Geographical Mobility: 2002 to 2003

Population Characteristics

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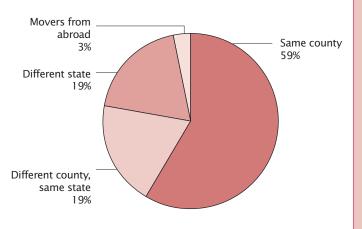
Geographic mobility has long been an important aspect of American life, affecting both people and geographic areas. At an individual level, moving has a number of potential impacts, such as expanding economic opportunity or increasing residential satisfaction. The movement of people is a key demographic factor for any area's population trends, and can change its demographic and socioeconomic composition. Finally, federal, state, and local government, as well as private industry, need to understand who moves and why when planning for needed services, facilities, and businesses.

This report examines geographic mobility in the United States, including differences in the extent and types of movement in recent years, characteristics of movers compared with nonmovers, distance of moves, reasons for moving, and regional migration patterns.

All respondents in the 2003 Annual Social and Economic Supplement (ASEC) to the Current Population Survey (CPS) were asked whether they lived at the same residence one year earlier. Nonmovers were living in the same home at both dates. Movers were asked for the location of their previous residence. Movers can be classified by type of move and are categorized as to whether they moved within the same county, to a different county within the same state, to a different county from a different state or region, or from abroad. These different types of moves are treated as if they form a distance continuum, even though, for example, some county-to-county moves are shorter in distance than some within county moves.

Figure 1. Percent Distribution of Movers by Type of Move: 2002 to 2003

(Population 1 year and older)



Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

Current Population Reports

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Demographic Programs



U.S. Department of Commerce Economics and Statistics Administration U.S. CENSUS BUREAU



In this report, a moving rate is the percentage of people who changed residence in a 1-year period (number of movers divided by the total population under consideration). Migration is commonly defined as moves that cross jurisdictional boundaries (counties in particular), while moves within a jurisdiction are referred to as residential mobility. Moves between counties are referred to as intercounty moves, while moves within the same county are referred to as intracounty moves. Further, migration can be differentiated as movement within the United States (domestic or internal migration) and movement into and out of the United States (international migration).

Reason-for-move and distance-of-move tabulations are included in this report for the first time, as well as a special topic section that uses multivariate analysis to examine how different variables influence the likelihood that a person moved.

About 40 million people in the United States moved.

Between 2002 and 2003, 40.1 million United States residents moved, fewer than the 41 million who moved between 2001 and 2002 (Table A). Similarly, moving rates have declined slightly over the

past decade, from 17 percent in 1994 to 14 percent in 2003. This moving rate is among the lowest rate found since the CPS began collecting this sort of data in 1948, when the moving rate stood at 20 percent. Though most moves were within the same county. longer distance moves (across state boundaries) have become slightly more likely over the past 10 years. In 2003, 59 percent of all moves were within the same county, while 19 percent were to a different county within the same state, 19 percent were to a different state, and 3 percent were from

population represented (population universe) is the civilian noninstitutionalized population of the United States. Members of the Armed Forces living off post or with their families on post are included, if there is at least one civilian adult living in the household. Most of the data from the ASEC were collected in March (with some data collected in February and April), and the data were controlled to independent population estimates for March 2003.

Table A. **Annual Moving Rates by Type of Move: 1993 to 2003**

(Numbers in thousands)

			Total m	iovers		Р	ercent move		
Mobility period		0		90- percent			Differen	t county	
, , ,	Total, 1 year and older	Same residence (non- movers)	Number	confidence interval $(\pm)^1$	Total	Same county	Same state	Different state	From abroad
2002-2003	282,556	242,463	40,093	608	14.2	8.3	2.7	2.7	0.5
2001-2002	278,160	237,049	41,111	614	14.8	8.5	2.9	2.8	0.6
2000-2001*	275,611	235,726	39,885	606	14.5	8.2	2.8	2.8	0.6
2000-2001**	275,611	236,605	39,006	838	14.2	8.0	2.7	2.8	0.6
2000-2001***	272,671	234,029	38,642	835	14.2	8.0	2.8	2.8	0.6
1999-2000	270,219	226,831	43,388	876	16.1	9.0	3.3	3.1	0.6
1998-1999	267,933	225,297	42,636	870	15.9	9.4	3.1	2.8	0.5
1997-1998	265,209	222,702	42,507	869	16.0	10.2	3.0	2.4	0.5
1996-1997	262,976	219,585	43,391	873	16.5	10.5	3.0	2.4	0.5
1995-1996	260,406	217,868	42,537	866	16.3	10.3	3.1	2.5	0.5
1994-1995 ²	258,248	215,931	42,317	830	16.4	10.8	3.1	2.2	0.3
1993-1994	255,774	212,939	42,835	834	16.7	10.4	3.2	2.6	0.5

^{*} Using 2000-census-based population controls and an expanded sample. See Source of Data for more information.

Source: U.S. Census Bureau, Current Population Survey, Annual Social and Economic Supplement, 1994-2003.

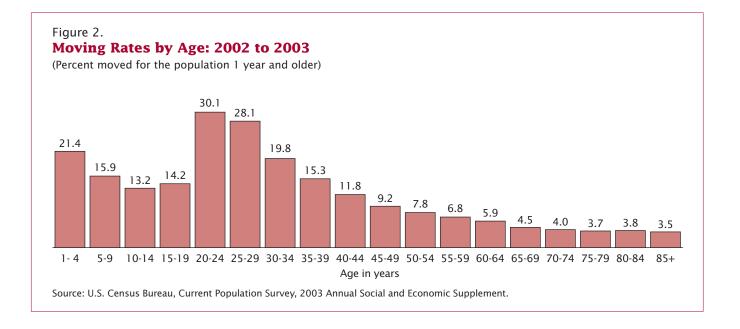
¹ The estimates in this report are based on responses from a sample of the population. As with all surveys, estimates may vary from the actual values because of sampling variation or other factors. All comparisons made in this report have undergone statistical testing and are significant at the 90-percent confidence level unless otherwise noted. Most estimates in this report are from the Annual Social and Economic Supplement (ASEC) to the 2003 Current Population Survey. The

^{**} Using 2000-census based-population controls. See Source of Data for more information.

^{***} Using 1990-census-based population controls. See Source of Data for more information.

¹This number, when added to and subtracted from the total number of movers, yields the 90-percent confidence interval around the estimate.

²The primary mobility question in the 1995 survey asked about residence 5 years earlier, not 1 year earlier as in the other survey years. An additional question was asked about residence 1 year earlier, but the resulting 1-year data for the 1994-95 period are not totally comparable with the data for other years.



abroad (Figure 1).² In 1994, 62 percent were within the same county, but just 16 percent of all moves crossed state boundaries.

CHARACTERISTICS OF MOVERS

Moving rates varied by the characteristics of movers.

Moving rates differ by characteristics such as age, race, Hispanic origin, nativity, marital status, household type, whether the housing unit is owned or rented, income, and poverty status. Table B shows moving rates and types of move by many of these characteristics, and some of these differences are described in detail below.

Young adults had the highest moving rates.

In 2003, about one-third of 20- to 29-year olds had moved in the previous year, more than twice the moving rate of all people 1 year and older. As shown in Figure 2, mobility peaked during the twenties

and then decreased with age, at least until very advanced ages. Among those who moved, people 55 and older were more likely to have moved to a different state than younger age groups, although they were less mobile than younger age groups. For example, 28 percent of all 55- to 64-year-old movers crossed state lines, compared with 19 percent of 25- to 29year olds. Moving rates were higher for young adults because of their relatively higher frequency of life course events (such as new family formations or jobs), while migration related to retirement could help explain age-based differentials in the likelihood of interstate moves.

Non-Hispanic Whites were less mobile than other race and Hispanic-origin groups.³

Non-Hispanic Whites had the lowest moving rate (12 percent), while

Beginning January 2003, respondents to the Current Population Survey (CPS) could choose one or more races to indicate their racial identity. The main race groups discussed in this report refer to people who reported one race: White, Black, or Asian. A fourth category, not used in this report, "All remaining races," refers to people who were American Indian and Alaska Native only, Native Hawaiian and Other Pacific Islander only, or any combination of Two or More Races. These populations have been included in the "All remaining races" category because individually they were not large enough to yield reliable results in the CPS. The use of the single-race population groups in this report does not imply that it is the preferred method of presenting or analyzing data. The Census Bureau uses a variety of approaches.

² These proportions can be calculated from Table A by dividing the percent moved for the type of move (e.g. within the same county) by the total percent moved.

³ Data for the American Indian and Alaska Native, Native Hawaiian and Other Pacific Islander, and Two or More Races populations are not shown in this report because of the small sample size in the Current Population Survey. Based on the 2003 Current Population Survey, 4 percent of the Black alone population and 2 percent of the Asian alone population were also of Hispanic origin.

Table B. **Geographic Mobility by Selected Characteristics: 2002 to 2003**

(Numbers in thousands)

					Р	ercent moved		
Selected characteristics						Different	county	
	Total, 1 year and older	Same residence (nonmovers)	Total movers	Total	Same county	Same state	Different state	From abroac
Total, 1 year and older	282,556	242,463	40,093	14.2	8.3	2.7	2.7	0.5
Age								
1 to 4 years	16,409	12,896	3,513	21.4	13.6	3.9	3.3	0.6
5 to 9 years	19,708	16,584	3,124	15.9	9.8	2.9	2.7	0.4
10 to 19 years	41,372	35,715	5,657	13.7	8.3	2.6	2.4	0.4
20 to 24 years	19,884 18,721	13,906 13,470	5,979 5,252	30.1 28.1	17.8 16.1	5.8 5.5	5.6 5.2	0.8 1.3
30 to 34 years	20,522	16,460	4,061	19.8	11.7	3.6	3.8	0.7
35 to 44 years	44,074	38,139	5,934	13.5	7.8	2.7	2.5	0.5
45 to 54 years	40,234	36,786	3,448	8.6	4.9	1.6	2.0	0.2
55 to 64 years	27,399	25,644	1,755	6.4	3.2	1.3	1.8	0.2
65 to 84 years	30,687 3,547	29,441 3,422	1,246 125	4.1 3.5	1.9 2.4	1.0 0.7	1.1 0.4	0. ⁻ 0.0
Sex								
Male	138,156	118,105	20,051	14.5	8.4	2.8	2.8	0.5
Female	144,400	124,358	20,042	13.9	8.2	2.7	2.6	0.4
Race and Hispanic Origin								
White alone	228,198	197,953	30,244	13.3	7.6	2.7	2.6	0.3
White alone, not Hispanic	192,458	168,524	23,934	12.4	7.0	2.7	2.7	0.2
Black alone	35,333	28,981	6,352	18.0	11.7	2.8	3.1	0.4
Asian aloneHispanic (of any race)	11,430 38,680	9,507 31,727	1,923 6,953	16.8 18.0	8.6 11.5	2.7 2.7	2.8 2.5	2.7 1.3
Nativity								
Native	249,103	214,823	34,279	13.8	8.3	2.9	2.8	0.2
Foreign born	33,453	27,639	5,814	17.4	9.9	2.6	2.9	3.5
Marital Status (15 years and older)								
Total	225,250	194,594	30,656	13.6	7.8	2.7	2.7	0.5
MarriedDivorced or separated	120,349 26,396	108,051 21,694	12,298 4,703	10.2 17.8	5.5 11.2	2.0 3.5	2.3 2.8	0.4 0.3
Vidowed	14,001	13,077	924	6.6	3.2	1.5	1.7	0.2
Never married	64,503	51,772	12,731	19.7	11.6	3.8	3.7	0.6
Education (25 years and older)								
Total	185,183	163,362	21,821	11.8	6.7	2.3	2.4	0.4
Not a high school graduate	28,599	25,186	3,413	11.9	7.7	1.8	1.8	0.7
High school graduate	59,292 46,910	52,953 41,167	6,339 5,743	10.7 12.2	6.2 6.9	2.1 2.6	2.1 2.5	0.2 0.2
Bachelor's degree	33,213	28,793	4,420	13.3	6.9	2.7	3.0	0.7
Graduate degree	17,169	15,264	1,906	11.1	5.4	2.1	3.0	0.7
lousehold Income (in 2002)								
ess than \$25,000	62,143	50,336	11,807	19.0	12.0	3.3	3.2	1.0
\$25,000 to \$49,999	75,010	63,424	11,587	15.4	9.4	3.0	2.8	0.4
650,000 to \$99,999	95,232 50,171	83,651 45,052	11,581 5,119	12.2 10.2	7.0 5.2	2.6 2.0	2.3 2.7	0.3 0.2
·	50,171	45,052	5,119	10.2	5.2	2.0	2.1	0.2
Poverty Status (in 2002)	040.000	016.004	24 700	10.0	7.	0.0	0.5	0.0
Above poverty level	248,066 34,490	216,284 26,178	31,782 8,312	12.8 24.1	7.4 14.7	2.6 3.8	2.5 4.0	0.3 1.7
Household Type								
n married-couple family households n other households	180,967 101,589	162,233 80,230	18,734 21,359	10.4 21.0	5.7 13.0	2.1 3.9	2.2 3.5	0.4 0.6
Housing Tenure								
Owner-occupied	200,627	185,686	14,941	7.4	4.3	1.6	1.4	0.2
Renter-occupied	81,929	56,777	25,152	30.7	18.2	5.5	5.8	1.2

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

Hispanics (of any race) and Blacks had the highest overall moving rate (18 percent), closely followed by Asians (17 percent). Among people who moved, Blacks and Hispanics were most likely to have moved within the same county (about 65 percent), while non-Hispanic Whites were most likely to have made intercounty and interstate moves (44 percent). Asians and Hispanics were much more likely than Blacks or non-Hispanic Whites to have moved from abroad. Some of these differences can be explained by characteristics other than race and Hispanic origin, as described in the "special topic" section of this report.

Almost one-third of renters moved.

Homeownership is one of the strongest predictors of whether a person moved. Nearly one-third of people living in renter-occupied housing units in 2003 moved during the previous year, compared with only 1 in 14 people living in owner-occupied housing units.4 Housing tenure is closely related to age, race, Hispanic origin, and income. In general, people living in owner-occupied housing units are more likely to be older, non-Hispanic White, and more affluent than those living in renter-occupied units.⁵

People with income below poverty were more likely to have moved than those above poverty.

Moving rates differed by the poverty status of individuals. Those

with income below the poverty level were more likely to have moved (24 percent) than those with income above poverty (13 percent). Some of this disparity may reflect differences in homeownership patterns, particularly the higher proportion of renters among households with low incomes. Also, among people who moved, those with income below the poverty level were more likely to have made an intracounty move and less likely to have made an interstate move (about 61 percent and 17 percent, respectively) than those above poverty (58 percent and 20 percent, respectively). Some of these differences could be explained by factors such as education, reasons for moving, and potentially higher costs associated with longer distance moves.

People of different education levels had similar moving rates.

Education accounted for only small differences in moving rates, ranging from 11 percent of those with only a high school education to 13 percent of those with a bachelor's degree. However, movers with a bachelor's degree were more likely to have moved longer distances: 23 percent made an interstate move, compared with 15 percent of those with less than a high school education. This difference could reflect better-educated people moving longer distances for jobs.

HOW PERSONAL CHARACTERISTICS CAN INFLUENCE MOVING RATES: A MULTIVARIATE APPROACH

As previously shown, the likelihood that a person moved during a 1-year period varies by individual characteristics. Blacks, Asians, and Hispanics were more likely to move than non-Hispanic Whites,

but to what degree were these differences due to race or to differences in other demographic and socioeconomic characteristics? For example, given that mobility is related to age, do these race and Hispanic-origin differences arise simply because non-Hispanic Whites are relatively older than other race/Hispanic-origin groups? Using race/Hispanic origin as a test case, this section examines how the interaction of individual characteristics influences mobility, and it presents increasingly complex methods that help to explain how particular variables can have different effects on moving rates, depending on other characteristics.

Two-Way Cross Tabulations

One of the simpler ways of examining the effects of two variables on one another is to cross tabulate their distributions. An example of a two-way cross tabulation would be moving rates by race/Hispanic origin and age (Table C1). Disaggregating moving rates by race and age shows that non-Hispanic Whites aged 20 to 29 tended to be slightly more mobile than Blacks and Hispanics, while being about as mobile as Asians of the same age.6 For most other age categories under 55, non-Hispanic Whites tended to be less mobile than the other race and ethnicity groups. When compared with the other race and ethnicity groups, the moving rates of Asians were generally higher among those aged 25 to 44.

Standardized Moving Rates By Age

Another way to look at the relationship between moving rates, age, and race/Hispanic origin, is to

⁴ As is the case with all characteristics on the Current Population Survey, housing tenure is measured at the time of the survey; tenure before the move was actually made is not ascertained.

⁵ For example, see U.S. Census Bureau, 2003, *Moving to America—Moving to Homeownership: 1994-2002*, by Robert R. Callis, Current Housing Reports H121/03-1, Washington, DC: Government Printing Office.

⁶ Blacks aged 25 to 29 were not significantly different from non-Hispanic Whites aged 25 to 29.

standardize moving rates by the age distribution of a reference group (for example, non-Hispanic Whites). Standardization helps to eliminate extraneous sources of variation in the data that may affect the analysis of the subject under investigation.7 This method recalculates the overall moving rate as if each group had the same age distribution as non-Hispanic Whites. In other words, by standardizing, the age-specific moving rates can provide summary measures that eliminate the influence of differences in age distributions.

After moving rates were standardized based on the age distribution of the non-Hispanic White population, differences among rates were substantially reduced. However, non-Hispanic Whites still had an overall lower moving rate than other racial and ethnic groups — 12 percent compared with 16 percent for Blacks, 15 percent for Asians, and 15 percent for Hispanics.⁸ This suggests that the age distribution explains some, but not all, of the variation in mobility differences.

Higher Order Cross Tabulations

Another analytical method is to introduce an additional variable to calculate more complex multi-way cross tabulations. In addition to the effect of age on mobility, people of different poverty statuses varied widely in their likelihood of moving. Table C2 shows a three-way cross tabulation of moving rates by race/Hispanic origin, age, and poverty status.

Table C1.

Moving Rates by Race and Hispanic Origin and Age: 2002 to 2003

(In percent)

Age	Total, 1 year and older	White alone, not Hispanic	Black alone	Asian alone	Hispanic (of any race)
Total	14.2	12.4	18.0	16.8	18.0
Age standardized moving rate ¹	(X)	12.4	15.9	14.8	14.9
1 to 4 years 5 to 9 years 10 to 19 years 20 to 24 years 25 to 29 years 30 to 34 years 35 to 44 years 45 to 54 years 55 to 64 years	21.4 15.9 13.7 30.1 28.1 19.8 13.5 8.6 6.4	18.6 13.4 11.8 31.2 28.4 18.5 12.0 7.5 6.0	28.4 21.6 18.6 27.3 27.2 20.9 17.6 12.4 6.5	21.6 14.8 12.9 29.6 30.5 24.5 17.4 9.2	23.7 18.6 15.9 27.2 26.7 21.6 15.2 11.6 8.4
65 to 84 years	4.1 3.5	3.9 3.4	4.3 3.8	5.2 0.2	4.5 6.7

⁽X) Not applicable.

Among people with income below the poverty level, Blacks were as likely as non-Hispanic Whites and Hispanics to have moved, though Asians were still more likely to have moved than Blacks. Once another variable (age) is added to the tabulation, the picture becomes more complicated, with no consistent patterns emerging. Non-Hispanic Whites aged 20-to-24 with income below the poverty level were the most mobile group, with half having moved between 2002 and 2003. Among those with income below the poverty level, 10- to 24year old Hispanics were less mobile and 25- to 44-year old Hispanics were as mobile as comparable non-Hispanic Whites. Little consistency appeared among the patterns for other age groups with income below the poverty level. As should be evident, this methodology becomes increasingly difficult to interpret, and higher order crosstabulations (four-way, five-way, etc.) can quickly become impractical to use.

Multivariate Analysis

A more complex, yet advantageous, method is to model these relationships using multivariate regression techniques.9 The advantage of this method is the ability to control simultaneously for more than one variable and to gauge the impact those variables have on mobility, as well as on each other, when the impact of all of them is taken into account at the same time. Multivariate statistical techniques can assess the influence of demographic, family, economic, and geographic characteristics on the likelihood that a person moved. Because we are examining whether or not a person moved, which is a "yes, no" response, logistic regression is the appropriate multivariate estimation method. Such models predict how

⁷ Shyrock, Henry S., Jacob S. Siegel, and Associates. 1976. *The Methods and Materials of Demography*. San Diego, Academic Press.

⁸ Asians were not statistically different from Blacks and Hispanics.

¹Standardized by age. White alone, not Hispanic is the reference category. See text for more detailed explanation of standardization.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

⁹ For more information about multivariate regression techniques for categorical response variables, see Alan Agresti. 1996. *An Introduction to Categorical Data Analysis*. New York, John Wiley & Sons, Inc.

Table C2.

Moving Rates by Race and Hispanic Origin, Age, and Poverty Status: 2002 to 2003

(In percent)

Ago	White alone, not Hispanic		Black	alone	Asian alone		Hispanic (of any race)	
Age	Not in poverty	In poverty	Not in poverty	In poverty	Not in poverty	In poverty	Not in poverty	In poverty
Total, 1 year and older	11.4	23.8	16.4	23.1	15.5	28.9	16.3	23.9
1 to 4 years	16.4	35.2	23.5	36.4	19.4	41.2	21.5	28.9
5 to 9 years	11.8	26.0	20.3	23.8	12.7	28.8	16.0	24.2
10 to 19 years	10.2	27.8	17.7	20.7	10.1	29.6	14.1	21.2
20 to 24 years		51.4	23.6	37.4	27.9	38.0	24.7	36.8
25 to 29 years		35.8	25.7	32.9	29.6	38.0	25.1	34.2
30 to 34 years	17.6	29.9	20.4	23.2	22.8	43.9	20.0	27.8
35 to 44 years	11.4	21.2	17.0	20.2	15.9	30.2	14.6	18.1
45 to 54 years	7.1	16.5	11.4	17.0	8.8	14.3	10.5	18.2
55 to 64 years		8.8	5.7	10.4	9.4	10.7	7.7	12.1
65 to 84 years	3.9	3.5	3.7	6.3	5.4	2.5	3.6	7.9
85 years and older	3.4	3.6	3.8	3.8	0.0	1.4	4.5	12.1

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

the likelihood of moving depends on other explanatory factors. Table D lists the explanatory factors used in this analysis.

The results of the analysis are most easily interpreted using odds ratios, which are derived from the regression model's estimates. When the odds ratios shown in Table D are greater than 1, the person with the specified characteristic was more likely to have moved than the comparison group. Odds ratios of less than 1 indicate that these people were less likely to have moved. Because variables like education and marital status are related to certain age thresholds, those under 18 were removed from the analysis. To account for these missing people, a variable controlling for the presence of children under 18 years of age in the household was included in the analysis.

The nested models, in which a single variable or a group of variables is added to the model, are first examined to see how those variables affect the race/ethnicity variables. Next, the full model, which

includes all the variables, is examined to see how different variables affect the likelihood of Blacks, Hispanics, and Asians moving relative to the non-Hispanic White population. When interpreting Figure 3 (nested models), positive odds-ratio differentials (odds ratios greater than one) mean that the group was more likely to have moved than non-Hispanic Whites (the reference group). Negative odds-ratio differentials (odds ratios less than one) mean the group was less likely to have moved. The strength of the effect is relative to the size of the bar. Figure 3 shows that the effects of race/ethnicity on the likelihood of moving declined as other variables were added to the model, becoming insignificant and eventually reversing direction.

Results

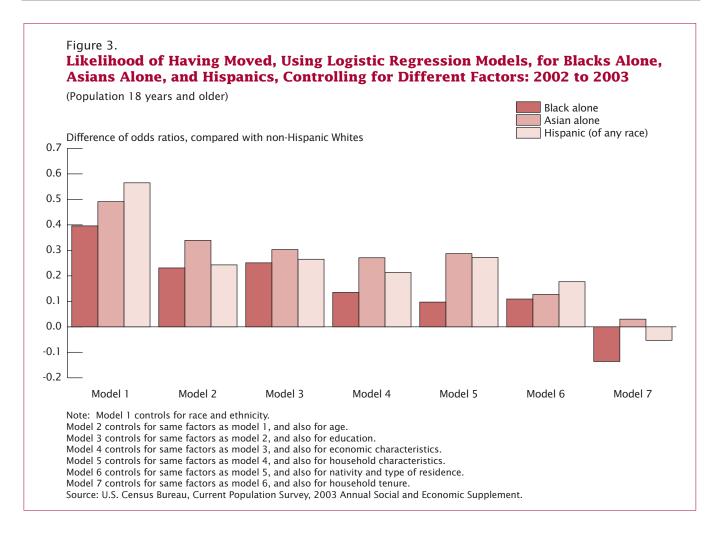
The first model looks at the effects of race/ethnicity on the likelihood of having moved without the influence of any other variables (similar to the one-way cross tabulation of moving rates by race/Hispanic origin). Blacks were 40 percent, Asians 49 percent, and Hispanics

57 percent more likely to have moved than non-Hispanic Whites.10 When age is added to the model (model 2), the likelihood of moving for the race and Hispanic-origin groups declined relative to non-Hispanic Whites, with Blacks now being just 23 percent, Asians 34 percent, and Hispanics 24 percent more likely to have moved.11 In other words, part of the reason non-Hispanic Whites were less likely to have moved is that they were more likely than their race and Hispanic-origin counterparts to be older, at which point moving rates were generally lower.

The addition of education (model 3) did little to alter the effect of race/ethnicity, but the addition of economic variables (employment status, welfare receipt, and poverty status) to obtain the fourth model decreased the odds ratios for each group. This was particularly true for Blacks, as they became just

¹⁰ There were no significant differences between Blacks and Asians, or between Hispanics and Asians.

There were no significant differences between Hispanics, Blacks, and Asians.



14 percent (rather than 25 percent) more likely than non-Hispanic Whites to move, when they had the same age, education, and economic characteristics. Asians were now 27 percent (rather than 30 percent) and Hispanics 21 percent (rather than 27 percent) more likely to move than comparable non-Hispanic Whites.¹² The fifth model added household characteristics (marital status, sex, and presence of children under 18), which slightly increased the odds ratio for Hispanics and Asians (indicating they were more likely to move than comparable non-Hispanic Whites), and decreased the odds ratio for Blacks (indicating they were less

likely to move than comparable non-Hispanic Whites).

The sixth model added nativity (whether a person was native or foreign born) and type of residence (metropolitan/nonmetropolitan). This slightly increased the odds ratio for Blacks, while Asians and Hispanics were now less likely to have moved than in the previous model: they were just 13 percent and 18 percent, respectively, more likely to have moved than comparable non-Hispanic Whites who also had the same nativity status and residence characteristics.¹³

The final (full) model (Table D) added household tenure, which

had a strong effect. Its inclusion greatly decreased the likelihood of having moved for race and Hispanic-origin groups, even reversing some of the effects of race/ethnicity found in the base model (model 1). When respondents had the same tenure status, Blacks were 14 percent **less** likely to have moved than non-Hispanic Whites, while Hispanics and Asians were no longer significantly different from non-Hispanic Whites in this regard. In other words, adding household tenure to the model lowered the likelihood of moving for all groups, but lowered it for Blacks and Hispanics to the point that they actually had a lower likelihood than similar non-Hispanic Whites of having moved in the past year.

¹² There were no significant differences between Hispanics, Blacks, and Asians.

¹³ There was no significant difference between Hispanics and Asians.

Table D.

Full Logistic Regression Model (Model 7) Predicting
Likelihood of Moving: 2002 to 2003

(18 years and older. See text for discussion of logistic regression)

Characteristics	Parameter coefficient	Standard error	Odds ratio
Model 1 RACE/ETHNICITY (reference: White alone, not Hispanic) Black alone Asian alone Hispanic (of any race)	-0.146	0.026	*0.86
	0.030	0.043	1.03
	-0.055	0.028	0.95
Added in Model 2 AGE (reference: 35-49 years) 18-34 years	0.500	0.021	*1.65
	-0.939	0.024	*0.39
Added in Model 3 EDUCATION (reference: less than high school) High school	0.123	0.026	*1.13
	0.230	0.027	*1.26
	0.460	0.029	*1.58
Added in Model 4 Poor (reference: nonpoor) Unemployed (reference employed) Welfare recipient (reference: no welfare receipt)	0.241	0.024	*1.27
	0.248	0.035	*1.28
	0.195	0.067	*1.22
Added in Model 5 Not Married (reference: married)	0.058	0.019	*1.06
	0.026	0.017	1.03
	–0.126	0.019	*0.88
Added in Model 6 Native (reference: foreign born) Nonmetropolitan origin (reference: metropolitan origin)	0.012	0.028	1.01
	0.321	0.021	*1.38
Added in Model 7 Rent (reference: homeowner)	1.594	0.018	*4.93
Intercept	-2.658	0.035	_
Somer's D ¹	0.505	_	_
	145,453	_	_

^{*} Significant at .05 percent.

The preceding discussion looked at the effects of certain variables on the probability of moving for members of various racial and ethnic groups. This section looks at the full model, which shows how all the factors are related to the likelihood of moving, when they are considered simultaneously. The final model (model 7) shows that age

and tenure status were strong predictors of having moved. People living in renter-occupied housing units were 5 times more likely than those living in owner-occupied housing units to have moved. This shows that homeownership is a strong factor in dampening the likelihood that a person will change residences, likely due to the

invested costs (both financial and emotional) associated with homeownership. Looking at the effects of age, people aged 18 to 34 were one and a half times more likely than, and people 50 years and older were less than half as likely as, 35to 49-year olds to have moved. Further, people with more education, the unemployed, those who were not married, those living below poverty, people living in nonmetropolitan areas, and people without children under 18 were more likely to move than their counterparts with opposite characteristics. Nativity, sex, and receipt of public assistance were not statistically related to the likelihood of moving when other factors were included in the model. These models did not attempt to measure more complicated effects, whereby some factors can interact with others.

In summary, age and housing tenure were found to explain much of the variation in moving rates between non-Hispanic Whites and other racial and ethnic groups. In fact, taking other factors into account, race and ethnicity were not strongly related to the likelihood of moving: their influence decreased as other variables were added to the model, eventually becoming non-significant and even reversing direction. Similarly, when looking at the final model, which included all variables, age and housing tenure were found to be the strongest factors related to moving.

DISTANCE OF MOVE

Type of move often serves as a proxy for distance of move. In general, domestic moves across state boundaries are treated as being of longer distances than moves across county boundaries within a state, which in turn are

⁻ Not applicable.

¹Somer's D is an ordinal measure of association. Values range between -1.0 and 1.0. The stronger the relationship, the larger the absolute value of Somer's D.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

treated as being of longer distances than moves within counties. A special tabulation of intercounty movers, using each origin and destination county's geographic population centroid, was performed to calculate an estimated distance of move in miles.¹⁴

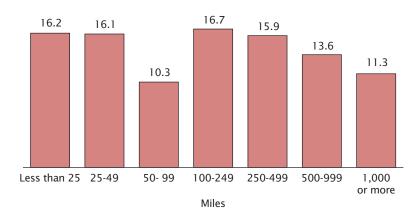
The majority of intercounty moves were greater than 100 miles.

Figure 4 shows the distances moved by the 15.4 million intercounty movers in the United States. People were most likely to have moved less than 25 miles, 25 to 49 miles, 100 to 249 miles, and 250 to 499 miles (about 16 percent each). The median distance of an intercounty move was 160 miles, while the mean (average) distance was a much longer 400 miles.

People 55 years and older were more likely to move longer distances than those under 55 years.

Although older people were less likely to move than younger people, when they did make an intercounty move, the move tended to be of a longer distance (Table E). While movers in the age span 20 to 44 were most likely to have moved less than 50 miles, those aged 55 to 84 were not more likely to have moved less than 50 miles. For example, people 55 to 64 years of age made intercounty moves with a median distance of 250 miles, while the corresponding median

Figure 4. **Distance of Intercounty Move: 2002 to 2003**(Percent of intercounty movers 1 year and older)



Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

for 25- to 29-year olds was 140 miles. As noted earlier in the discussion of type of move, these differences could reflect retirement migration patterns or people moving to be closer to family at elderly ages, which could involve longer distances.

Hispanics tended to make longer distance intercounty moves, while Blacks tended to move shorter distances.

Among race and Hispanic-origin groups, Asians and Hispanics were most likely to have moved over 500 miles, while they were just as likely as the other groups to have moved under 50 miles. The mean distance of move was 550 miles for Asians (median of 230 miles), 410 miles (median of 180 miles) for Hispanics, 390 miles (median of 150 miles) for non-Hispanic Whites, and 330 miles for Blacks (median of 150 miles).¹⁵

The patterns in distance of move for the foreign-born population resemble the patterns for Asians and Hispanics, who account for most of the foreign-born population. The foreign born were more likely than natives to have moved 500 miles or more, and natives were more likely to have moved less than 200 miles. These findings perhaps reflect different reasons for moving, with the foreign born more willing to move longer distances for work-related reasons, and natives moving shorter distances for other reasons, such as housing or family.

College-educated movers were more likely than less educated movers to move longer distances.

Consistent with their higher proportion of interstate moves, those with a graduate degree were more likely to have moved 500 miles or more, while they were also least likely to have moved less than 50 miles, compared with other

¹⁴ A population centroid is the geographic point that represents the center of population. This point is the place on the map where an imaginary, flat, weightless, and rigid map of the county would balance perfectly if all residents were of identical weight. Since distances were computed using a centroid for each county, intracounty moves and moves from abroad were excluded from this analysis because of the inability to compute an estimated distance for them.

¹⁵ The estimated differences in median distance moved for Asians, Hispanics, non-Hispanic Whites, and Blacks were not statistically significant.

Table E.

Intercounty Moves by Distance and Selected Characteristics: 2002 to 2003

	Nivershau		Per	cent distribut	tion		Median	Mean
Selected characteristics	Number (in thou- sands)	Total	Less than 50 miles	50 to 199 miles	200 to 499 miles	500 miles or more	distance of move (miles)	distance of move (miles)
Total, 1 year and older	15,356	100.0	32.3	22.2	20.7	24.9	155.3	399.2
Age								
1 to 4 years. 5 to 9 years. 10 to 19 years. 20 to 24 years. 25 to 29 years. 30 to 34 years. 35 to 44 years.	1,181 1,103 2,070 2,266 1,997 1,522 2,287	100.0 100.0 100.0 100.0 100.0 100.0	37.2 34.0 29.2 32.1 34.3 33.7 36.0	21.5 24.2 24.1 24.5 19.9 20.3 21.0	16.1 17.2 20.9 19.5 19.6 21.0	25.2 24.7 25.8 24.0 26.1 25.0 23.0	106.0 137.7 173.0 138.7 142.9 158.0 128.9	403.8 373.6 390.6 386.3 401.0 395.0 374.0
45 to 54 years	1,418 843 627 42	100.0 100.0 100.0 100.0	30.0 23.2 23.8 43.2	20.5 22.5 25.6 13.0	26.2 26.8 23.7 22.6	23.4 27.5 26.9 21.2	194.7 251.8 215.5 168.7	379.2 437.0 426.0 446.4
Sex								
Male	7,714 7,642	100.0 100.0	31.9 32.6	22.1 22.2	21.1 20.3	24.9 24.9	157.4 154.1	395.4 389.0
Race and Hispanic Origin								
White alone, not Hispanic	10,262 2,090 628 2,015	100.0 100.0 100.0 100.0	32.4 30.8 33.7 31.6	22.6 25.2 15.6 20.2	20.8 21.9 16.7 19.9	24.2 22.1 34.0 28.4	153.0 145.0 225.8 179.7	388.0 334.2 552.4 413.9
Nativity								
Native	13,628 1,727	100.0 100.0	32.3 31.6	22.4 20.3	21.0 18.6	24.3 29.5	154.9 167.0	387.0 432.5
Education (25 years and older)								
Total Not a high school graduate High school graduate Some college or associate degree Bachelor's degree Graduate degree	8,735 1,021 2,534 2,403 1,904 873	100.0 100.0 100.0 100.0 100.0 100.0	32.2 31.8 32.7 32.8 34.2 24.8	21.0 22.9 21.3 22.1 17.8 21.9	22.0 21.0 22.8 21.6 22.2 21.8	24.8 24.3 23.3 23.5 25.8 31.6	164.5 159.3 153.6 157.4 163.4 238.5	394.9 385.9 363.7 375.4 423.4 487.2
Poverty Status								
Above poverty level	12,694 2,662	100.0 100.0	33.2 27.9	21.3 26.4	20.6 21.1	24.9 24.7	152.9 172.9	397.1 368.7

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

educational-attainment groups. Few differences appeared between education groups for moves between 50 and 499 miles. However, within education groups, almost all groups were more likely to have moved less than 50 miles than any other distance category. Only those with a graduate degree were more likely to have moved 500 miles or more (32 percent)

than under 50 miles (25 percent). The median distance of move for those with a graduate degree was 240 miles, in contrast with 150 miles for those with just a high school diploma.

REASONS FOR MOVING

In 1998, a question on reason for moving was added to the Current Population Survey to measure individuals' perceived reasons for moving.¹⁶ This question is asked of the householder and all other people 1 year and older who moved during the past year. Only one

¹⁶ For more information on the reason-formove question, and more detailed results from earlier years, see U.S. Census Bureau, *Current Population Reports*, P23-204, "Why People Move: Exploring the March 2000 Current Population Survey," by Jason Schachter, May 2001.

reason is entered for each mover, with responses to the "other" category recorded verbatim.

Most people move for housing-related reasons.

Among people who changed residence between 2002 and 2003 (see Table F), the highest percentage of people moved for housing-related reasons (51 percent), followed by family-related (26 percent) and work-related reasons (16 percent). Within these major categories, most moved for a "new/better house/apartment" (20 percent), followed by "other family" reasons (13 percent), "other housing" reasons (11 percent), "to own home/not rent" (10 percent), or for a "new job/job transfer" (9 percent). Given the high number of responses included in "other" categories, it is often more meaningful to interpret the data by grouping the responses into the four major categories shown in bold in Table F.

Long distance moves were more likely to be made for work-related reasons.

The distance moved has been shown to be closely related to the reason for moving. The proportions of intracounty and intercounty moves made for family-related reasons were only slightly different, but those for housing and workrelated reasons were dramatically different. Only 6 percent of intracounty movers cited a work-related reason, compared with 28 percent of intercounty movers. The greatest percentage of work-related intercounty movers moved for a new job or a job transfer (19 percent). Conversely, 65 percent of intracounty movers cited a housingrelated reason, compared with just 34 percent of intercounty movers. Among housing reasons, the largest percentage point difference between short and long distance

Table F. **Reasons for Moving by Type of Move: 2002 to 2003**

(Movers, 1 year and older)

Reason	All movers	Intracounty	Intercounty	From abroad
Total movers (thousands)	40,093	23,468	15,356	1,269
Percent	100.0	100.0	100.0	100.0
Family-related reasons. Change in marital status. To establish own household. Other family reasons.	26.3 6.7 7.0 12.6	24.7 6.4 8.8 9.5	28.5 7.1 4.5 16.8	29.4 5.9 4.6 19.0
Work-related reasons New job/job transfer. To look for work/lost job Closer to work/easier commute. Retired Other job related reason.	15.6 8.8 1.9 3.2 0.3 1.4	6.0 1.7 0.7 2.9 0.1 0.6	28.3 18.6 3.0 3.9 0.4 2.4	38.1 22.6 9.0 0.2 0.6 5.7
Housing-related reasons Wanted to own home/not rent New/better house/apartment Better neighborhood/less crime Cheaper housing Other housing	51.3 10.2 19.8 3.8 6.5 11.0	65.3 12.7 26.2 4.7 8.2 13.5	33.5 7.1 11.3 2.7 4.5 7.8	8.8 0.5 4.5 0.5 0.6 2.7
Other reasons Attend/leave college Change of climate Health reasons Other reason	6.8 2.5 0.4 1.4 2.5	3.9 1.1 0.0 1.1 1.8	9.9 4.2 1.0 2.0 2.7	23.7 9.1 0.5 0.9 13.2

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

movers was for those moving to live in a new or better house or apartment (26 percent and 11 percent, respectively). Movers from abroad were even more likely to have moved to the United States for work-related reasons (38 percent) and much less likely to have moved for housing reasons (9 percent). A large percentage of movers from abroad also moved for "other reasons" (24 percent), over one-third to attend or leave college.

The same patterns emerge by distance of intercounty moves (Figure 5). Moves under 50 miles were predominantly for housing-related reasons (48 percent), while moves of 500 miles or more were predominantly work-related (38 percent). Intermediate distance moves (50 to 499 miles) were likely made for work-related or housing-related reasons.

Highly educated movers were more likely to move for workrelated reasons, especially for longer distance moves.

As seen in Table G. higher educational attainment increased the likelihood of having moved for workrelated reasons. Among all movers, only 13 percent of people with only a high school education moved for work-related reasons, compared with 23 percent of those with a bachelor's degree and 25 percent of those with a master's degree or higher. Similarly, 29 percent of those with a high school education moved for family-related reasons, compared with 21 percent of those with a bachelor's degree. Housingrelated reasons remained the most frequent response given by movers, but it was slightly more likely among those with lower levels of educational attainment.

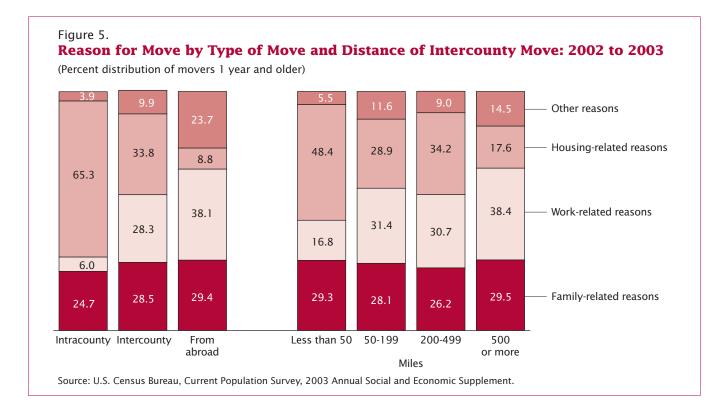


Table G. **Reason for Moving by Educational Attainment and Type of Move: 2002 to 2003**(Movers, 18 years and older)

Reason for moving	Total	Less than high school education	High school graduate	Some college or associate degree	Bachelor's degree	Graduate degree
Total movers (thousands)	29,154	4,839	8,694	8,343	5,323	1,956
Percent of movers: Family-related reasons Work-related reasons Housing-related reasons Other reasons.	100.0 25.9 16.3 50.0 7.9	100.0 27.9 12.5 53.4 6.2	100.0 28.5 13.4 51.4 6.7	100.0 26.2 15.2 48.9 9.8	100.0 21.3 22.6 47.4 8.7	100.0 20.6 25.3 47.0 7.1
Intracounty movers	16,675	3,161	5,095	4,779	2,697	942
Percent of movers: Family-related reasons. Work-related reasons. Housing-related reasons Other reasons	100.0 25.1 6.6 63.7 4.6	100.0 25.8 6.9 63.1 4.2	100.0 27.4 6.3 62.2 4.1	100.0 25.9 5.7 62.6 5.8	100.0 20.3 8.1 67.6 4.0	100.0 20.1 7.7 68.4 3.8
Intercounty movers	11,517	1,415	3,413	3,414	2,373	901
Percent of movers: Family-related reasons. Work-related reasons. Housing-related reasons Other reasons	100.0 27.1 28.2 33.6 11.1	100.0 32.3 19.3 39.8 8.6	100.0 30.1 23.0 37.3 9.7	100.0 27.0 27.8 31.5 13.7	100.0 22.4 36.7 28.9 12.0	100.0 20.2 41.0 30.3 8.5
From abroad	962	262	186	150	253	112
Percent of movers: Family-related reasons. Work-related reasons. Housing-related reasons Other reasons	100.0 25.3 40.1 7.9 26.7	100.0 29.1 44.0 9.2 17.7	100.0 30.8 31.6 11.4 26.2	100.0 16.8 29.4 9.2 44.6	100.0 21.7 45.3 5.6 27.5	100.0 27.1 47.3 2.6 23.0

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

Similar relationships appeared among longer distance movers. The likelihood of having moved for a work-related reason followed a positive linear relationship with education, ranging from 19 percent of those with less than a high school diploma to 41 percent of those with a graduate degree. Movers from abroad, however, showed a different pattern by education level. Among this group, 47 percent of those with a graduate degree and 44 percent of those with less than a high school education moved for work-related reasons.17

REGIONAL MOVEMENTS

Interstate migration, along with differences in rates of natural increase (births minus deaths), changes the distribution of the population among regions of the country. Table H shows the flows of migrants among the four geographic regions of the United States between 2002 and 2003.

The Midwest and the Northeast experienced net domestic migration loss of population.

As during the 1990s, more people moved away from the Northeast than to it from other regions of the country. Between 2002 and 2003, the Midwest (-101,000) and the Northeast (-98,000) both experienced net domestic migration loss of population, while both the South (125,000) and the West (74,000) had net domestic migration gain of population. Much of the net domestic migration loss was offset, and net domestic migration gain amplified, by

Table H.

Migration by Region for the Population 1 Year and Older: 2002 to 2003

(Numbers in thousands)

Residence in 2002	Residence in 2003 (inmigrants)								
(outmigrants)	Total	Northeast	Midwest	South	West				
DOMESTIC MIGRATION ¹									
Total	2,693	385	574	1,016	718				
Northeast	483	*	71	319	93				
Midwest	675	62	*	378	235				
South	891	198	303	*	390				
West	644	125	200	319	*				
Net Domestic Migration	0	-98	-101	125	74				
INTERNATIONAL MIGRATION									
Movers from abroad ²	1,270	161	179	550	380				

¹Domestic migration limited to interregional migration.

movers from abroad.¹⁹ Between 2002 and 2003, the Northeast gained 161,000, the Midwest 179,000, the South 550,000, and the West 380,000 movers from abroad.²⁰

SUMMARY

Moving rates have declined slightly in recent years, but geographic mobility remains an important aspect of life in the United States. People with different characteristics have differing likelihoods of having moved during the past year, with some of these differences partially explained by characteristics like age and housing tenure. The type and the distance of move also vary by individual characteristics, and are strongly correlated with the reason behind these moves. Finally, regional migration patterns within the United States remain consistent with past years, with net migration loss in the Northeast.

SOURCE OF DATA

Most estimates in this report are from the Annual Social and Economic Supplement (ASEC) to the 2003 Current Population Survey. Some estimates are based on data collected by the CPS in earlier years. The population represented (the population universe) is the civilian noninstitutionalized population of the United States. Members of the Armed Forces living off post or with their families on post are included if there is at least one civilian adult living in the household. 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 people in Census 2000). The Census Bureau conducts the CPS every month, but only collects data on residential mobility in the Annual Social and Economic Supplement. Most of the data from the ASEC were collected in March (with some data collected in February and April), and the data were controlled

¹⁷ The difference between those with a graduate degree and those with less than a high school education was not significantly different

¹⁸ Among the four regions, only the net migration loss of the Northeast was statistically significant.

²Data not available on movers to abroad from the United States.

Source: U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement.

¹⁹ Net migration is only calculated for domestic migration since the CPS does not collect information about movers who left the United States.

²⁰ The Midwest and Northeast were not statistically different from one another.

to independent population estimates for March 2003. The sample size of the ASEC is about 78,000 interviewed households. For annual time series from the CPS, data collected in the 2003 ASEC may be compared with data collected in the March Supplement to the CPS in prior years.

Two significant changes were made to the processing of March 2001 and later ASECs that affect the estimates contained in this report. The first change was the implementation of population controls based on Census 2000, replacing those based on the 1990 Census of Population and Housing. The second was the State Children's Health Insurance (SCHIP) sample expansion. The use of independent survey controls and the SCHIP expansion are explained in more detail in Bureau of Labor Statistics and U.S. Census Bureau, **Current Population Survey** Technical Paper 63RV, Design and Methodology, TP63RV, Washington DC, March 2002.

ACCURACY OF 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 Current Population Survey 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, 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.

For further information on statistical standards and the computation and use of standard errors, go to www.bls.census.gov/cps/ads/2002/S&A_02.pdf or contact Rebecca Olson of the Census Bureau

Demographic Statistical Methods Division on the Internet at dsmd.source.and.accuracy@census.gov.

MORE INFORMATION

A set of detailed tabulations from the 2003 CPS shows more detailed characteristics of movers and non-movers by type of move for the United States and regions, as well as reason-for-moving data. The electronic version of these tables is available on the Internet at www.census.gov, under "subjects A to Z," then "M" for "Migration."

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USER COMMENTS

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