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WEALTH MOBILITY IN AMERICA:
A VIEW FROM THE NATIONAL
LONGITUDINAL SURVEY

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ABSTRACT

We depict and analyze wealth mobility in a national sample of nearly 4,000 households interviewed by the National Longitudinal Survey over a ten year period from the mid 1960s to the mid 1970s. A transition matrix, the Shorrocks measure, average decile position for various subgroups, and wealth in period two compared with wealth in period one are used to describe patterns of wealth mobility. These results and regression models of change in percentile position, of persistence in the top, of movement into the top, of persistence into the bottom, and of movement into the bottom identify winners and losers. The losers include single people, blacks, and those who experienced marital disruption, while winners were the skilled and more educated. These findings have implications for the interpretation of cross-sectional measures of inequality, the explanation of long-term trends in wealth mobility, and the consequences of recent trends in the wage structure.

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I. INTRODUCTION

Study of the distribution of income or wealth forms a distinguished intellectual tradition that dates from the writings of Smith, Mill, and Ricardo (Stigler, 1941; Schumpeter, 1954). With interest in the subject well-established, modern economists monitor changes and differences in distributions, seek explanations for the patterns observed, and help to formulate policies designed to influence the distribution of income or wealth. In recent years efforts in the area have intensified with the debate over poverty, inequality, and the effectiveness of social and economic policy during the 1980s. Economists, noting rising poverty rates and growing inequality, have implicated factors such as biased technological change, shifts in product demand, the demise of unions, and a decline in the real value of the minimum wage (Blackburn, Bloom, and Freeman, 1990/91; Hanratty and Blank, 1992; Bound and Johnson, 1992; Katz and Murphy, 1992). Policy analysts have debated the efficacy of affirmative action, tax policies, the welfare system, and other programs on inequality and poverty in the past two decades (Jencks, 1992; Mead, 1992; Wilson, 1987; Murray, 1984).

Although more research on inequality and its causes and remedies is needed, we suggest that the debate has neglected economic mobility.¹ Cross-section measures are widely used to chart differences and trends, but give no insights into temporal processes that affect particular individuals. Economic mobility is relatively uninteresting in circumstances of near equality measured cross-sectionally: each person has approximately the same claim on resources over time. Yet, the degree of economic mobility clearly influences one's interpretation of cross-section measures in an environment of high or growing inequality.² It is important to know, for example, whether the poor

and the rich are entrenched and whether there are substantial prospects for upward or downward movement.

Research on mobility has been modest compared with needs in the area principally because the longitudinal data required are difficult and expensive to collect. However, some income mobility research has been conducted for the modern period (see, for example, Duncan and Hoffman, 1981; Duncan, 1984; and Shorrocks, 1981) and a handful of wealth mobility studies have been done for the nineteenth century (see, for example, Kearn and Pope, 1984; Steckel, 1990).

Here we investigate wealth mobility in a national sample of 3,942 households monitored in the National Longitudinal Survey from the mid-1960s to the mid-1970s. We present descriptive measures of mobility and estimate econometric models of mobility, of persistence in the lower and the upper end of the wealth distribution, and of movement into the upper and the lower end of the wealth distribution. In addition, we compare our results with wealth mobility studies for the nineteenth century.

II. THE DATA

Our data base consists of 2,163 households from the survey of older men and 1,779 households from the survey of mature women.³ The men were aged 45-59 in 1966 and the women were aged 30-44 in 1967. We selected ten year time intervals for study, beginning in 1966 for the men and 1967 for the women. Since wealth holdings depend importantly on age, we chose the first ten years of the surveys to obtain a reasonably representative age distribution of the national population of household heads. This pooled data base also has the advantage of providing substantial information on women respondents.⁴

Our measure of wealth is net family assets (excluding automobiles), converted to 1967 dollars using the Consumer Price Index. This asset variable includes real property in homes or farms, business assets, other property, and financial assets (savings accounts, bonds, stocks, and mutual funds) minus personal loans and other liabilities. Unfortunately, the measure does not include pension or annuity wealth.⁵ According to the NLS, net family assets is a key variable that is uniformly constructed across years and across samples of older men and mature women.

The NLS deliberately oversampled black households. Blacks comprise 27 percent of our sample but constituted only 9.45 percent of the households in the national population in 1970. To adjust for the over-representation of blacks in the NLS we weighted households headed by blacks by their share in the national population.⁶

The twentieth century witnessed a long-term decline with fluctuations in the share of wealth held by the very rich. The window of our mobility study encompasses a period of declining inequality in the United States. Estate data assembled by Wolff and Marley (1989, p 786) indicate that the share of wealth held by the top 1 percent of the population declined by roughly 40 percent between 1965 and 1976, a result that is robust to alternative definitions of wealth. One may quarrel with their version of the estate tax multiplier method,⁷ but the amount is so large that the fact of an important decline seems well established. Moreover, estate-data evidence presented by Smith (1984) also indicates a decline of approximately 43 percent for the share of net worth held by the top 0.5 percent of individuals. Because changes in the wealth distribution register in mobility, our rates may

be enhanced compared with those tabulated for periods of stability in the wealth distribution.

The end points of our time periods were not marked by unusual cyclical phenomena such as a recession. However, growth rates were sluggish in the 1970s compared with the 1960s and in the second period the economy was coping with recently elevated oil prices. The unemployment rate was 3.8 percent in 1966 and 1967, 7.7 percent in 1976, and 7.0 percent in 1977 (Bureau of Labor Statistics, 1978).

III. CHARACTERISTICS

Table 1 presents information on the distribution of wealth in our data base. The Gini coefficients range from 0.594 to 0.761 depending on the year and the region of the country. The top 1% of wealth holders had 0.120 to 0.213 of total wealth and the proportion of households with zero or negative net family assets ranged from 0.110 to 0.347. Inequality decreased over time, which is consistent with the aging of this group of households: Younger people, who tend to be poor, accumulated wealth while older people, who tend to be wealthy, decumulated assets prompted by retirement or by decline of earnings that is typical at older ages of employment. The Gini coefficient was approximately 14 percent higher in the South compared with the rest of the country, a result nearly identical with the regional difference that prevailed a little more than a century earlier (Steckel, 1990).

Wealth was more equally distributed in our sample than in the mid-nineteenth century United States. In 1860 the Gini coefficient was 0.761 (Steckel, 1990) or 15 percent higher than the average for the two periods in these data. In 1860 the the top 1 percent held 20.5 percent and the top 5

percent held 48.5 percent of the wealth, and the corresponding averages for the two periods in our sample are 14.7 percent and 35.7 percent.

IV. MOBILITY

The extent of persistence and mobility across deciles of the wealth distribution are portrayed in Table 2.⁸ The first row of the table shows that 24.87 percent of those who were in the lowest decile in the first period remained there ten years later. Yet, most of those who left the lowest rung did not go very far; Nearly 37 percent of those in the first decile in period 1 moved to the second decile and only 13.2 percent made it to the fifth decile or beyond. Similarly, of those in the second lowest decile in period 1, only 7.95 percent made it to the fifth decile or beyond. In the mid-nineteenth century the persistence rate in the lowest category (zero wealth) was substantially higher (48.4 percent) but those who left this class tended to move farther up the scale; over 40 percent made it to the fifth decile or beyond and nearly 9 percent made it to the top 20 percent of the distribution ten years later (Steckel, 1990).

Over 58 percent of the households in the top 10 percent of the distribution in period 1 remained in that position ten years later.⁹ Moreover, those who left the top of the distribution usually moved only a short distance; only 6.5 percent fell to the fifth decile or below and just 1.78 percent fell to the bottom 20 percent of the distribution. In contrast, households of the mid-nineteenth century persisted at a lower rate in the top decile (46.2 percent), but those who departed tended to move a slightly greater distance; 11.5 percent of those in the top group fell to the fifth decile or below (Steckel, 1990).

Table 3 gives average decile position for various subgroups of our sample in period 1 and period 2. Patterns of wealth-holding by age clearly show life cycle patterns of behavior. Households headed by younger individuals had low initial decile positions but advanced over time, but the wealth position of households headed by older individuals was high and declined in period 2 compared with period 1. Thus, the young accumulated wealth relatively rapidly and older people lost wealth or accumulated less rapidly.

The remainder of Table 3 gives breakdowns by occupation, residence, schooling, marital status, and ethnicity. The largest movements in average decile position were associated with changes in marital status. Those who were married in period 1 and single in period 2 experienced large declines while those who became married showed large increases. Men (but not women) who were single in both periods also declined. Single women had the lowest average decile position, approximately 2.9 in both periods. Professional and skilled occupations and those with more education advanced slightly while the farmers, the unskilled, and those with less education declined, which is consistent with evidence recently analyzed on stretching of the wage structure in the last few decades (Goldin and Margo, 1992; Katz and Murphy, 1992; Bound and Johnson, 1992).¹⁰ Southerners experienced modest gains in assets relative to residents of other regions and whites improved their position slightly relative to blacks.

The Shorrocks (1978) measure of mobility focuses on those who remained in the same decile position. Defined as $(N - \text{tr}(r_{ij})) / (N - 1)$ where N is the size of the matrix and r_{ij} denotes an element of the matrix expressed as a proportion of 1, a number closer to 1.0 indicates greater mobility. The

measure takes on a value of 0.0 if all households remained at the same decile position and equals 1.0 if the probabilities of movement to other deciles were equal regardless of starting position (all the diagonal elements of the transition matrix equalled 0.10). According to the Shorrocks measures given in the last column of Table 3, the highest rate of mobility (0.972) occurred for single females who were married by period 2. High rates of mobility also existed for other women whose marital status changed, the young, farmers, those with more than 12 years of schooling, and blacks. The least mobile included those aged 55 or more, those with less than 12 years of schooling, men who were single in both periods, and men who were single in period 1 and married in period 2. Our households were less mobile than a Utah group of the mid-1800s, in which the Shorrocks measure ranged from 0.874 to 0.936 (Kearl and Pope, 1984), but more mobile than a national sample of the same era in which the Shorrocks measure was 0.605 (Steckel, 1990).

Table 4 provides additional information on the mobility of various subgroups based on information in the off-diagonal elements of the transition matrix. The most upwardly groups, defined by the percentage who rose two or more deciles, included households headed by younger individuals, those with more than 12 years of schooling, and individuals who were single in period 1 and married in period 2. Downward mobility was greatest among households headed by older individuals, men who were single in both periods, and, especially, those who were married in period 1 and single in period 2. Approximately 6.3 percent of all households had zero or negative net family assets in both periods. The groups most likely to have remained at zero or negative wealth included single women, the unemployed, blacks, women who were married in period 1 but single in period 2, the unskilled, and service workers. The most rapid movement out of the zero or negative wealth category

occurred among professionals, households headed by older individuals, and people with more than 12 years of schooling.

Study of growth rates by asset category gives additional insights into the sources of mobility. Upward mobility was propelled substantially by gains in financial assets and in real estate while those who declined had low or negative growth in real assets and business assets. Among households that improved by two or more deciles the average annual rate of growth was 17.9 percent for financial assets, 9.3 percent for real assets, and 4.7 percent for business assets. In contrast, households that lost two or more deciles had average annual rates of growth that were 3.1 percent for financial assets, 0.1 percent for real assets, and -0.8 percent for business assets.

Did the rich get richer or did the poor get poorer? Figure 1 shows the average relationship between net family assets in the two periods, estimated using a cubic functional form and OLS. The estimated regression equation is:

$$A_2 = 7900.638 + 1.62029(A_1) - 3.20758 \times 10^{-6}(A_1)^2 + 1.87695 \times 10^{-12}(A_1)^3 \quad (1)$$

(12.46) (39.81) (-12.14) (6.10)

where A_i = Net family assets in period i in 1967 dollars, $i = 1, 2$; $R^2 = 0.49$; and $N = 3,942$. T-values are given in parentheses. Figure 1 shows that on average households were better off in period 2 compared with period 1, but the greatest absolute gains in wealth occurred for those who were wealthy in the first period. However, the highest rates of growth in net family assets were realized by the middle class. Table 5 indicates that the wealth of households with an initial value of \$5,000 in net family assets grew at an annual rate of 11.58 percent up to period 2. Growth rates declined monotonically at higher

levels of initial wealth, reaching 3.35 percent at \$100,000 of wealth in period 1. The declining pattern in rates of return as a function of wealth was similar to that observed for the mid-nineteenth century (Steckel, 1990). The patterns in both time periods were probably influenced in part by life cycle phenomena. The young, who tended to be less wealthy, accumulated rapidly while older individuals, who owned more wealth than the young, engaged in relatively more consumption. It is also possible that the middle class engaged in more aggressive investment strategies, which paid on average higher rates of return, while older people tended to conserve wealth.

V. STATISTICAL ANALYSIS

We have identified several influences on wealth distribution and mobility. Regression analysis will help to clarify the independent role of these factors. A conventional model would include economic and demographic characteristics of the household and region of residence. The specific model we employ is:

$$P_2 - P_1 = \beta_0 + \beta_h X_h + \beta_o X_o + \beta_r X_r + e \quad (2)$$

where P_i denotes the percentile position of the household within the cumulative wealth distribution in period i , X_h is a vector of characteristics of the household or its head, X_o is a vector of the occupational choices of the household head in period 1 and period 2, X_r represents the regional location possibilities for the household in period 1 and period 2, and e is an error term. This equation is motivated by the life-cycle model of savings

proposed by Modigliani and Brumberg (1954) and modified by Tobin (1967) and others. Because the dependent variable measures the change in household position, the household vector includes a linear term in age of the head. Recent research indicates the inadequacies of life-cycle factors alone and the importance of earnings in explaining wealth ownership (White, 1978; Wolff, 1981). Therefore, we incorporate proxies for earnings that would follow from a human-capital model, such as the head's occupation path, years of schooling, marital status, health, and geographic location. We also include variables for ethnicity on grounds that discrimination or barriers to social mobility may have influenced earnings.

The estimated regression, given in the first portion of Table 6, indicates that several personal characteristics influenced wealth mobility. Consistent with the results in Table 2, the age of the head had a systematic negative influence on mobility, amounting to nearly one-half a percentage point in the cumulative distribution for each year of age. The measure of adverse health had no systematic effect on mobility, possibly because the health question was vague and elicited inconsistent answers.¹¹ The number of dependents had a small and marginally significant negative impact on movement. In this regression the coefficient for blacks is negative, moderately small and not significant, but in logit regressions (discussed below) involving the upper or lower tails of the distribution a systematic relationship exists. Consistent with the discussion of stretching in the wage structure noted earlier, households headed by someone with more than 12 years of schooling advanced relative to those with less education, as did households in which the head moved from a blue collar to a white collar job. Households that remained in the South advanced slightly compared with those with other region location

possibilities while those who moved from rural to urban areas (non-SMSA to an SMSA) declined 2.8 percentage points compared with those residing in an SMSA in both periods.¹²

The largest systematic differences in wealth mobility occurred by conjugal status. People who remained single declined by approximately 7 percentage points compared with those who were married in both periods. Divorce substantially lowered the household wealth position for men (7.56 percentage points), and particularly for women (14.27 percentage points). Those who moved from married to widowed status declined by 5.06 percentage points compared with those who remained married.

Given the important influence of marital history on wealth ownership, we wondered whether influences on wealth were different for stable households. The second part of Table 6 shows the results of an experiment using a subset of the sample consisting of stable households (no changes in marital status in periods 1 and 2). However, the results were quite similar to those for all households.

We used the regressions in Table 6 to investigate mobility within the entire distribution. However, activity near the extremes of the wealth distribution has always attracted special interest. We study persistence and movement into the upper or lower portions of the wealth distribution using logit regressions, reported in Table 7 and Table 8. We note contrasts in results between the logit regressions and the regression on change in percentile position.¹³ First, age of the head was important in the analysis of movements within the entire distribution but was not systematically related to persistence in or movement into the lowest three deciles. However, households headed by older people were more likely to persist in the top three

deciles. Second, there was a clear financial penalty associated with the number of dependents. A larger number of dependents increased the chances of remaining in or moving into the lowest three deciles and decreased the chances of remaining in the top three deciles. For example, the expected probability of remaining in the lowest three deciles increased from 0.839 to 0.862 as the number of dependents increased from 2 to 4.¹⁴ Third, blacks clearly did less well in the tails of the wealth distribution. Blacks were more likely to persist in the bottom three deciles and were more likely to move into this category. Moreover, blacks were less likely to move into the top or to persist in the top three deciles. The expected probability of persisting in the top three deciles, for example, was 0.794 for whites but 0.515 for blacks. Fifth, regressions not reported here show that the wealth penalty for marital dissolution was no different for men than women (the female interaction terms are omitted from the regressions we report here). Sixth, remaining in a white collar occupation had no systematic influence on wealth as measured by change in percentile position, but this group was less likely to move into the bottom and more likely to persist at the top of the distribution.¹⁵

VI. IMPLICATIONS

Our findings have several implications for the study of wealth distributions, poverty, and inequality. One is that cross-section measures of inequality, which are widely reported and discussed, may disguise significant underlying rates of mobility. Our data show that a substantial share of households moved within the wealth distribution from the mid 1960s to the mid 1970s. Over two-thirds of the households moved one or more deciles and over

one-thirds moved two or more deciles over a ten year interval. To the extent that mobility exists, cross-section measures overstate the degree of inequality in command over resources that households experience over time.

Researchers who are studying long-term trends or cross-section patterns of household wealth mobility should recognize the importance of marital history for movements within the distribution. Individuals who remained single and people whose marriages were terminated did significantly less well than those who remained married. The importance of family structure for wealth mobility is consistent with results for income mobility from the PSID for the period 1971 to 1978 (Duncan, 1984). Therefore researchers who want to measure the effects of economic processes on mobility should understand that demographic changes or differences, such as a higher age at marriage or growing divorce rates, may have important effects on observed mobility rates.

Our research helps tie interest in the course of relative wages to questions of poverty, inequality, and mobility. Recently scholars have charted patterns and sought explanations for trends in the wage structure over the past several decades. According to Goldin and Margo (1992) wage dispersion across skill levels was at a minimum around 1950 and increased steadily thereafter, particularly after 1970. Katz and Murphy (1992) maintain that changes in within-sector demand for labor and relative changes in the growth rate of skilled and unskilled labor were driving forces while Bound and Johnson (1992) emphasize the consequences of biased technological change on the demand for various skill classes of labor. Because wages are only one component of earnings or wealth, it is important to link changes in the pattern of wages to broader measures of economic well-being. Our research confirms that stretching of the wage structure during the 1960s and 1970s was accompanied by patterns of mobility that led to relatively rapid wealth

accumulation by workers who were well-educated or skilled. In contrast, data from the PSID indicate that skills and training had little influence on income mobility for the period 1971 to 1978 (Duncan, 1984).

Comparisons with a similar study for the mid-nineteenth century (Steckel, 1990) suggest that some important changes in mobility patterns have occurred. Slightly over a century earlier, persistence rates in the lowest decile were higher (0.484 versus 0.2487); persistence in the highest decile was lower (0.462 versus 0.5842); overall mobility was slightly higher as measured by the share who moved two deciles or more (0.388 versus 0.359); and a larger share remained at zero or negative wealth (0.198 versus 0.063). Although study of these contrasting patterns is just beginning, we have identified several promising lines of inquiry. The higher rates of movement out of the lowest decile and lower persistence rates in the zero or negative asset category may be connected with various government programs of the 1960s that were designed to help the poor and reduce discrimination. We observe, however, that blacks did relatively less well than whites in both studies and that the poor tended to move upward only a short distance in the modern period compared with the nineteenth century. Higher persistence rates in the top decile may be related to changes in occupational structure. The past century witnessed considerable growth in professional and highly skilled workers, such as physicians, lawyers, accountants, and engineers, who usually have high incomes and low unemployment rates. This class of workers would tend to persist in the highest wealth category. We note that the slightly lower mobility rate (as measured by the share who moved two or more deciles) in the modern period occurred in a social environment of higher divorce rates, which, other things being equal, would tend to increase measured mobility.

The evidence suggests that with the exception of the rate of movement out of the lowest decile, mobility was lower in the modern period, a conclusion that is further supported if we observe that those who left the lowest decile tended to move only a short distance in our data. Future research will investigate the contribution of long-term changes in the importance of human capital in our economy and other factors for wealth mobility.

VII. CONCLUSION

Cross-section measures of poverty and inequality are widely used to document the distribution of economic rewards in our society. We used longitudinal data on net family assets collected over a ten year period to place cross-section measures in perspective by showing that significant movements within the wealth distribution occur over time. Our analysis of mobility identified winners and losers. The losers included single people, individuals whose marriages were disrupted by divorce or death of a spouse, and blacks while the winners consisted of those who remained in the South and people with skilled jobs or high levels of education. Comparison with a similar study for the mid-nineteenth century suggests that with the exception of rates of movement out of poverty, households were relatively less mobile in the modern period.

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Table 1: Characteristics of the Distribution of Wealth

	N	<u>Proportion with</u>	<u>Proportion of Wealth Held by</u>			Gini
		Zero or less	Top 1%	Top 5%	Top 20%	
Sample						
Year1	3942	0.241	0.174	0.391	0.708	0.698
Year2	3942	0.139	0.120	0.322	0.635	0.622
Nonsouth						
Year1	2443	0.176	0.161	0.366	0.680	0.670
Year2	2412	0.110	0.113	0.299	0.611	0.594
South						
Year1	1499	0.347	0.213	0.461	0.776	0.761
Year2	1530	0.185	0.148	0.378	0.691	0.679

Source: NLS samples of older men in 1966 and 1976, and mature women in 1967 and 1977.

Table 2: Transition Matrix

		Decile in Period Two									
		1	2	3	4	5	6	7	8	9	10
Decile in Period One	1	24.87	36.72	16.99	8.22	5.85	2.21	1.73	1.55	0.62	1.24
	2	16.92	54.87	15.02	5.24	2.08	2.96	1.46	0.36	1.09	0.00
	3	7.11	20.36	25.70	19.62	13.41	6.28	3.38	1.25	1.87	1.02
	4	4.57	12.77	17.34	22.79	17.17	10.20	7.10	5.49	1.92	0.64
	5	0.39	8.43	12.42	20.00	17.30	14.68	16.32	4.65	4.31	1.51
	6	1.70	5.26	8.46	12.41	16.48	20.13	12.42	14.87	5.54	2.75
	7	0.75	4.07	4.07	6.04	11.63	21.47	20.44	16.60	9.96	4.97
	8	0.33	3.07	2.40	3.21	4.77	15.52	17.23	27.23	20.63	5.62
	9	0.00	1.84	1.74	2.54	5.33	4.19	12.66	16.94	32.95	21.80
	10	0.00	1.78	0.67	1.69	2.36	1.10	5.92	7.17	20.89	58.42

Source: NLS samples of older men in 1966 and 1976, and mature women in 1967 and 1977. N = 3942.

Table 3: Average Decile Position by Time Period and Shorrocks Measure

	N	Period 1	Period 2	Shorrocks
Sample	3942	5.46	5.46	0.773
Age				
25-34	421	4.11	4.75	0.847
35-44	1156	4.83	5.10	0.787
45-54	1812	5.93	5.77	0.767
55+	553	6.21	5.76	0.747
Occupation of Head				
White Collar	1157	6.44	6.50	0.799
Blue Collar	1549	4.97	4.99	0.779
Service	332	4.21	4.26	0.772
Farmer	181	7.95	7.41	0.891
Unskilled	100	2.87	2.89	0.819
Not employed	273	3.60	3.52	0.799
Residence				
Nonsouth	2443	5.78	5.75	0.776
South	1499	4.71	4.81	0.773
Years of Schooling				
<12	2295	4.84	4.72	0.751
12	1011	5.82	5.89	0.805
>12	636	6.60	6.84	0.820
Marital History				
M, Single Both Yrs.	195	4.40	3.61	0.758
F, Single Both Yrs.	348	2.91	2.92	0.868
Both Years Married	2878	5.88	5.97	0.784
F, Married Year 1				
Single Year 2	221	4.25	3.58	0.837
M, Married Year 1				
Single Year 2	166	5.24	4.46	0.787
F, Single Year 1				
Married Year 2	85	3.66	5.39	0.972
M, Single Year 1				
Married Year 2	49	3.99	4.46	0.745

Table 3 (Con't)

	N	Period 1	Period 2	Shorrocks
Ethnicity				
White	2721	5.75	5.77	0.780
Black	1175	2.96	2.87	0.822
Other	46	5.85	5.78	0.775
Occupation of Wife (if married in period 1)				
Professional	654	6.71	6.85	0.820
Skilled	227	5.13	5.27	0.739
Service	374	4.55	4.54	0.796
Unskilled	91	6.24	6.08	0.803
N.A.	98	5.64	5.67	0.887
Not Employed	1432	5.83	5.91	0.773

Source: NLS samples of older men in 1966 and 1976 and mature women in 1967 and 1977.

Note: Unless indicated otherwise, all variables refer to values taken in period 1.

Table 4: Proportion Whose Decile Position Declined or Increased and Proportion who Remained at or Below Zero

	N	<u>Deciles Increased</u>		<u>Deciles Decreased</u>		Stayed at ≤ 0
		Up ≥ 1	Up ≥ 2	Down ≥ 1	Down ≥ 2	
Sample	3942	0.355	0.180	0.346	0.179	0.063
Age						
25-34	421	0.488	0.316	0.270	0.128	0.130
35-44	1156	0.419	0.225	0.306	0.151	0.112
45-54	1812	0.318	0.149	0.373	0.190	0.030
55+	553	0.245	0.085	0.396	0.239	0.024
Occupation of Head						
Professional	1157	0.362	0.201	0.343	0.184	0.019
Skilled	1549	0.377	0.190	0.351	0.177	0.047
Service	332	0.348	0.172	0.318	0.167	0.136
Farmer	181	0.240	0.075	0.378	0.199	0.015
Unskilled	435	0.351	0.140	0.338	0.170	0.174
Armed forces	15	0.510	0.230	0.210	0.070	0.000
Not employed	273	0.263	0.133	0.353	0.175	0.268
Residence						
Nonsouth	2443	0.348	0.177	0.354	0.182	0.049
South	1499	0.372	0.187	0.326	0.171	0.097
Years of Schooling						
<12	2295	0.329	0.150	0.352	0.185	0.096
12	1011	0.375	0.199	0.361	0.182	0.034
>12	636	0.397	0.233	0.305	0.156	0.019
Ethnicity						
White	2721	0.361	0.186	0.347	0.182	0.040
Black	1175	0.305	0.118	0.340	0.145	0.254
Other	46	0.413	0.261	0.304	0.239	0.109

Table 4 (Con't)

	N	<u>Deciles Increased</u>		<u>Deciles Decreased</u>		Stayed at <=0
		Up>=1	Up>=2	Down >=1	Down >=2	
Marital History						
M, Single Both Yrs.	195	0.165	0.071	0.435	0.262	0.061
F, Single Both Yrs.	348	0.297	0.125	0.291	0.135	0.344
Both Years Married	2878	0.370	0.191	0.340	0.167	0.031
F, Married Year 1						
Single Year 2	221	0.306	0.133	0.433	0.305	0.201
M, Married Year 1						
Single Year 2	166	0.260	0.048	0.448	0.322	0.046
F, Single Year 1						
Married Year 2	85	0.666	0.493	0.172	0.066	0.108
M, Single Year 1						
Married Year 2	49	0.411	0.232	0.243	0.110	0.069
Occupation of Wife (if married in period 1)						
Professional	654	0.393	0.218	0.330	0.162	0.009
Skilled	227	0.383	0.200	0.306	0.177	0.030
Service	374	0.358	0.206	0.392	0.188	0.060
Farmer	2	0.000	0.000	1.000	0.000	0.000
Unskilled	91	0.303	0.132	0.355	0.151	0.045
N.A.	98	0.401	0.188	0.385	0.221	0.088
Not Employed	1432	0.361	0.177	0.338	0.161	0.032

Source: NLS samples of older men in 1966 and 1976,
and mature women in 1967 and 1977.

Note: Unless indicated otherwise, all variables refer to
values taken in period 1.

Table 5: Annual Growth Rates in Assets by Asset Level
in Period 1

Asset Level Period 1	Growth Rate (%)
5,000	11.58
10,000	8.66
15,000	7.42
20,000	6.69
30,000	5.82
50,000	4.84
75,000	4.03
100,000	3.35

Source: Calculated from a regression on data in NLS samples of older men in 1966 and 1967, and mature women in 1967 and 1977.

Table 6: Explaining the Change in Percentile Position

Variable	ALL HOUSEHOLDS		STABLE HOUSEHOLDS	
	Parameter Estimate	T-Ratio	Parameter Estimate	T-Ratio
CONSTANT	22.09	8.78	22.37	8.45
AGE of HEAD	-0.47	-9.16	-0.48	-8.84
HEALTH of HEAD	0.67	0.83	0.34	0.40
No. of DEPENDENTS	-0.25	-1.40	-0.21	-1.12
Ethnicity				
BLACK	-0.71	-0.64	-1.60	-1.34
OTHER	-0.09	-0.03	0.18	0.05
Years of Schooling				
LESS THAN 12	-0.44	-0.58	-0.58	-0.72
MORE THAN 12	1.95	2.02	2.44	2.43
Residence				
SOUTH-SOUTH	2.13	2.92	2.31	3.02
SOUTH-NONSOUTH	-2.57	-0.84	-3.19	-0.98
NONSOUTH-SOUTH	-0.16	-0.08	0.56	0.25
NON SMSA-NON SMSA	-0.55	-0.75	-0.51	-0.67
NON SMSA-SMSA	-2.76	-1.38	-5.01	-2.29
SMSA-NON SMSA	1.10	0.62	0.06	0.03
Marital History				
SINGLE FEMALE	-6.74	-4.79	-6.60	-4.67
SINGLE MALE	-7.39	-4.80	-7.16	-4.70
WIDOWED-MARRIED	3.66	0.55		
DIVORCED-MARRIED	3.61	0.88		
MARRIED-DIVORCED	-7.56	-2.68		
MARRIED-WIDOWED	-5.06	-2.38		
SINGLE-MARRIED	12.81	1.55		
WIDOWED-MARRIED*FEMALE	2.75	0.32		
DIVORCED-MARRIED*FEMALE	7.84	1.59		
MARRIED-DIVORCED*FEMALE	-6.71	-2.05		
MARRIED-WIDOWED*FEMALE	-1.69	-0.53		
SINGLE-MARRIED*FEMALE	4.74	0.49		
Occupational History				

Table 6 (Con't)

Variable	ALL HOUSEHOLDS		STABLE HOUSEHOLDS	
	Parameter	T-	Parameter	T-
	Estimate	Ratio	Estimate	Ratio
FARMER-FARMER	3.20	1.56	2.92	1.39
WHITECOLLAR-WHITECOLLAR	0.81	0.80	0.77	0.75
SERVICE-SERVICE	1.12	0.52	0.39	0.18
WHITECOLLAR-BLUE COLLAR	-2.72	-1.58	-2.92	-1.64
WHITECOLLAR-SERVICE	-1.24	-0.30	-3.21	-0.73
WHITECOLLAR-FARMER	3.41	0.70	-0.08	-0.02
BLUECOLLAR-WHITECOLLAR	4.84	3.24	5.67	3.51
BLUECOLLAR-SERVICE	2.80	1.17	1.73	0.60
BLUECOLLAR-FARMER	6.30	1.16	6.81	1.27
SERVICE-WHITECOLLA	0.60	0.16	1.80	0.47
SERVICE-BLUECOLLAR	-4.86	-1.54	-5.45	-1.51
FARMER-WHITECOLLAR	-4.32	-0.72	-6.16	-0.95
FARMER-BLUECOLLAR	-8.61	-1.85	-8.29	-1.80
FARMER-SERVICE	-7.24	-0.83	-8.92	-0.96
OTHER OCCUPATIONS	-0.26	-0.29	0.13	0.14
R-Square		0.08		0.06
F-value		8.48		7.58
N		3942		3421

Source: NLS samples of older men in 1966 and 1976, and mature women in 1967 and 1977.

Note: The omitted category refers to a white, blue collar worker with 12 years of schooling who was married in both periods and lived in an SMSA outside the South in both periods.

Table 7: Explaining Persistence in and Movement into the Bottom Three Deciles

Variable	Persistence in Bottom			Movement into Bottom		
	Parameter	T-	$\partial P/\partial X$	Parameter	T-	$\partial P/\partial X$
	Estimate	Ratio		Estimate	Ratio	
CONSTANT	-0.85	-1.62	-0.11	-3.28	-6.13	-0.37
AGE OF HEAD	0.02	1.42	0.002	0.01	0.99	0.001
HEALTH OF HEAD	0.22	1.16	0.03	0.03	0.22	0.004
No. of DEPENDENTS	0.09	2.46	0.01	0.10	3.09	0.01
Ethnicity						
BLACK	1.04	6.17	0.14	1.06	6.83	0.12
OTHER	-0.53	-0.60	-0.07	0.57	1.26	0.06
Years of Schooling						
LESS THAN 12	0.50	2.66	0.07	0.40	2.60	0.05
MORE THAN 12	-0.43	-1.62	-0.06	-0.30	-1.36	-0.03
Residence						
SOUTH, SOUTH	-0.07	-0.44	-0.01	0.30	2.15	0.03
SOUTH, NONSOUTH	-0.06	-0.11	-0.01	1.56	2.42	0.17
NONSOUTH, SOUTH	0.50	0.97	0.07	0.06	0.14	0.01
NON-SMSA, NON-SMSA	0.27	1.49	0.04	0.27	1.89	0.03
NON-SMSA, SMSA	-0.09	-0.22	-0.01	0.92	2.43	0.10
SMSA, NON-SMSA	-0.21	-0.53	-0.03	0.04	0.11	0.005
Marital History						
SINGLE FEMALE	1.70	6.14	0.23	2.07	6.54	0.23
SINGLE MALE	1.64	3.91	0.22	1.86	7.08	0.21
WIDOWED, MARRIED	0.25	0.30	0.03	-0.42	-0.39	-0.05
DIVORCED, MARRIED	-0.07	-0.20	-0.01	1.40	2.90	0.16
MARRIED, DIVORCED	1.14	3.50	0.15	2.01	7.90	0.22
MARRIED, WIDOWED	0.20	0.57	0.03	0.96	3.75	0.11
SINGLE-MARRIED	-1.15	-1.55	-0.15	-0.03	-0.03	-0.003
Occupational History						
FARMER, FARMER	-0.38	-0.41	-0.05	-1.48	-2.67	-0.16
WHITECOL., WHITECOL.	-0.26	-0.94	-0.03	-0.65	-2.92	-0.07
SERVICE, SERVICE	-0.69	-1.93	-0.09	0.21	0.56	0.02
WHITECOL., BLUE COL.	-0.20	-0.51	-0.03	0.05	0.17	0.01
WHITECOL., SERVICE	0.43	0.50	0.06	-0.86	-0.81	-0.10

Table 7 (Con't)

Variable	Persistence in Bottom			Movement into Bottom		
	Parameter	T-		Parameter	T-	
	Estimate	Ratio	$\partial P/\partial X$	Estimate	Ratio	$\partial P/\partial X$
WHITECOL., FARMER	-	-	-	-21.00	0.00	-2.34
BLUECOL., WHITECOL.	-1.18	-3.53	-0.16	0.39	1.46	0.04
BLUECOL., SERVICE	0.99	1.96	0.13	-0.43	-0.89	-0.05
BLUECOL., FARMER	-	-	-	-0.96	-0.89	-0.11
SERVICE, WHITECOL.	-0.76	-1.33	-0.10	-0.51	-0.72	-0.06
SERVICE, BLUECOL.	0.80	1.29	0.11	0.59	1.06	0.07
FARMER, WHITECOL.	-	-	-	-1.64	-1.35	-0.18
FARMER, BLUECOL.	-1.02	-1.03	-0.14	0.72	1.11	0.08
OTHER OCCUPATIONS	0.40	2.05	0.05	0.12	0.69	0.01
R ²		0.21			0.18	
N		1491			2451	

Source: NLS samples of older men in 1966 and 1976, and mature women in 1967 and 1977.

Note: The dependent variable (equation 1) = 1 if the household was in the bottom three deciles in both periods and = 0 if the household was in in the bottom three deciles in period 1 but not period 2. The dependent variable (equation 2) = 1 if the household was in the bottom 3 deciles in period 2 but not period 1, and = 0 if the household was not in the bottom 3 deciles in either period. The omitted category refers to a white, blue collar worker with 12 years of schooling who was married in both periods and lived in an SMSA outside the South in both periods. Because coefficients of dummy variables that had fewer than 5 observations per cell had high standard errors, these variables were excluded from the regressions.

Table 8: Explaining Persistence in and Movement into the Top Three Deciles

Variable	Persistence in Top			Movement into Top		
	Parameter Estimate	T-Ratio	$\partial P/\partial X$	Parameter Estimate	T-Ratio	$\partial P/\partial X$
CONSTANT	-1.18	-1.67	-0.22	-1.25	-2.41	-0.09
AGE OF HEAD	0.04	2.65	0.01	-0.004	-0.39	-0.0003
HEALTH OF HEAD	-0.09	-0.44	-0.02	-0.26	-1.34	-0.02
No. of DEPENDENTS	0.001	0.02	0.0002	-0.10	-2.40	-0.01
Ethnicity						
BLACK	-1.29	-3.39	-0.24	-1.36	-5.61	-0.10
OTHER	0.14	0.21	0.03	0.88	1.94	0.06
Years of Schooling						
LESS THAN 12	-0.17	-0.87	-0.03	-0.76	-4.43	-0.06
MORE THAN 12	0.57	2.61	0.10	0.53	2.84	0.04
Residence						
SOUTH,SOUTH	0.11	0.56	0.02	-0.16	-0.97	-0.01
SOUTH,NONSOUTH	-0.77	-0.89	-0.14	-1.72	-1.64	-0.12
NONSOUTH,SOUTH	-0.64	-1.29	-0.12	-0.17	-0.37	-0.01
NON-SMSA,NON-SMSA	0.13	0.71	0.02	0.07	0.42	0.01
NON-SMSA,SMSA	-0.75	-1.33	-0.14	-0.81	-1.43	-0.06
SMSA,NON-SMSA	-0.35	-0.82	-0.06	0.55	1.64	0.04
Marital History						
SINGLE FEMALE	-1.58	-2.10	-0.29	-2.09	-4.35	-0.15
SINGLE MALE	-0.66	-1.25	-0.12	-1.42	-2.68	-0.10
WIDOWED,MARRIED	-	-	-	1.66	2.62	0.12
DIVORCED,MARRIED	-	-	-	0.43	1.19	0.03
MARRIED,DIVORCED	-1.85	-3.75	-0.34	-2.12	-3.52	-0.15
MARRIED,WIDOWED	-0.45	-1.14	-0.08	-0.25	-0.70	-0.02
SINGLE-MARRIED	-	-	-	0.57	0.79	0.04
OTHER CHANGES	21.49	0.001	3.99	-	-	-
Occupational History						
FARMER,FARMER	2.00	3.89	0.37	1.86	3.33	0.14
WHITECOL.,WHITECOL.	0.43	1.74	0.08	0.64	3.10	0.05
SERVICE,SERVICE	-0.28	-0.47	-0.05	-0.21	-0.37	-0.01
WHITECOL.,BLUE COL.	-0.26	-0.70	-0.05	0.44	1.34	0.03

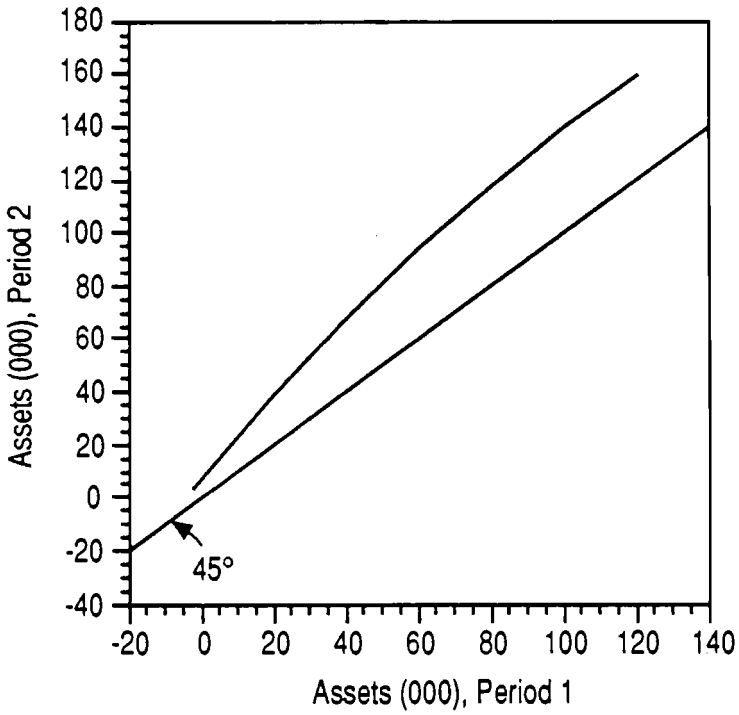
Table 8 (Con't)

Variable	Persistence in Top			Movement into Top		
	Parameter	T-	$\partial P/\partial X$	Parameter	T-	$\partial P/\partial X$
	Estimate	Ratio		Estimate	Ratio	
WHITECOL.,SERVICE	-0.64	-0.65	-0.12	-0.73	-0.69	-0.05
WHITECOL.,FARMER	1.19	1.08	0.22	-	-	-
BLUECOL.,WHITECOL.	1.12	2.26	0.21	0.71	2.61	0.05
BLUECOL.,SERVICE	-	-	-	-0.01	-0.13	-0.00005
BLUECOL.,FARMER	21.73	0.0008	4.03	-21.08	-0.32	-0.002
SERVICE,WHITECOL.	-0.28	-0.31	-0.05	0.53	0.66	0.04
SERVICE,BLUECOL.	-0.80	-0.87	-0.15	-1.29	-1.23	-0.09
FARMER,WHITECOL.	0.47	0.48	0.09	-	-	-
FARMER,BLUECOL.	-0.50	-0.57	-0.09	0.18	0.16	0.01
FARMER,SERVICE	-	-	-	-21.12	-0.28	-0.002
OTHER OCCUPATIONS	0.05	0.19	0.01	-0.10	-0.45	-0.01
R^2		0.13			0.13	
N		918			3024	

Source: NLS samples of older men in 1966 and 1976, and mature women in 1967 and 1977.

Note: The dependent variable (equation 1) = 1 if the household was in the top three deciles in both periods and = 0 if the household was in the top three deciles in period 1 but not period 2. The dependent variable (equation 2) = 1 if the household was in the top 3 deciles in period 2 but not period 1, and = 0 if the household was not in the top 3 deciles in either period. The omitted category refers to a white, blue collar worker with 12 years of schooling who was married in both periods and lived in an SMSA outside the South in both periods. Because coefficients of dummy variables that had fewer than 5 observations per cell had high standard errors, these variables were excluded from the regressions.

Figure 1: Assets in Period 1 and Period 2



FOOTNOTES

1. Here we mean mobility broadly construed. Substantial effort has been devoted recently to questions dealing with persistence in poverty.
2. Wealth inequality in the United States is moderately high compared with other industrial countries. In the early 1970s the percentage of wealth held by the top 1 percent of the population was about 26.4 in the U.S. compared with 19 in France, 19.6 in Canada, 23 in Sweden, 25 in Denmark, 28 in Belgium, and 31.5 in the UK (see findings reported in Wolff, 1987).
3. The samples are described in Center for Human Resource Research (1991). After removing duplicates in the combined sample of older men and mature women there were 4,175 households with valid assets in both years. Removal of observations for non-responses on occupation, schooling, age, marital status, and the number of dependents brought the total to 3,942. Information on households common to both data sources was taken from the cohort of older men.
4. It might be claimed that husbands had more information than their wives on the asset position of the household, or that wives had different perceptions of the value of assets, phenomena that would complicate the pooling of data in the older men and the mature women cohorts. We had hoped to test the hypothesis of differential reporting by comparing reported assets of households that are in both samples. Unfortunately, asset data were never collected in the same year for these cohorts. Instead, we estimated the regression models discussed in section V below for each cohort separately. The qualitative results are generally similar for each cohort, which gives us confidence in our procedure of pooling data sources. We indicate in footnotes where substantial qualitative results differ across samples.

5. Results presented by Feldstein (1976) and by Wolff (1992) indicate that social security and pension wealth are substantially more equally distributed than other types of wealth. Excluding this type of wealth increases measured inequality but has less effect on measured mobility. If social security and pension wealth were evenly distributed, for example, its exclusion would have no effect on measured mobility.

6. We calculated the wealth distribution by first tabulating the number of people in the population represented by each household, from which we determined the proportion of the population represented by each household. The households were then ranked by wealth and percentiles were assigned based on the cumulative sample weights. In ranking households by wealth, we used all observations that reported net family assets in period 1 ($N = 7,295$) or period 2 ($N = 5,110$).

The smaller sample size in period two compared with period one indicates that some households were lost due to nonreporting of asset information. The mean level of assets in year one was \$14,901 for households with asset information in year one but not in year two, and was \$11,145 for households with asset information in both years. The exclusion of wealthier households from the study disproportionately reduces the boundaries of the upper deciles compared and biases the measured mobility rate upward. To the extent that the wealthiest households were eliminated, we control for this phenomenon by analyzing aggregates. In logit regressions discussed below we study persistence and movement into the upper and the lower 30 percent of the distribution, and the results are similar to those based on change in percentile position.

7. See the comments by Robert B. Avery following the paper by Wolff and Marley.

8. The median levels of wealth within each decile were (in period 1): -\$382; \$86; \$1,075; \$2,987; \$5,102; \$7,500; \$10,710; \$15,349; \$23,691; and \$57,343; and in period 2 were: -\$292; \$724; \$4,491; \$9,250; \$13,831; \$18,703; \$24,724; \$33,048; \$48,866; and \$105,414.

9. Only one household in each period was top-coded (asset value of more than \$999,999).

10. Blue-collar workers consist of craftsmen, foremen and kindred workers (40.1 percent), operatives and kindred workers (42.1 percent), and laborers (17.8 percent). Service workers consist of private household workers (15.1 percent) and other service workers (84.9 percent). Other groups are single categories in the original documentation.

11. The questions asked were (1) Does your health prevent working?; (2) Does your health limit the kind of work you do?; (3) Does your health limit the amount of work you do? The HEALTH variable equals 1 if the answer to one of more of these questions was "yes." The voluntary nature of the information provided may have led to inconsistent responses.

12. The result on rural-urban migration does not hold in a regression based only on the women's cohort.

13. We also estimated logit regressions that included a squared term in age of the household head, but the results were similar in that the age coefficients were jointly insignificant with the exception of the equation on remaining in the top three deciles. In that regression the probability of remaining in the top peaked when the household head was age 49.2 in period 1, and the expected probability of remaining in the top was 70.3 percent at age 39.2, 79.8 percent at age 49.2 and 70.6 percent at age 59.2.

14. In this and related calculations in the paper, expected probabilities are evaluated at the sample means of other independent variables.

15. The result on persistence at the top was significant in a regression involving the older men ($t = 2.85$) but not significant in a regression involving the older women ($t = 1.03$).