

Work and Income Security from 1970 to 2005

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WORK AND INCOME SECURITY FROM 1970 TO 2005

Between the start of the recession in December 2007 and October 2009, the U.S. economy shed nearly 7 million jobs and the unemployment rate leaped from 4.9 to 10.2 percent—the highest it has been in over a quarter-century. In today's economy, few workers and families can feel secure in their economic position. The concerns go beyond short-term worries over job losses and income declines, extending to long-term prospects for future standards of living and upward mobility.

This paper takes a long view of families' economic security, charting the progress of American families from 1970 through 2005, a three-and-a-half-decade period comprising major shifts in the domestic and world economies, severe recessions, and extended periods of robust economic growth. Our primary goal is to gain a better understanding of the importance of stable full-time, full-year work in providing security and promoting upward mobility for low-income families.

We focus on low-income working families—defined as families with children headed by a nonelderly individual that have a least one full-time, full-year worker (1,800 hours a year) but still have incomes below twice the federal poverty level (about \$44,000 a year for a family of four in 2009). These families are strongly attached to the labor market but are still in a precarious economic position, right on the edge of making ends meet but still enduring substantial material hardships (Acs and Nichols 2005). We begin by assessing how the proportion of all families classified as low-income working has changed over time, comparing trends for these families with those of families above and below them on the economic ladder—middle-income families (those with incomes between two and four times the poverty level), higher-income families (those with incomes above four times the poverty level) and low-income families without a full-time, full-year worker.

We then address the following questions: Do low-income working families remain strongly attached to the workforce and move up the economic ladder? Do they remain mired in dead-end but stable jobs, permanently affixed to the lower rungs of the economic ladder? Or do they have trouble maintaining steady work and slide down the economic ladder? In addition, we compare their experiences with those of higher-income families and low-income families without full-time, full-year workers.

For this analysis, we use data from the Panel Study of Income Dynamics from 1969 through 2005. We find that individuals in low-income working families are a varied group and are far more likely to move up the income ladder than down: the share that are ever in low-income working families and persistently in low-income working families has declined over time, with a commensurate rise in the share that are in higher-income families. Our findings underscore the importance of work for the long-term security and mobility of low-income families. The high and rising unemployment rates of 2009 clearly imperil the progress made in the last three decades of the 20th century.

Background

In 2007, median family income was \$61,355, or about 2.9 times the poverty level for a family of four. This is slightly higher than its level in 2000 (\$61,083 as measured in 2007 dollars) and approximately 30 percent higher than median income in 1969. Clearly, families have benefitted from the cumulative effects of real income growth during the 1970s, 1980s, and 1990s, but it is worth noting the painfully low average annual growth rate in real income—less than 1 percent a year.¹ Further, families did not share equally in this income growth. Between 1969 and 2007, the income of families at the 20th percentile of the income distribution grew by 11.5 percent—much slower than median income—while the incomes of families at the 80th percentile grew by 52.7 percent—faster than median income.²

These aggregate statistics are snapshots of U.S. families, comparing the average family from one year with the average family in another year; they do not tell us how the circumstances of a particular family or set of families have changed over time, nor the changes experienced by successive cohorts of families. Are families experiencing income growth? Are they moving up the income distribution? How secure are their economic positions? Do families today have the same opportunities and security that families had several decades ago?

Several strands of research speak to these questions. First, consider research on economic mobility in the United States.³ Studies examining economic position changes in absolute terms as well as those assessing changes in economic position relative to one's peers find little change in mobility rates over time (Acs and Zimmerman 2008; Auten and Gee 2007; Bradbury and Katz 2002; Carroll, Joulfaian, and Rider 2006; Hungerford 2008; Isaacs, Sawhill, and Haskins 2008).

Next, consider research on income volatility. Unlike research on mobility, research on volatility focuses on short-term changes in income. Although there are unresolved debates in the literature regarding trends in earnings volatility,⁴ research considering family incomes generally finds that income volatility has increased over time (Bania and Leete 2007; Batchelder 2003; Dynan, Elmendorf, and Sichel 2008; Gosselin 2008; Gosselin and Zimmerman 2008; Hacker 2006).⁵ It is common to associate increasing income volatility with declining economic security, as volatility indicates that families are becoming more susceptible to larger and more frequent changes in their resources. However, increasing volatility can just as easily mean unusually large increases in income as it can sudden unexpected declines in income.

Duncan, Smeeding, and Rodgers (1991) explicitly distinguish between short-term transitions up and down the income distribution by dividing families into lower, middle, and upper classes using fixed dollar amounts.⁶ They find that about 33 percent of low-income families climb into the middle class and about 7 percent of those in the middle class fall into the lower class over any given two-year period from the late 1970s to the mid-1980s. Over time, they find the middle class (as defined by fixed-dollar boundaries) has thinned out as middle-income families move up to higher-income status while lower-income families fail to advance up the ladder.

A handful of studies focus on large drops in income and earnings. Burkhauser and Duncan (1989) use data from the 1974 through 1983 waves of the Panel Study of Income Dynamics (PSID) to assess the likelihood that individuals experience a 50 percent drop in their annual family income (adjusted for family size). They find that over the ten-year period examined, about a quarter of 26- to 45- year-olds will experience a substantial income loss. Gosselin and Zimmerman (2008) report that the annual probability a 35- to 55-year-old experiences a 50 percent drop in income relative to needs rises from an average of about 3 percent during the ten-year period from 1974 to 1983 to an average of over 7 percent during the ten years between 1994 and 2003.⁷ The Congressional Budget Office (CBO) focuses on earnings losses (which may or may not coincide with family income losses) using administrative data (the Continuous Work History Sample). It finds that from 1980 to 2003, about one in seven workers age 22 to 59 experience a 50 percent decline in annual earnings, but the chance of an earnings drop does not increase over time. Similarly, the chance of a 25 percent drop in annual household income has not changed appreciably between 1984 and 2005 (CBO 2007). Rather than considering sharp drops in annual income, Acs, Loprest, and Nichols (2009) consider 50 percent declines in income over four-month periods using data from the 1996, 2001, and 2004 panels of the Survey of Income and Program Participation. They find no evidence of a trend in large income declines from the mid-1990s to the mid-2000s.

Taken together, these two lines of research paint a mixed picture of family income security. Growth in incomes has been uneven and slow on average, but there has been some real growth, and economic mobility has been stable for some time. Yet, family incomes are more volatile, meaning that there are a lot more ups and downs, even if most families make progress over the long haul.

A key next step in understanding changes in economic mobility and income security is to link family income and work effort. Research that focuses solely on income and earnings commingles families that are unable or unwilling to work with those that have low incomes despite making a substantial commitment to the labor market. Distinguishing these groups of families is key to understanding the policy implications of income gains and losses and identifying the right policy responses. To make these distinctions rigorously, we focus on “low-income working families,” a group that has been the subject of much recent research (e.g., Acs and Loprest 2005; Acs and Nichols 2005; Acs, Ross Phillips, and McKenzie 2001; Carnevale and Rose 2001; Waldron, Roberts, and Reamer 2004).⁸ We compare the experiences of low-income working families with other low-income families that are not as strongly attached to the labor market (low-income, low-work families) as well as to middle- and higher-income families.

Low-income working families should be of great concern to policymakers. Although no family wants to see its income fall by 10 percent, 20 percent, or more, the impact of such a loss on a family just getting by may be far greater than the impact on higher-income families. Families that are not working and have extremely low incomes also require the attention of policymakers, but many are already served (or eligible to be served) by existing social safety net programs. In addition, improving understanding of the

security and mobility of middle-income families is important because these families report growing unease with both their economic security and their ability to move up the economic ladder (Taylor et al. 2008).

Data and Definitions

We use the Panel Study of Income Dynamics for our analysis. Begun in 1968, the PSID is a longitudinal study of a nationally representative sample of U.S. individuals and the households in which they reside, with a focus on the dynamics of economic behavior and demographic characteristics. The PSID sample has grown from 4,800 families in 1968 to more than 8,000 families in 2005 (the most recent year for which data are available for this analysis) and includes information about more than 70,000 individuals spanning as much as 37 years of their lives. The PSID contains substantial detail on income sources and amounts, employment, family composition changes, and residential location, and it represents a unique longitudinal data source.⁹

Because the original 1968 PSID sample consisted of a cross-sectional national sample and a national sample of low-income families, the PSID contains data on a sufficiently large number of low-income families to allow for meaningful analyses of this group.¹⁰ From 1968 to 1996, the PSID interviewed and reinterviewed individuals from families in the core sample every year, whether or not they were living in the same dwelling or with the same people. Adults have been followed as they have grown older, and children have been observed as they advance through childhood and into adulthood, forming family units of their own. In 1997, the PSID switched from annual interviews to biennial data collection, reduced the core sample, and introduced a refresher sample of post-1968 immigrant families and their adult children.

To assess whether the economic security of families has changed over the past four decades, we examine how the chances of upward and downward mobility have changed over time. We take the straightforward approach of dividing adults between the ages of 25 and 50 who live in families with children into four groups based on work and income status. We focus only on those adults who are family heads or the spouses/partners of heads, and we track adults in families rather than families themselves because family composition changes over time. Our age restrictions focus our study on adults in their prime work years who are likely to have completed their formal schooling but are not yet of retirement age.

Our focal group is composed of those living in low-income working families—families with incomes below twice the federal poverty level who have at least one full-time, full-year worker (1,800 hours worked a year).¹¹ These families are strongly attached to the world of work, but their low incomes place them on the bottom rungs of the economic ladder. These are the families that are one paycheck away from significant material hardship and at high risk of falling even further behind if they experience an unexpected (but not unlikely) adverse event like an illness or a divorce. In short, they are at risk of becoming low-income, low-work families—our second group. In low-income, low-work families, the family's income falls below 200 percent of the federal poverty level and no adult in the family works 1,800 hours a year. It is also possible for families to move up the economic ladder; hence, our third and fourth groups of families are middle-income families (those with incomes at or between 200 and 400 percent of the federal poverty level) and high-income families (those with incomes above 400 percent of the federal poverty level). In certain analyses, we combine middle- and high-income families into a single group referred to as higher-income families.¹²

Analytic Approach

Initially, it is important to document the extent to which a family's economic position is "permanent." To do this, we adapt the research design used by Duncan and his coauthors (1984) in *Years of Poverty, Years of Plenty*, which assessed how many families were poor for one out of ten years (ever poor) and for eight out of ten years (persistently poor). Because our analysis involves three and sometimes four states of well-being (low-income working; low-income, low-work; middle-income, and high-income), it is necessarily a bit more sophisticated than research on poverty. We then consider upward and downward mobility across economic states as well as the factors associated with mobility.

Ever in State

Our analysis assesses the economic status of an individual's family in five-year windows, beginning in 1970. We ask what proportion of adults are *ever in* low-income, low-work families in any one of the five years considered, *ever in* low-income working families, *ever in* middle-income families, and *ever in* high-income families. By comparing five-year windows over time, we are able to assess whether it is becoming more common to experience (or to never experience) a nonworking, low-income year, a period of low-income working status, or a year of higher-income status.

We can use every year in a five-year window through 1997; after 1997, the PSID was fielded biennially. As such, we have data for every other year from 1997 through 2005. To include data from the late 1990s and early 2000s, we use data for the three available years in any five-year window. Findings on the share of families in each category from periods in which we have five full years of data are not strictly comparable to those for which we have only three years of data, but we can compare trends over time.

Persistently in State

In addition to assessing the extent to which people *ever* fall into specific economic states, it is important to assess the *persistence* of these states. We focus on three categories to describe the economic condition of families over a five-year period, in order from best to worst:

- Persistently higher-income: higher-income (above 200 percent of the federal poverty level) in at least four of five years and never low-income nonworking.
- Persistently low-income working: low-income working in at least three of five years, and no more than one year low-income, low-work and one year higher-income.
- Persistently low-income, low-work: low-income, low-work in at least four of five years and never higher-income.

Some individuals will not fit into these three key categories.¹³

For periods after 1997, we modify these categories to allow for the use of data for every other year as follows:

- Persistently higher-income: higher-income in two of three data-point years.
- Persistently low-income working: low-income, working in two of three data-point years.
- Persistently low-income, low-work: low-income, low-work in two of three data-point years.

Again, not all individuals will fit into these categories.¹⁴ Also, as above, findings on persistence in each category from periods in which we have five full years of data are not strictly comparable to those for which we have only three years of data, but we can compare trends over time.

Upward and Downward Mobility

We employ more sophisticated techniques to focus on transitions out of low-income working and other states to see if upward and downward mobility has changed over time. Between any two years, a low-income working family can move up to higher-income status or move down to low-income, low-work status. Similarly, a higher-income family can move down and a low-income, low-work family can move up. Using transition matrices, we show the average year-to-year probability of moving up, down, or staying the same through different historical eras. Again, when we consider data past 1997, we use the biannual information available to us.

Correlates of Upward and Downward Mobility

We use multivariate analytic techniques to examine the factors associated with upward and downward transitions. To assess the factors that help low-income working families move up to higher income levels as well as the factors that are associated with a loss of full-time, full-year work and downward mobility, we estimate a multivariate competing risk model.¹⁵ In competing risk models, an individual in a low-income working family in the prior year is at risk of not being in such a family in the current year: one risk is that of downward mobility into a low-income, low-work family; the second risk is of moving up to a higher-income family. Because transitions are only observed in discrete intervals—from one year to the next—we estimate discrete time-hazard models. This involves organizing the data on individuals in low-income working families into person-year observations and estimating the model as a multinomial logit.

Because we are interested in learning whether individuals become mired in low-income working status or whether they gradually move up to higher income levels, it is important for us to know how long a given individual has been in a low-income working family. As such, individuals enter our model (to be at risk of exiting low-income working status) in the year after we first observe them entering low-income working status or after they have been in a low-income working family for five years (because after five years, we are comfortable labeling them as long-term low-income working). Individuals continue providing data to our model until they leave the PSID sample, they no longer meet the age or child-present restrictions, or they exit low-income working status. Individuals who re-enter the risk pool (become low-income working families again) return to the sample as new observations.

The factors that may be associated with mobility included in our model are race (white versus nonwhite), spouse present, family head's education (high school diploma and more than high school versus no high school diploma), number of children in the family (exactly two and three or more versus exactly one child), age of youngest child (youngest child is less than 7 and youngest child is between 7 and 11 versus youngest child is 12 and up), industry of head's job (manufacturing/construction/utilities/transportation and retail trade versus all other industries), and region of the country (Northeast, Midwest, and South, versus West). All these variables are measured in the year before a potential change in status. Several variables are measured as of the year in which an individual may change status: the number of years an individual has been in a low-income working family (one, two, three, and four versus five or more), the historical period (1970–74, 1975–79, 1980–84, and 1985–90 versus 1991 forward), and the unemployment rate

in the individual's state of residence. Because of the importance of annual data for this analysis, we can only assess the correlates of mobility through 1997.

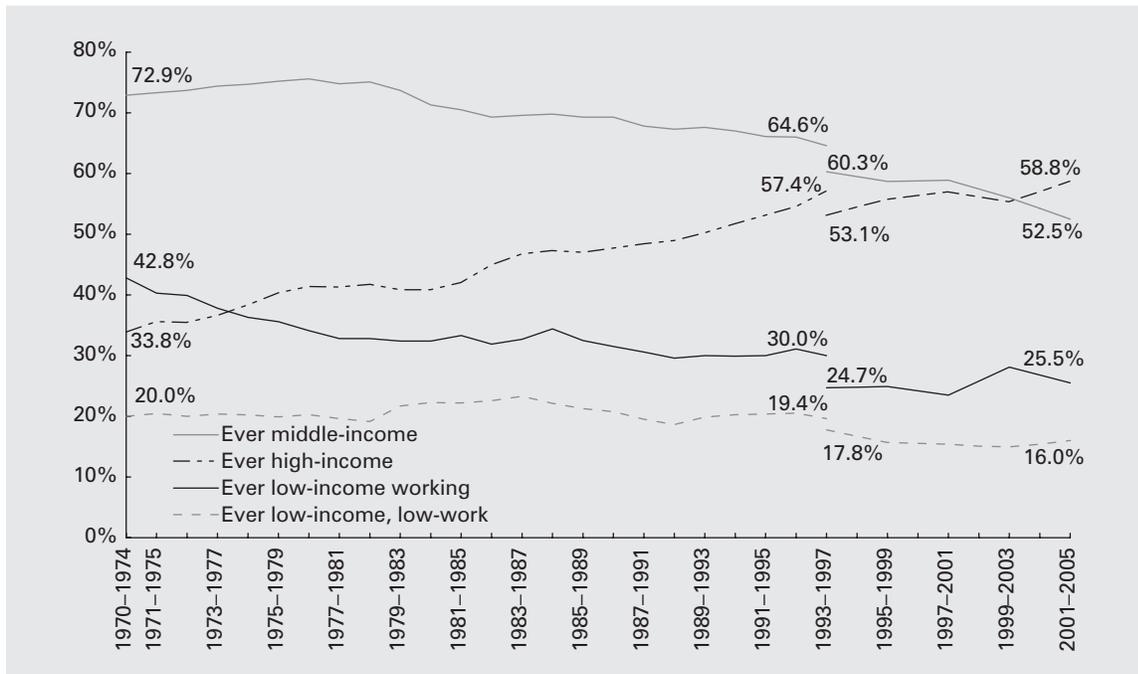
In addition to examining the factors associated with upward and downward mobility for low-income working families, it is important to learn more about the factors that contribute to the economic security (or insecurity) of higher-income families. To assess these factors, we estimate a discrete time-hazard model that includes all the covariates used in the competing risk model discussed above. Here, however, there is just one risk—that of falling below 200 percent of the federal poverty level. Individuals become at risk for falling into low-income families in the year after they enter higher-income families or after they have been observed in higher-income families for five years. Again, the analysis of the correlates of economic security for higher-income families only extends through 1997 because of the need for annual data.

Results

How Has the Share of Individuals Ever in Low-Income Working Families, Ever in Higher-Income Families, and Ever in Low-Income, Low-Work Families Changed Over Time?

Between 1993 and 1997—the last interval for which we have five consecutive years of data in the PSID—30 percent of adults in families with children spent at least one year in a low-income working family. As figure 1 shows, this is far lower than during the five-year span from 1970 to 1974 when 42.8 percent of all adults in families with children spent some time in low-income working families. The bulk of the

FIGURE 1. *Income and Work Status Ever Experienced over Five-Year Periods, 1970–2005*



Source: Authors' calculations using PSID data.

Note: Beginning in 1993, data are available for odd-numbered years only.

decline occurred during the 1970s, and the share has remained below one-third since the economy recovered from the deep recession in the early 1980s.

From the mid-1990s forward, however, there is no evidence of further progress. When we shift our measure of low-income working families to reflect three years of data over a five-year period, the share of families ever low-income working is lower, as expected—any given individual has only three chances to be observed in a low-income working family, rather than five. Thus, the 1993–97 period shows that 24.7 percent of individuals are in low-income working families when every other year of data is used, compared with 30.0 percent when all five years of data are used. Extending the data forward shows that the share ever low-income working fluctuated over the next decade, falling through the strong economic growth in the late 1990s, rising during the recession and stagnation of the early 2000s, and then beginning to fall again to 25.5 percent for the 2001–05 period.

Although the likelihood of ever being in a low-income working family has declined, the share of adults ever (in a five-year period) living in low-income, low-work families has remained remarkably stable since 1970. Indeed, between 1970 and 1974, the share ever living in a low-income family without a full-time, full-year worker was 20.0 percent; between 1993 and 1997, the share was 19.4 percent. The share varied in a narrow range from 18.6 percent (1988–92) to 23.3 percent (1983–87, the aftermath of the 1982–83 recession).

Similarly, there is little evidence of a trend in the data from the 1990s into the 2000s. Using data for three years over a five-year period, we find that the share of individuals living in low-income, low-work families was 17.8 percent during the 1993–97 period and 16.0 percent for the 2001–05 period.

As there has been no appreciable change in the share of individuals ever in low-income, low-work families and a notable decline in the share ever in low-income working families, individuals must be more likely to spend time at higher income levels. Surprisingly, they are not more likely to spend time as middle-income families—in fact, the share ever spending time in middle-income families fell from 72.9 percent for the 1969–73 period to 64.6 percent for the 1993–97 period. And, the downward trend continued through the 2001–05 period. In contrast, the share spending at least one of five years in a higher-income family increased dramatically, rising from 33.8 percent for the 1969–73 period to 57.4 percent in the 1993–97 period; this trend also continued through the 2001–05 period.

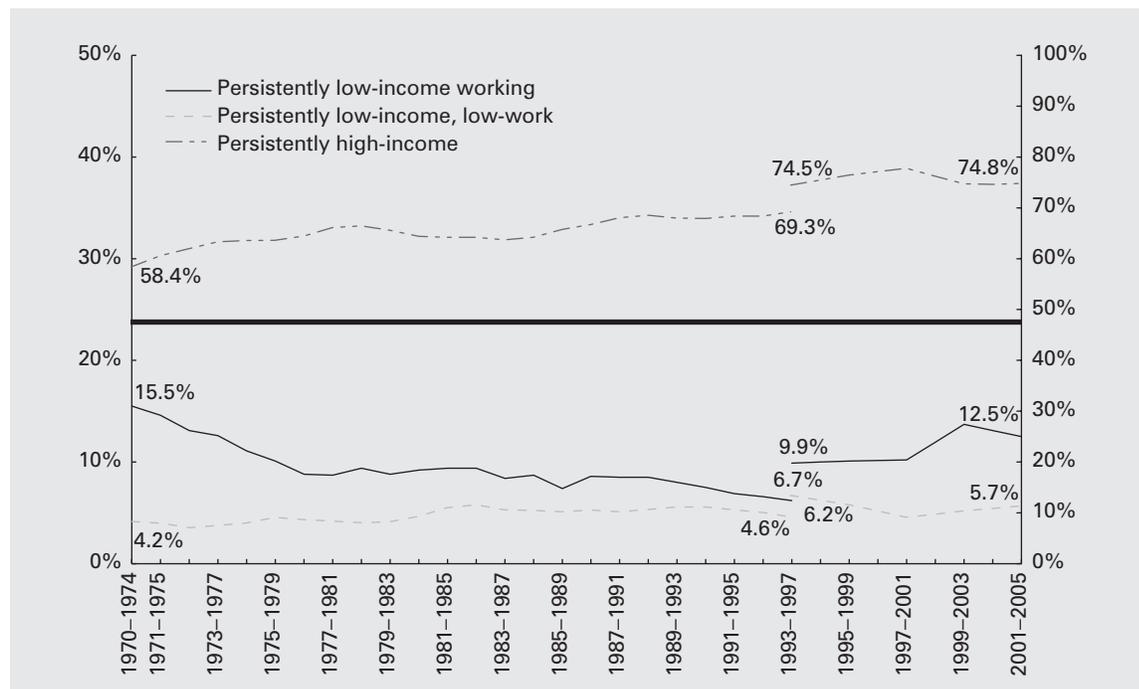
How Has the Share of Individuals in Persistently Low-Income Working Families, Persistently Higher-Income Families, and Persistently Low-Income, Low-Work Families Changed Over Time?

Fig. 2

The share of individuals living in persistently low-income working families fell substantially from 15.5 percent between 1970 and 1974 to 6.2 percent between 1993 and 1997 (figure 2).¹⁶ Extending the data forward using three years of data over a five-year period shows that the downward trend in persistent low-income status stopped and perhaps even reversed from the mid-1990s to the mid-2000s. Note that persistence levels are higher when measured using only three years of data over a five-year period rather than all five years. Figure 2 shows that the share of individuals in persistently low-income working families rose from 9.9 percent in the 1993–97 period to 13.7 percent in the 1999–2003 period before settling at 12.5 percent in the 2001–05 period.¹⁷

While the share of individuals in persistently low-income working families fell for much of the 1970s, 1980s, and early 1990s before leveling off in the past decade, the share in persistently higher-income

FIGURE 2. *Income and Work Status Persistence over Five-Year Periods, 1970–2005*



Source: Authors' calculations using PSID data.

Note: Beginning in 1993, data are available for odd-numbered years only.

families rose from 58.4 percent for the 1970–74 period to 69.3 percent in the 1993–97 period. This trend continued through the end of the century before leveling off in the 2001–05 period.

There is not much of a trend in the share of individuals in persistently low-income, low-work families through the 2001–05 period. The share of individuals persistently in low-income, low-work families remained fairly stable at about 4 to 5 percent from 1970–74 through 1993–97;¹⁸ when using every-other-year data from 1993–97 through 2001–05, the share hovered around 6 percent.

These results suggest that the share of individuals in families with children, finding themselves mired in low-income families despite full-time, full-year work, has declined over the past 30 years while the share able to maintain higher-income status has increased. There has been little change in the share of individuals living in families that cannot sustain at least one full-time, full-year worker.

Mobility

From year to year, individuals in low-income working families can move up to middle- or high-income families, move down into low-income, low-work families, or remain in low-income working families. Similarly, those in middle-income families can move up to high-income families or down into the two types of low-income families. And those in low-income, low-work families can move up to higher work and income status. To assess the mobility of individuals in families and how it has changed over time, we compute the year-to-year transition probabilities for those in each type of family to the other three types of families averaged over five different five-year periods from 1970 through 1994. Because the

PSID became biannual in 1997, we can only assess transitions for every other year for five calendar-year periods after 1994. As such, transition probabilities from 1970–94 and those beyond 1994 are not strictly comparable; however, it is possible to compare trends in mobility. To facilitate such comparisons, we show year-to-year transition probabilities for the five five-year periods from 1970 to 1994 and every-other-year transition probabilities for the four five-year periods beginning in 1989.

Mobility of individuals in low-income working families. Panel A in table 1 shows that between 1970 and 1974, 64.3 percent of those in low-income working families remained in low-income working families from year to year. About 10 percent moved down into low-income, low-work families while about 24 percent moved up to middle-income families. Only about 1 percent made the leap from low-income working families to high income.

Over the next 20 years, downward mobility edged slightly higher while upward mobility increased modestly for those in low-income working families. By the 1990–94 period, 27.4 percent of those in low-income working families moved up to middle-income families and 4.3 percent moved up to high-income families in any given year. Compared with the 1970–74 period, upward mobility for this group rose from about one-quarter to about one-third. Downward mobility reached 12.3 percent in the 1990–94 period compared with 10.4 percent in the 1970–74 period. The chance that an individual remains in a low-income working family from year to year was 56.0 percent for the 1990–94 period, down from 64.3 percent for the 1970–74 period.

Panel B of table 1 shows the every-other-year transition periods beginning with the 1989–93 period. The every-other-year mobility trends from 1989 through 2001 are similar to those for the 1970–94 period, albeit at slightly different levels. Taken together, the data suggest that between 1970 and 2001, individuals in low-income working families became increasingly upwardly mobile.

After 2001, however, the long-term trend stops and appears to reverse. Upward mobility falls for low-income families in the 2001–05 period compared with the 1997–2001 period, while downward mobil-

TABLE 1. *Upward/Downward Mobility of Individuals in Low-Income Working Families*

	Average Annual Change from Low-Income Working to			
	Low-income working (no change)	Middle-income (upward)	High-income (upward)	Low-income, low-work (downward)
Panel A: every year				
1970–1974	0.643	0.244	0.009	0.104
1975–1979	0.605	0.264	0.022	0.110
1980–1984	0.611	0.243	0.016	0.130
1985–1989	0.576	0.283	0.021	0.120
1990–1994	0.560	0.274	0.043	0.123
Panel B: every other year				
1989–1993	0.486	0.313	0.050	0.152
1993–1997	0.463	0.341	0.051	0.145
1997–2001	0.455	0.358	0.051	0.136
2001–2005	0.519	0.263	0.063	0.155

Source: Authors' calculations using PSID data.

ity ticks up. This period coincides with the recession of 2001, which, although not severe, was marked by a slow, weak recovery. Interestingly, the only five-year period in which the every-year mobility rates for low-income working families actually shows a decline in upward mobility is 1980–84, which coincides with the severe recession and high unemployment rates during that period.

Mobility of individuals in middle-income families. Panel A of table 2 focuses on the upward and downward mobility of individuals in middle-income families. Between 1970 and 1974, 77.4 percent of those in middle-income families could count on still being middle income from one year to the next. By the 1990–94 period, the share remaining middle income from one year to the next fell to 71.7 percent, but the share moving up to high-income families rose to 16.8 percent from 12.3 percent in the 1970–74 period. Over the entire 25 years from 1970 to 1994, nearly 90 percent of those in a middle-income family in one year could count on being in a middle- or high-income family the next. Of those that moved downward, over two-thirds moved into low-income working families. Only 2 to 4 percent fell from middle-income status to low-income, low-work status.

Panel B of table 2 shows every-other-year mobility rates, and the long-term trends continue. Between 1989 and 2005, the share of middle-income families that stayed middle income continued to shrink while the share attaining higher-income status rose, at least through 2001. The 2001–05 period shows an uptick in downward mobility for middle-income families. The year-to-year mobility rates for the recessionary 1980–84 period show a similar uptick in downward mobility and attendant decline in upward mobility for middle-income families. As is the case for mobility for low-income working families, middle-income families have experienced a long wave of upward mobility that is only interrupted by the severe recession of the early 1980s and the milder recession of 2001.

Mobility of individuals in low-income, low-work families. Table 3 shows upward mobility patterns for those in low-income, low-work families. In contrast to the relative security of middle- and high-income families and the upward mobility of low-income working families, those in low-income, low-work families have been increasingly mired at the bottom of the economic order from the 1970s to the early 1990s. From

TABLE 2. *Upward/Downward Mobility of Individuals in Middle-Income Families*

	Average Annual Change from Middle Income to			
	Middle-income (no change)	High-income (upward)	Low-income working (downward)	Low-income, low-work (downward)
Panel A: every year				
1970–1974	0.774	0.123	0.076	0.027
1975–1979	0.764	0.138	0.067	0.031
1980–1984	0.757	0.121	0.083	0.040
1985–1989	0.740	0.155	0.076	0.030
1990–1994	0.717	0.168	0.082	0.033
Panel B: every other year				
1989–1993	0.677	0.200	0.081	0.042
1993–1997	0.630	0.222	0.103	0.046
1997–2001	0.623	0.261	0.083	0.032
2001–2005	0.602	0.248	0.102	0.049

Source: Authors' calculations using PSID data.

TABLE 3. *Upward/Downward Mobility of Individuals in Low-Income, Low-Work Families*

	Average Annual Change from Low-Income Low-Work to			
	Low-income, low-work (no change)	Low-income working (upward)	Middle-income (upward)	High-income (upward)
Panel A: every year				
1970–1974	0.608	0.239	0.151	0.002
1975–1979	0.623	0.197	0.169	0.011
1980–1984	0.655	0.194	0.140	0.011
1985–1989	0.653	0.202	0.140	0.005
1990–1994	0.681	0.179	0.124	0.016
Panel B: every other year				
1989–1993	0.633	0.206	0.149	0.012
1993–1997	0.545	0.222	0.203	0.031
1997–2001	0.480	0.259	0.220	0.042
2001–2005	0.567	0.252	0.147	0.034

Source: Authors' calculations using PSID data.

one year to the next between 1970 and 1974, about 40 percent of those in low-income, low-work families moved up to become low-income working families or even higher-income families. Of those who do move up, about 60 percent¹⁹ move up to full-time, full-year work but still have low incomes. By the 1990–94 period, only 31.9 percent of those in low-income, low-work families were able to move up in a year's time, although about 45 percent of those that do move up, move up to middle- or high-income families.

Data on every-other-year mobility from the 1990s and early 2000s (table 3, panel B), however, paint a very different picture of the mobility trends for low-income, low-work families. Between 1989 and 2001, low-income, low-work families became increasingly upwardly mobile, with families not only moving up into low-income working families but up also into middle-income families. This suggests that the very low unemployment rates of the 1990s allowed low-income families to sustain full-time, full-year work, and this work effort helped them rise out of low-income status. As is the case for other families, mobility for low-income, low-work families took a turn for the worse in 2001–05. Low-income, low-work families found it harder to move up, and those that did became less likely to move into middle- and high-income families.

Taken together, the findings on economic status, persistence of the status, and transitions between economic states evince two major themes: (1) over the long sweep of time from 1970 to 2005, stable, full-time work has become increasingly important for economic security and upward mobility; and (2) mobility patterns are affected by macroeconomic conditions. Broadly, individuals in families with at least one full-time, full-year worker are becoming less likely to be in low-income working families and those in low-income working families are becoming more upwardly mobile over time. Attaining middle-income status provides a substantial amount of security as more than 8 of 10 individuals in such families retain or improve their status from year to year. Individuals in low-income families without a full-time, full-year worker experienced worsening conditions. Although this group has not grown larger over time, upward mobility rates for those in this group fell for nearly a quarter of a century through 1994, and they showed uneven progress over the next decade.

Within the 1970–2005 period, upward mobility trends were interrupted by recessions, most notably the severe recession of the early 1980s and the relatively quick recession of 2001. The short, sharp recession of 1991 shows up as a slowing of positive trends while the recessions of the mid-1970s are mixed in with recovery years. Looking forward, the severe recession of 2008 and 2009 almost certainly will have a negative impact on upward mobility for low-income, low-work, low-income working, and middle-income families. Whether it will ultimately be an ebb in an otherwise rising tide remains to be seen.

Factors Associated with Upward and Downward Mobility

To assess the factors that help individuals in low-income working families move up to higher-income families as well as the factors that keep them from falling into low-income, low-work families, we estimate a competing risk model. Similarly, to assess the factors that help keep higher-income families from falling into low-income families, we estimate a discrete time-hazard model.

Table 4 shows the means of the variables included in these regressions. Consistent with our findings using transitions matrices, upward mobility is more common than downward mobility for low-income working families: 29.7 percent of individuals in low-income working families move up to higher-income families from one year to the next, while 11.2 percent fall into low-income, low-work families. Between 1970 and 1996, 7.2 percent of individuals in higher-income families fell into low-income families.

Tab. 4

TABLE 4. Variable Means on Transitions from High- or Middle-Income Status

	Low-Income Working			Higher-Income		
	1970–79	1980–96	Total	1970–79	1980–96	Total
White	0.804	0.753	0.773	0.908	0.887	0.893
Spouse present	0.908	0.822	0.856	0.951	0.926	0.934
Head w/high school education	0.385	0.475	0.439	0.378	0.332	0.347
Head w/more than high school education	0.157	0.246	0.210	0.422	0.575	0.526
Two children in family unit	0.325	0.380	0.358	0.390	0.437	0.422
Three or more children in family unit	0.548	0.408	0.464	0.274	0.190	0.217
Youngest child < 6 years old	0.516	0.531	0.525	0.395	0.428	0.417
Youngest child 7–11 years old	0.357	0.311	0.329	0.347	0.317	0.327
Head industry: heavy industry	0.582	0.522	0.546	0.518	0.505	0.509
Head industry: sales	0.169	0.186	0.179	0.140	0.151	0.148
1 year at risk	0.376	0.416	0.400	0.119	0.080	0.092
2 years at risk	0.200	0.198	0.199	0.093	0.058	0.069
3 years at risk	0.102	0.117	0.111	0.072	0.048	0.056
4 years at risk	0.065	0.070	0.068	0.056	0.043	0.047
Northeast	0.177	0.166	0.170	0.265	0.230	0.241
Midwest	0.298	0.303	0.301	0.298	0.276	0.283
South	0.403	0.375	0.386	0.269	0.299	0.290
State unemployment rate	0.060	0.069	0.065	0.064	0.068	0.067
Means of dependent variables:						
Downward change in status	0.111	0.113	0.112	0.077	0.069	0.072
Upward change in status	0.290	0.301	0.297	—	—	—

Source: Authors' calculations using PSID data.

Table 4 also compares the characteristics of low-income working and higher-income families and shows how they have changed between 1970–79 and 1980–96. Individuals in higher-income families are on average more likely to be white than those in low-income working families (89.3 versus 77.3 percent). Over time, both samples have become slightly less white. If nonwhites face discrimination, then this trend compromises economic security and inhibits upward mobility. Those in higher-income families are more likely to be married than those in low-income working families (93.4 versus 85.6 percent), but there is a mild trend away from marriage in both groups. If marriage protects families from downward mobility, this trend away from marriage may decrease economic security.

There are substantial differences in education between individuals in higher-income and low-income working families, but there is notable educational upgrading for both groups. For example, the share of individuals in higher-income families with education beyond high school grew from 42.2 percent in 1970–79 to 57.5 percent in 1980–96; for those in low-income working families, the share with some postsecondary education grew from 15.7 to 24.6 percent. This educational upgrading should protect against downward mobility and enhance upward mobility.

Individuals in higher-income families have fewer and older children than those in low-income working families. Family sizes have shrunk over time, but the age of the youngest child has, on average, fallen. These trends likely have countervailing effects on upward mobility and security as younger children may make it harder to work steadily while fewer children reduce a family's needs.

There are small differences in the industries of individuals in low-income working and higher-income families and very small changes over time. Similarly, there is little difference in the state economic climate faced by the two groups across the two periods. Finally, in terms of location, individuals in higher-income families are more likely to be located in the northeast and less likely to be located in the south than individuals in low-wage working families, but there have been only modest changes across regions over time. As such, even if economic conditions, industry, and location influence security and mobility, the changes in these factors likely cannot account for trends in security and mobility.

Tab. 5

Competing risk model for low-income working families. Our competing risk model shows that race, marital status, and education are all significantly correlated with mobility; column 1 in table 5 shows the coefficients for downward mobility into low-income, low-work families and column 2 shows upward mobility to higher-income families. Whites in low-income working families are less likely to move down into low-income, low-work families and more likely to move up to higher-income families than nonwhites. The estimated coefficients imply that in any given year, whites in low-income working families are 3.5 percentage points less likely to move down in status and 7 percentage points more likely to move up into higher-income families than nonwhites, taking other factors into account.²⁰ Similarly, those who were married in the previous year are less likely to lose status (6.4 percentage points) and more likely to move up (9.2 percentage points) than unmarried individuals in low-income working families.

For individuals in low-income working families, education protects against downward mobility and promotes upward mobility. Both those with high school diplomas and those with at least some college are 4 to 5 percentage points less likely to fall into low-income, low-work status than high school dropouts. Similarly, individuals in low-income working families with high school (but no more) educations and those with some college are, respectively, about 7 and 13 percentage points more likely to move up into higher income families than are high school dropouts.

TABLE 5. Regression Results for Low-Income Working Families and for Higher-Income Families

	Competing Risk Model for Low-Income Working Families		Hazard Model for Higher- Income Families
	To low-income, low-work	To higher income	To lower income
White	-0.350***	0.349***	-0.250***
Spouse present	-0.642***	0.464***	-0.934***
Head w/high school education	-0.424***	0.354***	-0.324***
Head w/more than high school education	-0.478***	0.646***	-0.935***
Two children in family unit	-0.174	-0.195*	0.0989
Three or more children in family unit	-0.256*	-0.545***	0.301***
Youngest child < 6 years old	0.473***	-0.432***	0.692***
Youngest child 7–11 years old	0.435**	-0.0598	0.256***
Northeast	0.355*	-0.170	-0.00647
Midwest	-0.131	-0.474***	0.0942
South	-0.0540	-0.372***	0.136
Outcome year state unemployment rate	0.0801***	-0.0101	0.0432**
Head industry: heavy industry	0.154	0.0810	-0.0293
Head industry: retail	-0.179	-0.124	0.170*
1970–74	-0.0108	0.0219	-0.339***
1975–79	-0.133	-0.0212	-0.252***
1980–84	-0.287*	-0.244*	-0.0491
1985–89	-0.211	-0.0131	-0.271***
1 year at risk	0.863***	1.032***	2.051***
2 years at risk	0.712***	0.632***	1.546***
3 years at risk	0.356*	0.402***	1.348***
4 years at risk	0.554**	0.238	0.970***
Constant	-1.898***	-1.349***	-2.443***

Source: Authors' estimates using PSID data.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

The number of children in an individual's family influences mobility but in no clear pattern. First, consider downward mobility. Individuals in low-income working families with two children are no more or less likely to move down into low-income, low-work families than those with only one child; however, those in families with three or more children are 2.6 percentage points less likely to move down than those in one-child families. Conversely, the chances of upward mobility decline as the number of children increases. For example, individuals in low-income working families with three or more children are 11 percentage points less likely to move up into higher-income families than those with only one child. The reduced upward mobility rates may in part reflect the fact that the income thresholds are based on family size, so families with more children need more income to be considered higher-income families than those with fewer children.

The age of children in a family also influences mobility. Compared with individuals in low-income working families whose youngest child is age 12 or older, those with children under the age of 12 are 4 to 5 percentage points more likely to move down to low-income, low-work families. In addition, those with children under age 6 are about 9 percentage points less likely to move up to higher-income families in any given year than those whose youngest child is over age 12.

Location matters somewhat, with those living in the northeast about 3.5 percentage points more likely to move down in status than those living in the west; there are no statistically significant differences in downward mobility between those living in the west and those living in the south and Midwest. In contrast, those in the south and Midwest are less likely to move up than those in the west, but there is no significant difference in upward mobility between those in the northeast and those in the west.

Unemployment rates also matter: higher unemployment rates are associated with more downward mobility but not with upward mobility. Industry of employment, however, is not significantly correlated with mobility. Looking at historical periods, only 1980–84 stands out as strongly associated with mobility. Compared with the 1990s, 1980–84 showed significantly more downward mobility and less upward mobility, even after taking the period's high unemployment rates into account.²¹

Finally, movement out of low-income status depends on how long one has been in a low-income working family. For the most part, the longer an individual has been in a low-income working family, the less likely that individual is to change status. With respect to downward mobility, this can be viewed in a positive light: those who have been in a low-income working family for five or more years are 8.6 percentage points less likely to move down into a low-income, low-work family than those who have been in a low-income working family for only one year. On the other hand, if a low-income working family does not move up the economic ladder quickly, it becomes increasingly less likely to become a higher-income family. For example, the chances that an individual moves up to a higher-income family are over 20 percentage points higher for those that have been in low-income working families for just one year than for those that have been in low-income working families for five or more years.

Hazard model for higher-income families. Column 3 in table 5 shows the results of our discrete time-hazard model assessing the income security of higher-income families. About 7 percent of individuals in higher-income families fall into lower-income families across all the years covered by our data. Many of the same factors that keep low-income working families from becoming low-work families and help them move up to higher-income families also help secure the position of higher-income families. For example, higher-income whites, those who are married, and those with more education are less likely to lose higher-income status than others in higher-income families. The risk of falling into lower-income status in any given year is 1.6 percentage points lower for whites than nonwhites, 6 percentage points lower for those with a spouse present than those without, 2.1 percentage points lower for high school graduates than high school dropouts, and 6 percentage points lower for those with some postsecondary schooling than those who did not complete high school.

Individuals in families with three or more children are about 2 percentage points more likely to fall into low-income status than those in families with just one child; there is no significant difference in downward mobility between those with one and those with two children. In addition, the older the children are, the lower the likelihood of downward mobility.

There are no significant regional differences in downward mobility for those in higher-income families, but higher unemployment rates are associated with falling income status. Every 1 point rise in the unemployment rate translates into a 0.3 percentage point increase in the chance that an individual in a higher-income family falls into a lower-income family in a given year. Industry also matters a bit: those living in families in which the head works in retail are more likely to experience downward mobility than others. With respect to historical periods, downward mobility was less likely in 1970–74, 1975–79, and 1985–89 than between 1990 and 1996; there is no significant difference between 1980–84 and 1990–96.²²

Finally, the longer an individual remains in a higher-income family, the less likely they are drop into a lower-income family. Compared with those who have maintained higher-income status for five or more years, those who have been in a higher-income family for one year are 13.3 percentage points more likely to fall into a low-income status in any given year; those who have been in higher-income families for two, three, and four years are 10.0, 8.8, and 6.3 percentage points more likely to lose income status than those who have been in higher-income families for five or more years.

Discussion

The U.S. economy has undergone substantial changes over the past several decades, with substantial social consequences. The oil-price shocks in 1973 and 1979 followed by the deep recession in the early 1980s and two prolonged periods of economic growth in the mid-1980s and mid-1990s transformed the economy. In particular, the manufacturing sector—with its relatively high-paying jobs for low- and middle-skilled workers—has shrunk while the service sector has grown. The earnings gap between highly educated workers and less-educated workers has widened, and women of all types (married, single, mothers, and the childless) have increased their labor force participation. All these changes may have profoundly affected the economic security of American families.

Data from the PSID from 1970 to 2005 show that by and large, the economic well-being of working families with children has improved. More individuals live in families that have incomes that remain over 200 percent of the federal poverty level year in and year out, and well over half of all adults in families with children have at least one year out of five in which their incomes exceed 400 percent of the federal poverty level. Economic security always was and continues to remain high for families with incomes over 400 percent of the poverty level. And economic security for middle-income families has increased over time: individuals in families with incomes between two and four times the poverty level have become increasingly upwardly mobile over time, and they are about 50 percent more likely to move up the economic ladder than down.

The prospects for low-income working families have also improved. Among individuals in families that have incomes below 200 percent of the poverty level despite having at least one full-time, full-year worker, the share that is persistently low income over any given five-year period has declined markedly, and these families are two-and-a-half times more likely to move up the economic ladder than to move down.

In contrast to these positive trends for working families, the data show little improvement in the prospects for individuals in families that do not have at least one full-time, full-year worker. About one in five individuals live in low-income, low-work families at some point during a five-year period and about one in twenty are persistently in such families over any given five-year period. Further, it has been increasingly hard for individuals in low-income, low-work families to move up over time.

These findings clearly demonstrate the central role steady employment plays in the economic lives of American families. Prior research shows that, on average, in any given year, a low-income working family can make ends meet but is in a precarious financial position. This research left open the question of whether these families are mired in low-income status and whether this has changed over time. Our data here show that a decreasing share of individuals is in persistently low-income working families, and over time, they are more likely to move up than down. Thus, having at least one full-time, full-year worker provides a modicum of economic security for low-income families and holds the promise of upward mobility.

Several factors contribute to the upward mobility of low-income working families as well as the economic security of middle- and higher-income families. Specifically, individuals with more education, those who are married, and those who are white are more likely to move up if they are in low-income working families and to stay up if they are in higher-income families than other individuals. In addition, economic conditions influence economic security but not upward mobility. When state unemployment rates are higher, individuals in low-income working families become more likely to transition into low-income, low-work families than when unemployment rates are lower. Similarly, the chances that individuals in middle- and higher-income families fall into low-income families rise when unemployment rates rise. However, state unemployment rates are not significantly correlated with upward mobility for individuals in low-income working families.

Although these findings cannot speak to specific policy questions, they do suggest that an emphasis on work for low-income families—whether through work-first welfare programs or work-encouraging incentive policies like the earned income tax credit—is well warranted. In addition, it is important to recognize the factors that cause adults with children to interrupt their work lives—such as difficulties with child care arrangements, concerns with their health, or attendance to the health care needs of their children and other family members like aging parents—and strive to help them remain employed while attending to their family needs. The findings also underscore the value of education as high school completion and college attendance improve economic security and upward mobility, likely through their effects on employment and earnings. Family structure also plays a role in family income security. Simply put, because there are two potential workers in a married-couple family, the odds of having at least one full-time, full-year worker are clearly higher than those for a single-parent family, even if one discounts any benefits of marriage for employment and earnings. And finally, even after taking into account differences in education, family structure, and family circumstances, nonwhites are less economically secure and less upwardly mobile than whites. This highlights the need for continued vigilance in the area of race-based discrimination.

Overall, the data indicate that economic security and upward mobility increased for low-income working families, middle-income families, and higher-income families during the 1970s, 1980s, and 1990s, before a substantial leveling of the trend after 2000. Close inspection of these trends in economic status, security, and mobility, however, shows that economic downturns like the deep recession of the early 1980s and the mild recession of 2001 slowed, and even temporarily reversed, some of the positive trends.

We do not yet know how profound the consequences of the 2008–09 recession will be for the long-term economic security of American families. Nevertheless, it is worth noting that the economy did experience rapid oil-price shocks like those seen in 2008 in the 1970s and that the 2008–09 recession is, thus far, on par with the recession of the early 1980s. Despite these troubles in early years, successive cohorts of working families still managed to show long-term gains in security and upward mobility. The past may not be prologue, but it does provide useful context for considering the prospects of American families in today's floundering economy.

TABLE A1. *Competing Risk Model for Low-Income Working Families*

	(1) 1970–79	(2) 1980–96
To low-income, low-working		
White	-0.450**	-0.297**
Spouse present	-0.597**	-0.684***
Head w/high school education	-0.544***	-0.332**
Head w/more than high school education	-0.390	-0.461**
Two children in family unit	-0.399	-0.0737
Three or more children in family unit	-0.239	-0.316*
Youngest child < 6 years old	0.490*	0.486**
Youngest child 7–11 years old	0.569*	0.372*
Head industry: heavy industry	0.290	0.0852
Head industry: retail	-0.356	-0.0728
1 year at risk	0.992***	0.757***
2 years at risk	0.986***	0.512**
3 years at risk	-0.0371	0.479*
4 years at risk	1.004***	0.214
1970–74	0.0485	—
1975–79	—	—
1980–84	—	-0.293*
1985–89	—	-0.207
Northeast	0.334	0.358
Midwest	-0.421	0.0183
South	-0.259	0.0465
Outcome year, state unemployment rate	0.0477	0.0809**
Constant	-1.768**	-1.912***
To higher income		
White	0.252*	0.411***
Spouse present	0.589***	0.406***
Head w/high school education	0.318*	0.395***
Head w/more than high school education	0.632***	0.684***
Two children in family unit	-0.315*	-0.154
Three or more children in family unit	-0.640***	-0.508***
Youngest child < 6 years old	-0.608***	-0.323**
Youngest child 7–11 years old	-0.211	0.0423
Head industry: heavy industry	0.100	0.0636
Head industry: retail	-0.125	-0.114
1 year at risk	0.983***	1.088***
2 years at risk	0.626***	0.652***
3 years at risk	0.306	0.485***
4 years at risk	0.164	0.311
1970–74	-0.0253	—
1975–79	—	—
1980–84	—	-0.277**
1985–89	—	-0.0127
Northeast	-0.189	-0.144
Midwest	-0.576**	-0.429***
South	-0.528**	-0.302**
Outcome year state unemployment rate	-0.0517	0.00581
Constant	-0.753	-1.675***
Observations	6,384	8,376

Source: Authors' estimates using PSID data.

Note: *P*-value from test of coefficient equality across time periods: 0.4205.

* *p* < 0.05, ** *p* < 0.01, *** *p* < 0.001

TABLE A2. Hazard Model of Transitions from High- or Middle-Income Status

	(1) 1970–79	(2) 1980–96
White	–0.209	–0.281***
Spouse present	–0.971***	–0.921***
Head w/high school education	–0.256*	–0.406***
Head w/more than high school education	–0.862***	–1.012***
Two children in family unit	0.110	0.105
Three or more children in family unit	0.268*	0.341***
Youngest child < 6 years old	0.987***	0.554***
Youngest child 7–11 years old	0.461**	0.172
Head industry: heavy industry	–0.168	0.0524
Head industry: retail	0.111	0.202*
1 year at risk	2.048***	2.048***
2 years at risk	1.464***	1.591***
3 years at risk	1.317***	1.359***
4 years at risk	1.108***	0.867***
1970–74	–0.0286	—
1975–79	—	—
1980–84	—	–0.0257
1985–89	—	–0.277***
Northeast	–0.106	0.0453
Midwest	–0.0475	0.198*
South	0.131	0.153
Outcome year state unemployment rate	0.0705*	0.0276
Constant	–2.991***	–2.275***
Observations	13143	28541

Source: Authors' estimates using PSID data.

Note: *P*-value from test of coefficient equality across time periods: 0.0266.

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

NOTES

1. Data on family incomes come from <http://www.census.gov/hhes/www/income/histinc/f05.html> (last accessed March 18, 2009).
2. Data on family income by income quintile come from <http://www.census.gov/hhes/www/income/histinc/f01AR.html> (last accessed March 18, 2009).
3. Research on economic mobility encompasses studies of intergenerational mobility that compare the economic positions of adult children to those of their parents as well as studies of intragenerational mobility that consider changes in the economic position of a specific cohort of adults over time. Our focus is on families over time so it is more analogous to studies of intragenerational mobility. For an accessible discussion of recent research and trends in both intra- and intergenerational mobility, see Isaacs, Sawhill, and Haskins (2008).
4. Gottschalk and Moffitt (2002) and Haider (2001) use survey data from the Panel Study of Income Dynamics (PSID) and find that earnings volatility has increased, but CBO (2007) uses administrative data from the Social Security Administration and reports no change in men's earnings volatility. The main debate surrounds trends in earnings volatility during the 1980s; findings on data from the 1970s and 1990s are more consistent (volatility increased in the 1970s and was flat in the 1990s).
5. CBO (2008) is an exception, finding that family income volatility has not changed since 1984.
6. Duncan, Smeeding, and Rodgers (1991) use PSID data, average income over two-year periods, and consider movements between the two-year periods separated by one year (e.g., income position averaged over 1982 and 1983 compared with income position averaged over 1985 and 1986). As such, their work does not fit neatly into either the mobility or volatility literature discussed.
7. The work of Burkhauser and Duncan (1989) and Gosselin and Zimmerman (2008) are not strictly comparable because, simplifying, the unit of analysis for Burkhauser and Duncan is the person over a decade while for Gosselin and Zimmerman, it is a person-year. As such, Gosselin and Zimmerman's report of income drops in any given year are lower than Burkhauser and Duncan's reports of drops over a ten-year period.

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8. Such research is often cited as studies of the “working poor.” However, often the income threshold used falls above the federal poverty level. Also, the definition of “working” varies from study to study.
 9. <http://psidonline.isr.umich.edu/Guide/Brochures/PSID.pdf> (last accessed May 8, 2009).
 10. In 1990, the PSID added 2,000 Latino households, including families originally from Mexico, Puerto Rico, and Cuba. But while this sample represented three major groups of immigrants, it missed out on the full range of post-1968 immigrants, Asians particularly. Because of this crucial shortcoming and a lack of sufficient funding, the Latino sample was dropped after 1995, and a sample of 441 immigrant families was added in 1997.
 11. This definition of low-income working families is drawn from Acs and Loprest (2005) and Acs and Nichols (2005). In 2001, about 20 percent of all families with children fell into this category.
 12. The income range between 200 and 400 percent of the federal poverty level falls roughly between \$40,000 and \$80,000 for a family of four. Comparing these incomes to the American income distribution confirms these families’ status as middle class, as they fall roughly between the 40th and 75th percentiles of the income distribution.
 13. In analyses not shown here, we consider three additional categories: strong low-income working (higher-income in two or three years and no more than one low-income, low-work year); volatile (two higher-income years, one low-income working year, and two low-income, low-work years or two higher-income and three low-income, low-work years); and weak low-income working (low-income, low-work in two or three years and no more than one higher-income year). Strong low-income working falls between persistently higher-income and persistently low-income working, while volatile and weak low-income working fall between persistently low-income working and persistently low-income, low-work. We note trends in the size of these groups in the text.
 14. Here, there is one residual category: those with volatile incomes—exactly one year in high-income; one in low-income, low-work, and one in low-income working in the three data-point years.
 15. See Allison (1984) for details of this technique.
 16. Note also that the share living in strong low-income working families (two or three higher-income years and no more than one low-income, low-work year) declined slightly over time (15.3 percent for 1970–74 and 12.3 percent for 1993–97).
 17. Taking data from every other year shows that the share of individuals in persistently low-income working families was 22.2 percent in 1970–74, so the downward trend observed in the every-year data from the 1970s into the 1990s is present in the every-other-year data as well.
 18. The share of individuals in weak low-income, low-work families (two to three years in low-income, low-work families and no more than one higher-income year) hovered around 4 percent from the 1970s to the mid-1990s, and the share in volatile-income families experiencing radically different economic statuses over a five-year period hovered around 2.5 percent for the period.
 19. Computed as $0.239/(1-0.608) = 0.609$.
 20. The percentage point effects are computed by multiplying the estimated coefficient by $P(1 - P)$ where P is the probability of a given transition.
 21. In results shown in appendix table 1, we examine whether factors influencing the mobility of low-income working families have changed over time. To do this, we estimated models split into two periods, 1970–79 and 1980–96. The findings were broadly similar, and a log-likelihood ratio test cannot reject the hypothesis of equality in coefficients across time.
 22. In models shown in appendix table 2, we examined downward mobility for two distinct historical periods: 1970–79 and 1980–96. Unlike the case for low-income working families, we find some differences in the factors influencing mobility for higher-income families. Most notably, the role of education as a protective factor has grown over time, but the effect of unemployment rates has fallen.

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