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Family Background and Income in Adulthood, 1961–1999

Most Americans endorse the ideal of equal opportunity, and many interpret this ideal as requiring that children from different backgrounds have an equal chance of achieving economic success. Most Americans also recognize that children whose parents have “all the advantages” are more likely to prosper than children whose parents lack these advantages. Understanding this relationship has therefore become a prominent goal of social research, especially since the 1960s. This chapter investigates how the relationship between American family income during adulthood and family background during childhood changed from 1961 to 1999.

Our approach to measuring trends in intergenerational inheritance differs from earlier studies. Almost all earlier studies have focused on the determinants of individuals’ occupational rank or earnings. We focus instead on an individual’s total family income. This change allows us to assess the impact of family background on the economic status of individuals who are not working. It also allows us to take account of the fact that individuals’ economic status often depends more on how they fare in the “marriage market” than on how they fare in the labor market.

The changing importance of marriage for one’s family income is clear when we examine changes in the correlation between a mature adult’s own earnings in a given year and his or her total family income in the same year. Among men the correlation¹ between earnings and total family income fell from 0.87 in 1968 to 0.75 in 1996.² Among women, the correlation rose from 0.18 in 1968 to 0.39 in 1996. Earnings are still a much better proxy for living standards among men than among women. But since family background influences an individual’s chance of having a well-paid spouse, ignoring this fact is likely to bias trend estimates of how background affects economic status among both men and women.

How Family Background Affects Adult Family Income

Figure 1 shows some of the pathways by which family background can influence children’s eventual income in adulthood.³ It contains several concepts that require brief discussion,

Genetic Advantages

A growing body of evidence suggests that genetic differences can influence an individual’s

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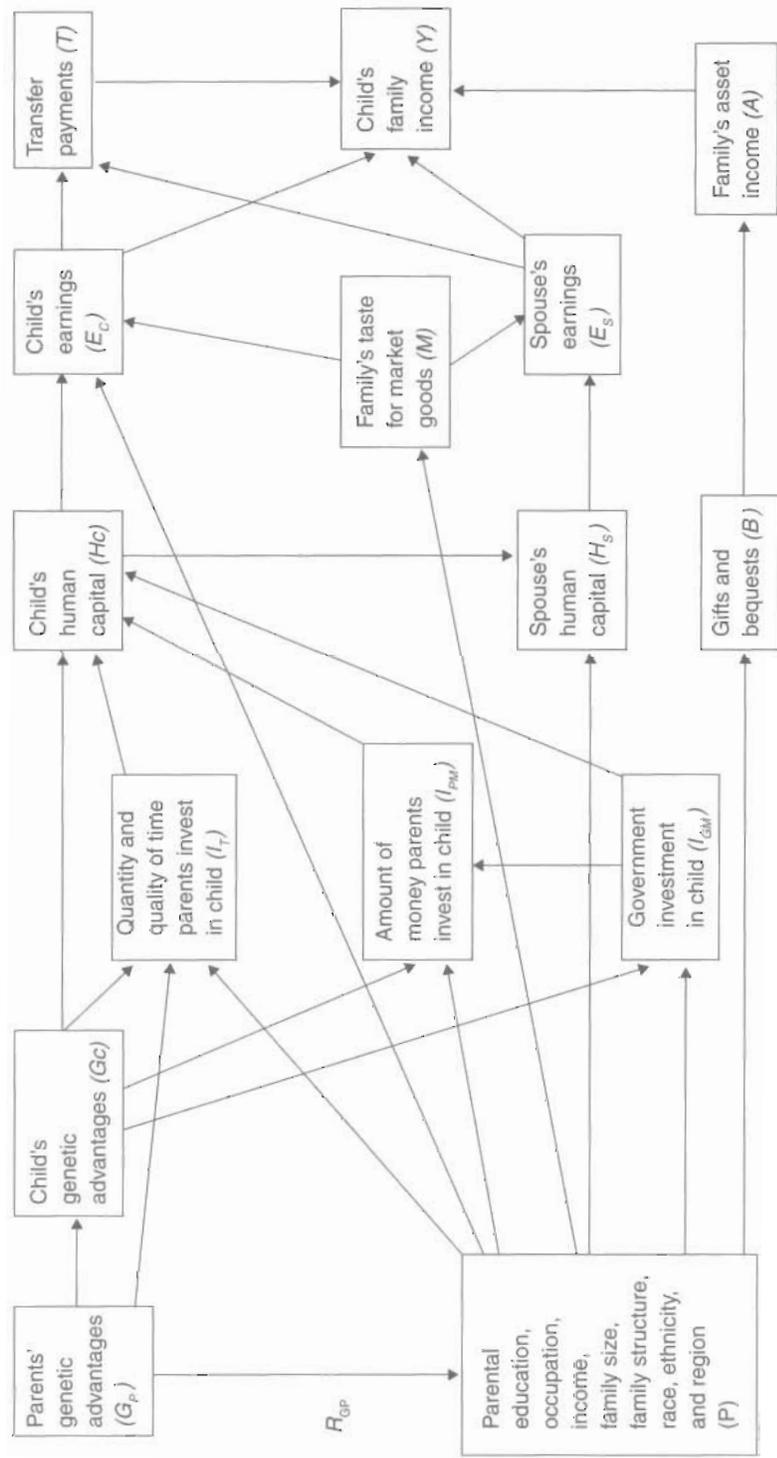


Figure 1. Some Possible Links Between Respondents' Adult Incomes and Their Family Background

earnings. Studies based on comparisons of monozygotic (MZ) twins and dizygotic (DZ) twins (Ashenfelter and Rouse 1998; Taubman 1976) suggest that genes are likely to play a significant role in explaining the intergenerational inheritance of economic advantages.⁴ However, because estimates based on twin studies require a number of questionable assumptions (Björklund, Jäntti, and Solon 2005; Goldberger 1978), the exact magnitude of the importance of genes is difficult to measure. Björklund and Chadwick's (2002) study of the earnings of fathers and sons in Sweden also suggests that genes play a role.

However, the fact that genetic resemblance helps explain economic resemblance between parents and children does not mean that this source of economic resemblance operates independently of the environment. Suppose, for example, that myopia has a genetic component. Most affluent societies ensure that myopic children get glasses. As a result, myopic children can usually see almost as well as other children. In poor societies where glasses are not available to everyone, the genes that contribute to myopia have a larger impact. People's genes also influence the environments they choose for themselves. Consider two sisters, one of whom finds reading easy and one of whom finds it difficult. The sister who finds reading easier is likely to enjoy reading more and do more of it. As a result, she is likely to score higher on vocabulary and reading tests, get higher grades, stay in school longer, and earn more when she enters the labor force.

Human Capital

Economists use the term "human capital" to describe the skills, knowledge, and character traits that influence a worker's potential earnings. If employers value the same attributes for several generations, parents with above-average human capital are likely to have children with above-average human capital. To

begin with, parents with traits that employers value tend to have above-average earnings, so they can invest more in their children's nutrition, health care, and education. Such parents also tend to live in political jurisdictions where the government invests a lot in children.

Although economists use the term "human capital" to describe characteristics that pay off in the labor market, one can easily broaden the concept to include characteristics that pay off in the marriage market. As we shall see, family background explains slightly more of the variation in daughters' family incomes than in sons' family incomes. This difference suggests that family background may exert even more influence on a daughter's success in the marriage market than on a son's success in the labor market.

Taste for Market Goods

Families vary dramatically in the number of hours that their adult members spend doing paid labor. Family members also vary in the extent to which they maximize their hourly wages. Some always take the best-paid job they can find, and others settle for less money to get shorter hours, more congenial colleagues, more interesting work, or other nonmonetary advantages. Family background appears to influence how much people work (Altonji and Dunn 2000), and it probably also influences the weight that individuals assign to earnings relative to goals like short hours and interesting work. If these associations change over time, the association between adult income and family background is also likely to change.

Gifts and Bequests

Dividends, interest, and rent accounted for 7 percent of all income received by individuals between the ages of 25 and 64 in 1999.⁵ Estimates suggest that income from assets accounts for between 1 and 5 percent

of all money income among thirty- to fifty-nine-year-olds (Gale and Scholz 1994; Wolff 2002). We do not know how this figure has changed over time, but the age at which adults inherit their parents' assets is rising, so the relative importance of inherited assets could be falling for those under the age of sixty.

Two Sources of Change over Time

Figure 1 suggests that the effects of family background on incomes can change for two quite different reasons. First, the effects of various family background characteristics on children's characteristics, such as years of schooling, cognitive ability, or taste for market goods, can change. Second, the effects of children's characteristics on their eventual adult income can change. Children's education illustrates both of these possibilities.

The association between parents' socioeconomic advantages and the number of years of school that their children complete declined between World War I and the early 1970s (Hauser and Featherman 1976). As a result, educational disparities among adults from different kinds of families kept shrinking throughout the twentieth century. This trend should have reduced the impact of family background on children's eventual family income. However, the economic value of an extra year of schooling also changed. The effect of an extra year of school on men's annual earnings fell between 1940 and 1975. This change accentuated the declining impact of family background on children's educational attainment, making it doubly difficult for economically advantaged parents to pass along their advantages by keeping their children in school. But after 1975 the labor market returns to schooling rose.

The payoff to schooling also rose in the marriage market. If we compare the most educated third of all mothers to the least edu-

cated third, about 93 percent of the most educated and 87 percent of the least educated were living with a husband in both 1940 and 1960. By 1990 the proportions were 84 percent for the most educated and 70 percent for the least educated.⁶ The marriage gap between the most and least educated mothers had thus risen from 6 to 14 percentage points. The net result was that although family background had less impact on how much schooling young people got in the last third of the century than earlier in the century, the value of each year of school rose during the last decades of the century.

Mature adults seldom go back to school, so the association between educational attainment and family background when a birth cohort reaches sixty is about the same as when it was thirty. The association does change as more recent birth cohorts replace earlier ones, but this takes a long time. In principle, we can hold changes of this kind constant by tracking the same birth cohort over time. When we do this, almost all the remaining changes in the association between adult family income and family background are attributable to changes in the way employment, marriage, and earnings are distributed among individuals with different background characteristics.

Whereas cohort replacement is slow, the economic value of respondents' characteristics can change relatively rapidly. When job opportunities improved for black workers in the wake of the civil rights movement, for example, young blacks benefited the most, but older blacks also gained. Likewise, when the wage gap between high school and college graduates widened in the 1980s, the change was largest among younger workers but it also affected mature workers. Changes in the marriage market can also change the value of personal characteristics quite rapidly. When divorce rates rise, all women are more likely to experience sudden reductions in family income, but the change is

likely to be largest among those with disadvantaged parents, because their divorce rates are likely to rise the most.

Data

We concentrate on trends among men and women between the ages of thirty and fifty-nine, whom we refer to as “mature adults.” We use two sources of data, the Occupational Changes in a Generation (OCG) surveys and the General Social Survey (GSS). The OCG surveys were conducted in 1962 and 1973. They both asked men (but not women) about their family background. Our first sample of mature OCG men was born between 1902 and 1932. Our second sample was born between 1913 and 1943. The GSS is a smaller survey that has been conducted either annually or biennially since 1972. The GSS asks both men and women about their family income and family background. We analyze the surveys conducted between 1972 and 2000, so our samples of mature adults were born between 1912 and 1970.

Our primary dependent variable is family income in the year preceding the survey. Although there is some variation across data sources in how our variables are measured, one can think of adult family income as the sum of all sources of income for the respondent and his or her spouse (if married).⁷ Variation in income due to survey year, gender, and age has been removed, and we analyze the effect of parental characteristics on the natural logarithm of this adjusted income. We measure family background using seven characteristics of the family in which the respondent grew up, including the family head’s occupational ranking (measured by an updated version of Duncan’s socioeconomic index, which is based on occupations’ educational requirements and economic rewards; see Hauser and Warren 1997), the family head’s education in years, the number of sib-

lings, and whether the respondent is black, Hispanic, grew up in the South, and/or grew up in a family with both parents.

Changes in Inequality of Family Background

Suppose that a 10 percent income difference between parents was always associated with a 4 percent income difference between their children. The income gap between children raised by rich and poor parents would then depend on the income gap separating rich and poor parents. If inequality between rich and poor parents falls, as it did during the first two-thirds of the twentieth century, and if all else remains equal, the subsequent income gap between their children will also fall. If inequality between rich and poor parents rises, as it did in the last third of the twentieth century, and if all else remains equal, the income gap between their children will also widen. The same logic holds for other parental advantages, like educational attainment and occupational position.

The degree to which the distribution of background characteristics changed over time varies according to which family background characteristics we examine. Inequality in parental occupation rose by about 15 percent between 1962 and 1999. Inequality in parental years of schooling rose slightly between 1962 and 1973 and declined slightly thereafter, so educational inequality among parents was about the same in 1999 as in 1962. Disparities in the size of children’s families declined by about 10 percent between the early 1960s and the 1990s.

Of the four remaining measures of background characteristics—intact family, black, Hispanic, and Southern origins, the only one that changes appreciably is Hispanic. The GSS shows substantial growth in the English-speaking Hispanic population between the 1970s and 1990s. Because Hispanics have

Table 1. Multiple Correlations of Family Income with Seven Family Background Measures in OCG and GSS, By Age, Sex, and Decade

Respondents' Age	OCG Men		GSS Men			GSS Women		
	1961	1972 ^a	1970s	1980s	1990s	1970s	1980s	1990s
30 to 39	.399 ↘	.309	.330 ↘	.289 ↘	.306	.399 ↘	.361 ↘	.374
40 to 49	.397 ↘	.305	.355 ↘	.362 ↘	.352	.437 ↘	.388 ↘	.361
50 to 59	.414 ↘	.323	.327 ↘	.410 ↘	.360	.440 ↘	.429 ↘	.350
Weighted mean for all 30- to 59-year-olds	.403	.312	.337	.342	.335	.423	.385	.364 ^b
Approximate sampling error of multiple R^c	(.008)	(.006)	(.014)	(.017)	(.015)	(.012)	(.015)	(.014)
Sample size	12,829	23,824	2,382	3,040	3,817	2,761	3,703	4,657

Note: The seven measures of family background are race, ethnicity, Southern origins, living with both parents at age 16, number of siblings, parental education, and parental occupation (see text for details).

^a The decline between 1961 and 1972 is significant at the .01 level for all age groups.

^b The average decline between the 1970s and the 1990s is significant at the .01 level.

^c Approximated using $[(1-R^2)/(N-8)]^{.5}$.

relatively low family incomes, the fact that more adults had Hispanic parents implies an increase in the overall level of inequality among parents.

Changes in the Intergenerational Inheritance of Advantage

We turn now to changes in the relationship between mature adults' income and their family background (as measured by the seven background characteristics). We measure this relationship with the multiple correlations between income and family background characteristics, which we denote as R_{pc} .⁸ When R_{pc} falls, we can infer that intergenerational changes in rank (what sociologists call "exchange mobility") have become larger or more frequent. When R_{pc} rises, intergenerational changes in rank have become either smaller or less frequent.

Table 1 shows multiple correlations between respondents' adult family income and their background characteristics. Among OCG men we see a dramatic decline in R_{pc} between 1961 and 1972. This decline recurs for all age groups. The diagonal arrows

track birth cohorts as they age. Here again we see declines between 1961 and 1972. The GSS tells a very different story about changes in R_{pc} after 1972. The multiple correlations for men in different age groups show no consistent trend between the 1970s and the 1990s. When we track the same cohort of men over time, the multiple correlations almost always rise as a cohort ages. This is in sharp contrast to what we saw between 1961 and 1972.

The GSS also provides data on post-1972 trends among women. Table 1 shows that although R_{pc} was essentially stable among GSS men, it declined by about one-seventh among GSS women. Whereas R_{pc} was substantially higher among women than men in the 1970s, this gender difference had largely disappeared by the 1990s. This pattern of differences is consistent with the hypothesis that family background influences success in the marriage market somewhat more than it influences success in the labor market, although other explanations are also possible.

For those who find it hard to decide whether the correlations in Table 1 are "large"

Table 2. Percentage of 30- to 59-Year-Old Sons and Daughters in Each Quartile of Family Income By Quartile of Family Background and Year in OCG and GSS

Parents' Quartile and Survey	Family Income Quartile				Total	Sample Size
	Bottom	Second	Third	Top		
Sons from bottom quartile						
OCG: 1961	46.2	27.7	16.7	9.5	100	2,537
OCG: 1972	40.7	29.8	21.2	8.4	100	6,454
GSS: 1970s	40.3	29.6	19.8	10.2	100	595
GSS: 1980s	39.4	30.0	21.2	9.4	100	840
GSS: 1990s	40.6	25.8	21.1	12.6	100	954
Trend: 1961 to 1990s ^a	-5.3	-1.7	5.7	1.4		
Sons from top quartile						
OCG-I	9.5	20.9	32.1	37.6	100	2,678
OCG-II	11.8	24.0	29.2	35.0	100	4,899
GSS: 1970s	11.6	20.5	30.2	37.8	100	596
GSS: 1980s	12.3	19.7	28.8	39.2	100	728
GSS: 1990s	11.6	21.4	29.0	38.0	100	954
Trend: 1961 to 1990s ^a	2.4	3.9	-4.1	-2.3		
Daughters from bottom quartile						
GSS: 1970s	44.4	26.2	19.6	9.9	100	690
GSS: 1980s	44.5	25.5	18.8	11.2	100	1,070
GSS: 1990s	43.7	25.9	18.8	11.6	100	1,164
Trend: 1970s to 1990s	-0.6	-0.4	-0.8	1.7		
Daughters from top quartile						
GSS: 1970s	10.1	19.1	27.1	42.8	100	691
GSS: 1980s	12.1	19.3	29.7	38.9	100	878
GSS: 1990s	11.7	23.5	27.1	37.7	100	1,164
Trend: 1970s to 1990s	1.5	4.4	0.0	-5.2		

Parents are assigned to quartiles of parental advantages using the same seven measures as in Table 1, with each advantage weighted by its coefficient in the equation predicting log family income. Family incomes are assigned to quartiles after eliminating variation due to age, gender, and survey year.

^a Sum of within-survey changes: (OCG II - OCG I) + (GSS 1990s - GSS 1970s).

or "small," Table 2 displays the association between family background and income in adulthood in a more intuitively understandable form. Table 2 shows the proportion of respondents in the top and bottom quartiles of family background who ended up in each of the four income quartiles as adults. We focus on the probability that those born into the top or bottom quartile were in the top or bottom income quartile as mature adults.

Consistent with the results in Table 1, the proportion of men who remained in the bottom or top quartiles declined be-

tween 1961 and 1972 and stayed the same afterward.

Among women the story is more complicated. Among GSS women, R_{pc} fell between the 1970s and the 1990s, so we expected a parallel decline in the proportions of GSS women who stayed in both the top and bottom quartiles. Table 2 confirms this prediction for women born into the top quartile: their chances of having slipped into a lower quartile were clearly higher in the 1990s than in the 1970s. However, there was little change in the percentage of women born into the bottom quartile who had risen into a higher quartile,

although those women who did move up moved further in the 1990s than in the 1970s.

Specific Background Characteristics

Previously we examined the relationship between adult income and family background by combining the seven background measures. Now we separate these characteristics to see which ones became more and less important. Column 1 of Table 3 shows the bivariate relationship of logged family income in 1961 to each of the seven family background characteristics. Column 2 shows the change in this coefficient between 1961 and 1972. Almost all the coefficients decline significantly between 1961 and 1972. However, when we examine each coefficient controlling for the other six, only the changes in the effects of parental occupation, black race, and Southern origins remain statistically significant (results not shown).

The decline in the effect of parental occupation is partly attributable to the steady decline in the proportion of respondents whose fathers were farmers. Among respondents not raised on farms, the main reason for decline was that respondents from the top tenth of the occupational distribution enjoyed less of an economic advantage in 1972 than in 1961 (results not shown). The declining effect of Southern origins probably reflects the narrowing of the income gap between the South and the North. The declining effect of race reflects a decline in the educational gap between blacks and whites, movement of blacks from the South to the North, and some reduction in discrimination.

The remainder of Table 3 shows the bivariate results from GSS. Column 3 shows the estimated coefficients of family background measures for men in 1971, and column 4 shows the estimated change in the bivariate coefficients for men between 1971 and 1999. The bivariate relationships of

men's family income to their parents' education, number of siblings, and whether they grew up in an intact family become significantly stronger over time. The bivariate effect of parental occupation also grows slightly stronger, but the change is not significant. The bivariate effect of being Hispanic grows weaker over time.

Columns 5 and 7 show that in 1971 almost every family background measure had more impact on women than on men. Columns 6 and 8 show that most of the coefficients for men and women converged between 1971 and 1999. The effects of parental education, race, and Southern origins all weakened significantly for women and were very close to those for men by the late 1990s. The adverse effect of coming from a large family was significantly larger for women than men in 1971, but this difference had also disappeared by the late 1990s. The multivariate GSS results (not shown) are broadly similar to the bivariate results except that the coefficients are smaller.

Summary

Intergenerational Inheritance

The relationship between a mature man's family income in adulthood and his family background fell during the 1960s and then remained stable from the 1970s through the 1990s. But men's incomes began growing more unequal in the 1970s, so the income gap between men raised by advantaged rather than disadvantaged parents widened between the 1970s and the 1990s.

We have no data on trends among women during the 1960s. In the early 1970s intergenerational correlations were higher among daughters than among sons, and daughters' family incomes were also more unequal. The economic cost of having grown up in a disadvantaged family was therefore considerably larger for daughters than for sons. But

Table 3. Bivariate Regression Coefficients of Seven Family Background Measures When Predicting Log Family Income at Ages 30 to 59 Among OCG Men and GSS Men and Women

<i>Background Measure</i>	<i>OCG Men</i>			<i>GSS Men</i>			<i>GSS Women</i>			<i>GSS Women Minus Men</i>		
	Coefficient for 1961	Change from 1961 to 1972	Coefficient for 1971	Change from 1971 to 1999	Coefficient for 1971	Change from 1971 to 1999	Coefficient for 1971	Change from 1971 to 1999	Coefficient for 1971	Change from 1971 to 1999	Coefficient for 1971	Change from 1971 to 1999
Father's occupation												
<i>B</i>	.257	-0.089	.131	.037	.207	-0.10	.076	-0.047	.076	-0.047	.076	-0.047
(S.E.)	(.007)	(.009)	(.017)	(.026)	(.017)	(.028)	(.024)	(.038)	(.024)	(.038)	(.024)	(.038)
Parent's education												
<i>B</i>	.053	-0.012	.037	.015	.057	-0.10	.020	-0.025	.020	-0.025	.020	-0.025
(S.E.)	(.002)	(.002)	(.004)	(.006)	(.004)	(.007)	(.006)	(.009)	(.006)	(.009)	(.006)	(.009)
Number of siblings												
<i>B</i>	-0.058	-0.011	-0.043	-0.029	-0.067	.007	-0.024	.036	-0.024	.036	-0.024	.036
(S.E.)	(.002)	(.003)	(.006)	(.010)	(.006)	(.010)	(.008)	(.014)	(.008)	(.014)	(.008)	(.014)
Intact family												
<i>B</i>	.164	.033	.090	.205	.262	.081	.172	-.124	.172	-.124	.172	-.124
(S.E.)	(.018)	(.024)	(.039)	(.062)	(.039)	(.062)	(.055)	(.088)	(.055)	(.088)	(.055)	(.088)
Black												
<i>B</i>	-0.824	.359	-0.415	-0.065	-0.770	.179	-0.355	.244	-0.355	.244	-0.355	.244
(S.E.)	(.023)	(.031)	(.051)	(.081)	(.051)	(.079)	(.072)	(.133)	(.072)	(.133)	(.072)	(.133)
Hispanic												
<i>B</i>	-0.405	.082	-0.573	.443	-0.482	.168	.091	-0.275	.091	-0.275	.091	-0.275
(S.E.)	(.047)	(.055)	(.095)	(.147)	(.095)	(.144)	(.134)	(.206)	(.134)	(.206)	(.134)	(.206)
Southern regions												
<i>B</i>	-0.424	.191	-0.260	.093	-0.367	.226	-0.107	.133	-0.107	.133	-0.107	.133
(S.E.)	(.015)	(.019)	(.035)	(.057)	(.036)	(.060)	(.050)	(.083)	(.050)	(.083)	(.050)	(.083)
Unweighted sample	32,242		9,268		11,107							

*Coefficients in boldface are significant at the .05 level.

whereas the association between a mature man's family income and his parents' socioeconomic position was almost constant between the 1970s and the 1990s, this association fell among women. As a result, the economic cost of growing up in a disadvantaged family was roughly constant for women, although it remained larger for women than for men.

Race, Ethnicity, and Region

Disparities in adult family income between blacks and whites, between Hispanics and Anglos, and between those raised in the South and North narrowed between 1961 and 1999.

Parental Education

The effect of parental education on men's family income fell during the 1960s but rose again over the next three decades. Parental education mattered more for mature women's family income than for men's in the 1970s, but this difference had disappeared by the late 1990s.

Parental Occupation

When we rank occupations in terms of their educational requirements and economic rewards, the effect of differences between fathers' occupations on their mature sons' family incomes declined during the 1960s. The effect of a father's occupation shows no clear trend after that for either men or women, but it is consistently larger for women than for men, partly because women's family incomes are more unequal than men's.

Taken together these findings suggest that there were significant changes in equality of opportunity in the United States between 1961 and 1999. For men, equality of opportunity increased during the 1960s but changed little thereafter. Among women there was less equality of opportunity in the

early 1970s than among men, but equality of opportunity among women increased during the 1970s. By the late 1990s, the importance of family background for a woman's economic prospects (relative to other women) was similar to its importance for a man's economic prospects (relative to other men). In addition, the importance of race, ethnicity, and region declined between 1961 and 1999. Nevertheless, as we begin the twenty-first century, there are still sizable inequalities of opportunity in the United States. Gender and family background, including race, ethnicity, and region, remain strong predictors of economic well-being in adulthood.

NOTES

1. In this chapter we often measure the relationship between two attributes with a "correlation," which ranges from zero (no relationship) to one (perfect relationship) and which can be thought of as assessing the degree to which two characteristics are associated in the data. A "multiple correlation" can be thought of as a correlation between one attribute and a set of attributes considered together.

2. Men and women without earnings are included and assigned earnings of zero.

3. Figure 1 is not a complete causal model. It omits many links that are well established in the research literature, such as the reciprocal effects of spouses' earnings on one another, to highlight the links that we think are most likely to have changed.

4. Monozygotic (MZ) twins have all their genes in common, and dizygotic (DZ) twins share roughly half their genes.

5. Estimate based on data from U.S. Bureau of the Census (2000, pp. 55 and D-4). Our estimates of family income do not include the implicit return on home equity.

6. These estimates are from tabulations by Andrew Clarkwest using the Integrated Public Use Microsamples from the decennial census.

7. See Harding et al. (2005) for further details on the data and methodology.

8. The square of the multiple correlation is the percentage of the income variance explained by parental characteristics.

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