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Although much research has been done on the intragenerational distribution of income and wealth, much less work has been done on intergenerational effects; research in both areas is needed for a complete understanding of the subject. In addition to the study of factors that determine the size distribution of income and wealth, economists should also be interested in the degree of intergenerational mobility that is exhibited in an economy. To what extent is there "equal opportunity" or equal life chances for children from parents situated in dissimilar economic positions? It should be clear that the issue of mobility is distinct from the issue of equality. For any degree of inequality we can have a relatively static society in which children always assume their parents' position or a highly mobile society, one in which the position of the child is unrelated to his parents' position. The degree of intergenerational mobility is determined by market, institutional and, some would say, biological forces (Taubman, 1976). The systems that provide education, care for children, distribute public expenditures and taxes, and transmit material inheritance, all influence mobility across generations.[1]

This paper presents empirical estimates of the relationship between the material wealth held by parents and their children in the United States. The data comes from probate records and therefore records wealth-holding at a specific point in the life-cycle, i.e. at death though variation in age at death among the children is taken into account in the multivariate analysis. This research was, in part, inspired by the pathbreaking work done in the United Kingdom by C.D. Harbury (1962, 1977).

1. THE PROCESS OF FULL INHERITANCE.

Before plunging into empirical analysis it is useful to motivate the work to follow by discussing the process of "full" inheritance. Models by Meade (1964, 1976) and others posit the many ways in which parents and parental characteristics can influence the economic welfare of their children. The factors that Meade cites are genetic endowment, education, and contacts; these can be called human inheritance, and financial or nonhuman inheritance. Additional factors influencing human inheritance might include the parents' marital stability and the transmission of "taste" across generations.

Figure 1 represents a highly simplified multigenerational process. The starting point is square I, the economic resources or "full wealth" of the family i in generation t. Full wealth, W, can be defined as the sum, in present value units, of material inheritance received (including inter vivos transfers), I, and potential lifetime earnings, E. Potential lifetime earnings is the amount one would earn working some "standard" number of hours (i.e., 40 hours a week, 52 weeks a year, from 18 to 65). Subscripts are used to denote generation, hence for the parents

$$W_t = I_t + E_t.$$

In square III we have the economic resources of the offspring of the family in square I, with the number of squares equal to the number of children , so

$$W_{t+1} = I_{t+1} + E_{t+1} \quad \text{for each child.}$$

Relationship C embodies the effect of human inheritance on the earnings capacity of children. The human inheritance function can be written

$$E_{t+1} = C\ (W_t).$$

Relationship A translates full wealth into terminal wealth, A (net worth at death). This relationship has been referred to as the intergenerational saving function (Pryor, 1973) and can be written

$$A_t = A\ (W_t).$$

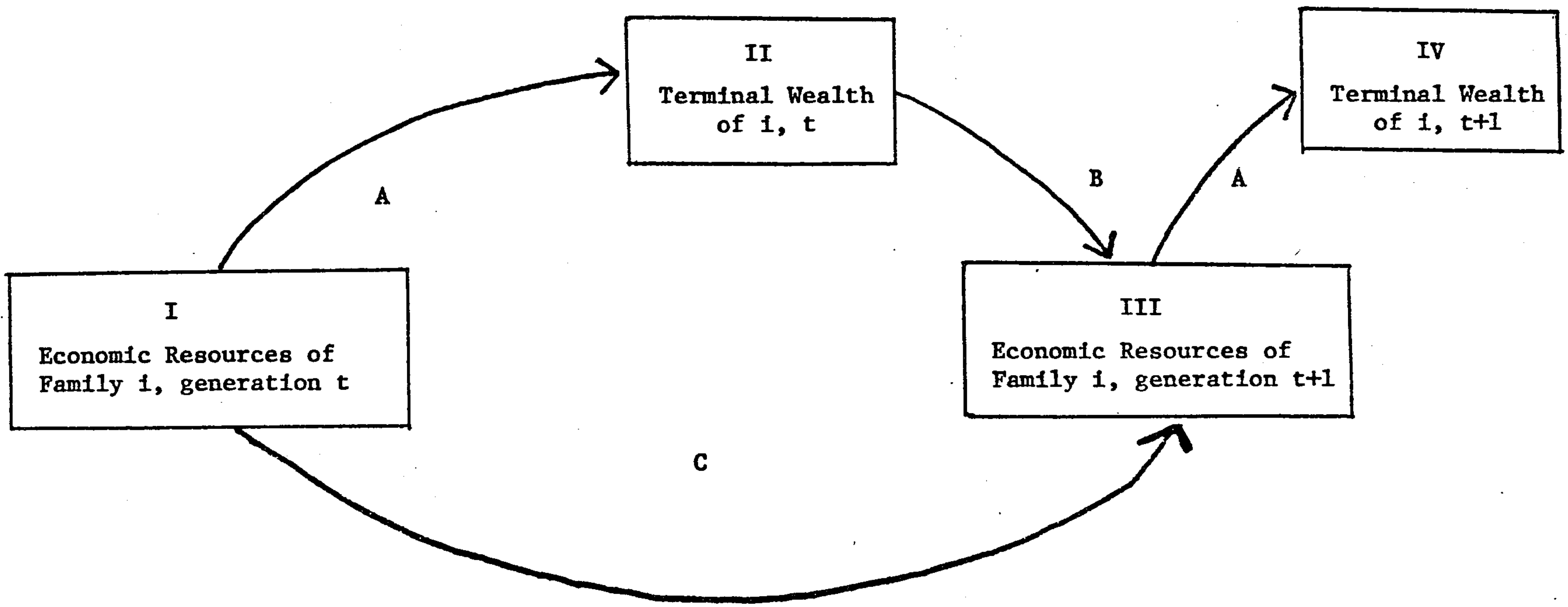


Figure 1. The Inheritance Process.

Relationship A has been estimated in Menchik (1978). The elasticity of A with respect to W was found to exceed unity implying that bequests are luxury goods, i.e., the proportion of one's lifetime resources left to heirs increases with lifetime resources.

Relationship B portrays the parcelling up of estates among heirs, as well as the reduction of the estates due to "transactions costs"--legal fees, expenses of administration, death taxation, etc. Hence,

$$I_{t+1} = B\ (A_t)$$

is the material inheritance function that translates the terminal wealth of parents into an inheritance received by an heir in the subsequent generation, I_{t+1}. Relationship B has been studied by Blinder (1976) and Menchik (1976, 1977) among others. Menchik (1977) finds that parents generally divide their estates equally among their children.

An equation relating square II and square IV, the terminal wealth of parent and child respectively, both of which are variables endogenous to I and III, is estimated in this paper. The relationship between A_{t+1} and A_t may be thought of as a "reduced form" equation derived from the structural model presented above. This relationship is likely to be nonlinear and quite complicated, and will be estimated using a linear regression of log A_{t+1} on log A_t. The regression coefficient, β, is the measure of "regression to the mean" and is, of course, the elasticity of child wealth with respect to parental wealth. An advantage in using the log linear model is that β is invariant to the choice of the deflator used to compare dollar amounts across different historical periods. I have chosen to deflate nominal estate by the consumer price index, though reasonable cases can be made for the use of alternatives deflators, i.e., the GNP deflator or a deflator that incorporates both price inflation and aggregate productivity growth.

The measure of mobility, or rather the measure of immobility, used is the correlation coefficient, r, between log A_{t+1} and log A_t and is also invariant to the choice of the deflator used[2]. The regression and correlation coefficients are related by

$$r = \beta s_x / s_y$$

with the second term on the right the ratio of standard deviations of the independent and dependent variables. Hence for a given relative level of dispersion (in the independent and dependent variables) the higher the regression coefficient the higher the correlation coefficient.

2. THE DATA

The starting point of this study was a master file of the probate records of 1050 Connecticut residents who died in the 1930s and 1940s leaving estates of $40,000 or more in current dollars--obviously a very wealthy group. In approximately one-half the cases, obituary column data was also available.[3] In 614 cases, the data revealed a total of 1,458 children, an average of 2.37 children per family. The next step was to locate the probate records of the children who had died by the end of 1976. The number of children actively searched for was 1,182.[4]

In order to find the probate records of the children, I first searched the index of deaths in the Connecticut Department of Vital Records. After finding a child with the same name as one on the active list, I checked the actual death certificate of the child. The death certificate listed the name of the child's parents, information I had from the probate records of the parents. This allowed me to make a positive match between parent and child. Three hundred children were matched with parents from the original file. Next, using the information on date and location of death from the death certificate, data was collected on the estate of the children in the probate files. Using similar methods, the estate of the spouse of the parent in the original sample was derived. Searching for the second parent was difficult since Connecticut does not have an annual index of deaths before 1948. I located the records of 199 children in which both parents' estates were known.[5]

A potential source of bias in the data is the lack of information concerning those children who left Connecticut and died elsewhere. If, for example, movers earn more than stayers, the regression coefficient relating log of child's wealth to log of parental wealth might be biased downward.[6] One can not say on *a priori* grounds, however, that movers will earn more than stayers, only that those who move may do so because their earnings opportunities are greater after moving than they think they would have been if they had chosen to stay. I was however, able to locate the probate records of 16 children (of the 300) who had moved outside of Connecticut. The log mean of the estate of these children turned out to be about 1% greater than the log mean of the entire sample.

This data base includes information concerning *inter vivos* transfers. If a gift is made "in contemplation of death" it is treated as a bequest for Connecticut death tax purposes. Whether or not a gift was in contemplation of death is a matter for the probate authorities to decide, however. Hence, all gifts are supposed to be revealed to the authorities whether ultimately considered to be taxable or not. I incorporated the information on gifts revealed in the probate records in my definitions of the terminal wealth of parent and child.

3. EMPIRICAL FINDINGS

Some simple statistics can describe the terminal wealth of parent and child. Two measures of parental wealth are used, peak midparent wealth, PMPA, and midparent wealth, MPA. Midparent wealth is the estate of the parent dying first plus the estate of the parent dying second minus the interspousal transfer (to avoid double counting) divided by two.[7] All dollar values are adjusted by the consumer price index and expressed in 1967 dollars. To obtain peak midparent wealth we sum the estate of the parent dying first and the greater of two values: the first value is the estate of the parent dying second minus the interspousal transfer and the second value is zero. We then divide by two. Thus

$$PMPA = W_1 + Max(W_2 - IST, 0) /2$$

with W_1 the estate of the parent dying first, W_2 the estate of the parent dying second, and IST the interspousal transfer. The peak family wealth definition is different from the family wealth definition in cases in which the surviving spouse runs down the stock of wealth. For example, if a woman leaves an estate of one million dollars to her husband who dies penniless, how should we determine the family's wealth class? The peak family wealth measure would classify the family in the one million divided by two or $500,000 wealth class. The family wealth measure would place them in the $250,000 wealth class. In any case, I find that my results using both measures are quite similar to each other.

Next define PSTAT as the estate of the father and MSTAT as that of the mother. Adjusted father's estate, APSTAT, is PSTAT less any interspousal transfer received from the mother if she died first. Adjusted mother's estate, AMSTAT, is MSTAT less any interspousal transfer received from the father if he died first. Finally, A is the value of the child's estate.

Simple correlations and summary statistics are presented in Table 1 for the 199 cases in which the records of the child and both parents were found. Note that in these estate data, as in all wealth data the distribuiton is highly skewed to the right with the means well above the medians. The median value of the child's terminal wealth is $155,500 somewhat less than midparent wealth but still quite a substantial sum. The simple correlation between the wealth of the child and peak midparent wealth is .50 (.48 using midparent wealth). The correlation between the wealth of the child (60% of these children were male) and the father is closer than that for the mother. The estates of

TABLE 1

Simple Correlations and Summary Statistics
(variables defined in the test.) N = 199

	MSTAT	APSTAT	AMSTAT	PMPA	MPA	A	Mean (in thousands of 1967 dollars)	S.D. (in thousands of 1967 dollars)	Median (in thousands of 1967 dollars)
PSTAT	.59	.98	.51	.87	.85	.57	954.9	1,556.8	260.7
MSTAT		.62	.98	.90	.92	.33	889.1	1,805.5	220.6
APSTAT			.58	.87	.87	.55	829.4	1,448.1	194.7
AMSTAT				.85	.88	.28	763.6	1,813.0	153.7
PMPA					.99	.50	813.4	1,360.1	215.9
MPA						.48	788.4	1,349.3	214.6
A							1,049.8	3,738.6	155.5

All Correlation Coefficients are significant at the .001 level.

fathers exceed those of mothers using both the adjusted and unadjusted definitions. Also of interest are the correlations between the estates of mothers and fathers; .59 and .58 using the unadjusted and adjusted definitions, respectively. Blinder (1973), in a multigenerational model of inherited wealth, stresses the importance of the degree to which marital partners are similar in own wealth-holding on the wealth distribution among individuals. The higher the degree of similarity between marital partners, as measured by the correlation coefficient between inheritance received by husband and wife, the greater the degree of wealth inequality in each generation. Blinder guesses that the correlation in the U.S. is between .3 and .5 at this time. Although the correlations presented here exceed .5 it must be remembered that we are measuring wealth after the couple has spent their lives together not when the couple enters the marital state. Due to lifetime comingling of funds, it is likely that the wealth of marital partners are more similar at death than at marriage. Hence Blinder's assumption may after all be correct.[8]

Next I match parent and child and present the distribution of the ratio of child to midparent wealth. It can be seen in Table 2 that the median child has about 77% of the terminal wealth of his parents. The computed ratio, however, as well as the distribution of wealth in general, is highly skewed and the mean ratio is 49% or 59% greater than unity. Based upon the data in Table 1 and the median ratio, we can say that wealthy parents have wealthy children, but not quite as wealthy as were their parents.

Although the preceding analysis indicated how children fared in relation to parents, there was also population growth over the period. On average, each pair of parents produced more than two children. The median number of children per family in the 199 cases found is 3.0.[9] If we multiply the median ratio by 3/2 (i.e., three children from two parents) the ratio of second generation to first generation wealth within a family line is

Table 2

Distribution of the Ratio of Child's and Parental Wealth at Death

Percentile	Child's wealth / Midparent Wealth	Child's wealth / Peak Midparent Wealth
5	.023	.023
25	.225	.217
50	.773	.771
75	1.775	1.737
95	5.276	4.576
Median	.773	.771
Mean	1.592	1.490
S.D.	3.551	3.323

approximately 1.16 for both definitions of parental wealth. Hence this approach reveals that for a "family dynasty" wealth-holding increased in real terms over a generation, though the typical family member had less wealth than its wealthy parents possessed. In subsequent analysis, I will not pursue this family dynasty approach but rather treat the individual as the appropriate unit of analysis (though family size is used as a regressor in the multivariate model to follow).

Next a bivariate transition matrix is presented. The columns represent the wealth class of the child, the rows, wealth class of the midparents.[10] The first number in each cell is the number of children whose parents were in the i^{th} class, that reside in the j^{th} class. The second number is the proportion of children whose parents were in the i^{th} class that ended up in the j^{th} class. Table 3 is divided into 16 cells. As can be seen, nearly 50% of the children fell into the same cell as their parents. The table shows that 52.5% of the children whose parents occupied the top group will also occupy the top group, while only about 1% of the children whose parents occupied the bottom two groups, eventually occupy the top group. In other words, within this already highly stratified sample, a child born into the top group will be about fifty times more likely to end up in the top group than a child born into the bottom two groups.

An additional way of interpreting these results is to compare the wealth held by the children in this sample to that held by children selected at random from the entire U.S. population. The data base used by Smith (1975) provides the distribution of terminal wealth for 2,585 Washington, D.C. decedents in 1967 who had gross assets of $1,000 or more. Smith claims that the wealth distribution for whites is representative of the national distribution. Among whites, the median net estate (gross estate less debts) was $28,690. However, the ratio of deaths of white Washington, D.C., residents and whites who filed an inheritance tax form was one-half. Assuming the nonfilers had estates below the median of the filers, $23,690 becomes the estate at the 75th percentile. Of the

Table 3

Parent-Child Wealth Transition Matrix 4x4

Peak Midparent Wealth (in thousands)	Wealth Class of the Child (in thousands of dollars)				
	50 and less	50 to 200	200 to 1,000	Above 1,000	Total
50 and less	4 .800	1 .200	0	0	5
50 to 200	29 .326	39 .438	20 .225	1 .011	89
200 to 1,000	13 .213	14 .230	26 .426	8 .131	61
Above 1,000	4 .091	5 .114	12 .273	23 .523	44
Total	50	59	58	32	199

50 children who fell into the bottom wealth class 26 possessed estates less than $25,000. Hence only 13% (26 of 199) of my sample fell into the class inhabited by the "poorest" 75% of the population. At the high end, the Smith data reveal that an estate of $289,100 would put one at the 97 1/2 percentile. My data reveal that nearly 40% (actually 38.2%) of the children in the sample fell in that class inhabited by the wealthiest 2 1/2% of the population. That is, the children of the wealthy parents had greater than 15 times the chance of landing in the top 2 1/2 percentage group than children selected at random (assuming of course that Smith's statement, that Washington whites are nationally representative, is correct).

As mentioned earlier, inter vivos transfers, gifts, are legally required to be reported to the Connecticut probate authorities whether they are ultimately deemed taxable or not.[11] When a gift was revealed in the records I added its value to the donor's estate and defined estate value inclusive of gifts made. Though the primary focus of this paper is not gift giving itself, it may be useful however, to relate its incidence to the wealth class of the donor.

In Table 4 the distribution of the incidence of childrens' reported inter vivos transfers by the terminal wealth class of the child is presented. Both cell frequencies and column proportions are reported for the 300 children whose probate records were located. Evidence of a gift appeared in 21 cases or seven percent of the sample. The table shows that the proportion of cases in which a gift is reported rises with the terminal wealth class, inclusive of the gift, of the donor. A similar trend was observed among parents with the incidence of gift giving rising with estate class and peak mid-parent wealth class.

TABLE 4

The Distribution of the Incidence of Inter Vivos Transfers Among Children - N = 300

	Wealth Class of Child (in thousands of 1967 dollars)								
	less than 25	25 to 50	50 to 100	100 to 200	200 to 400	400 1,000	1,000 to 2,00	above 2,000	Totals
Gift Made Column Proportion	0 0	0 0	0 0	1 .018	3 .079	8 .160	4 .182	5 .263	21 .070
No Gift Made	40	39	37	54	35	42	18	14	279
Number of Observations	40	39	37	55	38	50	22	19	300

The Table yields a Chi Square of 32.38 with 7 degrees of freedom, significant at the .0001 level.

Among the 21 cases of children in which a gift giving was reported in the records, the amounts in 1967 dollars were substantial, with a median of $92,578 and a mean of $186,407. The mean gift over the entire sample of 300 children was $13,048 assuming no gift was made when no record of such a transfer appears in the probate files.

The amount transferred as well as its incidence appears to increase with the wealth of the donor. The correlation between the amount given and estate for the 300 children is .09. The degree of correlation is higher among the parents, the correlation between peak midparent wealth and the amount given is .24.[12]

It has been noted by economists (Fiekowsky, 1956; Pechman, 1950) that differences between nominal federal gift and estate tax rates create an incentive to transfer wealth during life instead of at death. The difference between the two rates, and therefore the incentive, increases with estate size.[13] Hence, the greater use of inter vivos transfers exhibited by higher wealth individuals can be explained by this "tax-price" effect. The unanswered question, of course, is why gifts are apparently made by so few.

4. ESTIMATION OF WEALTH MOBILITY

Although many other measures are possible the statistic used to measure intergenerational wealth mobility (or more correctly, immobility) is the correlation coefficient between the logged values of peak midparent wealth and child terminal wealth.

However, if the range of the independent variable is attenuated in the sample, the measured correlation coefficient will not be unbiased. The sample used in this paper selected parents with estates of $40,000 or more in the 1930s and 1940s so I run the risk of attenuation bias in the correlation coefficient. Note that even with attenuation the regression coefficient of the log of the child's wealth on the log of peak midparent wealth would be unbiased if this assumption of constant elasticity is correct.

Lord and Novick (1968) show that under the assumptions of a linear relationship between dependent and independent variables and homoscedastic errors, sampling from a restricted range will yield a correlation coefficient that is biased downward if the variance of the restricted variable within the restricted range is less than the variance of the same variable over the population. They also show how the bias in the correlation coefficient can be estimated and corrected.

Let us say variable F is observed over a restricted range and we are interested in the correlation between it and another variable, A. If linearity and homoscedasticity assumptions are satisfied, the relationship between the unbiased correlation coefficient ρ_{AF}, and the biased correlation coefficient that is measured, $\rho_{A\tilde{F}}$, is

$$\rho^2_{A\tilde{F}} = 1 - \frac{\rho^2_F}{\rho^2_{\tilde{F}}}(1-\rho^2_{AF}),$$

with σ^2_F the unrestricted variance of F and $\sigma^2_{\tilde{F}}$ its variance over the restricted range. If F is the log of peak midparent wealth and A is the log of the child's terminal wealth (both expressed in 1967 dollars) we can adjust the observed correlation coefficient for the attenuation bias using the formula presented above. If, for example, the ratio of the unrestricted variance of the log of peak family wealth were twice the restricted variance, and the observed correlation coefficient was .5 the true ρ_{AF} would then be .79. Within the sample, the variance of log peak midparent wealth is computed to be 1.80. We do not know the unrestricted variance of log peak midparent wealth for the entire population for 1937, the mean year that the parents in this sample died. However, Smith's data base alluded to earlier provides us with a measure of the variance of log estate in 1967 for a sample that is much less restricted than my sample of parents since the filing threshold is $1,000 of gross assets. For the whites in the sample the variance of log estate is 5.6 (for whites and nonwhites it is 7.3). Futhermore, the wealth distribution in 1967 was more equal than it was in 1937,[14] so unrestricted variance estimates in 1937 would probably exceed the 1967 estimates just cited. Hence, an assumption of an unrestricted-restricted variance ratio of two probably errs on the side of conservatism; the actual ratio might well be greater than two.

Using the 199 cases in which both parents estates were located we estimated the following regression equation:

$$LA = \underset{(.092)}{.758}\ LPM + 2.43 \qquad \bar{R}^2 = .25 \quad r = .50$$

The variable LA represents the log of the terminal wealth of the child, its mean is 12.021 and its standard deviation 2.020. LPM is the log of peak midparent wealth and has a mean of 12.634 and a standard deviation of 1.342. The coefficient of LPM is the elasticity of child to parental wealth and is referred to as the "regression to the mean parameter" (its standard error is in the parentheses). The magnitude of the coefficient estimate, .758 has independent importance; the difference between it and unity indicates the degree of regression to the mean in wealth holding over one generation. Consequently these data suggest a 25% regression to the mean across a generation. Presenting the coefficient estimate in another way, we can say that if your parents had ten times the wealth of my parents, you can expect to have about seven and one-half times the wealth that I can expect to have.

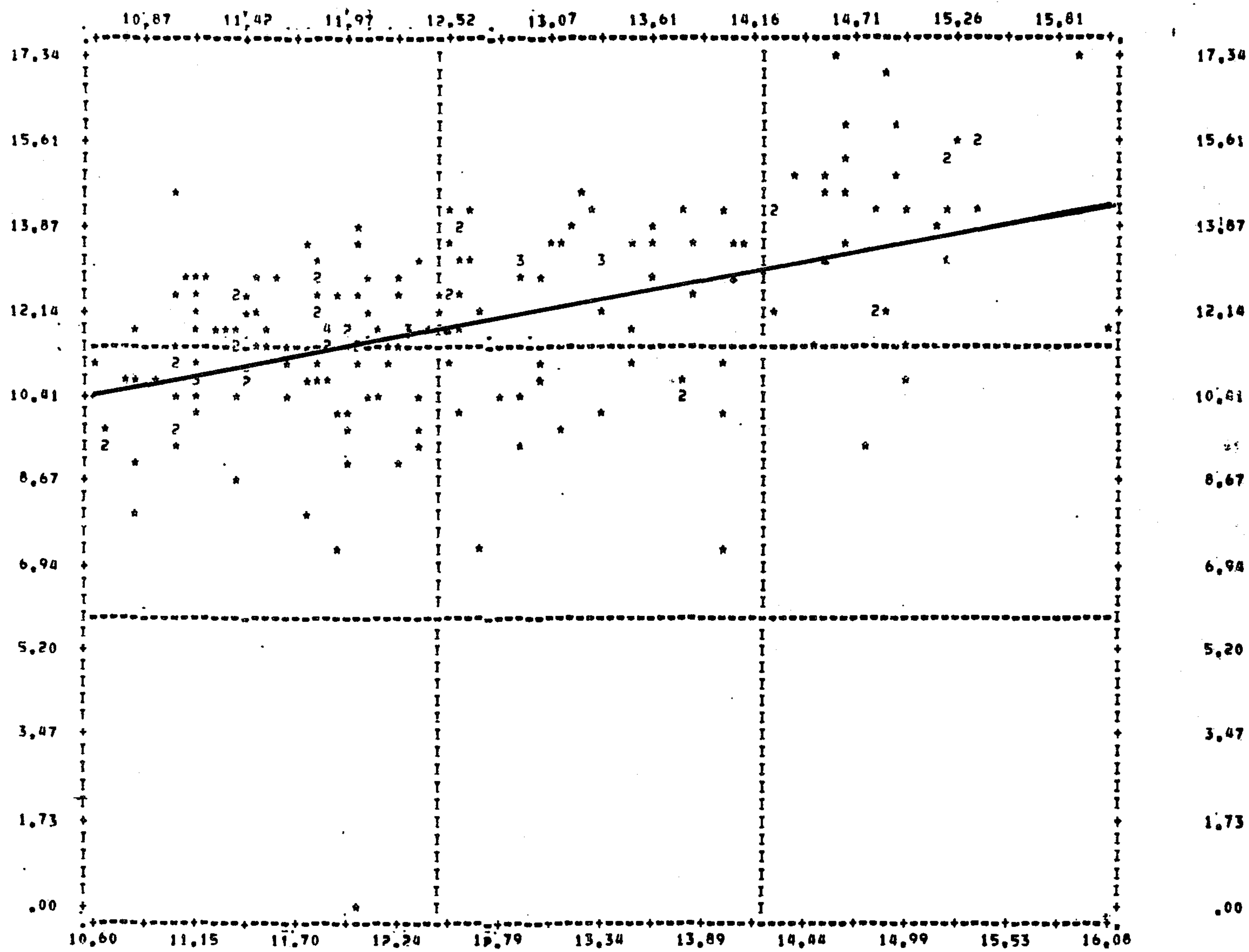
The measured correlation coefficient is .50 and turns out to be the same as the correlation coefficient between the unlogged values of the variables. Using the correction formula in Lord and Novick and assuming a ratio of unrestricted to restricted variance of two, the correlation coefficient that would be observed over the entire population is .79. In Figure 2 a scatter diagram of LA and LPM is presented with the fitted regression line drawn in. Numerals denote the number of (approximately) coincidental points.[15]

A Test of the Homoscedasticity Assumption

I tested for homoscedasticity within the data using the parametric test developed by Goldfeld and Quandt (1965). Following this procedure the data was ordered by the value of the independent variable in an increasing fashion. The sample was divided into two subsamples of 99 cases each around the median value of the independent variable. Separate regressions were run on each subsample and the sum of squared residuals (SSR) from each subsample were obtained. The ratio of SSRs from the two subsamples has the F-distribution with 47,47 degrees of freedom in this case. Since the ratio of SSRs with the numerator containing the SSR derived from the larger independent variable subsample is found to be 1.06 a value not statistically significantly different from unity at the .001 level, the assumption of homoscedasticity is supported within the sample.

Using similar methods a regression relating the unlogged values of child and midparent wealth was also tested for homoscedasticity. The ratio of SSRs was computed at 357.6 and is significantly greater than unity (the critical F value at the .05 level with 47,47 degrees of freedom is 1.60). Hence, the Goldfeld-Quandt procedure supports the homoscedasticity assumption in the linear in log specification, while this assumption is rejected in the linear model, a commonly used alternative form.

Figure 2
Scatter Diagram and Fitted Regression of the Logs of
Child and Midparent Wealth -- N = 199



Log of the Wealth of the Child

Log of Midparent Wealth

Table 5

Regression Results--Log of Child's Wealth as a Function of the Explanatory Variables
N = 173

Variable	Coefficient	Standard Error
LPM	.727	.103
SIBSHIP	-.211	.087
ET	.026	.015
STEPCH	-1.414	.956
NCHILDS	-.126	.108
SEX	.010	.309
MAR	.619	.654
NEVMAR	.452	.748
WIDOW	.408	.699
AGE	.076	.099
SAGE	-.0005	.0007
Constant	-.242	
$\bar{R}^2$ = .29		
r^* = .48		

A Test of the Linearity Assumption

Using a restricted form of the technique developed by Box and Cox (1964), I compared the residuals obtained from the linear in log specification to those obtained from a competing form, the linear specification. After scaling the dependent variable by the inverse of its geometric mean, one can choose between the two forms on the basis of the higher likelihood value.[16] The linear in log form yielded a sum of squared residuals that was significantly smaller than its competitor, the linear specification, a result that supports the linear in log, as oppossed to the linear model.

Multivariate Analysis

It seems reasonable to attempt to control for the effects of other factors that vary within the sample. For example, variations in the elapsed time between the dates of the death of parent and child may affect the variations in the child's wealth. If the parents died only a short time before the child died there would be less time for the child to increase his inheritance by productive investment than if the parents died sooner. Hence, the variable ET, the elapsed time between a weighted average of the dates of death of the parents (with the weights the relative size of the inheritances received from the mother and father) and the date of death of the child, is included in the regression equation. The sign of the coefficient of ET is expected to be positive . The number of siblings a child has should influence the wealth of the child since the parental estate would be split into a greater number of shares the more children the parent has. SIBSHIP, the number of siblings the child has plus one, is added with the sign of its coefficient expected to be negative. There were six cases in which one of the parents was a non-natural parent. STEPCH is a dummy assuming a value of unity for those cases in which the child is a stepchild not adopted by the non-natural parent. The sign of STEPCH is expected to be negative since parents are less likely to make bequests to their non-natural children (though it might be negative for other reasons as well). SEX is a dummy that is unity for males and NCHLDS is the number of children (as reported in the probate records) that the child himself had. Three marital status dummies, MAR, NEVMAR, and WIDOW were included and assume values of unity for those married at death, never married and widowed respectively. Divorced persons constitute the excluded basis. Finally, age at death is controlled for by entering the variables AGE and SAGE (age at death squared). If wealth exhibits a strong age profile, differences in longevity within the sample could confound the other coefficients.

By employing a multiple regression model I am simultaneously estimating an equation that determines the level of wealth of the child and provides a measure of mobility when other factors are controlled. The measure of mobility in the multiple regression model is the partial correlation coefficient. Note that the value of the partial correlation coefficient that is obtained should in principle be equal to what the simple correlation would be if the data were "adjusted" using the coefficient estimates of these other variables. By entering these additional variables into the model I am purging out their influence on the measure of association between the logs of midparent and child wealth.

The regression results are presented in Table 5. The sample size was reduced to 173 because NCHILDS and AGE were not known in all cases and only cases in which there was no missing data were used.[17]

The measure of intergenerational immobility, r^*, is .49 within the sample and converts to .79 when using the adjustment factor of two explained above. The regression coefficient of LPM drops to .727 implying a 27.3% regression to the mean over a generation. The age variables are not significant, but taken at face value, their coefficients are quite small and imply that the wealth held by those of age 75 is about six percent higher and five percent higher than wealth held by those of ages 65 and 85 respectively other things the same. The coefficient of NCHILDS is negative but also not significant. When NCHILDS, AGE and SAGE are dropped from the regression equation the sample size is restored to 199 cases. When the regression is repeated using the shortened list of regressors, I find that four variables are statistically significant, LPM, SIBSHIP, ET, and STEPCH; the sex and marital status dummies do not seem to matter in a significant way.

The final regression equation including only the significant variables is presented below with the standard errors in parenthesis.

$$\underset{}{LA} = \underset{(.092)}{.694\ LPM} + \underset{(.011)}{.026\ ET} - \underset{(.076)}{.191\ SIBSHIP} - \underset{(.709)}{1.61\ STEPCH} + 3.30$$

$\bar{R}^2 = .29$

$r^* = .48$

The regression coefficient of LPM is reduced to .694 and the partial correlation coefficient is .48 within the sample and converts to .78 when the adjustment factor of two is used. Being a stepchild has a very strong negative effect on one's wealth. It could be that parents not only fail to make nonhuman capital transfers to stepchildren but fail to make human investments in them as well. The effect of an additional sibling is to reduce one's wealth by 19 percent presumably due to wealth splitting with equal estate shares among children (as has been observed elsewhere) the general rule. The length of time between the dates of death of parent and child does have a positive effect on wealth of the child at death. The coefficient of ET may be picking up the effect of real productivity growth in the economy with an implied rate of 2.6% per annum.

In this section estimates of a reduced form equation relating the logged values of the terminal wealth of parents and children are presented. The elasticity estimates suggest a regression to the mean of from about 25 to 30 percent over a generation depending upon the specification of the regression equation. The indices of immobility, the simple and partial correlation coefficients, are calculated at .50 to .48. It was argued however, that sampling from a restricted range biases the correlations downward. Reasoning intuitively, it would seem that the restricted independent variable could not explain as much of the variation of dependent variable as if sampling was unrestricted. In the polar case, for example, in which all parents had exactly the same wealth, the observed correlation coefficient would be zero. An attempt is made to correct the correlation coefficient for attenuation bias. This procedure yields correlations of nearly .80. A note of caution should be added, however. The procedure used to adjust the correlations rely upon linearity and homoscedasticity assumptions; assumptions that seem to be satified within the data but need not be satisfied over the range of the parent population that is unobserved.

5. CONCLUSION

This paper compares the wealth of parents and children. Starting from a sample of wealthy parents I find that wealthy parents do indeed have wealthy children, though not quite as wealthy as were their parents. Estimates of a reduced form equation relating log of child to midparent wealth reveal a 25 to 30 percent regression to the mean across a generation. A measure of immobility, the correlation coefficient, is calculated at .48 to .50 within the sample. Correcting the correlation coefficient for attenuation bias (using a procedure described earlier) increases it to nearly .80. The question is, is so much wealth immobility across a generation possible?

Paul Taubman (1978) has reviewed the scanty evidence on the heritability of earnings.. Based upon previous work (Sewell and Hauser 1975) and his own analysis of fraternal and identical twins, Taubman concludes that the correlation between lifetime earnings of parent and child is approximately .25. The process that transmits earnings capabilities from parents to children should exhibit "diminishing returns." For example, after a child has already obtained a Harvard law degree the incremental value of a second law degree should be quite minor. There should be some point in which additional efforts of parents (say through expenditures on education) will fail to confer any additions in earnings capacity, i.e., human inheritance is bounded function. The same is not true for non-human inheritance.

It would seem to me that material wealth immobility would be greater than earnings immobility since material inheritance affords parents the opportunity to directly influence their child's asset position. Futhermore, if higher wealth parents make a proportionately larger finacial bequests than lower wealth parents (if relationship A in section 1 of this paper was wealth elastic) this bequest effect would reinforce the positive correlation between parent-child earnings. Consequently, it is not only possible but likely that wealth immobility across a generation is substantially greater that earnings immobility. The remaining normative question is, of course, whether or not such immobility is desirable.

NOTES

[1]Economists have recently begun to consider mobility as an appropriate subject of study. See, e.g., Blinder (1976), Conlisk (1974), Taubman (1978), and Shorrocks (1978a,b).

[2]Many other measures of mobility are possible. See Shorrocks (1978b) for an analysis of the measurement of mobility.

[3]I am indebted to William McKinstry for making this data available to me.

[4]In certain cases the name of the child was unavailable or illegible though the child's existence was indicated in the records. Daughters who were not married at the time of death of the parent were excluded from the active search list, since it was assumed that a high percentage would eventually marry and therefore have name changes. I eventually searched for some of the unmarried daughters and found a small subsample of them.

[5]There were 146 different sets of parents since the data include siblings.

[6]This and other possible sources of sample attrition bias are discussed in greater detail in Menchik (1978). For example the risk of truncation bias (on the dependent variable) is relatively minor since in more than 80% of all Connecticut deaths some probate records are filed for the decedent if only the small estates affadavit.

[7]We divided by two in order to get equivalence in numbers of people since we are comparing the wealth of a child to the parental average.

[8]The Blinder assumption can not be tested with this data since the inheritance received by marital partners is not known.

[9]We would expect the median number of children among the cases found to exceed the overall median since a representative of a large family is more likely to be found than a representative of a small family.

[10]The matrices using midparent and peak midparent wealth are quite similar and only the matrix using the peak midparent is presented here.

[11]I can not guarantee, of course, that all gifts were, in fact, reported to the authorities.

[12]The appropriate statistical model is the form suggested by Tobin (1958) since the dependent variable, the amount of inter vivos transfer, is truncated at zero in the data.

[13]On the other hand, Adams (1978) has argued that the two tax rates are effectively quite similar since the gains on appreciated property are taxed gifts but were forgiven (until 1976) for bequests.

[14]See Lampman (1962) and Williamson (1977) for evidence that the U.S. wealth distribution became more equal (in this century) until the post-World-War-II period, and since that time unequality has remained approximately constant.

[15]If the large negative outlier in the lower left hand corner of Figure 2 is deleted from the regression, the slope coefficient falls to .739, but the correlation coefficient increases to .54.

[16]The procedure followed did not select the forms that maximized the likelihood function over the entire space, it only selected between these two commonly used alternatives. See Rao and Miller (1971) for an example of this technique.

[17]When only these 173 cases are used the bivariate regression yields a regression coefficient of .763 and a correlation coefficient of .50.

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