

Center for American Progress



Understanding Mobility in America

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For the Center for American Progress**

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Summary

This report discusses two aspects of *economic mobility* in the United States. The first is the question of *intergenerational mobility*, or the degree to which the economic success of children is independent of the economic status of their parents. A higher level of intergenerational mobility is often interpreted as a sign of greater fairness, or *equality of opportunity*, in a society.

The second aspect is the short-term question of the amount by which family incomes change from year to year. By studying *short-term mobility* we can determine whether incomes are rising or falling for families at different points in the income distribution. We can also determine whether the size of these income variations, or the level of *annual income volatility*, is changing over time. Increased volatility is undesirable to the extent that it represents an increase in *economic insecurity*.

The key findings relating to intergenerational mobility include the following:

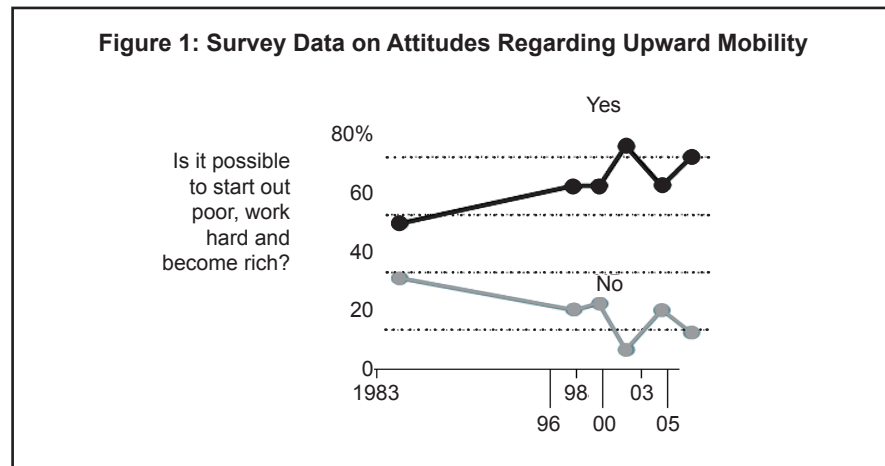
- ✧ Children from low-income families have only a 1 percent chance of reaching the top 5 percent of the income distribution, versus children of the rich who have about a 22 percent chance.
- ✧ Children born to the middle quintile of parental family income (\$42,000 to \$54,300) had about the same chance of ending up in a lower quintile than their parents (39.5 percent) as they did of moving to a higher quintile (36.5 percent). Their chances of attaining the top five percentiles of the income distribution were just 1.8 percent.
- ✧ Education, race, health and state of residence are four key channels by which economic status is transmitted from parent to child.
- ✧ African American children who are born in the bottom quartile are nearly twice as likely to remain there as adults than are white children whose parents had identical incomes, and are four times less likely to attain the top quartile.
- ✧ The difference in mobility for blacks and whites persists even after controlling for a host of parental background factors, children's education and health, as well as whether the household was female-headed or receiving public assistance.
- ✧ After controlling for a host of parental background variables, upward mobility varied by region of origin, and is highest (in percentage terms) for those who grew up in the South Atlantic and East South Central regions, and lowest for those raised in the West South Central and Mountain regions.
- ✧ By international standards, the United States has an unusually low level of intergenerational mobility: our parents' income is highly predictive of our incomes as adults. Intergenerational mobility in the United States is lower than in France, Germany, Sweden, Canada, Finland, Norway and Denmark. Among high-income countries for which comparable estimates are available, only the United Kingdom had a lower rate of mobility than the United States.

Key findings relating to short-run, year-to-year income movements include the following:

- ✱ The overall volatility of household income increased significantly between 1990-91 and 1997-98 and again in 2003-04.
- ✱ Since 1990-91, there has been an increase in the share of households who experienced significant downward short-term mobility. The share that saw their incomes decline by \$20,000 or more (in real terms) rose from 13.0 percent in 1990-91 to 14.8 percent in 1997-98 to 16.6 percent in 2003-04.
- ✱ The middle class is experiencing more insecurity of income, while the top decile is experiencing less. From 1997-98 to 2003-04, the increase in downward short-term mobility was driven by the experiences of middle-class households (those earning between \$34,510 and \$89,300 in 2004 dollars). Households in the top quintile saw no increase in downward short-term mobility, and households in the top decile (\$122,880 and up) saw a *reduction* in the frequency of large negative income shocks.
- ✱ For the middle class, an increase in income volatility has led to an increase in the frequency of large negative income shocks, which may be expected to translate to an increase in financial distress.
- ✱ The median household was no more upwardly mobile in 2003-04, a year when GDP grew strongly, than it was during the recession of 1990-91.
- ✱ Upward short-term mobility for those in the bottom quintile has improved since 1990-91, with no significant offsetting increase in downward short-term mobility.
- ✱ Households whose adult members all worked more than 40 hours per week for two years in a row were more upwardly mobile in 1990-91 and 1997-98 than households who worked fewer hours. Yet this was not true in 2003-04, suggesting that people who work long hours on a consistent basis no longer appear to be able to generate much upward mobility for their families.

Introduction: Mobility, Opportunity and Volatility

The United States has long been known as the land of opportunity, where hard work is rewarded and economic prosperity is within reach for all. Judging from opinion surveys, our national faith in this proposition is on the rise, as illustrated in the figure below, which reports the results of surveys undertaken by the *New York Times* (2005):



We are also more optimistic about the value of hard work than those in many other countries. In the 1999 International Social Survey, 61 percent of U.S. respondents agreed or strongly agreed with the statement that “people get rewarded for their effort,” versus 58 percent in Australia, 49 percent in Canada, 41 percent in Japan, 40 percent in Austria, 33 percent in Great Britain and 23 percent in France (ISSP, 1999). In fact, the U.S. percentage was higher than that of each of the 26 other countries in the survey, with the sole exception being the Philippines (63 percent).

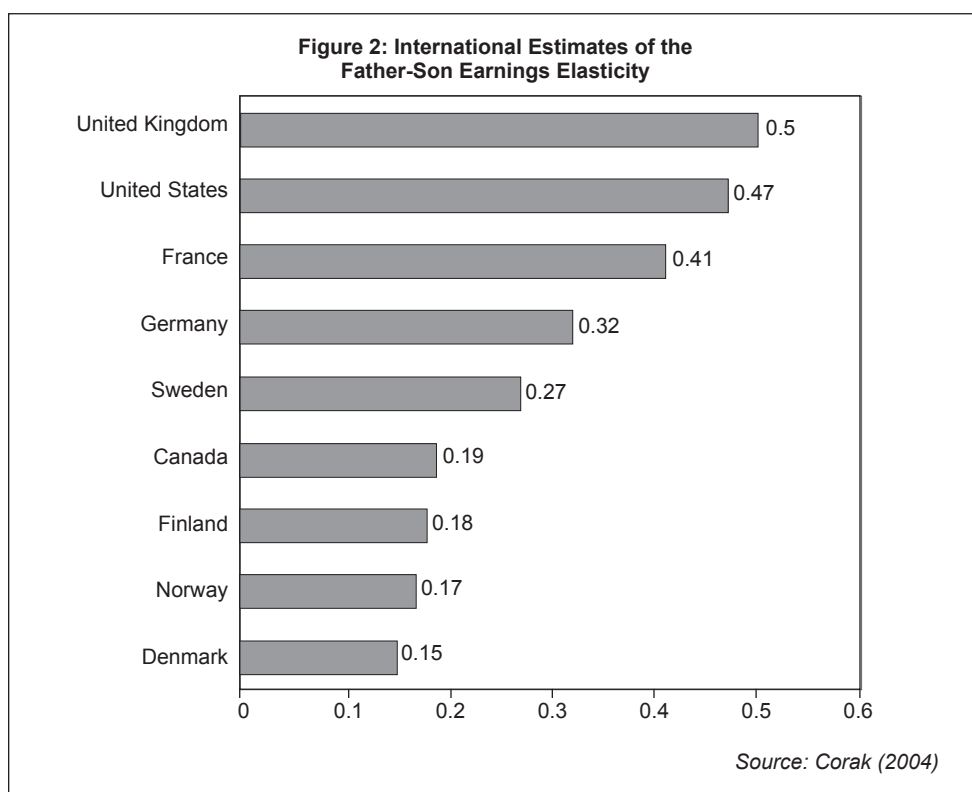
These survey results suggest that the American Dream is alive and well. But what exactly are the chances that an American child who is born to low-income parents will end up rich? How strongly do these chances depend on factors like education and effort, as opposed to other factors that give some people an unfair advantage in the economic arena? Do households that consistently work long hours display greater upward mobility than households that do not work as many hours?

This report offers a new analysis of what the available economic survey data can tell us about these questions, looking both at *long-run intergenerational economic mobility*, and the *short-run, year-to-year mobility* of individual families. Intergenerational mobility measures the degree to which the economic success of children is independent of the economic status of their parents. A higher level of intergenerational mobility is often interpreted as a sign of greater fairness, or *equality of opportunity*, in a society. This report emphasizes a point that has rarely been mentioned in recent discussions of intergenerational mobility in America, namely, that summary statistics on mobility can conceal important differences between the mobility prospects of different demographic groups. In particular, we will demonstrate that mobility differs by race and region, and will explore some possible explanations for this fact. We also present an analysis of the channels via which economic status is transmitted from parent to child, focusing on the connection between parental income and the child’s health and educational status.

The second kind of mobility we will study is the amount by which family incomes change from year to year. By studying *short-term mobility* we can determine whether incomes are rising or falling for families at different points in the income distribution. We can also determine whether the size of these income variations, or the level of *annual income volatility*, is changing over time. Increased volatility is undesirable to the extent that it represents an increase in *economic insecurity*. In particular, we will show that the frequency of large negative income shocks has risen markedly since the early 1990s. This analysis confirms the findings of Hacker (forthcoming), but uses a much larger and nationally representative dataset, allowing for a more detailed and precise analysis of the size and direction of annual income changes at different points in the income distribution. Using the annual data we are also able to test for a relation between labor market effort and upward mobility.

Intergenerational mobility in the United States

While few would deny that it is *possible* to start poor and end rich, the evidence suggests that this feat is more difficult to accomplish in the United States than in other high-income nations. This claim is based on cross-country comparisons of the *intergenerational elasticity of earnings*, a statistic that measures the percentage difference in expected child earnings that is associated with a one percent difference in parental earnings. Higher elasticities mean less mobility: they imply that parental income matters more, or that the children of the poor are more likely to remain poor.¹ Figure 2, below, displays the intergenerational elasticity of earnings between fathers and sons for nine upper-income countries, and shows that the United States and the United Kingdom are especially immobile.



¹ The elasticity is closely related to the intergenerational correlation coefficient, the difference being that the correlation scales the elasticity to take account of any changes over time in the level of inequality.

To understand what these statistics mean, consider a rich and a poor family in the United States, and a similar pair of families in Denmark, and ask how much of the difference in the parents' incomes would be transmitted, on average, to their grandchildren. In the United States this would be $(0.47)^2$ or 22 percent; in Denmark it would be $(0.15)^2$, or 2 percent.

Another way to understand the implications of a high intergenerational elasticity (or correlation) is to directly calculate the chances that a child who is born to a low-income family (defined as a family with an income that puts it in the bottom 20 percent of the income distribution) will end up rich as an adult (defined as attaining the top 5 percent of the family income distribution). As is documented below, in the United States this probability is on the order of 1 percent. By contrast, a child who was born rich had about a 22 percent chance of being rich as an adult.

Does this mean that Americans are simply mistaken in their beliefs about the nature of economic opportunity in this country? Or, put differently, does our status as a low-mobility society contradict the claim that economic opportunities are fairly distributed, or that hard work is rewarded? The answer is: not necessarily. As argued in a recent paper by Jencks and Tach (2005), in order to make normative statements about the fairness or unfairness of access to economic opportunities, we need to look behind the summary statistics at the *mechanisms* through which economic status is transmitted across generations. Some of these mechanisms generate unfair disadvantages for lower-income families, as if, for example, their academically talented sons and daughters are unable to afford higher education. But other mechanisms are less objectionable. In particular, they argue that:

First, equal opportunity does not imply eliminating *all* sources of economic resemblance between parents and children. Specifically, equal opportunity does not require that society eliminate the effects of all inherited differences in ability. Nor does it require that society prevent parents from transmitting different values to their children regarding the importance of economic success relative to other goals. Second, the size of the correlation between the economic status of parents and their children is not a good indicator of how close a society has come to equalizing opportunity. Measuring equality of opportunity requires data on *why* successful parents tend to have successful children.

While less absolute versions of this position are plausible—for instance, we might believe that society should strive to *reduce*, if not eliminate, the economic effects of differences in inherited ability²—the point remains well taken: We need to identify the mechanisms that generate intergenerational economic immobility before we can debate their policy implications.

² Note that most rich societies have policies whose goal is to reduce the economic impact of physical disabilities, inherited or otherwise. Similarly, while few would hold that parents should be *prevented* from imparting economically beneficial values, we might still argue that society should strive to inculcate these values in extra-familial settings as well.

In the analysis below, I use data from the Panel Study of Income Dynamics (PSID) to address these questions. In particular, I will ask:

- ⦿ What is the overall nature of intergenerational mobility in America?
- ⦿ What are the mechanisms by which economic status is transmitted from parent to child?
- ⦿ Which are the most and least upwardly mobile groups?

After calculating the intergenerational correlation in incomes, I illustrate what this means in concrete terms—What are the chances of getting rich if you were born poor? What is the nature of mobility for people born in the middle class? I show that there is considerable “stickiness” at the upper and lower ends of the income distribution, such that the chances of moving from one extreme to the other in a generation are very low.

I then show that three transmission mechanisms are of particular importance. First is the fact that the children of higher-income parents get more education. Second is the fact that race is transmitted from parent to child, and race remains a strong predictor of income. A third reason for the intergenerational correlation in incomes is that the children of higher-income parents are healthier as adults. I will argue that policy measures can, and should, be designed to reduce the importance of each of these mechanisms if we wish to promote equality of economic opportunity.

Once we understand the transmission mechanisms at work, we see that the prospects for upward mobility also differ across demographic groups. As a result, summary measures of the likelihood of upward mobility that are applicable to the average American may be not be applicable to any given segment of society. A clear example of this problem arises in relation to race. The table below, taken from Hertz (2005), compares the mobility experiences of white and African-American children who were born between 1942 and 1972, and whose parents’ long-run family incomes put them in the bottom quarter of the national distribution. When these children grew up, 32 percent of the whites were still in the bottom quartile, compared to 63 percent of blacks.³ The proportions who made it to the top quartile were similarly skewed: about 14 percent for whites but just 3.6 percent for blacks. Thus, to rely on the average would be to overstate the rate of upward mobility for African Americans.

Table 1
Mobility Experience of Children Born in the Bottom Quartile, By Race

	Pcnt. remaining in the bottom quartile	Pcnt. attaining the top quartile
Black	62.9	3.6
White	32.3	14.2
All	46.6	9.3

Source: Hertz (2005)

³ Note that the quartile boundaries change over time, as real incomes grow. The black-white gap in the likelihood of upward mobility was statistically significant at the 1 percent level, and persists after controlling for one’s starting position within the quartile, and for parental education.

Trends in annual income volatility and short-term mobility

A different set of concerns arise when we consider the level of short-term, year-to-year income mobility of American families, and different measures are needed. As already noted, discussions of intergenerational mobility often rest on the assumption that what we want is to reduce the correlation between the economic outcomes of parents and their children, or at least to reduce that portion of the correlation that is generated through mechanisms that strike people as unfair. The analogous assumption, however, seems unwarranted in the context of year-to-year movements. Do we really want an economy in which a household's annual income varies dramatically from one year to the next? In the annual context, income mobility is better termed *income volatility*, or perhaps, *income insecurity*. This report documents that there has been a sharp increase in such volatility over the last decade.

There are several reasons for policy-makers to be concerned with this increase in year-to-year income fluctuations, particularly if these are unexpected, or undesired. One is that unexpected downward income movements may leave families at risk of default on consumer and real estate debt, with lasting effects on their financial health. While it is true that ideally a household would bank some of its earnings from its higher-income years to insure against such possibilities, it is equally true that many of us do not or cannot. Income volatility may play a role in the recent rise in personal bankruptcy filings.

Second, evidence from the psychological literature suggests that people are more upset by large income losses than they are pleased by income gains of comparable size. To see if this seems plausible, ask yourself whether you would be better off earning \$50,000 four years in a row, or earning \$50,000 then \$90,000 then \$10,000 then \$50,000 again. If the general social preference is for the more stable scenario, then an increase in income volatility will reduce social welfare, all else being equal.

This analysis uses data on annual changes in real household income, taken from the Current Population Surveys, to address the following questions:

- ⊙ How has income volatility changed over time?
- ⊙ How closely does it depend on overall economic conditions?
- ⊙ Are families that devote long hours to the labor market more upwardly mobile from one year to the next than families that worker fewer hours?

I find that income volatility has increased significantly since the early 1990s, leading to an increase in the frequency of potentially harmful large negative income shocks. Between 1997-98 and 2003-04, this phenomenon was concentrated among households in the third and fourth quintiles (those earning between \$34,510 and \$89,300 in 2004 dollars). Households in the top quintile saw no increase in downward short-term mobility, and households in the top decile (\$122,880 and up) saw a *reduction* in the frequency of large negative income. In other words, the middle class is experiencing more insecurity of income, while the top decile is experiencing less.

I also find that while overall economic conditions (such as GDP growth or the growth in median household income) clearly matter, they are not always the decisive determinants of the probability of upward short-term mobility. This is best illustrated by a remarkable fact: The median household was no more upwardly mobile in 2003-04, a year when GDP grew strongly, than it was during the significant recession of 1990-91.

Last, I find evidence that the link between working long hours and upward short-term mobility has weakened, such that it was not statistically significant in 2003-04.

An Analysis of Intergenerational Mobility

The dataset used in this paper consists of 4,004 children observed in the Panel Study of Income Dynamics in their parents' households in the 1968 survey, at any age between 0 and 18. Their parents' incomes and attributes are observed in the 1968-1972 surveys.⁴ The children are then observed again as adult heads of household, or spouses thereof, in the 1995, 1996, 1997, 1999 and 2001 surveys. (The survey has been biannual since 1997.) The (weighted) sample was initially representative of the universe of American children in 1968; over time, however, non-random attrition has altered the composition of the sample. This was corrected by reweighting the sample to preserve its original demographic proportions.⁵

Table 2 reports summary statistics for the sample. We see that both parents and children are observed near their prime earning ages (38 and 37, respectively) and that we have an average of 4.5 years of parental income data, and an average of 4.1 years of income data for the adult children, out of a possible five. Total household money income rose from \$54,097 in the parents' generation to \$73,216 in the second generation, with both figures being expressed in real (2004) dollars.⁶ The latter figure, which dates, on average, from 1997, compares to a national average household income of \$58,320 for that year.

⁴ The surveys collect income data relating to the previous calendar year.

⁵ Note that the resulting sample of adults is *not* representative of all households now found in the United States, both because it is restricted to a narrow age range, and because it does not reflect the significant amount of immigration that has occurred since 1968. Because households headed by middle-aged, native-born residents have higher incomes than those of older or younger and non-native-born heads, the observed average income for the adult sample is higher than the U.S. average. Moreover, the initial sample of parents is representative of all households with children, which is a wealthier group than that of all households in general.

⁶ In the table, the average parental income is weighted by the number of children, who are the unit of analysis. However, when quintiles of the income distribution are calculated for use in Table 3, the parents' quintiles are based on the distribution of family incomes, meaning that multiple-child households are only counted once.

Table 2
Summary Statistics
Sample of 4,004 Children Observed At Ages 0 to 18 in 1968

	Mean
Parents: 1967-1971	
Age of Head and Spouse	38
Number of Years of Income Data	4.5
Family Income (2004 dollars)	\$54,097
Family Income Per Person (2004 dollars)	\$10,854
Household Size	5.6
Adult Children: 1994-2000	
Age	37
Number of Years of Income Data	4.1
Family Income (2004 dollars)	\$73,216
Family Income Per Person (2004 dollars)	\$27,428
Household Size	3.1
Intergenerational Elasticity	
Family Income ⁷	.58
Family Income Per Person	.52
Intergenerational Correlation	
Family Income	.42
Family Income Per Person	.43

Source: Hertz (2005)

Note that family income per person rose much more rapidly, more than doubling from \$10,854 to \$27,428, reflecting a decrease in average household size from 5.6 (for households with children in 1968) to 3.1 (for their children as adults). The next lines display the intergenerational elasticities of (the logarithm of) average income, and of average income per person, which are slightly higher than the estimate in Figure 2, but consistent with other published estimates for the United States (e.g., Hertz 2005, Mazumder 2005). Below these are the intergenerational correlation coefficients, another frequently employed measure of the strength of the connection between parent and child incomes. Correlation coefficients have the property of being bounded between zero and one, with zero meaning there is no connection between the incomes of parents and their children, and one meaning that the parents' position in the income distribution perfectly predicts the child's.

⁷ When calculating the intergenerational elasticity and correlation, I follow standard practice in first taking the logarithm of the five-year averages of income, or income per family member, in each generation.

Table 3 translates these intergenerational elasticities into the likelihood of moving from one income quintile as a child to another as an adult; the dollar amounts corresponding to the quintile boundaries in 1967-71 versus 1994-2000 are shown. We see that nearly 42 percent of children born in the bottom quintile (with parental incomes below \$29,900) remained in the bottom quintile as adults. Another 53 percent attained one of the middle three quintiles (incomes between \$32,701 and \$98,000), while just 6 percent made it into the top quintile (incomes above \$98,000). For those born in the top quintile, however, the situation is exactly reversed: 42 percent remain in the top quintile as adults, and just 6 percent fall down to the lowest income bracket.

The final column and row highlight the rich, defined as those in the top five percentiles of the income distribution (above \$108,000 in 1967-71 and above \$166,100 in 1994-2000). Of those born in the bottom quintile, just 1.1 percent managed to join the ranks of the rich, compared to 21.7 percent for those who were born rich. In other words, the chances of getting rich are about 20 times higher if you were born rich than if you were born to a low-income family. Similarly, the chances of ending in the lowest income bracket are about 14 times greater if you were born there than if you were born rich (41.5 percent versus 2.9 percent).

Also noteworthy is the fact that the odds of getting rich are not just long for children of low-income families, but also middle-class families. In particular, the odds of getting rich remain under 2 percent up through the third quintile of parental income, i.e., for the bottom 60 percent of the income distribution.⁸ However, access to the ranks of the rich by the children of the middle class improves somewhat when income is measured on a per-person basis, taking account of changing household sizes (lower panel of Table 3). Now the children of the third parental quintile have about a 4.5 percent chance of attaining the top 5 percent. But the chances of being rich if you were born rich remain about 18 times higher than if you were born to the lowest income bracket (16.3 percent versus 0.9 percent). In general, the results are qualitatively similar as when income is not adjusted for household size, with considerable “stickiness” at both ends of the income distribution.

⁸ Note that if there were no correlation between parent and child incomes, the chance of attaining the top five percentiles would just be 5 percent, and the chance of attaining any given quintile would be 20 percent, as indicated in the last line of the table.

Table 3
Probability of Attaining Each Income Quintile in 1994-2000
Based on Parents' Income Quintile in 1967-71

Total Household Income		Income Quintile (1994-2000)					
Parental Quintiles (1967-71)		[1] \$0 to 32,700	[2] \$32,701 to \$51,900	[3] \$51,901 to \$70,800	[4] \$70,801 to \$98,000	[5] \$98,001 and above	[Top 5%] \$166,100 and above
1	\$0 to \$29,900	41.5	24.0	15.5	13.2	5.9	1.1
2	\$29,901 to \$42,000	22.6	25.8	23.1	18.5	10.0	1.5
3	\$42,001 to \$54,300	18.7	25.8	24.1	19.6	16.9	1.8
4	\$54,301 to \$72,300	11.1	19.0	20.7	25.1	24.0	5.6
5	\$72,301 and above	6.1	11.1	17.2	23.7	41.9	14.2
[Top 5%] \$108,000 and up		2.9	9.0	15.5	21.5	51.1	21.7
<i>Expected value, if there were no intergen. correlation</i>		20	20	20	20	20	5
Household Income Per Person							
Parental Quintiles (1967-1971)		[1] \$0 to 11,500	[2] \$11,501 to \$18,100	[3] \$18,101 to \$25,700	[4] \$25,701 to \$38,100	[5] \$38,101 and above	[Top 5%] \$66,400 and above
1	\$0 to \$6,400	40.7	22.2	19.5	10.7	6.9	0.9
2	\$6,401 to \$9,600	17.9	24.4	22.0	21.7	14.0	3.4
3	\$9,601 to \$13,000	10.5	19.9	21.7	24.3	23.6	4.5
4	\$13,001 to 18,000	8.8	16.7	17.6	27.0	29.9	7.5
5	\$18,001 and above	5.0	12.0	18.1	23.8	41.1	14.1
[Top 5%] \$26,500 and up		4.7	5.3	16.3	31.3	42.4	16.3
<i>Expected value, if there were no intergen. correlation</i>		20	20	20	20	20	5

Note: The percentages reflect the probability of attaining each column for people in that row. For example, 41.5 percent of children born to the bottom quintile of parents total household income (upper panel) had adult incomes in the bottom quintile. Some 5.9 percent achieved a real income that put them in the top quintile, and 1.1 percent made it into the top 5 percent.

Transmission Channels

One way of exploring the mechanisms by which economic status is transmitted across generations is to ask which income-generating attributes of the children are most highly correlated with their parents' incomes. Table 4 answers this question using a decomposition technique (described in more detail by Bowles and Gintis, 2002) to quantify the share of the overall parent-child correlation that is mediated by each of the following factors: the levels of education of the child and his or her spouse, their self-reported health status on a five-point scale, the race of the head of household, whether the household was female headed, the dollar amount of inheritances received, and their state of residence.

Table 4
Decomposition of the Intergenerational Correlation
in Income Per Person

	Contribution to Intergen. Correlation
Education of Head and Spouse	0.128
Race of Head	0.062
Health Status of Head and Spouse	0.035
State of Residence	0.019
Female Headed Household	0.013
Inheritances	0.002
Unexplained	0.172
Total Intergenerational Correlation (From Table 2)	0.431

We see that 13 points (or 30 percent) out of the overall correlation of 0.43 can be explained by the fact that parental income predicts the child's education, and that of his or her spouse, which in turn predict the child's family income as an adult. An additional six points (14 percent) derive from the fact that the parents' income predicts the race of the child. The relation between parental income and child health status accounts for 3.5 points (8 percent), while state of residence accounts for another two (4.5 percent) and female headship another one (3 percent). The surprisingly small contribution of inheritances is a reflection of the fact that the adult children in the sample are only 37 years old, on average, so that most of their parents are still living; other estimates of the importance of wealth transfers put it as high as 0.12 (Bowles and Gintis 2002). On the next-to-last line we see the portion of the correlation which cannot be explained via these other factors, which accounts for about two-fifths of the total.

The Importance of Education

The large contribution of education reflects the strong link between parental income and educational attainment. This, in turn, consists of a direct financial effect (namely, that higher-income parents can purchase more and better educational services for their children) as well as an indirect effect (that higher-income parents possess other attributes which support and encourage their children to get a good education). The direct financial linkage represents a clear challenge to the ideal of equality of opportunity, while, according to the logic of Jencks' and Tach's argument, the indirect effect does not.

The strength of the direct financial effect is a product of the policy environment. Theoretical work by Solon (2002) demonstrates that both the intergenerational correlation of incomes and the overall level of economic inequality will be highest when public investments in education are least progressive. In the U.S. context, this focuses attention on the predominant method of funding public

education, which relies primarily on the local tax base, and so distributes resources regressively, with higher-income communities getting better schools. Moreover, research by Fryer and Levitt (2004) suggests that disparities in school quality are the most likely explanation for the persistence of the black/white gap in achievement test scores, meaning that educational investment policy has implications for the racial mobility gap as well.

Equally important is public policy toward the financing of higher education. Part of the reason education is such a key determinant of mobility is that the economic rewards to education are highest for tertiary education, which, in turn, is the level of schooling for which access is most highly correlated with parental income. Moreover, these two factors are related: Basic economic theory predicts that if education were less costly, the supply of college graduates would increase, driving down the rate of return to college education. Empirically, the research by Corak (2004), cited above, demonstrates that the rate of return to college education strongly predicts the overall level of intergenerational mobility in his cross-country sample. The policy implication is that more progressive support for higher education would significantly increase economic mobility. Seen in this light, recent multi-billion dollar cuts in federal funding for subsidized student loans are especially worrisome.

The Importance of Race

Does the fact that mobility depends so strongly on race violate the ideal of equality of opportunity, as defined by Jencks and Tach? One could imagine a scenario in which the racial mobility gap was entirely explained by differences across the races in the education, skills, attitudes, habits and behaviors of parents. This hypothesis, a version of which has lately been espoused by the sociologist Orlando Patterson (2006), will be tested, and rejected, in the next section. As I will show below, even after accounting for a variety of family and children factors, race remains an important determinant of economic mobility.

The Importance of Health

The potential role of health in the intergenerational transmission of economic status has been noted by Case, Lubotsky and Paxson (2002), who document a clear link between parental income and child health. Surprisingly, they find no evidence that this link is driven by differential access to health insurance, or by differences in health at birth between children born to rich and poor families. While more research is needed to validate this claim, if correct it implies that neither better access to health insurance nor better delivery of prenatal care to low-income women would have much effect on economic mobility. Case *et al.* speculate that the income-health link may be driven by differences in nutrition and in other health-related behaviors that they were unable to measure.

Upward Mobility By Region

The results above also imply that experiences of upward mobility differ across states. To explore this further we must group the states into regions because of small sample sizes. The table below presents the simple averages of parental income and own income, by region of origin. We see that children from the higher-income regions of the East and West coast had the highest levels of upward mobility in raw dollar terms, but that the percentage rates of increase were comparably high in the sunbelt region (East and West South Central). In the final column, however, we adjust for an

extensive list of family background measures, described in the next section, to see if state of origin *per se* had an effect on mobility. This reveals that children from the South Atlantic and the East South Central regions fared best, all else equal, while children from the West South Central and Mountain states fared worst.

Table 5
Upward Mobility By Parents' Region

<i>Region</i>	<i>States Included</i>	Average Parental Income Per Person	Average Child's Income Per Person	Change	Percent Change	Percent Change Adjusting for Family Background
South Atlantic	Delaware, Maryland, DC, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida	8,723	23,597	14,874*	171	10
East South Central	Kentucky, Tennessee, Alabama, Mississippi	8,561	22,524	13,963*	163	4
Middle Atlantic	New York, New Jersey, Pennsylvania	11,650	30,784	19,134	164	1
New England	Maine, Massachusetts, Connecticut	12,578	33,843	21,265	169	0 (Reference Category)
Pacific	Washington, Oregon, California	11,749	29,871	18,122	154	0
East North Central	Ohio, Indiana, Illinois, Michigan, Wisconsin	12,691	28,575	15,884*	125	-9
West North Central	Minnesota, Iowa, Missouri, North Dakota, South Dakota, Nebraska, Kansas	9,877	25,557	15,680*	159	-12
West South Central	Arkansas, Louisiana, Oklahoma, Texas	7,754	20,881	13,127*	169	-17*
Mountain	Colorado, Arizona, Utah	9,857	22,139	12, 282*	125	-27*

* Statistically significant difference from value for New England.

No cases from Alaska, Hawaii, Idaho, Montana, Nevada, New Hampshire, New Mexico, Rhode Island, Vermont or Wyoming were found in the sample. Incomes are in constant (2004) dollars.

Final column based on regression analysis described in next section.

The Full Effect of Family Background

Parental income is but one dimension of family background that has an influence on a child's economic prospects. Moreover, the simple correlation, or elasticity, between parent and child incomes greatly overstates the causal impact of income *per se* by failing to control for the myriad other ways in which rich and low-income parents may differ. The aim of this section is to make use of a list of measures of parental personality, habits, attitudes and skills that were collected in the early years of the PSID. This allows us to generate a more accurate estimate of the effect of parental income itself, as well as shedding light on the factors that do and do not matter for mobility. Table 6, below, reports the results of a regression analysis based on the subset of 3,568 people for which all of these additional variables were available. The outcome under study is the (logarithm of the) average income per household member, which is arguably a better measure of welfare than if household income is not corrected for household size.

The first line reports the simple intergenerational elasticity of 0.515, indicating that each percentage point increase in parents' income-per-household-member translates into roughly one-half of a percentage point in additional income-per-person for the child's household in later life. The next block adds controls for race: We see that black children have incomes that are roughly 33 percent below those of white children, even when their parents earned the same amount.

For Latinos (who make up less than 3 percent of the dataset⁹) the effect is -27 percent. Notice that the effect of family income is now reduced from 0.52 to 0.43, meaning that about one-sixth of the intergenerational transmission of economic status is explained by the fact that race is transmitted from parent to child, and race is significantly correlated with income.¹⁰ This establishes the existence of a racial mobility gap, whereby black and Latino children have lower expected levels of upward mobility from any given level of parental income than do white children. The low p-values in the final column indicate that these results are statistically significant, meaning that they are highly unlikely to have arisen by chance, and therefore likely to reflect real differences in the population.

This does not yet tell us *why* race matters; in particular, it may be that what appears to be a racial difference is really a difference in any number of income-generating attributes the parents possess, which they also transmit to their children. To explore this, we add controls for the average number of years of schooling of both parents, and its square, in order to allow the effect of parental education to be non-linear; we also add three other measures of verbal skills, described below. We see that an additional year of parental schooling beyond eighth grade raises the child's expected income by 2.2 percent, while an additional year beyond high school counts for 5.3 percent, and an additional year of tertiary education generates an 8.3 percent increase in income. Thus, holding parental income constant, the children of better-educated parents are more upwardly mobile, particularly when the parents are college-educated.

This equation also controls for the parent's score on a 13 question sentence-completion test that was administered in 1972, as well as an indicator for respondents who frequently asked for the survey questions to be repeated, and one for those whom the interviewer frequently asked to repeat their answers. These variables are interpreted as measures of verbal comprehension and

⁹ Recall that the PSID is representative of the U.S. population in 1968, not the current population.

¹⁰ More accurately, what is transmitted to the child are physical characteristics such as skin color and cultural characteristics, such as language and dialect, from which racial and ethnic categories are socially constructed.

clarity of expression, skills that are valuable to employers. In a regression (not shown) of parental income against education and these three verbal skills measures, all variables have large effects of the expected signs. For example, those who were frequently asked to repeat their responses had incomes that were 57 percent lower than those who spoke more clearly. Taken together, education and the language skills measures can account for 40 percent of the variance of parental income. Yet despite these strong effects on parental income, none of these variables has a significant effect on the child's income, once parental income is controlled for. In other words, these verbal skills appear to influence child's income only indirectly, through their effect on parental income. Thus, if we compare two parents with equal incomes but differing levels of verbal ability, these results imply their children will have similar incomes, all else being equal.

Table 6
Regression Models of Intergenerational Mobility: Log Family Income Per Person
Sample of 3,568 People With Complete Information

Parental Attributes	Effect on Adult Child's Income [§]	Statistical Significance of Effect (p-value)
Basic Model: No Additional Parental Covariates (R ² =0.18)		
Log of Average Family Income Per Person	0.515	0.000*
Controlling For Race Only (R ² =0.20)		
Log of Family Income Per Person	0.429	0.000*
Race (Reference group: White)		
Black	-0.334	0.000*
Latino	-0.268	0.021*
Other or Missing	-0.010	0.906
Controlling For Race & Parents' Human Capital (R ² =0.21)		
Log of Family Income Per Person	0.320	0.000*
Race (Reference group: White)		
Black	-0.311	0.000*
Latino	-0.211	0.080*
Other or Missing	0.007	0.936
Head and Spouse Avg. Years of Education and its Square		0.000*
@ 8 years	0.022	0.094*
@ 12 years	0.053	0.000*
@ 16 years	0.083	0.000*
Measures of Language Skills		
Sentence Completion Test Score (0.00 to 1.00)	0.139	0.314
Interviewer asked to repeat questions 3+ times	0.308	0.134
Respondent asked to repeat answers 3+ times	-0.275	0.332

* Statistically significant at p<0.10. This means that the estimated probability that the true effect is actually zero is less than 10 percent, a standard threshold of significance.

§ This is the effect, interpreted as a percentage, of a one-unit change in any given variable. See text for examples.

Table 6, Continued
Regression Models of Intergenerational Mobility: Log Family Income Per Person

Parental Attributes	Effect on Adult Child's Income§	Statistical Significance of Effect (p-value)
Full Model: Controlling for All Parental Variables (R ² =0.29)		
Log of Family Income Per Person	0.200	0.000*
Race (Reference group: White)		
Black	-0.284	0.000*
Latino	-0.152	0.193
Other or Missing	0.079	0.388
Head and Spouse Avg. Years of Education and its Square		0.019*
@ 8 years	0.020	0.111
@ 12 years	0.033	0.006*
@ 16 years	0.046	0.039*
Measures of Language Skills		
Sentence Completion Test Score (0.00 to 1.00)	-0.008	0.948
Interviewer asked to repeat questions 3+ times	0.286	0.153
Respondent asked to repeat answers 3+ times	-0.315	0.252
Physical or Mental Disability		0.469
Disfigurements/habits that make it difficult to get a job ¹	-0.047	0.796
Household Received AFDC Payments		0.009*
Female-Headed Household	0.104	0.157
Number of People in Household	0.018	0.091*
Have Savings of More Than Two Months' Income²		0.120
Homeowner	-0.020	0.673
Occupation (Reference group: Laborers & service workers)		
Professional, technical	0.166	0.053
Managers, officials and proprietors	0.079	0.360
Self-employed businessmen	0.012	0.903
Clerical and sales workers	0.206	0.011
Craftsmen, foremen,	0.096	0.185
Operatives and kindred workers	0.080	0.253
Farmers and farm managers	0.170	0.106
Miscellaneous ³	0.249	0.059
Not in Labor Force	0.087	0.298
Union member		0.443
Head worked >2000 hours last year, but less than 3000	0.024	0.655
Head worked >=3000 hours last year	-0.004	0.957

* Statistically significant at p<0.10. This means that the estimated probability that the true effect is actually zero is less than 10 percent, a standard threshold of significance.

§ This is the effect, interpreted as a percentage, of a one-unit change in any given variable. See text for examples.

Table 6, Continued
Regression Models of Intergenerational Mobility: Log Family Income Per Person

Parental Attributes	Effect on Adult Child's Income\$	Statistical Significance of Effect (p-value)
<i>Sense of Personal Control (Fatalism)⁴</i>		
Things usually come up to make me change plans	0.132	0.034*
A lot of people have good things they don't deserve	0.115	0.014*
Have limitations that keep me from getting ahead	0.070	0.129
Sometimes have to give up before finishing	-0.143	0.035*
Usually not sure life will work out as desired	-0.021	0.721
<i>Habits/Behaviors</i>		
Dirtiness of interior of house ⁵	-0.045	0.018*
Hours of TV watched by Head on weekday	-0.012	0.446
"A lot" of reading material visible in house	0.012	0.886
Head reads newspaper daily	-0.022	0.671
Head goes to a bar once a week or more	0.061	0.186
Head goes to social club once a week or more	0.084	0.246
Head goes to church once a week or more	-0.015	0.686
<i>Future Orientation⁴</i>		
Plans ahead	0.035	0.479
Saves for future	-0.038	0.419
Thinks a lot about things that might happen in future	-0.010	0.847
<i>Expectations for Children's Education⁶</i>		
Sure that all children will get college education	0.119	0.072*
Expect that some will get some college education	0.208	0.002*
<i>Other Personality Measures⁴</i>		
Gets angry fairly easily	0.041	0.393
What other people think matters a lot or a good deal	-0.062	0.186
Trusts most other people	0.012	0.811
Spends a lot of time figuring out how to make money	0.021	0.672
Life for average person is getting worse	-0.086	0.093*
<i>Religion (Reference category: Baptist)</i>		
Methodist	0.075	0.164
Episcopalian	0.201	0.075*
Presbyterian	0.082	0.271
Lutheran	0.142	0.044*
Congregationalist, UCC, Unitarian, Mormon	0.123	0.091*
Other Protestant	-0.035	0.612
Catholic	0.174	0.001*
Jewish	0.331	0.001*
None	0.103	0.106

Notes to Table 6:

* Statistically significant at p<0.10.

¹ Based on interviewer's assessment; relates to respondent.

² Equation also included controls for lesser amounts of savings, and past levels of savings, but these had no significant effect on child's income.

³ Includes armed services, protective workers, unemployed last year but looking for work.

⁴ Text of questions reproduce in appendix.

⁵ Interviewers were asked "How clean was the interior of the dwelling unit" and assigned codes 1=Very Clean; 2=Clean; 3=So-so; 4=Not very clean; 5=Dirty.

⁶ Question not deemed applicable to those whose children were not currently in school; these families were flagged with an additional indicator variable. The reference category comprised all those responses that expressed lesser or unclear expectations.

Controlling for these human capital measures reduces the black/white mobility gap by just two percentage points, but has a larger effect on the Latino/Anglo gap, which falls by about six percentage points. This makes sense given the focus on English language skills. The effect of parental income itself falls by another 11 percentage points, to 0.32, meaning that we have now accounted for about two-fifths of the intergenerational elasticity.

In the continuation of Table 6 we add controls for a host of variables relating to family structure, occupation, assets, a series of measures of parental personality and habits, and more. Note that all of these describe the *parents'* attributes, not the kids': the idea is to account for as many dimensions of family background as possible. The first two variables to consider are measures of physical or mental disability, one self-reported, and the other based on the interviewer's assessment. Neither has a significant effect on child incomes. Next we replicate a common finding in the literature, namely, that children whose parents received Aid to Families with Dependent Children¹¹ payments earn less in later life (here, 26 percent less), all else equal. Once this effect is controlled for, being raised in a female-headed household has no significant effect on income, while being raised in a larger household appears conducive to higher income.

Two variables measure parental assets (level of savings and homeownership); surprisingly, these have no significant effect on their children's mobility prospects, all else equal.¹² A series of indicators for the parental (head's) occupation reveal that the children of professional and technical workers, as well as those of clerical and sales workers, fared better than the reference category (laborers and service workers). Parental union membership had no significant effect.

As we noted in the introduction, a commonly held view is that upward mobility should rightly depend on the amount of economic effort one exerts. If work habits are partly learned at home, then being raised in a household in which long hours in the labor market were the norm might be expected to predict upward mobility. We test this proposition using two measures of labor market hours: One is an indicator for heads who worked 2,000-3,000 hours in the last year, and the other flags those who worked more than 3,000 hours (i.e., more than 60 hours per week for 50 weeks). Neither of these turns out to have any discernible effect on their children's mobility prospects.

In the next block of the table are a series of measures of personality, focusing on the parents' degree of "fatalism" or perceived lack of personal control over their destiny; the full text of each question is reproduced in the appendix. The variables are all coded such that the expected signs of their effects are negative: Research by Osborne Groves (2005) shows that those who display a greater degree of fatalism as children go on to earn less as adults¹³, and she argues that the intergenerational transmission of this personality trait accounts for a significant portion of the parent-child income correlation. The results in Table 6, however, cast some doubt on this conclusion: Only one of the variables has a significant negative effect on the child's income, and two have significant *positive* effects, all else equal.

¹¹ This program was replaced in 1996 with Temporary Assistance for Needy Families (TANF)

¹² The savings variable comes close, and did reach statistical significance in other specifications of this equation. It is also clear that these variables are relevant to *wealth* mobility, if not to income mobility. (Conley, 1999).

¹³ The five fatalism variables all display significant negative partial correlations with the *parents'* income (regression not shown), but this could be due to reverse causality, whereby those who experience low incomes develop a fatalistic attitude. This is why Osborne measures fatalism in childhood, prior to any economic experience.

The next set of variables describe a number of parental habits, such as reading the newspaper, watching TV, or going to bars. Of these, only one has a significant effect on child incomes, namely, keeping a clean house, as judged by the interviewer's assessment. This effect, which was noted previously by Dunifon, Duncan and Brooks-Gunn (2001) is remarkably large: Since cleanliness is measured on a five-point scale, the difference between the extremes of "Very Clean" and "Dirty" translates to a $4.5 \times 4 = 18$ percent income differential for the children, measured 30 years later. Dunifon *et al.* argue that household cleanliness "reflects an overall ability and desire to maintain a sense of order in a wide range of life activities." (p. 150) This trait is apparently shared to an extent by the children of good housekeepers, causing them to have higher incomes as adults.

None of the three measures of the parents' degree of future orientation have a significant effect on children's incomes, but parental expectations concerning their education do. Children whose parents expected they would get a college education fared 12 to 21 percent better, all else equal. Of the remaining personality variables (next block) only one, a measure of pessimism, had a significant (negative) effect on income in the next generation.

In the final block of the table, we see that religious affiliation also appears to have an effect on mobility. The children of Episcopalians, Lutherans, Congregationalists, Catholics and Jews all had higher incomes than that of the reference category, Baptists (which was the most commonly declared religious preference among those listed, accounting for 22 percent of households; second was Catholic, at 21 percent). These effects ranged between 12 and 33 percent, holding all other factors equal.

The net effect of controlling for this long list of parental background measures, as well as indicator variables for state of residence, and age of the child as an adult (not reported), is to reduce the estimated effect of parental income itself to 0.20, or about two-fifths of its value in a regression with no other background measures. In other words, about three-fifths of the simple intergenerational elasticity is due to the influence of factors other than parental income. As argued by Mayer (1997), this has an important policy implication: it means that increasing the incomes of parents by 10 percent would raise the incomes of their children not by 5 percent, as the initial results would suggest, but rather by just 2 percent.¹⁴

The Racial Mobility Gap, Revisited

The inclusion of family background measures also reduces the Latino/Anglo gap to statistical insignificance, but has little effect on the black/white gap, which falls by less than three percentage points, to -28 percent. This finding deserves careful interpretation. We have shown that a significant portion of the black/white income gap cannot be explained by an extensive list of family background measures. This portion of the gap would thus appear to be explained by forces that operate outside of the family setting. These forces could work in one of two ways, either by preventing or discouraging African American children from acquiring valuable skills, or through outright discrimination in economic affairs, whereby their skills are not fairly rewarded.

¹⁴ A counter argument is that some of the parental attributes, such as low educational expectations for their children, may themselves be responses to the stresses associated with low income status, and could be altered by the income transfer, leading to a larger overall impact on the children's incomes.

Some additional light may be shed on this question by also taking account of the *children's* attributes as adults. This is done in Table 7, which adds a list of children's characteristics to the above equation, namely their levels of education (average of head and spouse), their health status, household size, female headship, welfare receipt, the value of inheritances received, and state of residence. Each of these factors has the expected effect on income, and together they raise the R^2 of the equation from 0.29 to 0.55, yet their inclusion only lowers the estimated black/white mobility gap by one percentage point. The robustness of this effect suggests that race *per se* remains an important determinant of economic mobility.

This may reflect the effects of discrimination in the labor market, but may also result from factors such as the difference in the quality of schooling acquired by blacks and whites. Note also that while we have controlled for a long list of parental personality variables, we have not been able to control for that same list among the children. It is thus possible that given ostensibly comparable family backgrounds, African American and white children develop different attitudes towards economic success that are then reflected in their family incomes.

Table 7
Regression Models of Intergenerational Mobility: Log Family Income Per Person
Includes all Family Background Variables Listed in Table 6

Attributes of Adult Children	Effect on Child's Family Income Per Person§	Statistical Significance of Effect (p-value)
Log of Parental Family Income Per Person	0.159	0.000*
Race (Reference group: White)		
Black	-0.269	0.000*
Latino	0.055	0.567
Other or Missing	0.132	0.065*
Head and Spouse Avg. Years of Education and its Square		0.000*
@ 8 years	0.084	0.013*
@ 12 years	0.091	0.000*
@ 16 years	0.105	0.000*
Household Received AFDC Payments	-0.967	0.000*
Female Headed Household	-0.335	0.000*
Number of People in Household	-0.232	0.000*
Health Status of Head & Spouse and its Square (5 point scale)		0.000*
Excellent -> Very Good	0.003	0.915
Fair -> Poor	-0.495	0.000*
Inheritances (per \$10,000)	0.368	0.068*

Note: also includes controls for age and state of residence.

* Statistically significant at $p < 0.10$. This means that the estimated probability that the true effect is actually zero is less than 10 percent, a standard threshold of significance.

§ This is the effect, interpreted as a percentage, of a one-unit change in any given variable. See text for examples.

Understanding Short-Term Income Mobility

Our aim in this section is to explore the trend in year-to-year income movements, or short-term income mobility. We are interested both in the distribution of year-to-year gains and losses, and in the overall degree of income volatility. The analysis of trends in annual income gains and losses tells us which parts of the income distribution are experiencing income growth. For example, we may ask whether the median household saw its income rise or fall in a given year. The analysis of the overall level of volatility provides a measure of income insecurity, which we will show has increased dramatically since the early 1990s.

The data are drawn from the Current Population Survey (CPS)'s Annual Social and Economic Supplements, and consist of two-year windows of observation on between 18,000 and 20,000 households.^{15, 16} Three time periods are examined, as illustrated in Table 8. The first is the most recent available, namely the 2003-04 comparison obtained by matching the 2004 and 2005 datasets. The second period, 1997-98, was chosen because it saw the fastest growth in real median household income in more than 30 years (at 3.6 percent), and should thus represent something of a best case scenario for upward short-term mobility, measured in absolute dollar terms. The third period, 1990-91, was chosen for the opposite reason: It coincides with a rapid decline in median household income (2.9 percent), and should represent a worst case. The most recent period falls about midway between these extremes, with median household income declining slightly, by two-tenths of one percent. This fact is remarkable in itself: In 1997-98, a 4.2 percent rate of growth of GDP generated considerable growth in real median household incomes, whereas in 2003-04, the same rate of GDP growth generated no growth in median household income at all.

The next line reports the first-year values of median household income, expressed in real terms, at 2004 prices. These grew by 6 percent over the 13 years from 1990 to 2003, or 0.45 percent annually. Below that we see the steadily rising Gini coefficient, indicating a rise in inequality of household incomes. The next block of data pertain to the matched CPS samples, and demonstrate that these are able to approximately replicate the national change in median household income.

¹⁵ This is accomplished by matching the public use data files from March of successive years. One problem is that households who moved from one year to the next are not tracked by the CPS, and this alters the demographics of the sample. This was corrected by reweighting the matched subsample so that it resembles the original sample, which is nationally representative. An underlying assumption is that there are no important unobservable differences between movers and non-movers.

¹⁶ Previous discussions of income volatility, such as the work of Hacker (forthcoming) have relied on the much smaller samples in the PSID for this purpose. The limitation of that approach, in addition to the issue of sample size, is that the PSID is no longer representative of the U.S. population.

Table 8
Summary Measures of Short-Term Mobility: 1990-91, 1997-98 and 2003-04

	1990-91	1997-98	2003-04
<u>National Estimates</u>¹⁷			
Change in Real GDP (%)	-0.2	4.2	4.2
Change in Median Household Income (%)	-2.9	3.6	-0.2
Real Median Household Income, Year 1	\$41,963	\$43,430	\$44,482
Gini Index of Inequality of Household Income	0.428	0.458	0.465
<u>CPS Matched Samples</u>			
Change in Median Household Income (%)	-2.4	3.8	-0.3
Number of Households in Sample	20,476	17,712	18,238
<u>Mobility Measures in Matched Samples</u>			
Correlation btwn. Year 1 & Year 2 Incomes	0.75 ** →	0.62 **	0.65 **
Median Absolute Change in Income	8045 ** →	10874 ** →	11345 **
Share of Households Gaining Income ¹⁸	0.508 * →	0.545 ** →	0.508 ns
Median Change in Income	120 ** →	941 ** →	140 ns
Median Income Gained	7648 ** →	10858 **	11350 **
Median Income Lost	8552 ** →	10887 **	11342 **
Share Losing \$20,000 or More	0.130 ** →	0.148 ** →	0.166 **

* Significantly different from zero at 5 percent level. ** at 1 percent. † at 10 percent. ns: not significant at 10 percent level.

→ Denotes changes from period to period that are significant at 5 percent or better.

Dollar values converted to real terms using the CPI-U-RS.

The first of the short-term mobility measures considered is the simple correlation between a household's income in the first year and its income in the second. This fell sharply, from 0.75 in 1990-91 to 0.62 in 1997-98, a change which is both statistically and economically significant. This means that incomes have become "noisier," i.e., subject to more random fluctuation. The correlation then rose somewhat (to 0.65) in the most recent period, but this figure is still significantly below its 1990-91 value.

Beneath the correlation coefficient is a measure of income volatility, namely the median absolute value (i.e., not distinguishing between positive and negative numbers) of year-to-year income changes. This rose markedly over time, increasing by 41 percent over the 13-year period studied, far faster than the growth in median income. This means that income movements are now larger than before.

Together these results tell us that recent periods are characterized by greater year-to-year variations in household incomes. But we do not yet have any idea about the relative frequency of upward versus downward transitions, or their relative sizes. A simple and intuitive summary measure of the dominant *direction* of short-term mobility is to ask what share of households experienced an increase in incomes from one year to the next. This share was identical in 1990-91 and 2003-04 (at 50.8 percent) despite the very different economic climates. In 1997-98 (the best year for median income growth) the share was significantly higher, at 54.5 percent.

If more than half of households experienced upward short-term mobility in all three periods, then the change experienced by the median household (next line) must be positive, and it was. Again, the comparison between 1990-91 and 2003-04 is striking: *the median-mobility household fared no better during the 2003-04 expansion than during the 1990-91 recession.*¹⁹

¹⁷ Source: US Census Bureau (2004).

¹⁸ The asterisks indicate whether the share is significantly different from 0.50.

¹⁹ Note that the change in median income (which was far more negative in 1990-91 than in 2003-04) need not equal the median change in income (which was comparable in the two periods). The same cannot be said of the means: the change in average income does equal the average change in income. Using the means, households had better net mobility in 2003-04 than in 1990-91. Finally, note that the 2003-04 estimate (140) is not statistically different from zero, even though it is larger than the 1990-91 estimate (120) which *is* significantly distinguishable from zero. This is because the 2003-04 estimates have larger standard errors, reflecting the greater degree of income volatility.

Does this finding square with survey data on perceived trends in financial well-being? At first glance, it appears not to: According to the University of Michigan's Surveys of Consumers, the share who said they were better off than a year ago was 30 percent in December of 1990, compared to 41 percent in December of 2004. Yet in both years, the *median* respondent said his or her situation was the same, which is a fair characterization of a \$120 to \$140 change in annual income. During the expansion of 1997-98, however, when the median household saw its real income rise by \$941, the median respondent to the Michigan survey chose "better off."

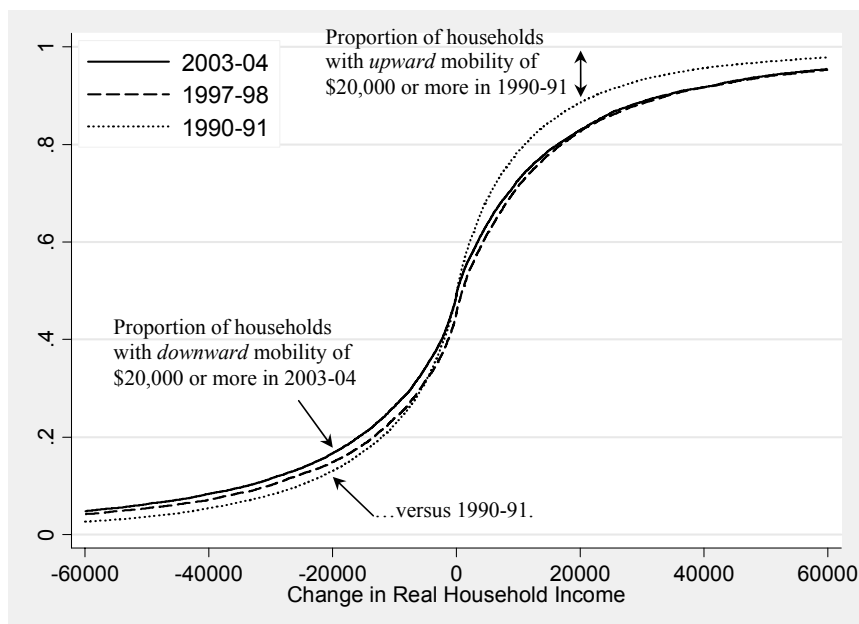
The next two lines compare the median amount gained by upwardly mobile households, and the median amount lost by the downwardly mobile ones. In 1990-91, the median income loss (\$8,552) was larger than the median income gain (\$7,648). In both 1997-98 and 2003-04, the losses and gains were larger than before, and of comparable magnitudes to each other, at roughly \$11,000. The final line reports the share of households experiencing downward short-term mobility of \$20,000 or more, an amount that seems large enough to put mortgage and credit card payments in jeopardy. This share rose from 13.0 percent to 14.8 percent to 16.6 percent over the time period considered.

The evolution of annual mobility is shown graphically in Figure 3, which reports the cumulative distribution of changes in household income in 2003-04 (solid line) compared to 1997-98 (dashes) and 1990-91 (dots). These graphs allow us to see the proportions of the population that experienced income changes of a given size. One set of annotations to the figure directs the reader to the points that correspond to the shares of people who lost more than \$20,000 in 1990-91 and in 2003-04, as just discussed. The second set of annotations illustrate the proportion that experienced income *gains* of more than \$20,000, in 1990-91, where these proportions must be read as distances from the top of the graph, not the bottom.

Note that the dashed line always lies to the right of the solid line, except at the upper reaches, where they coincide. This indicates that short-term mobility outcomes were unambiguously superior²⁰ in 1997-98 compared to 2003-04. In the earlier period, fewer households experienced large negative income changes, while about the same number experienced large positive changes. The fact that the dotted line crosses the other two indicates that short-term mobility outcomes in 1990-91 were both better and worse than in the later periods. As already noted, the median downwardly mobile household in 1990-91 experienced a smaller income loss than in the later years, despite the depth of the recession and the significant decline in median household income. However, fewer households experienced significant *upward* short-term mobility as well. In short, both upward and downward short-term mobility were more pronounced in 2003-04 and 1997-98 than they were in 1990-91.

²⁰ This unambiguous ranking of cumulative distributions is known as stochastic dominance.

Figure 3
Cumulative Distributions of Changes in Real Household Incomes



This figure summarizes the full range of short-term mobility outcomes, but does not tell us anything about the different amounts of mobility experienced by people who were located at different places within the first year's income distribution. Was the household making \$20,000 per year more or less likely to experience upward short-term mobility than the household making \$120,000? The answer to this question is virtually always "more." Upward mobility is almost always largest and most likely, on average, for those who start at the bottom, while downward mobility is largest and most likely for those who start at the top. This fact, which many find surprising, is a statement of the well-established empirical finding that incomes regress to the mean (or median) over time. As a result, this kind of analysis will rarely conclude that the rich are getting richer, no matter how rapid the secular rise in cross-sectional income inequality may be.

The reason for this counter-intuitive finding is that when we select a group of (say) high-income people, such as the top quintile, we necessarily will capture a large number of people who are in that quintile by virtue of their having had higher-than-usual incomes in that year. Of course, there will also be some people who are in that quintile despite having had a worse-than-usual year, but the higher up the income ladder we go, the greater will be the share of people whose annual incomes were unusually high for someone endowed with their human, financial and real assets. Such people are headed for a fall: Next year, it is likely that they will earn something more nearly resembling their usual incomes, i.e., they will experience downward short-term mobility. As a result, the upper brackets contain a disproportionate share of soon-to-be downwardly mobile people, and vice-versa for the bottom brackets. This effect will be more pronounced when overall income volatility is higher.²¹

²¹ Regression to the mean will also be exaggerated by random measurement error in the income data: If a household is mistakenly recorded as having zero income, and so lands in the bottom bracket, then it is likely that next year they will seem to experience remarkable upward mobility (provided it is not again mistakenly coded as a zero).

Yet our intuition is not without foundation: People in the better-paid occupations generally have better prospects for steady income growth, and face lower risk of job loss, than people in lower paid employment—so they should be more upwardly mobile. This seeming paradox is discussed in the final section of this report; for now, however, we describe the raw data, in which we fully expect to see more upward short-term mobility at the bottom and more downward short-term mobility at the top.

Table 9 summarizes observed short-term mobility by income decile and quintile, for our three time periods. Throughout this analysis, the decile and quintile boundaries are fixed at their 2004 values, indicated in the left-most column. Breaking the data down in this way reveals an interesting story. We will see that upward short-term mobility at the bottom of the income distribution has improved since 1990-91, which is encouraging. We will also find evidence of greater income security at the top of the distribution in 2003-04 as compared to 1997-98. For the middle class, however, the dominant finding is that of an increase in the frequency of large negative income shocks, especially from 1997-98 to 2003-04.

Table 9: Short-Term Mobility by Quintile and Decile

	1990–91		1997–98		2003–04
Bottom Decile < \$11,200					
Share of Households Gaining Income ¹⁵	0.703 **		0.718 **		0.719 **
Median Change in Income	1435 **	→	2802 **		3725 **
Median Income Gained	4328 **	→	7026 **		8239 **
Median Income Lost	1105 **		1380 **		1010 **
Share Losing \$20,000 or More	0.00		0.00		0.00
Bottom Quintile: < \$18,880					
Share of Households Gaining Income ¹⁵	0.641 **	→	0.672 **		0.669 **
Median Change in Income	1232 **	→	2231 **		2758 **
Median Income Gained	4911 **	→	7097 **	→	8413 **
Median Income Lost	2030 **		2238 **		2085 **
Share Losing \$20,000 or More	0.00		0.00		0.00
Second Quintile: \$18,880–\$34,510					
Share of Households Gaining Income ¹⁵	0.538 **	→	0.604 **	→	0.550 **
Median Change in Income	545 **	→	2060 **	→	914 **
Median Income Gained	6956 **	→	8809 **		9788 **
Median Income Lost	6157 **		7173 **		6557 **
Share Losing \$20,000 or More	0.031 **		0.031 **		0.033 **
Third Quintile: \$34,510–\$55,250					
Share of Households Gaining Income ¹⁵	0.508 ns	→	0.561 **	→	0.508 ns
Median Change in Income	202 ns	→	1630 **	→	188 ns
Median Income Gained	8264 **	→	11550 **	→	11401 **
Median Income Lost	8414 **	→	10063 **	→	10694 **
Share Losing \$20,000 or More	0.100 **		0.104 **	→	0.125 **
Fourth Quintile: \$55,250–\$89,300					
Share of Households Gaining Income ¹⁵	0.462 **	→	0.506 ns	→	0.456 **
Median Change in Income	–1442 **	→	199 ns	→	–1613 **
Median Income Gained	9542 **	→	14400 **		14147 **
Median Income Lost	13055 **	→	14861 **	→	16306 **
Share Losing \$20,000 or More	0.191 **		0.194 **	→	0.232 **
Top Quintile: > \$89,300					
Share of Households Gaining Income ¹⁵	0.333 **	→	0.361 **		0.354 **
Median Change in Income	–12053 **		–12775 **		–12750 **
Median Income Gained	13297 **	→	20434 **		20056 **
Median Income Lost	31159 **	→	39053 **	→	37182 **
Share Losing \$20,000 or More	0.417 **	→	0.448 **		0.437 **
Top Decile: > \$122,880					
Share of Households Gaining Income ¹⁵	0.249 **	→	0.290 **		0.309 **
Median Change in Income	–25008 **	→	–34773 **	→	–25619 **
Median Income Gained	16418 **	→	29401 **		24332 **
Median Income Lost	43528 **	→	65295 **		58937 **
Share Losing \$20,000 or More	0.543 **		0.580 **	→	0.535 **

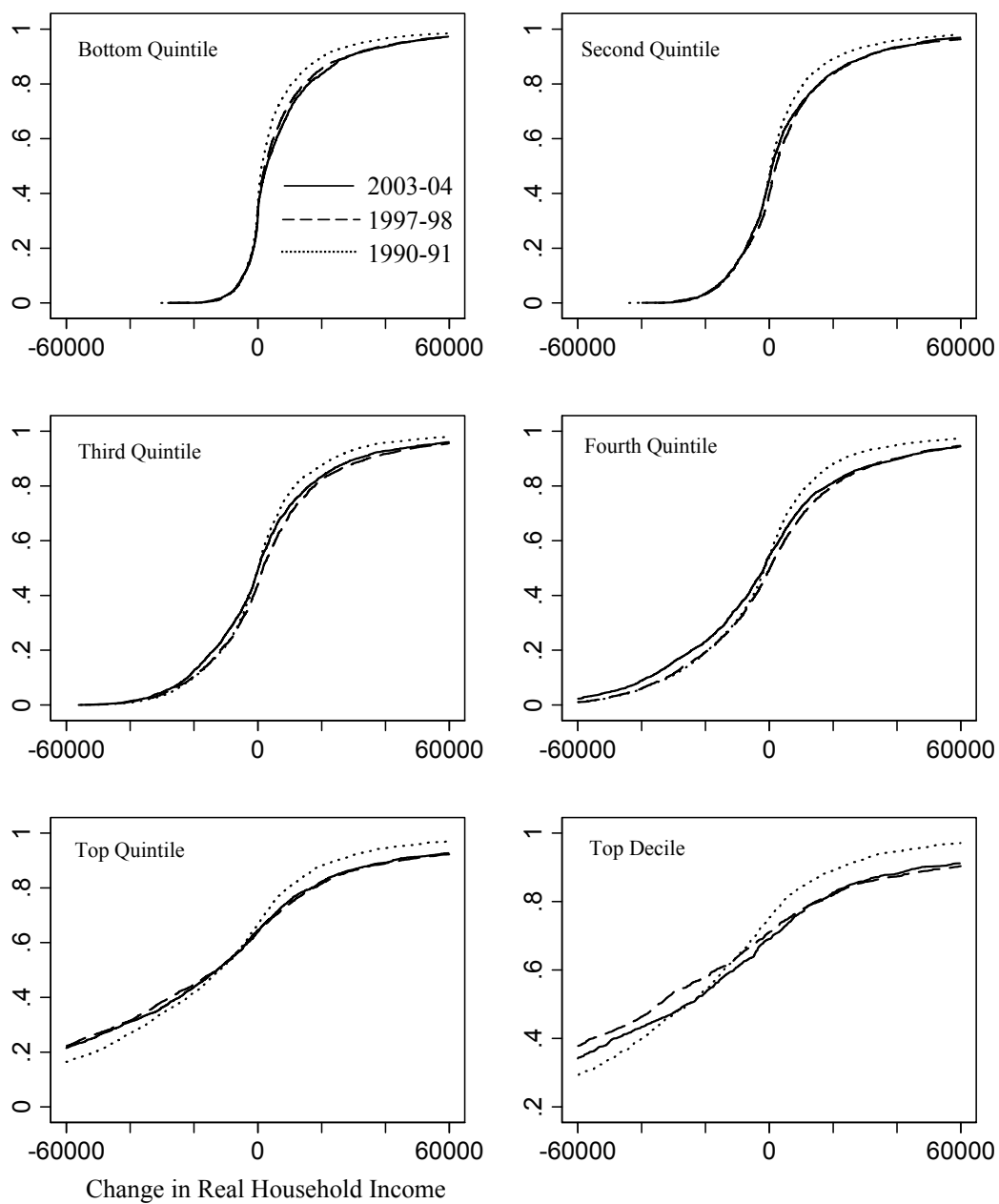
Key: ns: Not significant at 10 percent level. †Significant at 10 percent level.
 *Significant at 5 percent level. **Significant at 1 percent level or better.
 → Denotes changes from period to period that are significant at 5 percent or better.

Looking first at the bottom decile (households making less than \$11,200 per year) and the bottom quintile (those making less than \$18,880), we see that the median change in income was positive, and that it rose from 1990-91 to 1997-98, and held steady or continued to advance in 2003-04. For those in the bottom decile, the improvement was driven by an increase in the amount gained by the winners, without much change in the amount lost by the losers. For the bottom quintile as a whole, we also see an increase in the share experiencing any upward short-term mobility, from 64 percent to 67 percent. The net result is that directional short-term income mobility for those starting in the bottom quintile was best in 2003-04, second best in 1997-98, and worst in 1990-91. This may be seen in the top left panel of Figure 4, where the solid line lies to the right of the dashed line, which is to the right of the dotted line.

The finding that 2003-04 slightly edges out 1997-98 in terms of upward short-term mobility at the bottom of the income distribution is surprising, given that real wages were rising in 1997-98 but were flat in 2003-04, and that the poverty rate was falling in 1997-98 but rising in 2003-04. (The unemployment rate fell in both periods, and by comparable absolute amounts.) It reminds us that the conclusions of a longitudinal analysis of income changes need not always square with the findings of the far more commonly reported cross-sectional analyses, or that changes in *average* real wages, employment levels and poverty rates do not tell the full story about who is experiencing what.

Outcomes in the second quintile (those households making between \$18,880 and \$34,510) conform more nearly to what one might expect, given the economic background conditions. Short-term mobility was most favorable in 1997-98, second best in 2003-04, and worst in 1990-91. Both the share experiencing upward short-term mobility and the median change in income rose in 1998-99, but fell back down again in 2003-04 to values that were statistically indistinguishable from their 1991-92 levels.

Figure 4
Cumulative Distributions of Income Changes, By Quintile



For the third quintile, 1997-98 was again the best year, as indicated by its much higher median income change and higher share moving up. It unambiguously dominates the other two periods, which tied for second place: 1990-91 saw fewer big losers, but also fewer big winners, than 2003-04. The share whose income fell by \$20,000 or more was 10.0 percent in 1990-91, compared to 12.5 percent in 2004-05, this difference being significant at the 1 percent level. These two periods again had identical shares moving up and nearly identical median income changes, but volatility was higher in the more recent period, as indicated by the larger median upward and downward movements. Thus, for those households with incomes between \$34,510 and \$55,250—the middle of the United States' middle class—short-term mobility in 2003-04 was arguably no better than during the recession of 1990-91, and the number that experienced potentially damaging income losses was actually higher.

The comparison across time periods yields qualitatively similar results for the fourth quintile (those households with incomes between \$55,250 and \$89,300). Short-term mobility in 1997-98 again dominates; and the outcomes for 1990-91 and 2003-04 again stand in an ambiguous relationship to one another. Similar shares of households gained income in those two periods, and the median income changes were also similar. Large upward movements were more likely in 2003-04 than in 1990-91, but so too were large negative income changes: The share that saw an income loss of \$20,000 or more rose by four percentage points, from 19.1 percent to 23.2 percent.

For the top quintile (\$89,300 and up), 1997-98 was fairly similar to 2003-04. Both were characterized by larger gains and losses than 1990-91, but similar median income changes. However, in the top decile (those earning more than \$122,880), we see clear evidence of a reduction in the frequency of large downward income transitions in 2003-04 as compared to 1997-98. The share that lost more than \$20,000 fell from 58 percent to 53.5 percent, and the median income change fell (in absolute value) from -\$34,773 to -\$25,619. In the figure, we see that the solid line dominates (lies to the right of) the dashed line for all negative outcomes, and is not all that different for the positive incomes. This is evidence of increased income security in the top decile in 2003-04, and it is confirmed by examining the share of the top decile that remained in the decile a year later (not shown in table): This rose from 52.9 percent in 1990-91 to 54.9 percent in 1997-98, to 57.9 percent in 2003-04. In other words, the upper decile is finding it easier to stay in the upper decile than it did in the past.

To summarize these findings, we first observed that the growth years of 2003-04 generated no more upward short-term mobility for the median household than did the recession years of 1990-91. Looking at different points in the income distribution, a pattern emerges whereby low-income households are seeing more favorable annual income changes in the later periods. What is more, income security is rising for households in the top decile. For the middle class, however, an increase in income volatility has led to an increase in the frequency of large negative income shocks, which may be expected to translate to an increase in financial distress.

Which Groups Were Most Mobile?

The object now is to see if we can determine the predictors of short-term mobility. This is done using simple estimates of the mean income gain for different categories of people – with the categories corresponding to education, race, health status and other variables – including an indicator for those families in which all adults worked more than 40 hours a week. These appear for each year in Table 10. Only results that are statistically different from the reference category at 10 percent or better are reported.

The first finding is that, in both 1990-91 and 1997-98, households whose adult members had between 7 and 11 years of schooling experienced less upward short-term mobility (or more downward short-term mobility) than did high-school educated adults (the reference category), to the tune of \$1,200 or more. In 2003-04 no significant differences emerged by level of education. The next block reports race effects, with whites as the reference category. The only significant difference that emerges is a positive effect for Latinos in 2003-04.

Data on self-reported health status are available for 1997-98 and 2003-04 only. Fair or poor health predicts significant downward short-term mobility of more than \$2,000 in 1997-98, but not in 2003-04. A disability indicator is available for all years, and it also has a significant negative effect in 1997-98, of more than \$3,000.

One of the strongest predictors of upward short-term mobility is being in a household in which nobody has health insurance. The reason may be that the set of households that lack any health insurance contains a large proportion of the unemployed, who are likely to display significant upward short-term mobility when they find new employment. This points to one of the pitfalls of studying short-term mobility: You need to consider why people find themselves in the state they are in year one before you can fully understand the meaning of their transition to year two. The same reasoning may explain why households that received food stamps were upwardly mobile: They could be people who were suffering from temporarily low incomes.

Also surprising is the fact that renters were more upwardly mobile than non-renters in all three periods. This may be because they were younger, and located on a steeper portion of the age-income profile than the average homeowner.

Finally, we note a large negative effect associated with working long hours. In each year, some 16-18 percent of households send all of their adult members into the workforce for more than 40 hours a week. These households enjoy higher earnings in that year than families who worked fewer hours (results not shown in table), but they do not enjoy greater upward short-term mobility: In the next year, their incomes fall by between \$1254 and \$3676, with the larger number coming from the 2003-04 period. The reason is simple: In the next year, slightly more than half of these households were still working overtime, while the rest had returned to a more sustainable schedule. That generates significant downward short-term mobility for the group as a whole.

Clearly, this does not prove that labor market effort goes unrewarded. What about those persistent households that worked overtime in both years? Once we eliminate the downward short-term mobility created by those who decide to take it easier in year two, can we discern an effect of long hours on upward short-term mobility? The answer is yes, for 1990-91 and 1997-98, as shown in the last line of the table. Households whose adult members all worked overtime in both years had \$1,561 more upward short-term mobility in 1990-91, and \$3,558 more in 1997-98, but were not significantly more upwardly mobile than other households in 2003-04.²² It thus seems fair to conclude that working overtime generally does lead to upward short-term mobility, but not in all economies at all times. In 2003-04, the time-honored method of laboring one's way from rags to riches did not seem to work as well.

²² The change in income was 882, with a standard error of 1004, which is not remotely statistically significant. This is due more to the reduced size of the effect compared to previous years than it is to an increased standard error (which did rise, on account of rising income volatility). Using the 1990-91 standard error of 578 yields a t-statistic of 1.53, which is not significant at the 10 percent level.

Table 10
Predictors of Mean Change in Household Income

	1990-91	1997-98	2003-04
Average Years of School (Adults)			
0 to 6	ns	ns	ns
7 to 11	-\$1,364**	-\$1,207*	ns
12 [reference category]	0	0	0
13 to 15	ns	ns	ns
16 or more	ns	ns	ns
Race			
White [reference category]	0	0	0
African American	ns	ns	ns
Native American	ns	ns	ns
Asian or Pacific Islander	ns	ns	ns
Hispanic	ns	ns	\$2,197
Other or multiple	ns	ns	ns
Health			
Excellent [reference category]	--	0	0
Very good	--	ns	ns
Good	--	ns	ns
Fair	--	-\$2,183**	ns
Poor	--	-\$2,239	ns
Disability that limits work	ns	-\$3,118**	ns
None have health insurance	\$1,836**	\$3,998**	\$4,192**
Received public assistance	ns	ns	ns
Female headed household	\$1,460**	-\$821	\$873
Received food stamps	\$2,397	ns	\$3,179**
Do not own home	\$1,709**	\$1,770**	\$1,397**
Non-MSA	\$643	ns	ns
Worked > 40 hours/week, Year 1	-\$1,254**	-\$1,867**	-\$3,676**
Worked > 40 hours/week, Year 1+2	\$1,561**	\$3,558**	\$882 (ns)

Note: With the exception of the last row, only those results that are statistically different from zero at the 10 percent level or better, using robust standard errors, are shown. * Significant at 5 percent. ** Significant at 1 percent.

Is Downward Mobility Really Highest at the Top?

In this final section, we return to the question of why downward mobility appears so much higher at the top, despite the fact that high-income employment is generally more stable. The paradox is resolved by noting that it is more than high income in any given year that separates the rich from the poor and middle class—it is their higher level of income-generating assets of all kinds: financial, real, intellectual, occupational and social. Thus, if we rank families according to a measure of assets, or potential income, instead of according to observed annual income, we should see far less reversion to the mean, i.e., far less downward mobility at the top.

One simple way to demonstrate this is to form a predicted income value for each family, based on their year-one values of all variables listed in Table 10.²³ This predicted income serves as a crude estimate of permanent or potential income, and we can then ask whether downward short-term mobility was higher for those with higher potential, as opposed to actual, income. The point is not to deny that downward short-term mobility will be highest among those who have high incomes in any given year, but rather to remind ourselves that what makes the rich rich is the ability to enjoy high incomes on a regular basis.

Using actual income, we find that every extra dollar of income is associated with nine to twelve cents more downward short-term mobility. However, when we use predicted permanent income as our guide, this effect is reduced to just about 1.5 cents for 1990-91 and 2003-04, and becomes positive (1.4 cents) for 1997-98. In that period, it appears, the rich did get richer.

Conclusions

We began with the observation that the United States has one of the lowest rates of intergenerational mobility among high-income nations, such that the chances of ending up rich if you were born to a low-income family are on the order of just one percent. We noted, however, that this does not necessarily prove that economic opportunities are unequally distributed – it depends on the mechanisms by which economic status is transmitted from parent to child. When we explored these mechanisms we found that education loomed largest, meaning that increasing the access of low- and middle-income children to high-quality education, particularly college education, would have a significant effect on overall economic mobility. We also found that race matters, and it matters even after we control for a host of parental background factors, as well as for education and health, welfare receipt and female headship. We argued that this reflects inequality of opportunity by race. The findings regarding the importance of health are also troubling, but we noted that the precise mechanisms are not clear.

The intergenerational data thus serve as an evocative way of summarizing a complex set of processes that lead the children of rich parents to fare better than the children of low-income and middle-class parents. But for policy analysis, and the monitoring of the effects of policy intervention, we need to observe each of these processes, rather than their joint effect. The best way to know if, say, increased student aid is improving economic opportunity is to see if more children from low- and middle-income

²³ Note that race belongs on this list as long as economic outcomes display a partial correlation with socially-defined racial categories, after controlling for other factors in the equation, and regardless of the precise mechanism by which this correlation is generated, about which this analysis is silent.

families are going to college, not to see if the parent-child income correlation has fallen once these children have reached middle age. Similarly, we may not have the patience to wait until our PSID sample's parents start to die off in large numbers in order to observe the effects of their inheritances on the intergenerational income elasticity. We can make sensible policy recommendations on the question of the estate tax on a priori grounds: The larger the inheritances received by the sons and daughters of the rich, the lower the intergenerational economic mobility.

In sum, the intergenerational findings paint a portrait of a society in which family background matters a great deal, and matters for reasons that many people find unjust. Our national commitment to equality of opportunity requires that we take these statistics seriously, gain a better understanding of the mechanisms at work and work towards policies that will allow all Americans to reach their full economic potential.

The short-run analysis revealed that, despite solid growth in GDP, household short-term income mobility at the median in 2003-04 was no more favorable than in the recession years of 1990-91. Both large upward and large downward movements have become more frequent, and it is coherent to argue that this combination produces greater insecurity and reduced social welfare, compared with a more stable economic environment. This may be evidence of a fundamental shift in the relation between economic growth and economic security, as may be the finding that even those who work overtime on a consistent basis no longer appear to be able to generate much upward mobility for their families.

Increased volatility of year-to-year incomes is sometimes interpreted as offsetting the effects of increased inequality of income. The argument is that the recent trend toward rising inequality of incomes in any given year need not translate into a rise in the inequality of lifetime incomes, provided that people are increasingly mobile throughout the income distribution over the course of their lifetimes. But if our concerns about the costs of volatility are well founded, then this argument seems distinctly misguided. If greater volatility of income from year to year is the price we have to pay in order to reduce the inequality of long-run lifetime incomes, perhaps we should shop elsewhere. The alternative of less inequality in annual incomes, and less churning within the income distribution over one's lifetime, has much to recommend itself. The assumption behind this argument, however, is that some significant share of this income volatility is involuntary, as opposed to a manifestation of people's ever-changing desires as regards labor force participation. The relative importance of the voluntary and involuntary components of income volatility is a question that deserves further study.

One bright spot is that upward short-term mobility from the bottom has risen; it may also be comforting to some that the top decile is enjoying greater economic security. For the middle class, however, the recent economic expansion has generated tepid growth in median household income, and a considerable increase in the risk of major income losses from year to year. In today's environment of record levels of both secured and unsecured debt, these losses may have lasting effects on their financial health.

Appendix

Text of Questions Relating to Personality and Other Factors

Sense of Personal Control:

L1. Have you usually felt pretty sure your life would work out the way you want it to, or have there been times when you haven't been very sure about it?

50.1	1.	Usually been pretty sure
3.7	2.	Pretty sure, qualified
3.7	3.	Pro-con, sure sometimes, not sure other
1.8	4.	More times when haven't been sure, qualified
32.1	5.	More times when not very sure about it
8.5	9.	N.A., D.K.

L3. When you make plans ahead, do you usually get to carry out things the way you expected, or do things usually come up to make you change your plans?

53.6	1.	Usually get to carry out things the way expected
3.5	2.	Usually get to carry out things, qualified
7.5	3.	Pro-con, depends, sometimes carry out, sometimes things come up
1.8	4.	Things come up to make me change plans, qualified
28.3	5.	Things usually come up to make me change plans
5.3	9.	N.A., D.K.

L4. Would you say you nearly always finish things once you start them, or do you sometimes have to give up before they are finished?

72.0	1.	Nearly always finish things
5.2	2.	Nearly always finish, qualified
2.5	3.	Pro-con, sometimes finish, sometimes give up
0.8	4.	Sometimes have to give up, qualified
16.4	5.	Sometimes have to give up before they are finished
2.7	9.	N.A., D.K.

L9. Do you have some limitations that keep you from getting ahead as far as you would like?

42.0	1.	Yes, health included
5.1	3.	Yes, but not important, depends
47.9	5.	No
5.0	9.	N.A., D.K.

L16. Are there a lot of people who have good things they don't deserve?

- | | | |
|------|----|--|
| 30.4 | 1. | Yes, a lot |
| 2.5 | 2. | A lot, qualified, quite a few |
| 5.4 | 3. | Pro-con, depends, some do |
| 4.3 | 4. | Not many, but a few |
| 41.0 | 5. | No |
| 16.4 | 9. | N.A., D.K., not concerned, can't judge |

Future Orientation:

L2. Are you the kind of person that plans his life ahead all the time, or do you live more from day to day?

- | | | |
|------|----|--|
| 43.2 | 1. | Plan ahead |
| 4.9 | 2. | Plan ahead, qualified |
| 5.1 | 3. | Sometimes plan ahead, sometimes not, pro-con |
| 1.7 | 4. | Live more from day to day, qualified |
| 42.7 | 5. | Live more from day to day |
| 2.4 | 9. | N.A. D.K. |

L6. Would you rather spend your money and enjoy life today or save more for the future?

- | | | |
|------|----|--|
| 36.8 | 1. | Would rather spend money and enjoy life today |
| 2.4 | 2. | Rather spend and enjoy, qualified, would if had it |
| 20.3 | 3. | Pro-con, want to do both |
| 4.5 | 4. | Save more for the future, qualified |
| 32.0 | 5. | Save more for the future |
| 4.2 | 9. | N.A., D.K. |

L14. Do you think a lot about things that might happen in the future, or do you usually just take things as they come?

- | | | |
|------|----|--|
| 36.7 | 1. | Think a lot about things that might happen |
| 2.1 | 2. | Think a good deal, qualified |
| 3.6 | 3. | Pro-con, sometimes. Should think more (less) |
| 1.7 | 4. | Usually just take things as they come, qualified |
| 53.2 | 5. | Usually just take things as they come |
| 2.6 | 9. | N.A., D.K. |

Other personality measures:

L10. Do you get angry fairly easily, or does it take a lot to get you angry?

- | | | |
|------|----|---|
| 20.9 | 1. | Get angry fairly easily |
| 1.9 | 2. | Get angry fairly easily, qualified |
| 4.8 | 3. | Pro-con, depends |
| 4.9 | 4. | Takes a lot to get me angry, qualified
(But I really blow when I do) |
| 64.6 | 5. | Takes a lot to get me angry (I never get angry) |
| 2.8 | 9. | N.A., D.K. |

L11. How much does it matter what other people think about you?

- | | | |
|------|----|---|
| 46.5 | 1. | Not at all. Doesn't matter |
| 15.3 | 2. | Very little, matters what one or two people think |
| 8.4 | 3. | Pro-con, depends. Matters in some areas |
| 12.1 | 4. | A good deal. It matters |
| 14.2 | 5. | It matters a lot. I'm very sensitive |
| 3.5 | 9. | N.A., D.K. |

L12. Do you trust most other people, some, or very few?

- | | | |
|------|----|-------------------------------------|
| 56.9 | 1. | Most |
| 3.7 | 2. | Most, qualified |
| 18.5 | 3. | Pro-con, depends, should trust some |
| 3.5 | 4. | Few, not many, qualified |
| 14.5 | 5. | Very few. I trust no one |
| 2.8 | 9. | N.A., D.K. |

L13. Do you spend much time figuring out ways to get more money?

- | | | |
|------|----|---|
| 65.5 | 1. | None at all |
| 3.8 | 2. | Very little, not much |
| 3.8 | 3. | Pro-con, sometimes I do, should spend
more (less), used to in the past |
| 1.9 | 4. | Quite a bit |
| 22.2 | 5. | A lot. I'm always figuring out how to
get more money |
| 2.8 | 9. | N.A., D.K. |

L15. Do you think the life of the average man is getting better or is it getting worse?

- | | | |
|------|----|--|
| 49.7 | 1. | Getting better |
| 3.3 | 2. | Getting better, qualified; better for most |
| 9.0 | 3. | Pro-con, better some ways, worse others |
| 1.8 | 4. | Getting worse, qualified |
| 28.2 | 5. | Getting worse |
| 8.0 | 9. | N.A., D.K. |

References

- Bowles, Samuel and Herbert Gintis, 2002:** “The Inheritance of Inequality.” *Journal of Economic Perspectives*, 16(3), pp. 3-30.
- Case, Anne, Darren Lubotsky, and Christina Paxson, 2002:** “Economic Status and Health in Childhood: The Origins of the Gradient.” *American Economic Review*, 92(5), pp. 1308-1334.
- Conley, Dalton, 1999:** *Being Black, Living in the Red: Race, Wealth, and Social Policy in America*. Berkeley and Los Angeles: University of California Press.
- Corak, Miles, 2004:** “Do poor children become poor adults? Lessons for public policy from a cross-country comparison of generational earnings mobility.” Paper presented at the Colloque sur Le Devenir Des Enfants De Familles Défavorisées En France. Paris, April.
- Dunifon, Rachel, Greg J. Duncan, and Jeanne Brooks-Gunn, 2001:** “As Ye Sweep, So Shall Ye Reap.” *American Economic Review*, 91(2), pp. 150-154.
- Fryer, Roland G. and Steven D. Levitt, 2004:** “Falling Behind.” *Education Next*, Fall.
- Hacker, Jacob S. (forthcoming):** *The Great Risk Shift*. Oxford: Oxford University Press.
- Hertz, Tom, 2005:** “Rags, Riches and Race: The Intergenerational Economic Mobility of Black and White Families in the United States.” In *Unequal Chances: Family Background and Economic Success*, Samuel Bowles, Herbert Gintis, and Melissa Osborne (eds.). New York: Russell Sage and Princeton University Press.
- International Social Survey Programme, 1999:** *Social Inequality III*.
- Mayer, Susan, 1997:** *What Money Can't Buy*. Cambridge: Harvard University Press.
- Mazumder, Bhashkar, 2005:** “Fortunate sons: new estimates of intergenerational mobility in the united states using social security earnings data.” *Review of Economics and Statistics*, 87(2), pp. 235-255.
- New York Times, 2005:** http://www.nytimes.com/packages/html/national/20050515_CLASS_GRAPHIC/index_04.html, as of April 17, 2006.
- Osborne Groves, Melissa, 2005:** “Personality and the Intergenerational Transmission of Economic Status.” In *Unequal Chances: Family Background and Economic Success*, Samuel Bowles, Herbert Gintis, and Melissa Osborne (eds.). New York: Russell Sage and Princeton University Press, 2005.
- Patterson, Orlando, 2006:** “A Poverty of the Mind.” *New York Times*, March 26.
- US Census Bureau, 2004:** *Income, Poverty & Health Insurance Coverage in the United States: 2004*.

About the Author

Tom Hertz is an Assistant Professor of Economics at American University. His research relates to labor market issues in both high-income and low-income nations, including the economic rewards to education, the extent and structure of intergenerational mobility, and the effects of minimum wage legislation. His work on education has appeared in the *American Economic Review*, and a paper on trends in intergenerational mobility is forthcoming in *Industrial Relations*. His research on mobility has been cited in the *New York Times*, the *Wall Street Journal*, *Business Week*, *The New Yorker*, and the *New York Review of Books*.

Prior to coming to American University, Hertz spent a year as a post-doctoral research fellow at the Center for Health and Well-Being at Princeton University's Woodrow Wilson School of Public and International Affairs. In 1995-96 he served as staff to South Africa's Labour Market Commission.

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