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EFFECTS OF FAMILY AND COMMUNITY BACKGROUND ON MEN'S ECONOMIC STATUS

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ABSTRACT

This study uses intergenerational data from the Panel Study of Income Dynamics to investigate the effects of family and community background on men's economic status. It is distinguished from most previous studies by its emphasis on community influences and on influences from poverty and welfare use. Also, our parental characteristics data are more comprehensive and accurate than those of many earlier studies.

We find substantial disadvantages in economic status for black men, men from lower-income families, and men from more welfare-dependent families or communities. Otherwise, we do not find much evidence of community influences. This, however, might be due to the grossness of the geographic detail at which our community variables are measured.

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I. Introduction

The question of whether and to what extent an individual's economic success is influenced by various family background characteristics has persistently challenged social scientists. The studies by Blau and Duncan (1967), Duncan, Featherman, and Duncan (1972), Jencks et al. (1972), Bowles (1972), Sewell and Hauser (1975), Featherman and Hauser (1978), Jencks et al. (1979), Behrman et al. (1980), Corcoran and Datcher (1981), and Hill and Duncan (1987) are only a small sample of the immense empirical literature on this topic.

The present paper extends the literature on family background influences in three ways. First, we have access to unusually high-quality data on family background. Many previous studies are based on children's retrospective reports of a few socioeconomic characteristics of their parents. These "proxy" reports can be quite inaccurate,[1] and the small set of measured variables might omit crucial background characteristics. For example, some previous studies have no measure at all of parental income, and many of those that do rely on children's retrospective reports or use a single-year income measure, which might be a noisy indicator of long-run income. Our study, which exploits the intergenerational span of the Panel Study of Income Dynamics, contains a wide range of parental characteristics as contemporaneously reported by the parents themselves in annually repeated interviews.

Second, our study also investigates the influence of a series of *community* background characteristics. With the exception of Datcher (1982), most previous studies have neglected the role of community factors. Given the recent upsurge of interest in the role of "underclass" neighborhoods in perpetuating poverty and welfare dependency (see,

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[1]See Massagli and Hauser (1983) for evidence and further references.

for example, Murray 1984 and Wilson 1987), consideration of community influences seems particularly important.

Third, also in response to underclass issues, we devote special attention to poverty and welfare use variables. Unlike most previous studies, we focus on how children's later economic success is related to the poverty and welfare experience of both the families and the communities in which they grew up.

We describe our data base in Section II and outline our statistical methodology in Section III. In Section IV, we present our empirical results on background influences on sons' earnings. We also decompose the estimated earnings effects into effects on hourly wage rates and effects on hours of employment; we examine effects on family income; and we investigate the extent to which background influences operate through educational attainment. We summarize our findings in Section V.

II. Data

Our data come from the Panel Study of Income Dynamics (PSID), a longitudinal survey that began in 1968 with a national probability sample of about 5,000 families. The PSID has reinterviewed members of these families every year since 1968. Because the survey has followed children from the original PSID families as they have grown into adulthood and formed their own households, it is possible to relate the children's economic status as adults to the characteristics of their families of origin as contemporaneously reported by their parents. Our empirical analysis pertains to male children in the original PSID families who, by 1983, were between the ages of 25 and 32 and had become heads of households. We exclude PSID children older than 32 in 1983 (and hence older than 17 in 1968) to avoid overrepresenting men that left home at late ages. The resulting sample contains men from over 600 families. In about a quarter of these families, our sample

contains more than one son (usually two).[2] Section III describes our statistical treatment of these multiple-son families.

The outcome variables analyzed in Section IV are the sampled men's earnings, hourly wage rate, hours of work, family income, and ratio of family income to a "needs" standard related to family size. All these variables, which are described in detail in the Appendix, pertain to the calendar year preceding the interview in which they were reported. We use the Consumer Price Index to transform the monetary outcome variables into 1982 dollars.

We relate these outcome variables to a large set of family and community background characteristics. The family background variables include race, religion, several variables describing family structure and size, parents' years of education, and a series of family employment variables and income variables (again expressed in 1982 dollars). These variables are discussed at length in Section IV, as well as in the Appendix. Generally speaking, the variables that vary over time, such as family income, are averaged over the interviews from 1968 until the child left home.

The community background variables, also described in the Appendix, begin with standard indicators of major region and city size for each family's 1968 residence. In addition, for each family's 1968 zip code, we have used the 1970 Census Fifth Count by Zip Code to obtain four community socioeconomic characteristics: median family income, male unemployment rate, percentage of families that are female-headed with children, and percentage of families receiving public assistance. These variables pertain to five-digit zip code area for families in SMSAs and three-digit zip code area otherwise. Although the zip codes frequently may span areas larger than the communities for which we would like to

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[2]In Solon, Corcoran, Gordon, and Laren (1987), we exploit this multiple-son feature of the sample to study sibling correlations in economic status.

have data, community data at even the zip code level of detail are a major advance over what previously has been available.[3]

III. Statistical Methodology

Our approach is to estimate the effects of family and community background variables by estimating the coefficient vector β in the regression equation

$$(1) \qquad y_{ijt} = \beta' X_{ij} + \delta' D_{ijt} + \epsilon_{ijt}$$

where y_{ijt} is an outcome measure for the j^{th} son from the i^{th} family in year t, X_{ij} is a vector of background variables, D_{ijt} is a vector of age and year dummies, and ϵ_{ijt} is a random error term. Controlling for D_{ijt} is necessary to account for the individual's life-cycle stage and for general time effects, such as stage of the business cycle.

Because the PSID is a longitudinal survey, each individual's outcome variable y_{ijt} can be observed for multiple years. We restrict our analysis to observations from those interviews (up through 1983) at which the individual was at least 25 years old. Thus, for an individual at the initial upper age limit of 17 in 1968, y_{ijt} could be observed for as many as eight years (interview years 1976–83). At the other extreme, for an individual that was 10 years old in 1968, only the 1983 observation of y_{ijt} is used in our analysis.

If we average equation (1) over all T_{ij} usable years for each individual, we obtain

$$(2) \qquad \bar{y}_{ij} = \beta' X_{ij} + \delta' \bar{D}_{ij} + \bar{\epsilon}_{ij}$$

where, for any variable Z_{ijt}, $\bar{Z}_{ij} = \sum_t Z_{ijt}/T_{ij}$. The averaged error term $\bar{\epsilon}_{ij}$ is undoubtedly somewhat heteroskedastic because it is averaged over different numbers of years for

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[3]The University of Michigan's Survey Research Center is presently engaged in a project to merge the PSID data with community data at the census tract level, which is more detailed than the zip code level. This project will enable more accurate measurement of community background in future research.

different individuals. Given the ample evidence of very large serial correlation in ϵ_{ijt},[4] however, the magnitude of the resulting heteroskedasticity should be small.

Averaging equation (2) over the J_i sons in the sample from the i^{th} family produces

$$\bar{y}_i = \beta'\bar{X}_i + \delta'\bar{D}_i + \bar{\epsilon}_i \tag{3}$$

where, for any variable Z_{ij}, $\bar{Z}_i = \sum_j Z_{ij}/J_i$.[5] Unless $\bar{\epsilon}_{ij}$ is highly correlated across brothers, the averaged error $\bar{\epsilon}_i$ is substantially heteroskedastic because it is averaged over different numbers of individuals in different families. Indeed, if the correlation is zero, the variance of $\bar{\epsilon}_i$ is inversely proportional to J_i. In that case, the best linear unbiased estimator for equation (3) is the weighted least squares estimator that applies ordinary least squares (OLS) to the transformed equation

$$\sqrt{J_i}\bar{y}_i = \beta'(\sqrt{J_i}\bar{X}_i) + \delta'(\sqrt{J_i}\bar{D}_i) + \sqrt{J_i}\bar{\epsilon}_i. \tag{4}$$

This is the estimation procedure we use throughout our analysis. To check the approximate appropriateness of weighting by $\sqrt{J_i}$, we have analyzed the OLS residuals from equation (4). In particular, for the specification presented later in the last column of Table 1, we have performed a Goldfeld-Quandt heteroskedasticity test[6] based on the ratio of the sample variance of the residuals for the subsample with $J_i \geq 2$ to the corresponding variance for the subsample with $J_i = 1$. The computed ratio, 1.29, is barely large enough to reject the hypothesis of homoskedasticity at the .05 significance level and

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[4]This serial correlation in ϵ_{ijt} is typically modeled as arising from both a "fixed effect" and a serially correlated transitory component. See, for example, Lillard and Willis (1978), Gordon (1984), and Solon, Corcoran, Gordon, and Laren (1987).

[5]Averaging across sons from the same family appears to involve an efficiency loss because it squanders the within-family variation in X_{ij}. Our judgment was that this variation, which arises from differences between sons in which years they still lived at home, is relatively noisy and is better left unexploited.

[6]See Kmenta (1986), pp. 292–94.

implies that, because of a small positive correlation across brothers in $\bar{\epsilon}_{ij}$, weighting by $\sqrt{J_i}$ slightly overweights the families with multiple sons in the sample. Nevertheless, the ratio is sufficiently close to 1 to indicate that heteroskedasticity of the error term in (4) is not a major problem, and we henceforth ignore it.

IV. Results

We begin by reporting results from OLS estimation of equation (4) where y_{ijt} is the natural logarithm of annual earnings for the j^{th} son from the i^{th} family in year t. In addition to the sample restrictions described above, we include only observations with positive earnings. This results in a sample with 638 observations of the family average variable $\bar{y}_{i\cdot}$. Because the positive earnings restriction eliminates six families from the sample, our later analyses with family income as the outcome measure are based on a sample of 644 families.[7]

A. Specification of Income Regressors

Our choice of background variables in the vector X_{ij} involved a complicated specification search among various sets of income variables for the son's family of origin. This search is summarized in Table 1. The other regressors besides the family income variables are omitted from the table because their estimated coefficients generally do not vary greatly across specifications. We will display results for the other regressors later in Table 2.

The first column of Table 1 presents results for the specification in which the only background income variables are family income and family "needs." The needs variable, defined in Survey Research Center (1985, pp. 115-16) and Survey Research Center (1974, pp. 39-41), is an Orshansky-type poverty line adjusted for family size. Both income variables, as well as all others in the table, are expressed in tens of thousands of 1982

[7]We have experimented with excluding observations with outlier values for the outcome variables. Doing so does not produce important changes in our results.

dollars. All income variables used as elements of X_{ij} are averaged over all interviews from 1968 until the son left his family of origin. These income variables are superior to those in many previous studies because the averaging across years produces more accurate measurement of long-run income status and because the income variables are based on contemporaneous reports by the parents instead of retrospective reports by the sons.

Column 2 tries entering the income and needs variables in ratio form. This specification reduces the R^2 statistic and is subsequently discarded. Column 3 tries entering the income and needs variables in natural log form. This specification increases the R^2, but is discarded anyway because of its awkwardness for subsequently separating out the influence of different income components.

Column 4 proceeds to decompose the family income variable into five components: father's earnings, mother/wife's earnings, mother/female head's earnings, welfare income, and other income. If the father was never present in the household, the first two variables equal zero, and mother's earnings are counted in the third variable. On the other hand, if the father was always present, the third variable equals zero. Intermediate cases arise where the family's structure changed between 1968 and when the son left home. In general, each parental earnings variable is the sum of its annual values divided by the number of years from 1968 until the son left home. Equivalently, it is the average of its annual values over *only* those years in which the corresponding parent type was present interacted with the proportion of years that that parent type was present. Since these proportion variables are separately included among the family structure variables, we interpret the coefficient of father's earnings, for example, as the effect of additional father's earnings *conditional* on his presence. The column 4 specification removes the column 1 specification's restriction that all the income components have equal coefficients. An F-test of that restriction easily rejects it at the .01 level, mainly because the estimated coefficient of welfare income is significantly negative.

Each parent's earnings are the product of the parent's hours of work and hourly wage rate. As a way of allowing for different influences from the two factors, in column 5 we add each parent's hours of work. These are expressed in thousands and, like the income variables, are averages of annual observations from 1968 until the son left home. In column 6, we allow for the possibility that the experience of poverty has especially damaging effects beyond those already captured in linear income variables. The estimated coefficient of the additional variable, the proportion of years between 1968 and when the son left home that the family's income was less than the needs standard described above, is indeed significantly negative.

Column 7 checks the possibility that the influence of welfare income depends not on the *amount* of welfare income, but on the *proportion* of family income that comes from welfare. Switching to a proportional variable slightly reduces the R^2, and this specification is not pursued further. Column 8 explores the possibility that whether the family received *any* welfare has an effect beyond that captured by the linear welfare income variable. The estimated coefficient of the dummy variable for positive welfare income is statistically insignificant, and this variable is subsequently dropped.

Column 9 adds an interaction of the family's welfare income variable with the variable for the community's welfare program participation rate. The motivating hypothesis is that family and community welfare receipt both may have adverse effects, but, if one type of welfare receipt is already present, the *incremental* effect of the other is diminished. The significant coefficient estimate for the interaction term is consistent with this conjecture, and the interaction term therefore is retained in the rest of our analysis.

Finally, column 10 imposes the restriction that all family income variables besides welfare income have equal coefficients. An F-test easily accepts this restriction at the .05 level. The specification of income regressors in column 10 is subsequently maintained for our analyses of other outcome variables besides earnings: hourly wage, hours of work,

family income, and family income/needs. The results for all outcome variables are displayed in Table 2 and are summarized in the next subsection.

B. Highlights of Results

Table 2 presents the results from estimating equation (4) for a variety of outcome variables y_{ijt}. The first column gives a more complete reporting of the results for the log earnings model of column 10 in Table 1. The next two columns of Table 2 decompose each regressor's estimated effect on log earnings into its effects on log hourly wage and log hours of work. The outcome variables in the last two columns are the logs of family income and income/needs, rather than just the son's own labor earnings. For brevity, the table omits the estimated coefficients of the variables for age, year, region, city size, and family structure.[8] The full list of regressors is described in the Appendix.

A complete discussion of all the results in Tables 1 and 2 would far exceed any applicable page limit. Here we will summarize what we regard as some of the salient findings and leave it to each reader to examine whatever he regards as the most interesting details.

1. Family Income and Poverty

Like many previous studies, ours indicates a substantial association between son's economic status and income of his family of origin. This is clearest in the first three columns of Table 1, in which family income is most simply represented. In column 3, for example, the estimated elasticity of son's earnings with respect to family income is .37 even after controlling for other parental characteristics, such as race and years of

[8]As discussed in the Appendix, the set of family structure variables is particularly complex because of its interrelationship with the parental characteristics variables, for example, the connection mentioned above between father's earnings and proportion of years that father was present. Although, in principle, the results for family structure variables should be worth displaying and discussing, the complexity of the set of variables in our analysis defies intelligible interpretation.

education, as well as for community characteristics.[9] In the remaining columns of Table 1 and in Table 2, the effect of income is diffused among a set of income variables, but clearly remains substantial. Particularly striking are the large negative associations between all outcome variables and the proportion of years the family of origin was below the poverty-related needs standard.

2. Race

The coefficient estimates in Table 2 indicate that blacks are at a substantial disadvantage for all outcome variables even after controlling for parental income and other characteristics and for community characteristics. This reiterates, twenty years later and with more current data, the main conclusion of Otis Dudley Duncan's (1968) article "Inheritance of Poverty or Inheritance of Race?" The pattern of results suggests that much of the racial disparity in young men's economic status is concentrated in the hours-of-work outcome variable. This finding echoes numerous previous discussions of the employment problems of young black men.[10] These problems are highlighted in our results because our sample period includes major recession years.[11]

3. Parents' Education

After controlling for other characteristics, the estimated coefficients of both father's and mother's years of education are insignificant for all outcome variables. These results are consistent with Sewell and Hauser's (1975, p. 71) earlier finding: "A father's educational attainment and occupational status are correlated with his son's earnings only

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[9]This association is much stronger than those reported in some other studies. Solon (1989) argues that previous studies have underestimated intergenerational income relationships because of measurement error and nonrandom samples.

[10]See, for example, Wilson (1987) and Welch (1989).

[11]Clark and Summers (1981) document the extreme sensitivity of young black men's employment to the business cycle.

by virtue of their correlation with the father's income, which has a substantial direct effect on the son's earnings."

4. Family and Community Welfare Receipt

One of our strongest results is the large negative association between son's outcomes and welfare receipt in his family of origin. This result is most apparent in columns 4–8 of Table 1. In columns 9–10 and in Table 2, the role of family welfare income is more difficult to assess because of the presence of the interaction term with the community welfare program participation rate. To facilitate interpretation of the results in Table 2, we have calculated their implications for various combinations of family and community welfare receipt. In particular, for each outcome variable, Table 3 displays the estimated effect of each permutation of three levels of family welfare income and three levels of community participation. The table presents zero family welfare income and a 1 percent community participation rate as the reference category and then shows the estimated relative effects of alternative combinations. Examination of the table reveals that family welfare income still appears to be negatively associated with the outcome variables, especially at lower levels of community participation.

The role of community welfare receipt is somewhat less clear-cut. In columns 1–8 of Table 1, before introduction of the interaction term, the association of community welfare receipt with son's earnings seems negligible. On the other hand, with the interaction term added, F-tests of the hypothesis that both community welfare variables have zero coefficients reject the hypothesis at the .05 level for all outcome variables except earnings and hours of work. The pattern suggested in Table 3's figures is that outcome variables other than hours are negatively associated with community welfare receipt, especially at low levels of family welfare income.

The general impression is that, even after controlling for other observable family and community characteristics, the presence of *either* family welfare receipt or a high community participation rate is associated with negative outcomes (though the combination

of the two does not make matters much worse than they are with either one alone). This negative association is strikingly consistent with Murray's (1984, especially chapter 14) hypothesis that family or community welfare dependency sets a poor example for children's self-reliance and consequently impedes children's later achievement. On the other hand, his argument emphasizes adverse effects on work effort. It therefore is odd that we find the least evidence of a negative association for the hours-of-work outcome variable.

This anomaly suggests the possibility that the observed negative associations arise from other sources. One obvious alternative is that various unmeasured parental characteristics, possibly including self-reliance, are correlated with both parental welfare use and children's outcomes. Our inability to control for these "omitted variables" could generate negative coefficient estimates for welfare variables. The difference between this story and Murray's is that these parental traits might be passed on to children, through nature or nurture, even if welfare programs did not exist. Another possibility is that the welfare variables proxy for unmeasured aspects of family and community income status. For example, although we control for measured family and community income, these measures are not adjusted for geographic differences in cost or standard of living. That is, beyond crude controls for region and city size, we make no distinction between a $5,000 annual income in New York and $5,000 in Alabama. Clearly, family or community eligibility for local welfare programs might provide additional information about the absolute or relative economic status of the family or community.

Of course, these problems of interpretation are not unique to the welfare variables. Rather, they illustrate a more general issue -- that the inevitable problems of measurement error and omitted variables prevent firm conclusions about the causal processes underlying any of the estimated "effects" in our study.

5. Other Community Characteristics

Our community background variables other than welfare program participation — log median income, male unemployment rate, and percentage of families that are female-headed with children — generally show negligible associations with son's outcome variables. Indeed, F-tests of the hypothesis that all five community variables (including the welfare variables) have zero coefficients accept the hypothesis at the .05 level in the equations for son's earnings and income. The only exception to the apparent unimportance of nonwelfare community variables is the significantly negative coefficient estimate for male unemployment rate in the son's hours-of-work equation. Of course, insofar as sons remain in their area of origin, this association might reflect merely the persistence of area unemployment over time.

Our failure to identify stronger community effects might be due to the crudeness of zip code-level statistics as measures of community characteristics. The possibility remains that, if community characteristics were measured in finer geographic detail, community effects might become more apparent.

C. Role of Son's Educational Attainment

A recurring question in the literature on background influences is the extent to which they operate through effects on educational attainment, usually as measured by years of schooling. In Table 4, we explore this issue by reestimating the log earnings equation with son's education variables added to the regressor set. In the first column, we simply add son's years of education. The estimated coefficient implies about a 6 percent return to an additional year of schooling, a typical result in the earnings-education literature. A comparison to the first column of Table 2 reveals, however, that the estimated coefficients of the background variables are not dramatically altered by controlling for son's education. This suggests that the background influences do not operate primarily through years of education. A similar conclusion is reported by Sewell and Hauser (1975, pp. 71–72 and 86).

In the second column of Table 4, we enter a more elaborate set of son's education variables: years of schooling up through 11, a dummy variable for at least 12 years, and years beyond 12. An F-test of the column 1 specification versus this more general specification rejects the column 1 specification at the .01 level. Although the coefficients of the separate education variables are not estimated very precisely, it is clear that the rejection of the column 1 specification arises largely from the evidence of a substantial high school diploma effect.[12] Again, however, the addition of the education variables does not dramatically reduce the estimated coefficients of the background variables in the earnings equation. Furthermore, we have obtained similar results from adding son's education variables to the equations for the other outcome variables.

V. Summary

In this study, we have used intergenerational data from the Panel Study of Income Dynamics to investigate the effect of family and community background on men's economic status. Our results indicate substantial disadvantages in economic status for black men, men from lower-income families, and men from more welfare-dependent families or communities. Once other background characteristics are controlled for, parental education does not appear to play an important role. Nor do we find much evidence of effects from most of our community background variables. This last finding, however, might be due to the grossness of the geographic detail at which our community variables are measured.

Although we have found strong associations between some background characteristics and men's economic status, proceeding to particular causal inferences is exceedingly difficult. As we have emphasized in our discussion of welfare "effects," unavoidable problems of measurement error and omitted variables pose a formidable obstacle to identification of underlying causal processes.

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[12]Hungerford and Solon (1987) provide a more detailed analysis of diploma effects.

Table 1
Estimated Coefficients (and Standard Errors) for Family Income Regressors in Equations for Son's Log Earnings

	1	2	3	4	5	6	7	8	9	10
Family income[a]	.087									
	(.023)									
Family needs	-.130			-.048	-.060	.038	.016	.034	.049	.056
	(.056)			(.062)	(.063)	(.066)	(.064)	(.067)	(.066)	(.063)
Family income/ needs		.093								
		(.028)								
Log family income			.372							
			(.076)							
Log family needs			-.280							
			(.101)							
Father's earnings				.056	.039	.020	.022	.021	.021	
				(.028)	(.031)	(.030)	(.030)	(.030)	(.030)	
Mother/wife's earnings				.033	.176	.204	.202	.207	.210	
				(.064)	(.111)	(.110)	(.110)	(.110)	(.109)	
Mother/female head's earnings				.057	-.074	-.174	-.169	-.168	-.177	
				(.114)	(.173)	(.173)	(.172)	(.173)	(.172)	
Family income other than welfare and parents' earnings				.134	.137	.072	.069	.074	.073	
				(.044)	(.044)	(.046)	(.047)	(.046)	(.046)	
Nonwelfare income										.044
										(.025)
Proportion of years in poverty						-.565	-.539	-.581	-.555	-.545
						(.136)	(.139)	(.137)	(.135)	(.131)
Welfare income				-.507	-.460	-.340		-.366	-.718	-.713
				(.149)	(.158)	(.158)		(.162)	(.238)	(.237)
Welfare income/ family income							-.519			
							(.248)			
Dummy for positive welfare income								.059		
								(.081)		
% on welfare in zip code	-.006	-.005	-.004	-.002	-.001	-.001	-.000	-.001	-.009	-.010
	(.010)	(.010)	(.009)	(.009)	(.009)	(.009)	(.009)	(.009)	(.010)	(.010)
Welfare income x % on welfare in zip code									.028	.027
									(.013)	(.013)
Father's hours of work[b]					.062	.026	.028	.033	.021	.007
					(.054)	(.054)	(.054)	(.055)	(.054)	(.052)
Mother/wife's hours of work					-.129	-.185	-.179	-.183	-.190	-.081
					(.085)	(.085)	(.084)	(.085)	(.084)	(.048)
Mother/female head's hours of work					.126	.120	.092	.112	.120	-.006
					(.124)	(.122)	(.126)	(.123)	(.122)	(.082)
Number of families	638	638	638	638	638	638	638	638	638	638
Degrees of freedom	599	600	599	595	592	591	591	590	590	593
R^2	.2717	.2632	.2826	.2986	.3034	.3233	.3230	.3239	.3284	.3234

a. All income regressors are in tens of thousands of 1982 dollars.
b. All hours regressors are in thousands.

Table 2
Estimated Coefficients (and Standard Errors) in Equations for Various Son's Outcomes

	Log Earnings	Log Hourly Wage	Log Hours of Work	Log Family Income	Log Family Income/Needs
Family needs[a]	.056	.043	.012	.013	−.007
	(.063)	(.043)	(.041)	(.055)	(.052)
Nonwelfare income	.044	.042	.003	.035	.047
	(.025)	(.017)	(.016)	(.021)	(.020)
Proportion of years in poverty	−.545	−.300	−.246	−.518	−.562
	(.131)	(.090)	(.085)	(.114)	(.109)
Welfare income	−.713	−.422	−.291	−.533	−.498
	(.237)	(.163)	(.155)	(.209)	(.199)
% on welfare in zip code	−.010	−.016	.006	−.019	−.021
	(.010)	(.007)	(.007)	(.009)	(.008)
Welfare income × % on welfare in zip code	.027	.023	.004	.027	.027
	(.013)	(.009)	(.009)	(.011)	(.011)
Father's hours of work[b]	.007	−.036	.042	.028	.026
	(.052)	(.035)	(.034)	(.045)	(.043)
Mother/wife's hours of work	−.081	−.058	−.022	−.045	−.052
	(.048)	(.033)	(.031)	(.042)	(.040)
Mother/female head's hours of work	−.006	.051	−.057	.033	.020
	(.082)	(.056)	(.053)	(.071)	(.068)
Black	−.302	−.095	−.208	−.259	−.210
	(.096)	(.066)	(.062)	(.083)	(.079)
Catholic	.107	.053	.054	.051	.069
	(.076)	(.052)	(.050)	(.066)	(.063)
Jewish	−.196	−.243	.051	−.153	−.116
	(.213)	(.146)	(.139)	(.187)	(.178)
Religion not available	−.096	−.043	−.053	−.022	−.024
	(.120)	(.082)	(.078)	(.105)	(.100)
Father's education	−.011	−.005	−.006	−.009	−.006
	(.010)	(.007)	(.007)	(.009)	(.009)
Mother's education	−.002	.005	−.007	−.003	.004
	(.012)	(.008)	(.008)	(.010)	(.010)
Log median income in zip code	.018	.047	−.029	−.042	−.049
	(.172)	(.118)	(.112)	(.151)	(.144)
Male unemployment rate in zip code	−.017	.022	−.039	.002	.001
	(.018)	(.013)	(.012)	(.016)	(.015)
% female-headed with children in zip code	.001	−.001	.002	.001	.003
	(.006)	(.004)	(.004)	(.005)	(.005)
Number of families	638	638	638	644	644
Degrees of freedom	593	593	593	599	599
R^2	.3234	.2817	.2170	.3368	.3750

a. All income regressors are in tens of thousands of 1982 dollars.
b. All hours regressors are in thousands.

Table 3
Estimated "Effects" of Various Combinations of Family and Community Welfare Use

Percentage of Families in Zip Code on Welfare	Family's Average Welfare Income (1982 dollars)	Log Earnings	Log Hourly Wage	Log Hours of Work	Log Family Income	Log Family Income/Needs
1	0	—	—	—	—	—
1	1,000	−.07	−.04	−.03	−.05	−.05
1	5,000	−.34	−.20	−.14	−.25	−.24
5	0	−.04	−.06	.02	−.08	−.09
5	1,000	−.10	−.09	−.00	−.12	−.12
5	5,000	−.33	−.22	−.11	−.28	−.27
20	0	−.19	−.30	.11	−.37	−.41
20	1,000	−.20	−.30	.09	−.37	−.40
20	5,000	−.27	−.28	.01	−.36	−.38

Table 4
Estimated Coefficients (and Standard Errors)
When Son's Education Variables Are Added
to Son's Log Earnings Equation

	1	2
Family needs[a]	.095	.092
	(.063)	(.063)
Nonwelfare income	.035	.034
	(.024)	(.024)
Proportion of years in poverty	−.515	−.487
	(.130)	(.131)
Welfare income	−.655	−.610
	(.236)	(.234)
% on welfare in zip code	−.013	−.013
	(.010)	(.010)
Welfare income × % on welfare in zip code	.023	.022
	(.013)	(.013)
Father's hours of work[b]	.005	.012
	(.051)	(.051)
Mother/wife's hours of work	−.077	−.074
	(.048)	(.047)
Mother/female head's hours of work	.001	−.008
	(.081)	(.080)
Black	−.347	−.360
	(.096)	(.096)
Catholic	.085	.088
	(.076)	(.075)
Jewish	−.258	−.215
	(.212)	(.211)
Religion not available	−.081	−.076
	(.119)	(.118)
Father's education	−.018	−.017
	(.010)	(.010)
Mother's education	−.008	−.010
	(.012)	(.012)
Log median income in zip code	−.001	−.013
	(.170)	(.169)
Male unemployment rate in zip code	−.013	−.013
	(.018)	(.018)
% female-headed with children in zip code	.002	.004
	(.006)	(.006)
Son's years of education	.057	
	(.016)	
Son's years of education through 11		−.032
		(.059)
Dummy for at least 12 years of education		.379
		(.098)
Son's years of education beyond 12		.031
		(.019)

Table 4 (continued)

	1	2
Number of families	638	638
Degrees of freedom	591	589
R^2	.3383	.3510

a. All income regressors are in tens of thousands of 1982 dollars.
b. All hours regressors are in thousands.

Appendix

Our data are drawn from the 1983 cross-year family-individual response file of the Panel Study of Income Dynamics (PSID). For complete documentation, see Survey Research Center (1985). Our sample contains members of both the Survey Research Center component of the PSID and the Survey of Economic Opportunity component, which is designed to oversample the low-income population. In our analysis, we do not weight observations by their inverse probabilities of selection because our regressor vector explicitly controls for family income status. The variables used in our analysis are described below.

Son's Outcome Variables

The outcome variables, y_{ijt} in equation (1) in the text, are the natural logarithms of the son's annual labor earnings, annual hours of work, hourly wage rate, annual family income (not including the bonus value of food stamps), and annual family income/needs. All monetary variables are transformed into 1982 dollars with the Consumer Price Index. The hourly wage measure is simply the ratio of annual earnings to annual hours. The needs measure, discussed in detail in Survey Research Center (1985, pp. 115–16) and Survey Research Center (1974, pp. 39–41), is an Orshansky-type poverty line adjusted for family size. It is generally about 25 percent above the poverty line used by the Census Bureau.

Family Background Variables

Father's education is measured as the highest grade completed by the male head of household as of 1968. The category of 17 or more is assigned a value of 18. If no male head was present in 1968, father's education equals zero. Equivalently, the variable can be viewed as the interaction of father's education and a dummy variable for presence of a male head in 1968. That dummy variable is entered separately as another regressor. Mother's education is the highest grade completed by the wife of head or female head as of

1968. Again, the variable equals zero if no mother was present in 1968, and a dummy variable for presence of mother is included as a separate regressor.

The religion variables are dummy variables for Catholic, Jewish, and religion not available, with Protestant as the omitted category. These variables pertain to the head of household as of 1970. The religion-not-available category contains both nonresponses (including cases in which the son had left his family of origin by 1970) and religions other than Catholic, Jewish, or Protestant. The dummy variable for blacks is based on the race variable recorded in the 1983 file. That variable in turn is based on the race of the 1972 head of household in the family of origin.

Total family income (including the bonus value of food stamps), family needs, father's earning, mother/wife's earnings, mother/female head's earnings, and welfare income are all averages of annual values from 1968 until the son left home. All values are in 1982 dollars. Welfare income includes AFDC, other welfare, SSI, and the bonus value of food stamps. Annual values of each parent type's earnings equal zero when that parent type is not present. Equivalently, the averaged value can be viewed as the average value over only the years when the parent type was present interacted with the proportion of years the parent type was present. These proportion variables also are included as separate regressors. The hours-of-work variables for each parent type are constructed in the same way. The poverty variable is the proportion of years between 1968 and when the son left home that the family's annual income fell below the PSID needs standard.

Besides the dummy and proportion variables already described, the one other family structure variable is a dummy variable for whether the son lived in a "broken home" *before* 1968. This variable is based on 1968 interview information on the head's marital status and history and the son's age.

Community Background Variables

The region variables are dummy variables for Northeast, South, and West, with North Central as the omitted category. These pertain to the family's location in 1968.

The city size variables are dummy variables for population more than 500 thousand, between 100 and 500 thousand, between 10 and 50 thousand, and less than 10 thousand, with between 50 and 100 thousand as the omitted category. These pertain to the largest city in the PSID "primary sampling unit" in which the family was located in 1968.

The other community variables — median family income, male unemployment rate, percentage of families that are female-headed with children, and the percentage of families receiving public assistance — are drawn from the 1970 Census Fifth Count by Zip Code. They pertain to the family's 1968 five-digit zip code area, except that three-digit zip codes are used for families not in SMSAs.

Son's Education

Son's education is his highest grade completed, again with the category 17 or more assigned a value of 18. This variable is based on the 1983 interview. When son's education is not available, son's education equals zero and a separate dummy variable for education not available equals one.

Age and Year Variables

The vector of age and year dummy variables, D_{ijt} in equation (1), consists simply of dummy variables for each age between 26 and 32 (with 25 as the omitted category) and for each interview year between 1976 and 1982 (with 1983 as the omitted category).

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