates often mask the extent of income variability experienced by individuals. Longitudinal surveys, by tracking the same households over time, allow for the study of personal income dynamics.

#### Methodology

This paper uses data from the 2001 panel of the Census Bureau's Survey of Income and Program Participation (SIPP) to analyze income variability between 2001 and 2002, and builds on previous Census Bureau studies to analyze the change in income variability since the mid-1980s. Income variability is measured by the percent of individuals whose change in income ratio from one year to the next exceeded a minimum threshold amount. An individual's income ratio is defined as the ratio of that person's total annual family income to the family's official poverty threshold. If a person's family income is below the family's poverty threshold, that is, income ratio is less than one, then the person as well as every other member of the family is considered to be in poverty.

### Key findings

#### Section 1: Income Variability, 2001-2002

Between 2001 and 2002, a large portion of the U.S. population experienced changes in income ratios; however, the extent of upward and downward mobility in income varied substantially among people with different income levels.

Between 2001 and 2002, two-thirds of the U.S. population experienced a change of at least 10 percent in their income ratio --- 37 percent experienced an increase of at least 10 percent and 30 percent saw a decline of at least 10 percent.

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<sup>&</sup>lt;sup>1</sup> The SIPP is a longitudinal survey of a representative sample of the US civilian non-institutional population, and provides detailed data on labor force participation, income, assets, welfare program participation, and demographic characteristics of households. The 2001 Panel is the most recently completed panel of the SIPP. Households participating in the SIPP are interviewed every four months for 3 or 4 years. Section 2 of this paper updates and builds on a previous Census Bureau study by Wilfred Masumura, "Dynamics of Economic Well-Being: Income, 1993 to 1994: Moving Up and Down the Income Ladder" (July 1998). Figures for 1993-1994 and earlier periods were originally presented in that study.

<sup>&</sup>lt;sup>2</sup> Section 1 of this paper uses 10 percent as threshold. So income variability, in Section 1, is measured by the share of people who experienced at least a 10 percent change in income ratio. People whose income ratios changed less than 10 percent are considered to have stable income ratios. Section 2 of this paper uses 5 percent as threshold.

<sup>&</sup>lt;sup>3</sup> Official poverty thresholds vary by family size and structure. The thresholds are adjusted annually for changes in cost of living.

Table 1: Change in the Income Ratio of People by Income Level and Ethnic Origin, 2001-2002 (Percent Distribution)

	Total (000)	Percent of Category Total	Declined 10% or more	Changed less than 10%	Increased 10% or more
All Persons	268,135 <sup>1</sup>	100	30.5	32.6	36.9
Income Ratio in 2001 (IR)					
Less than 1.00	28,503	10.6	21.9	21.2	56.9
1.00 to 1.99	51,523	19.2	26.1	29.5	44.4
2.00 to 3.99	96,337	35.9	28.3	34.8	36.9
4.00 or more	91,772	34.2	37.9	35.6	26.5
Race and Hispanic Origin					
White, not Hispanic	189,594	70.7	30.2	34.1	35.6
African-American	32,226	12.0	31.5	28.6	39.9
Hispanic (of any race)	32,558	12.1	29.8	29.3	40.9
Race and Hispanic Origin, and Income Ratio in 2001 (IR)					
White, not Hispanic	189,594	100			
IR Less than 1.00	13,244	7.0	19.9	22.5	57.6
IR 1.00 to 1.99	29,892	15.8	24.1	30.9	45.0
IR 2.00 to 3.99	69,968	36.9	27.1	35.3	37.6
IR 4.00 or more	76,490	40.3	37.3	36.3	26.3
African-American	32,226	100			
IR Less than 1.00	7,502	23.3	26.4	20.7	52.8
IR 1.00 to 1.99	8,457	26.2	30.8	27.8	41.4
IR 2.00 to 3.99	10,480	32.5	30.6	33.1	36.3
IR 4.00 or more	5,788	18.0	40.7	31.9	27.4
Hispanic (of any race)	32,558	100			
IR Less than 1.00	6,084	18.7	22.2	20.0	57.9
IR 1.00 to 1.99	10,933	33.6	27.6	27.9	44.5
IR 2.00 to 3.99	11,011	33.8	31.8	33.9	34.3
IR 4.00 or more	4,530	13.9	40.2	33.9	25.8

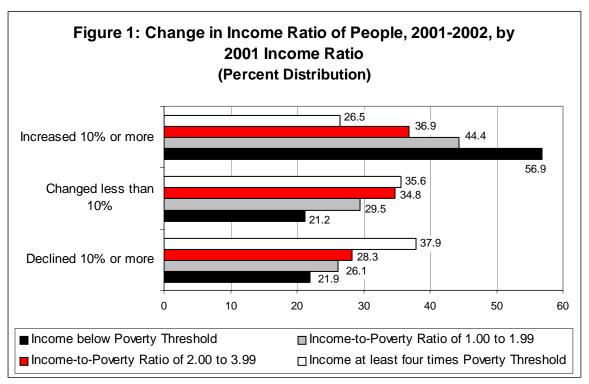
Source: Author's calculations from the 2001 Panel of SIPP. Appendix 1 presents the standard errors for these estimates. 

<sup>1</sup>Longitudinal panel weights are used in this analysis. The sample includes all people with positive longitudinal panel weight, and interview status during

all twelve months of 2001 and 2002.

People with incomes below the poverty threshold were more likely to see rising income and less likely to see falling income than those with higher incomes. As shown in Table 1 and Figure 1, 57 percent of individuals with incomes below the poverty threshold had rising income ratios,

compared to 26 percent for people with incomes at least four times the poverty threshold.<sup>4</sup> Similarly, 22 percent of people with incomes below the poverty threshold saw falling income ratios, while a larger 38 percent of those with the highest income saw declining income ratios during the same period.



Source: Author's calculations from the 2001 Panel of SIPP.

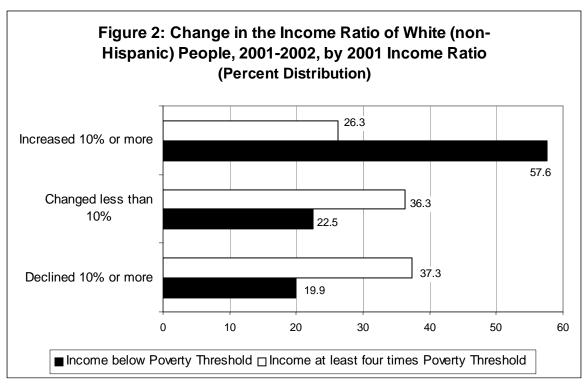
# The trend of greater upward movement among people with lower incomes holds across racial and ethnic categories.

Table 1 and Figures 2, 3, and 4 show that, among all three categories of race and Hispanic origin, people with lower incomes were more likely to experience a rising income ratio than those with higher incomes.

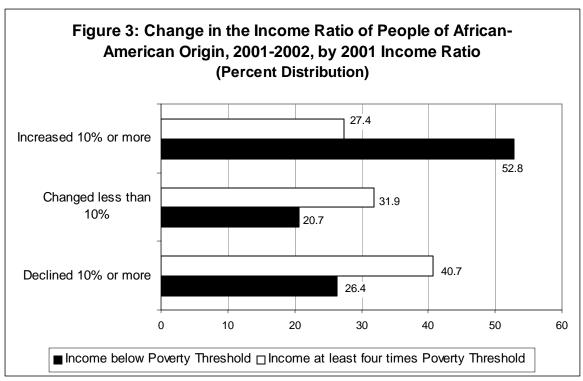
Table 1 also shows that the share of people in poverty who experienced a rising income ratio was fairly similar across the different racial and ethnic categories. This happened despite the fact that people with lower incomes were asymmetrically distributed across the racial and ethnic groups. For example, about 7 percent of Whites had incomes below the poverty level in 2001, compared with a larger 19 percent for Hispanics and 23 percent for African-Americans. However, about 58 percent of Whites with incomes below the poverty level experienced a 10 percent or greater increase in their income ratios between 2001 and 2002, which compared with a similar 58 percent for Hispanics and only a slightly smaller 53 percent for African-Americans.

<sup>4</sup>All comparisons referenced in this paper have been tested for statistical significance, and are significant at the 90 percent confidence level unless otherwise noted.

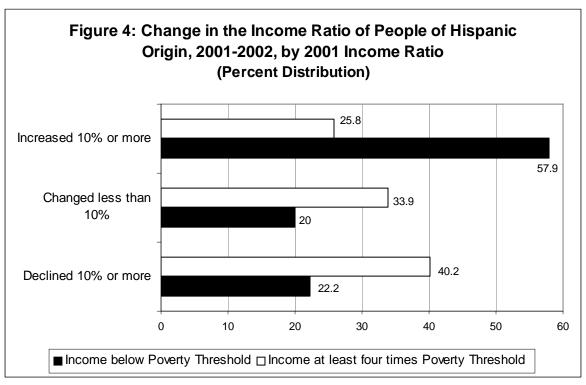
People with higher income levels, similar to those with lower incomes, also differed in terms of their racial and ethnic composition. They, however, experienced similar likelihood of moving up regardless of their racial and ethnic background. For example, 40 percent of Whites had incomes at least four times the poverty threshold in 2001, compared with a smaller 14 percent for Hispanics and 18 percent for African-Americans. However, 26 percent of Whites with incomes at least four times the poverty threshold experienced a 10 percent or larger rise in their income ratio, compared with a similar 26 percent for Hispanics and 27 percent for African-Americans (see Figures 2, 3, and 4).



Source: Author's calculations from the 2001 Panel of SIPP.



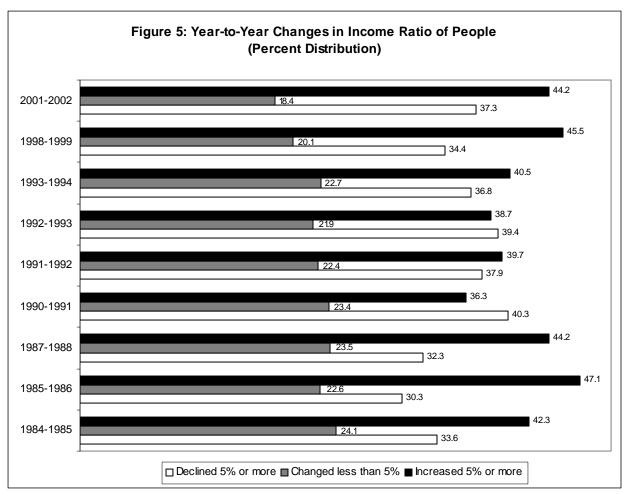
Source: Author's calculations from the 2001 Panel of SIPP.



Source: Author's calculations from the 2001 Panel of SIPP.

#### Section 2: Trends in Income Variability, 1985-2002

The rest of this paper will look at income variability in the US since the mid-1980s. Results from previous Census Bureau studies are used to compare the change in income variability between 2001-2002 and earlier periods. In order to be consistent with earlier Census Bureau studies, the rest of this paper will measure income variability by the percent of individuals whose income ratios changed by 5 percent or more from one year to the next. People whose income ratios changed less than 5 percent are considered to have stable income ratios.



Source: Author's calculations from the 2001 Panel of SIPP; Wilfred Masumura and John Hisnanick, "Dynamics of Economic Well-Being: Moving Up and Down the Income Ladder, 1998 to 1999" (April 2005); Wilfred Masumura, "Dynamics of Economic Well-Being: Income, 1993 to 1994: Moving Up and Down the Income Ladder" (July 1998).

### Substantial year-to-year variability in income is the norm rather than the exception in the United States.

Between 2001 and 2002, about 82 percent of Americans experienced a change of at least 5 percent in their income ratios (see Table 2a). High levels of income variability have been typical

in the past as well (see Figure 5).

## Income variability has been increasing over time, and most of the increase in income variability is due to increased upward income movement.

Income variability in the US has been increasing since the mid-1980s. Between 1984 and 1988, an average of 76.6 percent of Americans experienced a change of at least 5 percent in their income ratios. By 2001-2002, this share rose to 81.6 percent (see Figure 5).<sup>5</sup>

The trend of rising income variability holds even if we compare periods that are at a similar stage of the business cycle. Both 1990 and 2001 saw the onset of recessions.<sup>6</sup> Income variability rose by 5 percentage points between the periods 1990-1991 and 2001-2002.

In addition, the rise in income variability over time seems to be driven primarily by upward movements in income. The 5 percentage point increase in income variability between 1990-1991 and 2001-2002 was the result of a nearly 8 percentage point increase in the share of persons with rising income ratios (from 36.3 to 44.2 percent) and a decline of 3 percentage points in the share of people with falling income ratios (from 40.3 to 37.3 percent).

#### The 2001 recession had a milder impact on income variability than the 1990-1991 recession.

Between 1987-1988 and 1990-1991, there was a decline of 8 percentage points in the share of people with rising income ratios, and a similar increase in the share with falling income ratios. In contrast, between 1998-1999 and 2001-2002, the share of people with rising incomes declined by a smaller 1.3 percentage points, and the share with falling incomes rose by a smaller 3 percentage points.

<sup>&</sup>lt;sup>5</sup> In order to test whether the increase in income variability over time is statistically significant, a regression analysis was done using a time variable. The coefficient on the time variable was positive and highly statistically significant. <sup>6</sup> The recession beginning in 1990 spanned the period from 1990:Q3 to 1991:Q1. The 2001 recession spanned the period from 2001:Q1 to 2001:Q4. The source of these dates is the National Bureau of Economic Research (www.nber.org).

<sup>&</sup>lt;sup>7</sup> If the relevant comparison periods for the last two recessions are 1991-1992 and 2001-2002, instead of 1990-1991 and 2001-2002, the results are as follows: Income variability rose by 4 percentage points between the periods 1991-1992 and 2001-2002, resulting from a 4.5 percentage point increase in the share of persons with rising income ratios (from 39.7 to 44.2 percent). The decline of 0.6 percentage point between 1991-1992 and 2001-2002 in the share of people with falling income ratios (from 37.9 to 37.3 percent) was not significant at the 90% confidence level.

<sup>8</sup> If the relevant comparison periods are 1991-1992 and 2001-2002, the results are as follows: Between 1987-1988 and 1991-1992, there was a decline of 4.5 percentage points in the share of people with rising income ratio, and an increase of 5.6 percentage point in the share with falling income ratio.

Table 2a: Change in the Income Ratio of People by Selected Characteristics, 2001-2002 (Percent Distribution)

Characteristics	Total (000)	Declined 5% or more	Changed less than 5%	Increased 5% or more
All Persons	268,135 <sup>1</sup>	37.3	18.4	44.2
Work Experience (Age 18 and over)				
Year-Round Full-Time (YRFT) in 2001 to not YRFT in 2002	12,243	58.5	12.6	28.9
Not YRFT in 2001 to YRFT in 2002	13,419	25.9	14.0	60.2
Number of Workers in Household				
Fewer workers in 2002 than 2001	30,293	66.9	10.0	23.0
More workers in 2002 than 2001	26,531	19.5	11.0	69.4
Marital Status (Age 18 and over)				
From married in 2001 to other in 2002	2,075	60.4	7.0	32.6
From other marital status in 2001 to married in 2002	3,297	28.2	7.4	64.4
Family Status				
From married-couple family in 2001 to other family type in 2002 <sup>2</sup>	2,895	63.0	7.6	29.5
From other family type in 2001 to married-couple family in 2002	2,352	27.9	9.0	63.1
Household Composition				
No change in number of adults, fewer children in 2002 than 2001	3,922	31.7	9.0	59.3
No change in number of adults, more children in 2002 than 2001	9,209	61.2	10.6	28.2
No change in number of children, fewer adults in 2002 than 2001	11,762	54.3	9.2	36.5
No change in number of children, more adults in 2002 than 2001	9,252	30.8	9.8	59.4
Income Ratio in 2001				
Less than 1.00	28,503	24.9	13.5	61.6
1.00 to 1.99	51,523	31.8	17.7	50.4
2.00 to 3.99	96,337	35.9	19.0	45.1
4.00 or more	91,772	45.8	19.7	34.5
Gender				
Women	138,418	37.2	18.5	44.3
Men	129,716	37.5	18.3	44.2
Race and Hispanic Origin				
White, not Hispanic	189,594	37.5	19.5	43.1
African-American	32,226	37.0	15.5	47.5
Hispanic (of any race)	32,558	36.5	15.4	48.1
Age in 2001				
Under 18 years	67,631	37.1	16.7	46.3
18-24 years	24,844	37.3	13.8	48.9
25-44 years	79,370	37.6	17.5	44.9
45-64 years	63,878	37.8	18.8	43.4
65 years and over	32,413	36.3	27.2	36.4

Source: Author's calculations from the 2001 Panel of SIPP. Appendix 2 presents the standard errors for these estimates.

<sup>1</sup> Longitudinal panel weights are used in this analysis. The sample includes all people with positive longitudinal panel weight, and interview status during all twelve months of 2001 and 2002. <sup>2</sup>Other family type refers to a male-headed or a female-headed family.

Table 2b: Change in the Income Ratio of People by Selected Characteristics, 1993-1994 (Percent Distribution)

All Persons   246.156   36.8   22.7   40.5	Characteristics	Total (000)	Declined 5% or more	Changed less than 5%	Increased 5% or more
YRFT in 1993 to not YRFT in 1994         8,519         59,4         14,5         26,2           Not YRFT in 1993 to YRFT in 1994         11,493         24,3         13,4         62,3           Number of Workers in Household         Sewer workers in 1994 than 1993         25,418         69,1         10,3         20,6           More workers in 1994 than 1993         27,833         20,1         9,7         70,2           Marital Status (Age 18 and over)         Commarried in 1994 to other in 1994         2,287         61,0         7,7         31,3           From married in 1993 to other in 1994         3,497         25,6         9,3         65,1           From married status in 1993 to married in 1994         3,273         69,7         6,4         23,9           From other family type in 1993 to married-couple family in 1994         3,273         69,7         6,4         23,9           From other family type in 1993 to married-couple family in 1994         3,476         29,0         4,9         74,2           Household Composition         Total Composition         4,476         29,2         11,6         59,2           No change in number of adults, fewer children in 1994 than 1993         1,4,36         24,8         12,9         22,2           No change in number of children, fewer adults in 1994	All Persons	246,156			
Not YRFT in 1993 to YRFT in 1994   11,493	Work Experience (Age 18 and over)				
Number of Workers in Household	YRFT in 1993 to not YRFT in 1994	8,519	59.4	14.5	26.2
Pewer workers in 1994 than 1993   25,418   69.1   10.3   20.6	Not YRFT in 1993 to YRFT in 1994	11,493	24.3	13.4	62.3
More workers in 1994 than 1993         27,843         20.1         9.7         70.2           Marital Status (Age 18 and over)         Commarried in 1993 to other in 1994         2,287         61.0         7.7         31.3           From married in 1993 to other in 1994         3,497         25.6         9.3         65.1           Family Status         Commarried couple family in 1993 to other family type in 1994         3,273         69.7         6.4         23.9           From other family type in 1993 to married-couple family in 1994         2,449         20.9         4.9         74.2           Household Composition         Commercial family in 1994 than 1993         4,476         29.2         11.6         59.2           No change in number of adults, more children in 1994 than 1993         4,476         29.2         11.6         59.2           No change in number of children, fewer adults in 1994 than 1993         10,464         64.8         12.9         22.2           No change in number of children, fewer adults in 1994 than 1993         7,12         22.3         12.6         65.1           Income Ratio in 1993         7,12         22.3         12.6         52.1         65.1           Less than 1.00         31,840         26.1         21.2         52.7           1.00 to 1.99 <td>Number of Workers in Household</td> <td></td> <td></td> <td></td> <td></td>	Number of Workers in Household				
Marital Status (Age 18 and over)         Common status	Fewer workers in 1994 than 1993	25,418	69.1	10.3	20.6
From married in 1993 to other in 1994   2,287   61.0   7.7   31.3     From other marital status in 1993 to married in 1994   3,497   25.6   9.3   65.1     Family Status	More workers in 1994 than 1993	27,843	20.1	9.7	70.2
From other marital status in 1993 to married in 1994   3,497   25.6   9.3   65.1	Marital Status (Age 18 and over)				
Family Status         Beauty Status         Control of Emily 1993 to other family type in 1994         3,273         69.7         6.4         23.9           From married-couple family in 1993 to married-couple family in 1994         2,449         20.9         4.9         74.2           Household Composition         To change in number of adults, fewer children in 1994 than 1993         4,476         29.2         11.6         59.2           No change in number of faildren, fewer adults in 1994 than 1993         10,464         64.8         12.9         22.2           No change in number of children, fewer adults in 1994 than 1993         7,712         22.3         11.6         65.1           Income Ratio in 1993         7,712         22.3         12.6         65.1           Income Ratio in 1993         44,137         33.7         20.7         65.1           Income Ratio in 1993         49,137         33.7         20.7         45.6           2.00 to 3.99         49,137         33.7         20.7         45.6           2.00 to 3.99         89,111         35.7         22.9         41.5           4.00 or more         76,067         44.5         24.3         31.1           Gender         19,523         36.6         22.1         41.3           <	From married in 1993 to other in 1994	2,287	61.0	7.7	31.3
From married-couple family in 1993 to other family type in 1994         3,273         69,7         6.4         23.9           From other family type in 1993 to married-couple family in 1994         2,449         20.9         4.9         74.2           Household Composition         Who change in number of adults, fewer children in 1994 than 1993         4,476         29.2         11.6         59.2           No change in number of adults, more children in 1994 than 1993         10,464         64.8         12.9         22.2           No change in number of children, fewer adults in 1994 than 1993         7,712         22.3         12.6         65.1           Income Ratio in 1993         31.840         26.1         21.2         52.7           1.00 to 1.99         49,137         33.7         20.7         45.6           2.00 to 3.99         89,111         35.7         22.9         41.5           4.00 or more         76,067         44.5         24.3         31.1           Gender         119,523         36.6         22.1         41.3           Women         126,632         37.0         23.2         39.8           Men         119,523         36.6         22.1         41.3           Ethic Origin         31,316         37.1	From other marital status in 1993 to married in 1994	3,497	25.6	9.3	65.1
From other family type in 1993 to married-couple family in 1994         2,449         20.9         4.9         74.2           Household Composition         U         10         59.2           No change in number of adults, fewer children in 1994 than 1993         10,464         64.8         12.9         22.2           No change in number of children, fewer adults in 1994 than 1993         12,310         59.3         11.3         29.5           No change in number of children, more adults in 1994 than 1993         7,712         22.3         12.6         65.1           Income Ratio in 1993         31,840         26.1         21.2         52.7           1.00 to 1.99         49,137         33.7         20.7         45.6           2.00 to 3.99         89,111         35.7         22.9         41.5           4.00 or more         76,667         44.5         24.3         31.1           Gender         119,523         36.6         22.1         41.5           Women         126,632         37.0         23.2         39.8           Ethnic Origin         184,163         36.8         23.1         40.1           Mite, not Hispanic         184,163         36.8         23.1         40.1           Hispanic (of any race)	Family Status				
No change in number of adults, fewer children in 1994 than 1993   4,476   29.2   11.6   59.2     No change in number of adults, more children in 1994 than 1993   10,464   64.8   12.9   22.2     No change in number of children, fewer adults in 1994 than 1993   12,310   59.3   11.3   29.5     No change in number of children, fewer adults in 1994 than 1993   7,712   22.3   12.6   65.1     Income Ratio in 1993	From married-couple family in 1993 to other family type in 1994	3,273	69.7	6.4	23.9
No change in number of adults, fewer children in 1994 than 1993         4.476         29.2         11.6         59.2           No change in number of adults, more children in 1994 than 1993         10,464         64.8         12.9         22.2           No change in number of children, fewer adults in 1994 than 1993         12,310         59.3         11.3         29.5           No change in number of children, more adults in 1994 than 1993         7,712         22.3         12.6         65.1           Income Ratio in 1993         31,840         26.1         21.2         52.7           1.00 to 1.99         49,137         33.7         20.7         45.6           2.00 to 3.99         89,111         35.7         22.9         41.5           4.00 or more         76,067         44.5         24.3         31.1           Gender         119,523         36.6         22.1         41.3           Women         119,523         36.6         22.1         41.3           Ethnic Origin         184.163         36.8         23.1         40.1           Mits, not Hispanic         184.163         36.8         23.1         40.1           Hispanic (of any race)         23,950         34.7         20.7         44.7	From other family type in 1993 to married-couple family in 1994	2,449	20.9	4.9	74.2
No change in number of adults, more children in 1994 than 1993  No change in number of children, fewer adults in 1994 than 1993  No change in number of children, more adults in 1994 than 1993  No change in number of children, more adults in 1994 than 1993  T,712  22.3  12.6  65.1  Income Ratio in 1993  Less than 1.00  31,840  26.1  21.2  52.7  1.00 to 1.99  49,137  33.7  20.7  45.6  2.00 to 3.99  89,111  35.7  22.9  41.5  4.00 or more  76,067  44.5  24.3  31.1  Gender  Women  126,632  37.0  23.2  39.8  Men  119,523  36.6  22.1  41.3  Ethnic Origin  White, not Hispanic  White, not Hispanic  African-American  31,316  37.1  22.0  40.1  Age in 1993  Under 18 years  55,394  38.5  16.6  44.9  25-44 years  80,850  36.5  20.9  42.7  45-64 years  48,743  38.7  23.0  38.8	Household Composition				
No change in number of children, fewer adults in 1994 than 1993 12,310 59,3 11.3 29,5 No change in number of children, more adults in 1994 than 1993 7,712 22,3 12,6 65,1  Income Ratio in 1993  Less than 1.00 31,840 26,1 21,2 52,7 1.00 to 1.99 49,137 33,7 20,7 45,6 2.00 to 3.99 89,111 35,7 22,9 41,5 4.00 or more 76,067 44,5 24,3 31,1  Gender  Women 126,632 37,0 23,2 39,8 Men 119,523 36,6 22,1 41,3  Ethnic Origin White, not Hispanic Hispanic (of any race) 31,316 37,1 22,0 40,9 Hispanic (of any race) 32,3950 34,7 35,5 36,6 37,1 36,0 37,1 37,0 38,1 38,1 38,1 38,1 38,1 38,1 38,1 38,1	No change in number of adults, fewer children in 1994 than 1993	4,476	29.2	11.6	59.2
No change in number of children, more adults in 1994 than 1993 7,712 22.3 12.6 65.1  Income Ratio in 1993  Less than 1.00 31,840 26.1 21.2 52.7 1.00 to 1.99 49,137 33.7 20.7 45.6 2.00 to 3.99 89,111 35.7 22.9 41.5 4.00 or more 76,067 44.5 24.3 31.1  Gender  Women 126,632 37.0 23.2 39.8  Men 119,523 36.6 22.1 41.3  Ethnic Origin  White, not Hispanic 184,163 36.8 23.1 40.1  African-American 31,316 37.1 22.0 40.9  Hispanic (of any race) 23,950 34.7 20.7 44.7  Age in 1993  Under 18 years 65,394 35.5 20.5 44.0 18-24 years 23,694 38.5 16.6 44.9 25-44 years 80,850 36.5 20.9 42.7 45-64 years 48,743 38.7 23.0 38.4	No change in number of adults, more children in 1994 than 1993	10,464	64.8	12.9	22.2
Income Ratio in 1993         Best than 1.00         31,840         26.1         21.2         52.7           1.00 to 1.99         49,137         33.7         20.7         45.6           2.00 to 3.99         89,111         35.7         22.9         41.5           4.00 or more         76,067         44.5         24.3         31.1           Gender         89,111         35.7         22.9         41.5           Women         126,632         37.0         23.2         39.8           Men         119,523         36.6         22.1         41.3           Ethnic Origin         80         80         23.1         40.1           African-American         184,163         36.8         23.1         40.1           Age in 1993         9         44.7         44.7           Under 18 years         65,394         35.5         20.5         44.0           18-24 years         23,694         38.5         16.6         44.9           25-44 years         80,850         36.5         20.9         42.7           45-64 years         48,743         38.7         23.0         38.4	No change in number of children, fewer adults in 1994 than 1993	12,310	59.3	11.3	29.5
Less than 1.00   31,840   26.1   21.2   52.7     1.00 to 1.99   49,137   33.7   20.7   45.6     2.00 to 3.99   89,111   35.7   22.9   41.5     4.00 or more   76,067   44.5   24.3   31.1     Gender	No change in number of children, more adults in 1994 than 1993	7,712	22.3	12.6	65.1
1.00 to 1.99	Income Ratio in 1993				
2.00 to 3.99   89,111   35.7   22.9   41.5	Less than 1.00	31,840	26.1	21.2	52.7
A.00 or more   76,067	1.00 to 1.99	49,137	33.7	20.7	45.6
Gender         Incompany         I	2.00 to 3.99	89,111	35.7	22.9	41.5
Women       126,632       37.0       23.2       39.8         Men       119,523       36.6       22.1       41.3         Ethnic Origin       Image: Comparity of the property o	4.00 or more	76,067	44.5	24.3	31.1
Men       119,523       36.6       22.1       41.3         Ethnic Origin       White, not Hispanic       184,163       36.8       23.1       40.1         African-American       31,316       37.1       22.0       40.9         Hispanic (of any race)       23,950       34.7       20.7       44.7         Age in 1993	Gender				
Ethnic Origin       Bethnic Origin         White, not Hispanic       184,163       36.8       23.1       40.1         African-American       31,316       37.1       22.0       40.9         Hispanic (of any race)       23,950       34.7       20.7       44.7         Age in 1993       Under 18 years       65,394       35.5       20.5       44.0         18-24 years       23,694       38.5       16.6       44.9         25-44 years       80,850       36.5       20.9       42.7         45-64 years       48,743       38.7       23.0       38.4	Women	126,632	37.0	23.2	39.8
White, not Hispanic       184,163       36.8       23.1       40.1         African-American       31,316       37.1       22.0       40.9         Hispanic (of any race)       23,950       34.7       20.7       44.7         Age in 1993	Men	119,523	36.6	22.1	41.3
African-American       31,316       37.1       22.0       40.9         Hispanic (of any race)       23,950       34.7       20.7       44.7         Age in 1993       Under 18 years       65,394       35.5       20.5       44.0         18-24 years       23,694       38.5       16.6       44.9         25-44 years       80,850       36.5       20.9       42.7         45-64 years       48,743       38.7       23.0       38.4	Ethnic Origin				
Hispanic (of any race) 23,950 34.7 20.7 44.7  Age in 1993  Under 18 years 65,394 35.5 20.5 44.0  18-24 years 23,694 38.5 16.6 44.9  25-44 years 80,850 36.5 20.9 42.7  45-64 years 48,743 38.7 23.0 38.4	White, not Hispanic	184,163	36.8	23.1	40.1
Age in 1993       State of the	African-American	31,316	37.1	22.0	40.9
Under 18 years       65,394       35.5       20.5       44.0         18-24 years       23,694       38.5       16.6       44.9         25-44 years       80,850       36.5       20.9       42.7         45-64 years       48,743       38.7       23.0       38.4	Hispanic (of any race)	23,950	34.7	20.7	44.7
18-24 years       23,694       38.5       16.6       44.9         25-44 years       80,850       36.5       20.9       42.7         45-64 years       48,743       38.7       23.0       38.4	Age in 1993				
25-44 years 80,850 36.5 20.9 42.7 45-64 years 48,743 38.7 23.0 38.4	Under 18 years	65,394	35.5	20.5	44.0
45-64 years 48,743 38.7 23.0 38.4	18-24 years	23,694	38.5	16.6	44.9
	25-44 years	80,850	36.5	20.9	42.7
65 years and over 27,474 36.0 37.8 26.2	45-64 years	48,743	38.7	23.0	38.4
	65 years and over	27,474	36.0	37.8	26.2

Source: Wilfred Masumura, "Dynamics of Economic Well-Being: Income, 1993 to 1994: Moving Up and Down the Income Ladder" (July 1998).

Table 2c: Change in Income Variability between 1993-1994 and 2001-2002<sup>1</sup>

(Percentage Point)						
Characteristics	Declined 5% or more	Changed less than 5%	Increased 5% or more			
All Persons	0.5	-4.3*	3.7*			
Work Experience (Age 18 and over)						
YRFT in Year1 (Y1) to not YRFT in Year2 (Y2)	-0.9	-1.9	2.7			
Not YRFT in Year1 (Y1) to YRFT in Year2 (Y2)	1.6	0.6	-2.1			
Number of Workers in Household						
Fewer workers in Y2 than Y1	-2.2	-0.3	2.4*			
More workers in Y2 than Y1	-0.6	1.3	-0.8			
Marital Status (Age 18 and over)						
From married in Y1 to other in Y2	-0.6	-0.7	1.3			
From other marital status in Y1 to married in Y2	2.6	-1.9	-0.7			
Family Status						
From married-couple family in Y1 to other family type in Y2	-6.7	1.2	5.6			
From other family type in Y1 to married-couple family in Y2	7.0	4.1	-11.1*			
Household Composition						
No change in number of adults, fewer children in Y2 than Y1	2.5	-2.6	0.1			
No change in number of adults, more children in Y2 than Y1	-3.6	-2.3	6.0*			
No change in number of children, fewer adults in Y2 than Y1	-5.0*	-2.1	7.0*			
No change in number of children, more adults in Y2 than Y1	8.5*	-2.8	-5.7*			
Income Ratio in Y1						
Less than 1.00	-1.2	-7.7*	8.9*			
1.00 to 1.99	-1.9*	-3.0*	4.8*			
2.00 to 3.99	0.2	-3.9*	3.6*			
4.00 or more	1.3*	-4.6*	3.4*			
Gender						
Women	0.2	-4.7*	4.5*			
Men	0.9	-3.8*	2.9*			
Race and Hispanic Origin						
White, not Hispanic	0.7	-3.6*	3.0*			
African-American	-0.1	-6.5*	6.6*			
Hispanic (of any race)	1.8	-5.3*	3.4*			
Age in Y1						
Under 18 years	1.6*	-3.8*	2.3*			
18-24 years	-1.2	-2.8*	4.0*			
25-44 years	1.1	-3.4*	2.2*			
45-64 years	-0.9	-4.2*	5.0*			
65 years and over	0.3	-10.6*	10.2*			
I .						

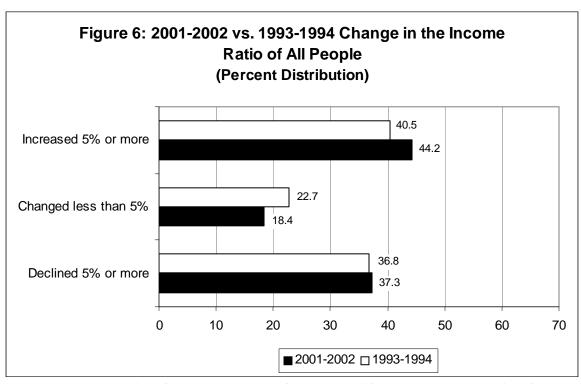
<sup>&</sup>lt;sup>1</sup>This table presents the difference between the 1993-1994 and 2001-2002 changes in income ratio of people. For example, the "Changed less than 5%" column presents the change in the share of people with stable income ratio. So a negative number in this column implies that the share of people with stable income ratio declined between 1993-1994 and 2001-2002, which means that income variability increased.

<sup>\*</sup>The difference between 1993-1994 and 2001-2002 for the corresponding category is significant at the 90 percent confidence level.

# The increase in income variability occurred among most socioeconomic groups, but was especially pronounced among individuals with lower incomes.

The trend of rising income variability holds across race, gender, and income categories. However, the magnitude of the increase was larger than the overall population among people with incomes below the poverty level and African-Americans (see Table 2c, and Figures 6, 7, and 9). Table 2c presents the change in income variability between the periods 1993-1994 and 2001-2002 by demographic groups.

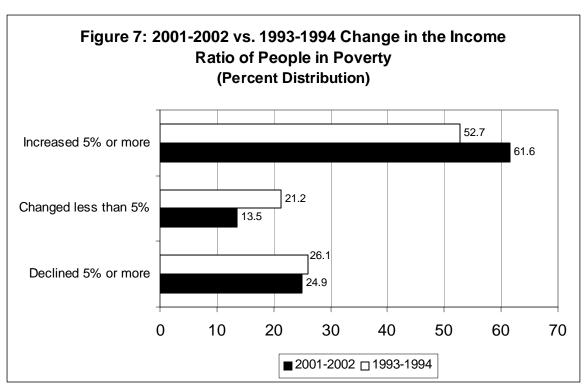
The relatively high level of income variability seen among people with lower incomes is mainly due to the upward movement in income experienced by that group (see Table 2c). For example, the share of individuals with incomes below the poverty threshold who experienced rising income ratios rose by 8.9 percentage points from 1993-1994 to 2001-2002. On the other hand, the share of their richest counterparts (those with income ratios of 4.00 or more) with rising income ratios grew by only 3.4 percentage points (see Figures 7 and 8).



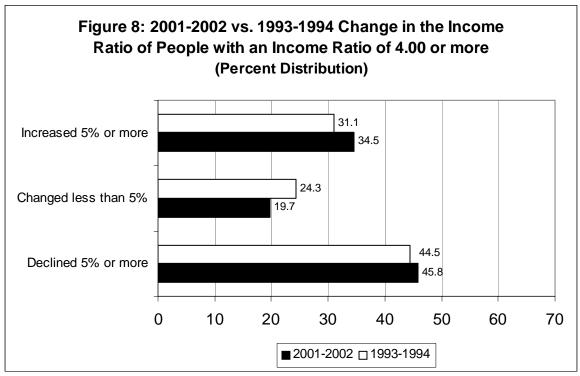
Source: Author's calculations from the 2001 Panel of SIPP, and Wilfred Masumura, "Dynamics of Economic Well-Being: Income, 1993 to 1994: Moving Up and Down the Income Ladder" (July 1998).

<sup>&</sup>lt;sup>9</sup> The data on changes in income ratio by detailed demographic groups are not available for the 1990-1991 period. The rest of this paper uses the results from the 1993-1994 period for comparison with 2001-2002.

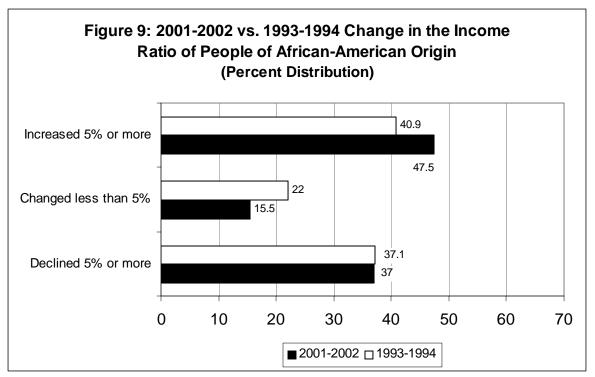
The Census Bureau study that originally presented the results for 1993-1994 (Table 2b) actually used 4.5 percent as the cutoff for studying increases, declines, and no changes in income ratio from 1993 to 1994, although the study reports using 5 percent as cutoff. Using a 4.5 percent cutoff for 2001-2002 does not change the underlying story. In order to be consistent, this paper uses 5 percent as cutoff.



Source: Author's calculations from the 2001 Panel of SIPP, and Wilfred Masumura, "Dynamics of Economic Well-Being: Income, 1993 to 1994: Moving Up and Down the Income Ladder" (July 1998).



Source: Author's calculations from the 2001 Panel of SIPP, and Wilfred Masumura, "Dynamics of Economic Well-Being: Income, 1993 to 1994: Moving Up and Down the Income Ladder" (July 1998).



Source: Author's calculations from the 2001 Panel of SIPP, and Wilfred Masumura, "Dynamics of Economic Well-Being: Income, 1993 to 1994: Moving Up and Down the Income Ladder" (July 1998).

Demographic and other economic factors --- age, changes in marital status, family composition, and work experience --- are related to movements in a person's income ratio.

Table 2c shows that the increase in income variability has occurred among all age groups. People aged 65 years or more have experienced the largest increase over time. However, on a year-to-year basis, those 65 and older were more likely than their younger counterparts to have a stable income ratio (see Tables 2a and 2b). Changes in family composition, as well as changes in employment status of family members, are associated with changes in one's income ratio during both periods.

People's income ratios were more likely to increase from one year to the next if:

- they started working year-round full-time;
- the number of workers in their family rose;
- they married or became a member of a married-couple family;
- the number of children in the family declined; or,
- the number of adults in the family increased.

Similarly, people's income ratios were more likely to decline if:

- they discontinued working year-round full-time;
- the number of workers in their family fell;
- they ceased to be married or ceased to be a member of a married-couple family;
- the number of children in the family rose; or,
- the number of adults in the family dropped.

### Conclusion

Analysis of the variability in income ratios demonstrates that such variability has increased over time. The share of people with rising income ratios has increased during the last decade, contributing to the increase in income variability. The increase in upward movement is particularly pronounced among people of lower income groups.

Appendix 1: Change in the Income Ratio of People by Income Level and Ethnic Origin, 2001-2002, with Standard Errors (Percent Distribution)

	Total (000)	Percent of Category Total	Declined 10% or more	Changed less than 10%	Increased 10% or more
All Persons	268,135 <sup>1</sup>	100	30.5	32.6	36.9
Income Ratio in 2001 (IR)			(0.4)	(0.4)	(0.4)
Less than 1.00	28,503	10.6	21.9	21.2	56.9
1.00 to 1.99	51,523	(0.4) 19.2	(1.1) 26.1	(1.0) 29.5	(1.3)
1.00 to 1.99	31,323	(0.4)	(0.9)	(1.0)	(1.0)
2.00 to 3.99	96,337	35.9	28.3	34.8	36.9
		(0.4)	(0.6)	(0.7)	(0.7)
4.00 or more	91,772	34.2	37.9	35.6	26.5
		(0.7)	(0.7)	(0.6)	(0.5)
Race and Hispanic Origin					
White, not Hispanic	189,594	70.7	30.2	34.1	35.6
		(1.0)	(0.4)	(0.5)	(0.5)
African-American	32,226	12.0	31.5	28.6	39.9
11 ( C	22.550	(0.6)	(1.1) 29.8	(1.2) 29.3	(1.3)
Hispanic (of any race)	32,558	12.1 (0.8)	(1.4)	(1.3)	40.9 (1.4)
Race and Hispanic Origin, and Income Ratio in 2001 (IR)		(0.8)	(1.4)	(1.3)	(1.4)
White, not Hispanic	189,594	100			
IR Less than 1.00	13,244	7.0	19.9	22.5	57.6
		(0.3)	(1.4)	(1.5)	(1.8)
IR 1.00 to 1.99	29,892	15.8	24.1	30.9	45.0
		(0.4)	(1.1)	(1.1)	(1.2)
IR 2.00 to 3.99	69,968	36.9	27.1	35.3	37.6
TD 4.00	7.5 400	(0.5)	(0.7)	(0.8)	(0.8)
IR 4.00 or more	76,490	40.3 (0.7)	37.3 (0.7)	36.3 (0.7)	26.3 (0.6)
African-American	32,226	100	(0.7)	(0.7)	(0.0)
			25.4	20.7	<b>72</b> 0
IR Less than 1.00	7,502	23.3	26.4	20.7	52.8
IR 1.00 to 1.99	8,457	(1.1) 26.2	(2.3)	(1.9) 27.8	(2.8)
IK 1.00 to 1.99	0,437	(1.1)	(2.3)	(2.3)	(2.5)
IR 2.00 to 3.99	10,480	32.5	30.6	33.1	36.3
		(1.3)	(1.9)	(2.2)	(2.2)
IR 4.00 or more	5,788	18.0	40.7	31.9	27.4
		(1.2)	(2.9)	(2.8)	(2.6)
Hispanic (of any race)	32,558	100			
IR Less than 1.00	6,084	18.7	22.2	20.0	57.9
		(1.4)	(2.5)	(2.2)	(3.1)
IR 1.00 to 1.99	10,933	33.6	27.6	27.9	44.5
TD 2 00 + 2 00	11.011	(1.4)	(2.2)	(2.4)	(2.2)
IR 2.00 to 3.99	11,011	33.8	31.8	33.9	34.3
IR 4.00 or more	4,530	(1.4) 13.9	(2.1) 40.2	(2.2)	(2.2) 25.8
IN T.00 OF INOIC	4,550	(1.1)	(3.0)	(3.2)	(2.8)

Source: Author's calculations from the 2001 Panel of SIPP. Standard errors are presented in parentheses. 

<sup>1</sup>Longitudinal panel weights are used in this analysis. The sample includes all people with positive longitudinal panel weight, and interview status during all twelve months of 2001 and 2002.

Appendix 2: Change in the Income Ratio of People by Selected Characteristics, 2001-2002, with Standard Errors
(Percent Distribution)

Characteristics	Total (000)	Declined 5% or more	Changed less than 5%	Increased 5% or more
All Persons	268,135 <sup>1</sup>	37.3	18.4	44.2
Work Experience (Age 18 and over)		(0.4)	(0.3)	(0.5)
YRFT in 2001 to not YRFT in 2002	12,243	58.5	12.6	28.9
Not YRFT in 2001 to YRFT in 2002	13,419	(1.3) 25.9	(0.8) 14.0	(1.0)
Number of Workers in Household		(1.0)	(0.9)	(1.1)
Fewer workers in 2002 than 2001	30,293	66.9 (1.1)	10.0 (0.9)	23.0 (1.0)
More workers in 2002 than 2001	26,531	19.5 (1.1)	11.0 (0.9)	69.4 (1.3)
Marital Status (Age 18 and over)		(1.1)	(0.5)	(1.5)
From married in 2001 to other in 2002	2,075	60.4 (2.6)	7.0 (1.3)	32.6 (2.5)
From other marital status in 2001 to married in 2002	3,297	28.2 (2.3)	7.4 (1.2)	64.4 (2.3)
Family Status		(2.3)	(1.2)	(2.3)
From married-couple family in 2001 to other family type in 2002 <sup>2</sup>	2,895	63.0	7.6	29.5
From other family type in 2001 to married-couple family in 2002	2,352	(3.6)	9.0	(3.6)
Household Composition		(3.5)	(2.9)	(4.3)
No change in number of adults, fewer children in 2002 than 2001	3,922	31.7	9.0	59.3
No change in number of adults, more children in 2002 than 2001	9,209	(3.6)	(1.9) 10.6	(4.0)
No change in number of children, fewer adults in 2002 than 2001	11,762	(2.4) 54.3	(1.3) 9.2	(2.2)
No change in number of children, more adults in 2002 than 2001	9,252	(1.7)	(0.9)	(1.8) 59.4
Income Ratio in 2001	7,232	(1.9)	(1.4)	(2.0)
income Ratio in 2001				
Less than 1.00	28,503	24.9 (1.2)	13.5 (0.8)	61.6 (1.3)
1.00 to 1.99	51,523	31.8	17.7	50.4
2.00 to 3.99	96,337	(1.0)	(0.8) 19.0	(1.0) 45.1
4.00 or more	91,772	(0.7) 45.8	(0.5) 19.7	(0.7)
Gender		(0.7)	(0.5)	(0.7)
Women	138,418	37.2	18.5	44.3
Men	129,716	(0.5)	(0.4)	(0.5)
IVICII	129,/10	(0.5)	(0.4)	(0.5)

Appendix 2: Change in the Income Ratio of People by Selected Characteristics, 2001-2002, with Standard Errors, continued (Percent Distribution)

	Total (000)	Declined 5% or more	Changed less than 5%	Increased 5% or more
Race and Hispanic Origin				
White, not Hispanic	189,594	37.5	19.5	43.1
		(0.5)	(0.4)	(0.5)
African-American	32,226	37.0	15.5	47.5
		(1.1)	(0.9)	(1.2)
Hispanic (of any race)	32,558	36.5	15.4	48.1
		(1.4)	(1.0)	(1.4)
Age in 2001				
Under 18 years	67,631	37.1	16.7	46.3
		(0.7)	(0.6)	(0.8)
18-24 years	24,844	37.3	13.8	48.9
		(1.0)	(0.7)	(1.1)
25-44 years	79,370	37.6	17.5	44.9
		(0.6)	(0.5)	(0.6)
45-64 years	63,878	37.8	18.8	43.4
		(0.6)	(0.5)	(0.6)
65 years and over	32,413	36.3	27.2	36.4
		(0.7)	(0.7)	(0.7)

Source: Author's calculations from the 2001 Panel of SIPP. Standard errors are presented in parentheses.

<sup>&</sup>lt;sup>1</sup> Longitudinal panel weights are used in this analysis. People with positive longitudinal panel weights, and interview status during all twelve months of 2001 and 2002 are included in the sample.

<sup>&</sup>lt;sup>2</sup>Other family type refers to a male-headed or a female-headed family.