FINAL REPORT

FAMILY BACKGROUND AND LABOR MARKET OUTCOMES

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This project was funded by the U.S. Department of Labor Bureau of Labor Statistics under Contract Number J-9-J-7-0094. It was originally titled "Family Background, Labor Market Outcomes, and Race and Sex Differences in Youth Employment Outcomes." Opinions stated in this document do not necessarily represent the official position or policy of the U.S. Department of Labor. Reseach support from the Center for Urban Affairs and Policy Research, Northwestern University is also gratefully acknowledged. Avner Greif, Alex Idichandy, Michele Borsetti, Yasuyo Abe, and James Spletzer provided skillful research assistance.

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Family Background and Labor Market Outcomes

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Family Background and Labor Market Outcomes

EXECUTIVE SUMMARY

Objectives:

This report examines the links between the labor market experiences and economic outcomes of individuals who are related by blood or by marriage. Each chapter is an independent study. The main objectives of Chapter 1 are (1) to provide better estimates of inter and intragenerational correlations in family income and earnings, (2) to estimate earnings correlations among individuals who are related by marriage, (3) to examine intergenerational links among a broad set of labor market outcomes, and (4) to show how intergenerational labor market data can be used to examine the sources of labor supply variation, theories of labor turnover, and theories of wage structure. In Chapter 2 we attempt to identify the sources of variation and of family similarities in wages, hours, and earnings. In Chapter 3 we measure the extent to which the education and experience slopes of wage equations are influenced by IQ, parental education, and an index of family background variables, school characteristics, and personal characteristics that predict years of education completed.

Methodology

All three chapters are based upon matched inter and intragenerational panel data on siblings, their parents, and their spouses from the four original cohorts of the National Longitudinal Surveys of Labor Market Experience. We work with a wide variety of multivariate statistical methods and several different econometric models. In examining correlations among labor market outcomes we pay special attention to biases from transitory

variation and measurement error.

Findings

The results of our analysis of family links in economic outcomes in Chapter 1 are as follows. First, we find very strong intra and intergenerational correlations in family incomes. The sibling correlations are stronger for sisters than for brothers. Our preferred estimates are based upon a method of moments procedure that reduces bias from transitory variation. The correlations are .38 for brothers, .52 for sisters, and .56 for brothers and sisters, which are large relative to most estimates in the existing literature. The estimates of the intergenerational correlations of family income are .34 for son-father pairs, .46 for daughter-father pairs, .55 for daughter-mother pairs, and .54 for son-mother pairs. A regression analysis suggests that a one percent increase in the permanent family income of the parents raises the conditional mean of children's family income by .25 to .34 for sons and .32 to .42 for daughters. A substantial part of this effect operates through education and race.

Second, we find strong family links in earnings and in wages. Much of the effect of parental background on earnings and wage rates, particularly in the case of fathers and sons, operates through education and race.

Third, we find fairly strong correlations in the work hours of family members of the same sex. Our results suggest that family specific factors play an important role in hours determination.

Fourth, we find large covariances and correlations among the earnings of individuals who are related by marriage.

Fifth, we find that job turnover behavior is correlated among family members. We also show that young men whose fathers work in high wage

industries (controlling for human capital characteristics) tend themselves to work in high wage industries.

In Chapter 2 we present estimates of a factor model of earnings, hours and wages. We use the model to investigate the extent to which the parental and family characteristics that drive wage rates and work hours independently of wage rates are responsible for similarities among family members in labor market outcomes. We find that the wages of both sons and daughters are quite responsive to the permanent wage rates of fathers and mothers, with coefficients between .2 and .3 for our preferred specifications. The father's wage explains a substantially larger fraction of the total variance in wage rates, in part because the variation of the father's wage factor is substantially larger (by about one-third) than the variation in the mother's wage factor.

We also document that intergenerational correlations substantially overestimate the direct influence of fathers, and especially mothers, on wages. A substantial part of the relationship between a parent and child arises because assortive mating induces a substantial positive covariance in the wage rates of the parents.

We find that 6 percent of the total variance in young men's work hours is associated with parental preference factors and 17 percent is associated with an additional preference component that is common to siblings. For young women only about 9 percent of the total variance in hours is associated with parental plus sibling preference factors. The small influence of wage rates (particularly for young men, who have a low overall variation in hours), reflects the fact that our estimated labor supply elasticities are only .056 for young men and .184 for young women. For mature men only 3 percent of the

hours variance can be attributed to wage differences. On the other hand, wage differences explain 16 percent of the total variance in hours for mature women, who have a labor supply elasticity of .445.

We attribute 85 percent of the variation in the earnings of young men to wage rates and 15 percent to hours preferences. For mature men the figures are 97 percent and 3 percent. On the other hand, the hours preference factors account for 56 percent of the variance in the earnings of young women. For the mothers, 71 percent of the earnings variance is due to the wage factor, and 29 percent to the hours preference factor. Consequently, our decompositions of the earnings variances differ by gender, and by age in the case of women.

In our analysis of education and experience slopes (Chapter 3) we find that IQ, father's education, mother's education, and an index of family background, secondary school characteristics, and personal characteristics that predict years of schooling completed have only weak influences on the relationship between education and wages, and between labor market experience and wages. In a number of cases, the family background interactions work in the wrong direction or are statistically insignificant. In view of the results, it seems unlikely to us that the effect of family background on the education slope of wages is responsible for more than a small part of the powerful effect of family background on years of school completed.

Implications

Our results imply that characteristics common to family members have a very important effect on the distribution of income and wages, and also play an important role in other aspects of labor market behavior, including work hours and job turnover. The findings of strong links between individuals who

are related by marriage are particularly interesting. We believe that extending the factor model in Chapter 2 to include equations for spouse's earnings, hours and wages should be a high research priority. Finally, we are surprised that we do not find much of an effect of family background and IQ on the payoff to education and experience and plan to continue our analysis using other data sets.

Chapter 1

Relationships Among the Family Incomes and Labor Market Outcomes of Relatives

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Introduction

This chapter quantifies the links between the labor market experiences and economic outcomes of individuals who are related by blood or by marriage using panel data on siblings, their parents, and their spouses from the four original cohorts of the National Longitudinal Surveys of Labor Market Experience. Our main objectives are (1) to provide better estimates of inter and intragenerational correlations in family income and earnings, (2) to estimate earnings correlations among individuals who are related by marriage, (3) to examine intergenerational links among a broad set of labor market outcomes, and (4) to show how intergenerational labor market data can be used to examine the sources of labor supply variation, theories of labor turnover, and theories of wage structure.

The first purpose of the paper is simply to provide better estimates of the correlations of permanent income and earnings levels between parents and children and among siblings. Many studies have examined sibling correlations, and a small number have examined intergenerational family income

correlations in the U.S.[1] As Solon (1987, 1989) points out, previous U.S. studies finding weak intergenerational correlations (see Becker and Tomes (1986)) are plagued by homogeneous samples and lack of attention to downward biases caused by measurement error and transitory variation in income or earnings observations drawn from a single year.[2] We use the NLS data, which is a broad based sample, and compute correlations using two alternative approaches that should be less sensitive to transitory variations in the data. The first is a method of moments estimator that is constructed to be insensitive to transitory variation. The second approach uses time averages of the data for individuals. We also use an instrumental variables estimator to estimate the regression coefficient relating the permanent components of parents' income, earnings, wage rates and other labor market variables to those of their sons and daughters.[3]

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1. See Becker and Tomes (1986) for references. Solon (1987, 1989) provides a critique of the previous intergenerational studies and provides new evidence based on the PSID. His results are discussed below. Bielby and Hauser (1981) use CPS data to analyze the relationship between son's earnings and the son's report of parental income and attempt to correct for biases that arise from response error. They obtain a correlation of .161. (See their Table 8.) Other prominent references in the literature include Brittain (1977), Griliches (1979), Solon et al (1987), Corcoran and Jencks (1979), Kearl and Pope (1986), and Olneck (1977), Behrman and Taubman (1985) and Taubman (1977).

2. Becker and Tomes mention the problems of measurement error and transitory variation in income, and several of the studies they cite use time averages to try to reduce the problem. The problems posed by homogenous samples are not well known, although Corcoran and Jencks (Chapter 3, Section 1) mention it in the context of studies of sibling correlations.

3. Why focus on the correlation in permanent income rather than total income? The answer is that we view the inequality of lifetime income rather than inequality of income in a given year as the key variable of interest, and transitory variation in income that is weakly correlated across years has little effect on the cross sectional variance in income over a lifetime. Consider the case in which income in a given year for a particular person is the sum of a fixed or permanent component and a serial uncorrelated transitory component. Suppose that the variance in the transitory component is twice as

The second purpose of this chapter is to provide evidence on the correlations in earnings among those individuals who are related by marriage. Specifically, we present evidence on covariances and correlations between the labor market outcomes of husbands and wives, fathers and sons-in-law, mothers and sons-in-law, brothers-in-law, etc. While a number of researchers have examined the role of assortative mating patterns in marriage in the

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large as the variance of the permanent component. Then the contribution of the permanent component to the cross sectional variance in the undiscounted sum of income over a 40 year period is [1600/(40*2)] or 20 times larger than the contribution of the transitory component. Discounting increases the relative importance of the transitory component, but for realistic interest rates, the permanent component dominates the income variance. The relative importance of transitory factors does increase if they are correlated over time. However, even if the transitory components were a series of disturbances that took on the same value for four years, then the contribution of the permanent component would be [1600/(4*4*10*2)] or 5 times larger than the contribution of the transitory components.

It should be pointed out that the term "permanent" component is used in the paper to refer to a component that is fixed over time for a given individual. In fact, it is more realistic to consider income as the result of an initial condition that remains fixed, a random walk component that accumulates over time, and a transitory component that is uncorrelated across periods of more than a year or two. In this circumstance parental income and earnings in a given year reflect not only their earnings capacity at the time they entered the labor market but also the accumulated effect of changes in fortune that have occurred over many years, some of which may have occurred long after their children left the household. Our estimates of the variance of parental income will reflect not only the variance of initial parental income but also the variance of the accumulated random walk component. (Note that below we report that the variances of father's family income, earnings, and wage rates are larger than the corresponding values for sons.)

Our estimates of the covariance between parents and children will reflect covariances of the child's income with the parents' fixed income component and with the parents' random walk component. Assuming that most of the intergenerational correlation is in the fixed components of income rather than in the stochastic variation that occurs after entry in the labor market, then the correlation between parents' income at age 50 and children's income at age 30 may be greater (less than) than the correlation between parents' income at age 50 (30) and children's income at age 50 (30). This is because as the child and parents age, the importance of the child's and the parents' random walk components of income increase, lowering the correlation coefficient. In future work, it would interesting to estimate family correlations in discounted lifetime income using a statistical model of income that allows for random walk components and serially uncorrelated components.

determination of inequality, we do not know of any previous studies that have examined the relationships between parental and sibling earnings and the earnings of spouses.[4] We produce a set of correlation matrices relating the labor market outcomes of individuals who are related by blood or by marriage that can be used by other researchers. The covariances and correlations are quite large in many cases.

The third purpose is to examine family relationships among a broad set of labor market outcomes. While a large number of studies have examined intra and intergenerational links in family income or occupational status, few have attempted to examine family links in the main components that influence earnings. Is the link between the economic success of fathers and sons primarily due to work effort or to wage levels? Is the propensity to change jobs a personal characteristic that is correlated among family members?

The fact that little is known about intergenerational links in unemployment experience, work hours, labor turnover, or the rate of return to education is one motivation for our examination of these topics in this report.[5] Additionally, we show how evidence on the relationships among labor

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[4]. Behrman and Taubman (1989) report education correlations for a variety family relationships, including sisters-in-law. Blau and Duncan (1967) analyze evidence from "Occupational Changes in a Generation" (OCG) indicating that there is a substantial correlation between the occupational status of fathers-in-law and sons-in-law and between fathers-in-law.

[5]. The gap in our knowledge is due in part to the fact that analysis of these questions requires detailed panel data for a representative sample on the labor market experience of mothers and fathers and sons and daughters. Until recently, the necessary data have been unavailable. Altonji (1988) and Corcoran et al (1989) are among the few studies that provide data that can be used to address the question of whether the strong relationship between an individual's income and that of his parents is due to common work effort, to hours worked, to unemployment experiences, to common wage levels at the time of entry into the labor market, or to common returns to education and experience.

market outcomes of family members may be used to address broader questions about labor supply, turnover behavior, and even the industry structure of wages that are normally studied using cross sectional data on unrelated individuals.

One obvious application is to labor supply determination. Economists have not been very successful in explaining hours differences among males using wage rates, nonlabor income, and observed personal characteristics. (See, for example, Pencavel's (1986) survey.) It is possible that hours choices are influenced by differences in preferences that are hard to measure but depend upon genetic and environmental factors that are correlated among family members. Indeed, it is common to say that an individual is from a "hard working family." While ultimately we would like to have a structural model of the determinants of labor supply preferences, it is useful to start by examining whether or not a common family component plays an important role in hours determination. In this chapter we present descriptive evidence on hours links, and in Chapter 2 we use a factor model to measure the importance of parental and sibling preference factors in the variance of hours worked and of earnings for young men and young women. We find preferences play a large role in hours linkages.

This chapter proceeds as follows. In section I we discuss the NLS data used in the study. In section II we discuss the statistical methods used in the paper. In section III we quantify the links among family members in family income, earnings, hourly wage rates, and work hours. We also present evidence on links among individuals who are related by marriage. In section IV we present evidence on the relationship between the turnover behavior of pairs of related family members. We also discuss the implications of these

relationships for studies of the role of individual heterogeneity and job match heterogeneity in the turnover process. In section V we show that young men whose fathers work in high wage industries (controlling for human capital characteristics) tend themselves to work in high wage industries. We argue that the results are consistent with nonmarket clearing explanations for industry wage premiums (such as efficiency wages) only if family connections play a key role in gaining access to high wage firms. Section VI concludes the chapter.

I. Data

The data used in this report are from the four Original Cohorts of the National Longitudinal Surveys of Labor Market Experience. Specifically, we work with the sample of Young Men who were 14 to 24 years old in 1966 and were followed through 1981, the samples of Young Women who were 14 to 24 in 1968 and Mature Women who were 30 to 44 in 1967 and continue to be followed, and the sample of Older Men who were 45 to 59 years old in 1966 and were last surveyed in 1983. We use data through 1982 in the case of the young women and through 1984 in the case of mature women. Some of the households contributed more than one person to the young men and young women surveys, and in some cases the households contributed to both the youth surveys and older men and mature women surveys. Consequently, it is possible to match data on sibling pairs and parent-child pairs. For some of our analysis, we have also matched data on husbands and wives who were members of the older men's and mature women's surveys. The bottom rows of Tables 1 and 2 summarize information on the sample sizes of the original cohorts, the numbers of brother, sister, and brother-sister pairs, and the number of parent-child pairs. It is important

to emphasize that the sample sizes used in the analyses vary depending upon the particular variables being considered and the number of family member matches that are available.

Because sample members are asked questions about the labor market outcomes of their spouses, we are also able to examine the relationships among the labor market outcomes of individuals who are related by marriage. For example, we report the covariance of earnings of fathers and sons-in-law using the reports of spouse's earnings provided by members of the young women's cohort who could be matched to their fathers.

Many of our analyses exploit the availability of panel data on the individuals in the sample. However, data on a particular question may be missing either because the individual left the sample prior to that survey or because the response is missing or invalid for other reasons. In the case of the young men and young women our basic approach is to restrict the sample to individuals who were at least 24 years old prior to leaving the survey. We chose this age cutoff to reduce transitory variation in labor market outcomes associated with the transition between school and work. We use labor market data (wages, hours, unemployment, etc.) from a particular year only if the individual was at least 24 and was out of school and did not return to school in a subsequent year.

The fact that many of the older men in the sample approach retirement age during the course of the survey raises additional complications. Earnings, work hours, and wage rates of such individuals after retirement may not be closely related to the typical or "permanent" values for these individuals over the course of their careers. To minimize this problem, we only use data on family income and labor market variables for individuals who had not yet

retired, and who were less than 61 years old when the data was collected. Since the age in 1966 of the older men ranges from 45 to 59, there is substantial variance across sample members in the number of years of labor market data available.[6] Retirement is not a concern for the mature women's

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[6]. There is always a concern in an analysis of sibling or intergenerational data that the very fact that it was possible to collect data on several family members makes the data unrepresentative. For example, it is necessary for more than one sibling to remain in our sample past the age of 24 in order for the sibling pair to contribute to our analysis. In the case of the NLS, two special problems come to mind. First, both the father and the child must satisfy the age restrictions of the sample design in the base year of the survey. Since a substantial number of children leave the household by age 24, one might expect that the matched sample would over-represent individuals who are still living with their parents when they are in their early twenties. This problem is mitigated to some extent by the fact that the young men in the father-son sample are about .7 years younger than the young men's sample as a whole which had an average age of 18.1 years in 1966. The corresponding numbers for daughters are .5 and 16.7 years.

We have computed summary statistics for the matched parent-child samples and compared them to the corresponding full cohort samples. (A thorough job of this would require a full paper.) The older men in the father-son sample are about 1 year younger than the sample average for the entire older men cohort. The fathers who could be matched to children of either sex have somewhat higher family income (16%), earnings (7%), wages (6%), hours worked per week (2%), and hours worked per year (4%). They also have .33 more years of education than the mature men's sample as a whole. (These differences might reflect differences between older men who had children and older men who did not.)

The mature women in the matched samples are about 2 years older than the sample of all mature women and have family income, earnings, wages, hours worked per week, and annual hours worked which are lower by 5.1%, 17.4%, 9.4%, 1%, and 3%. They also have .70 fewer years of education than the sample of all mature women (10.3 versus 11.0 years).

As noted above, the young men matched to fathers are almost three quarters of year younger than the sample of all young men, but they have higher family incomes (6.2%) and about .5 additional years of education. Earnings, wages, and hours worked per week are equal for the two groups, while annual hours worked are lower by 3.5% for the young men matched to fathers. Young men who are matched to mothers are about two years younger than the entire sample of young men and have somewhat lower family incomes, earnings, wages, and annual hours. Education is similar for the two groups. The young women follow the same general pattern as the young men. Those whose fathers are in the mature men cohort are somewhat younger, better educated (by .5 years), and more successful than the young women's cohort as a whole. Young women matched to mothers are one and a half years younger than young women as a whole and have somewhat lower family income (by 7.7%). Average education (at 12.5 years), wages, earnings, and hours worked for the young women in the

sample through the years we study.

For all four cohorts we excluded wage observations of less than $.40 per hour, earnings of less than $100 per year, and family income of less than $200 per year (all in 1967 dollars). Also only annual hours (constructed as reported number of weeks worked times reported number of hours worked per week) greater than zero and less than 5000 hours were counted.

In part of the analysis we work with the log of number of weeks of unemployed for those who have positive weeks of unemployment in a given year. A problem with this weeks of unemployment measure is that determinants of the incidence and the duration of unemployment spells are related, and unfortunately, by taking logs, we have excluded all observations on zero weeks of unemployment. In retrospect, it would have been better to work with the level of weeks of unemployment, and we intend to re-work the analysis of unemployment in the future.

In the paper we work with two job turnover measures. For a young man, the variable, NNUMEMP, is the number of employers the individual reports from 1966 until either 1981 or the year that he left the sample. This variable counts multiple spells with the same employer only once. The variable NTURNOV is the number of job changes the individual reports over the same period. We emphasize the results for NNUMEMP is the text, although the results based on

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mother-daughter sample are the same as for the full sample of young women.

With regard to sibling pair analysis, the sample restrictions may imply that we are looking at siblings who are somewhat closer in age and from somewhat larger families than would the case from a representative sample. However, we suspect that this problem is minor given that the initial age range is 14 to 24 years.

NTURNOV are usually very similar.[7] The corresponding variables for young women cover the years 1968 to 1982 or the year the women left the sample. The intervals are 1967 to 1984 for mature women, and 1966 to 1983 for older men. For older men, we do not accumulate employer changes or job changes after the individual reaches age 61 or retires. There are a few problems with these turnover measures, not the least of which is that they are affected by the year in which the person left the sample and by his or her labor force participation history. (We discuss additional problems below.) We view these two measures as only rough indicators of turnover rates.

II. Overview of Econometric Models and Methods

In this section we begin by discussing the covariances and correlations among a variety of labor market outcomes for family members. Our aim is to estimate the correlations among the permanent component of the labor market outcomes of family members, and so it is necessary to compute the correlations using an approach that reduces the downward bias introduced by transitory variation and measurement error. We implement two different estimation procedures.

The first approach, which we will refer to as the time average approach, computes the covariances and the correlations among the time averages of the labor market outcomes of matched family members. We use all of the available data on each individual that meets the criteria discussed above to compute the time average for the individual. The sample used to compute the brother correlations consists of all unique brother pairs for whom valid data are

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7. In the text and appendix tables which follow, variable names beginning with the letter N refer to young men (B to brothers), G to young women (S to sisters), M to older men, and W to mature women.

available for the particular labor market outcome. The samples for the other family relationships also consist of the unique pairs of individuals who are in that relationship. For example, a family with three brothers who have valid data on a particular labor market variable will contribute three observations to the sample used to compute the brother pair covariances. A family contributing one father and three daughters to the NLS older men and young women cohorts will contribute three observations to the father-daughter sample, and three to the sisters sample.

The second approach, which we refer to as the method of moments approach, is to compute family covariances of a particular labor market outcome by first adjusting the data to have zero mean, computing the unique set of crossproducts of the elements of the vector of labor market outcomes in different years for one family member with the elements of the vector of labor market outcomes of the other family member, and taking the mean of all the crossproducts for all of the pairs of family members. We estimate the variance of the permanent component of labor market outcomes for young men by first computing the crossproducts of all unique pairs of yearly observations on a labor market outcome that are for the same individual and that are separated by more than two years in time and then taking the average of all of the crossproducts for all individuals.[8] We do the same for young women's,

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[8]. If a labor market variable such as the wage rate is equal to a fixed component and a transitory component that can be represented by a moving average process of order 2 or less, then the transitory component will not bias our variance estimates. Abowd and Card (1989) develop a three components-of-variance model to describe the covariances of hours changes and earnings changes for adult males in the NLS, the PSID and the SIME/DIME data sets. The components are as follows: a stationary serially uncorrelated measurement error, a shared component of hours and earnings which follows a non-stationary MA(2) process, and a time-varying component which affects only the variances of earnings and hours and their contemporaneous covariance. They show that such a representation fits the estimated covariances of hours

mature women's, and older men's variables.

The specific formula for the covariances, variances, and correlations are as follows. Let $Y_{ik(j)t}$ be the adjusted[9] labor market outcome of an individual, where i denotes a set of related individuals, k is the type of individual (e.g., young man, young woman, older man, or mature woman) and j is an index indicating the specific individual of type k from family i. (The index j may exceed 1 when k refers to young men or young women and there is more than one young man or young woman from a given family.) Then the method of moments estimator of the covariance of variable Y across the family pairs of type k,k' is

$$(1) \quad Cov(Y_{ik},Y_{ik'}) = \sum_i \{\sum_j \sum_{j'} \sum_t \sum_{t'} Y_{ik(j)t} Y_{ik'(j')t'}\}/ N_{YYkk'}$$

When k= k', as is the case for brother pairs and for sister pairs, then the covariance estimator is

$$(2) \quad Cov(Y_{ik},Y_{ik}) = \sum_i \{\sum_j \sum_{j'\geq j} \sum_t \sum_{t'} Y_{ik(j)t} Y_{ik(j')t'}\}/ N_{YYkk}$$

The method of moments variance estimator for the variable Y for the person of type k is

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and earnings quite well. They find in all three data sets that changes in the experience- adjusted log earnings and log hours are uncorrelated with their own lagged changes at more than two periods. Since differencing increases the order of an MA term by 1, their results indicate that the MA error component in the level of earnings and hours is of order less than 2.

9. We work with the residuals of a regression of each of the labor market outcomes against a cubic in age and a set of year dummies. Note the time averages used in the time average approach are not adjusted for the individual's age nor for the year from which the data are drawn. In retrospect, we wish that we had made this adjustment, but doubt that it would make much difference; see footnote 33 for supporting evidence.

$$(3)\quad Var(Y_{ik}) = \sum_i \{\sum_j \sum_t \sum_{t'>t+2} Y_{ik(j)t}\, Y_{ik(j)t'}\}/\, N_{Yk}$$

In the above equations $N_{YYkk'}$, $N_{YYkk'}$, and N_{Yk} are the number of terms in the sums taken in (1), (2), and (3), respectively.

The correlation coefficient for the family pairs of type kk', k≠k' is

$$(4)\quad Corr(Y_{ik}, Y_{ik'}) = Cov(Y_{ik}, Y_{ik'})/[Var(Y_{ik}) * Var(Y_{ik'})]^{.5}$$

The correlation coefficient for family pairs of type kk (i.e , brother-brother or sister-sister) is

$$(5)\quad Corr(Y_{ik}, Y_{ik}) = Cov(Y_{ik}, Y_{ik})/[Var(Y_{ik})].$$

Note that we use the full samples of young men, young women, older men, and mature women to compute the variances $Var(Y_{ik})$ for each type.

We prefer the correlation estimates based upon the method of moments approach because we believe that the method of moments estimates of the variance for each type of family member are less likely to suffer from downward bias due to transitory variation in labor market outcomes and measurement error than the variance estimates based on the time averages. However, the method of moments estimator may be more sensitive to heterogeneity in variances and covariances of the labor market outcomes that is related to (a) whether or not particular individuals have a relative in the sample, and to (b) the number of years of data on a particular family member. The estimates of the covariances based upon the time averages give each pair of individuals the same weight, while the estimates based upon unique pairs of observations across individuals and over time (that is, the method of moments estimators) give proportionately more weight to pairs of individuals who

contribute many time series observations. In most cases, the covariance estimated by (1) and (2) are reasonably close to the covariances calculated using the corresponding time average estimators. (If the expected value of the covariance is unrelated to the amount of valid labor market data available, then the method of moments estimator is more efficient.) In most cases, the estimates of the correlations are larger using the method of moments estimation procedure than the time average procedure; the difference is almost always due to somewhat lower estimates of the variances of the labor market outcome (the denominator in (4) or (5)), rather than higher estimates of the covariances.

Regression Equations

Regression equations relating the labor market outcomes of children to those of their parents provide a second way of summarizing family relationships in labor market outcomes. Since it is easy to incorporate control variables into the analysis, this approach provides a convenient way to assess the extent to which the links among family members are due to particular factors, such as education, race, or location. For example, part of the positive correlation between the separation rates of fathers and sons may be due to correlation between the educational levels of fathers and sons.

Here we estimate equations of the following form:

$$(6a)\quad WAGE_{is} = A_1 X_{is} + A_2 X_{if} + \gamma_{sf} WAGE_{if} + e_{is}$$

$$(6b)\quad WAGE_{id} = B_1 X_{id} + B_2 X_{if} + \gamma_{df} WAGE_{if} + e_{id}$$

$$(6c)\quad WAGE_{is} = C_1 X_{is} + C_2 X_{im} + \gamma_{sm} WAGE_{im} + \epsilon_{is}$$

$$(6d)\quad WAGE_{id} = D_1 X_{id} + D_2 X_{im} + \gamma_{dm} WAGE_{im} + \epsilon_{id}$$

In the above equations $WAGE_{ik}$ is the time average of the log wage rate and X_{ik} are personal characteristics, where k= d in the case of young women, s for young men, f for fathers and m for mothers. The key parameters of interest are γ_{df}, γ_{dm}, γ_{sf}, and γ_{sm}, which reflect the effect of a one unit change in the parent's outcome on the labor market outcome of the son or daughter. In the empirical work we estimate similar equations for log earnings, log family income, log annual hours, and other labor market variables.

We use two estimation methods. The first is ordinary least squares. The problem with OLS is that transitory variation and measurement error in particular years may affect the time average of the labor market variable. This is likely to lead to downward bias in the γ estimates. As an alternative, we use an instrumental variables procedure. Specifically, we put the first observation on $WAGE_{ikt}$ into the equation in place of the wage mean, $WAGE_{ik}$, where k= m or f. The variable $WAGE_{ikt}$ will equal the permanent component of the wage of parent ik plus a transitory component. We then compute $WAGE_{ik(t)}$, the mean of the parent's wage observation over t excluding the first observation from the computation. The mean, $WAGE_{ik(t)}$ will be correlated with the permanent component of $WAGE_{ikt}$, and it will be uncorrelated with the transitory component if the transitory component is white noise. Consequently, under the white noise assumption we may estimate the response of $WAGE_{id}$ (or $WAGE_{is}$) to the permanent component of $WAGE_{ikt}$ by using $WAGE_{ik(t)}$, X_{id} (or X_{is}) and X_{ik} as instrumental variables for $WAGE_{ikt}$, for k= f or m.

We now turn to estimates of the correlations, covariances, and

regression coefficients relating the labor market outcomes of relatives.

III. Intra- and Intergenerational Links in Family Income, Wage Rates, Earnings, and Work Hours

In this section we present the estimates of the covariances and correlations among log family income, log earnings, the log hourly wage rate, and log work hours for family member pairs. In section III.1 we discuss the results for family income. In section III.2 we discuss earnings, wages and work hours. In section III.3 we briefly discuss the correlations among the earnings of "in-laws." In the remainder of this introduction we provide a few general comments.

Appendix Tables A1- A21 present the correlations among the time averages of selected labor market variables for various family member pairs. In the text we emphasize the covariances and correlations across family member pairs of the same labor market variables and ignore the off-diagonal terms which appear in the Appendix tables. The results are summarized in Table 1. The column headings report the type of family relationship. The row heading reports the labor market variable involved. For example, we find that correlation of the mean of log family income among brothers is .27. The correlation in the number of employers they have had is .16. The correlation in family income and log earnings between sons and fathers are .27 and .22, respectively. The number of observations used to compute a given correlation depends upon the labor market variable under consideration and the number of family member matches for the particular relationship. Beneath each correlation we report the number of sample observations. (At the foot of each column we report the number of unique family pairs for each type of

family relationship.[10]) In Table 2 we present the means, variances and number of observations on the various labor market outcomes for the full samples of young men, young women, older men, and mature women in the four NLS cohorts.[11]

Table 3 provides estimated family covariances and correlations based on the method of moments procedure for log family income, log earnings, log wage rates, and the log of annual work hours, while Table 4 presents the estimated method of moments variances for various labor market outcomes for each of the four cohorts. Appendix Tables A22- A25 provide the full covariance matrices of labor market outcomes produced by the method of moments estimators.

We present evidence on both the covariances and correlations because the correlations depend on both the covariance of the common component of the labor market outcome and the variances of the components affecting only the individuals, while the covariance does not depend on the individual specific variance components. It is important to keep this in mind when assessing the relative strength of the different family relationships for a particular labor market outcome. For example, although the correlation in the family incomes is .27 for brother pairs and .20 for brother-sister pairs, the covariance of log family income is exactly the same for the two sibling pair types. The smaller correlation between brothers and sisters reflects a larger variance of log family income for young women.

In addition to the covariances and the correlations, we report estimates of the regression equations (6) in Tables 5a- 5d. These indicate the

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10. The reported figure is the number of potential matches before the cohorts were screened for minimum age, completed schooling, and retirement.

11. In each of the Appendix tables, we present the means and standard deviations of the variables for the subsample of matched family members who are used to compute correlations and covariances shown in the particular table.

association between a unit change in the parent's labor market outcome and the change in the expected value of the son's or daughter's outcome.

III.1 Family Income

The first row of Table 1 provides time average estimates of log family income covariances and correlations for various pairs of family members. The sibling correlations are .27 for brothers, .37 for sisters, and .20 for brothers and sisters. The covariance of sisters' family incomes is more than double the covariance between brothers'. The effect of the higher covariance on the family income correlation is partially offset by the fact that among the set of young men and women who are independent of their parents, the variance of log family income is much larger for young women.[12] It is interesting to speculate on whether this higher variance is a reflection of the large number of female headed households with children.

The method of moments estimates imply substantially higher sibling correlations in family income. The correlations are .38 for brothers, .52 for sisters, and .56 for brothers and sisters. We view the estimates for sisters and for brother-sister pairs as very large relative to those in the existing literature. The estimate for brothers is in the same range as Solon et al's (1987) estimate of .342, however their estimate for sisters' earnings is much smaller at .276. (See footnote 22 for further comparisons.)

The intergenerational correlations of family income based upon the time averages are .27 for sons and fathers, .31 for daughters and fathers, .30 for daughters and mothers, and .31 for sons and mothers. However, the method of

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12. Note that the covariance between brothers and sisters is about the same as the covariance between brothers, even though the correlation is .27 for brother pairs and .20 for brother-sister pairs.

moments estimates are .34 for son-father pairs, .46 for daughter-father pairs, .55 for daughter-mother pairs, and .54 for son-mother pairs. Our results based on the time averages are on the low end of those reported by Solon (1989) and by Altonji (1988) who use data on fathers and sons from the Panel Study of Income Dynamics.[13] At the same time, the method of moments estimates for all intergenerational pairs except son-father are higher than any previous estimates for the U.S. in the literature.[14]

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13. Solon runs OLS regressions of the son's earnings in 1984 on various constructions of the father's earnings variable, and age controls. Using a single year measure of father's earnings, the father's variable coefficient ranges from .247 to .386, depending on the year of the father's report. When a five year average of father's earnings is used, its coefficient is .413. In an equation with son's 1984 log wage as the dependent variable, father's log wage in 1967 appears with a coefficient of .294; in an analogously constructed family income equation, father's log family income in 1967 enters with a coefficient of .483.

Altonji works with the time average of the level rather than the log of family income and obtains a correlation of .37 between fathers and sons.

14. Solon also presents a set of estimates in which the intergenerational correlation is estimated from an instrumental variables estimate of the relationship between son's income in 1984 and father's income in 1967, using father's education as an instrument for father's income to reduce the effects of transitory variation in income. He obtains a regression coefficient of .530. For similarly constructed equations for wages and earnings, the IV coefficients are .449 and .526, respectively. However, he points out that the regression coefficient is an estimate of the intergenerational correlation coefficient only if the variances of the family income of father and son are equal. (As we have noted, this comment also applies to our OLS and IV estimates of equations (6).) Second, he argues that this estimate is likely to be upwardly biased even if the family income variances are equal because father's education should probably appear itself as an independent variable in the son's family income equation.

When we repeat this IV estimation technique with son's log family income in 1981 as the dependent variable using father's reported education and age controls as instruments for his mean log family income, we find a coefficient of .352 on the father's variable. (Our corresponding OLS coefficient is .268.) For log wages, we find an IV coefficient of .421 (and an OLS coefficient of .297) on father's mean log wages; for log earnings, the IV coefficient is .411 (and the OLS coefficient is .255) on father's mean log earnings. In summary, our estimated IV coefficients are smaller than Solon's for the intergenerational income, earnings, and wage equations.

Regression Results for Family Income

Tables 5a, 5b, 5c, and 5d report OLS and IV estimates of the regression equations (6a) through (6d) relating the labor market outcomes of fathers and sons, fathers and daughters, mothers and sons, and mothers and daughters (respectively). We report results for two sets of control variables. Control set I consists only of the child's age in 1966 (1968 for young women), age squared, and age cubed, and the parent's age in 1966, age squared and age cubed. Control set II consists of control set I plus controls for the child's race, residence in the South, residence in an SMSA, a cubic in the child's education, and a cubic in parent's education. To save space, we focus on the IV estimates in the text. We wish to emphasize that since the variances of family income are higher for fathers and mothers than for sons and daughters, the regression coefficient estimates are likely to be smaller than the correlation coefficients even when no controls are added. This is especially true for fathers and sons.[15]

Using control set I, the coefficients on father's family income is .249 for sons and .322 for daughters. Since the variables are in logs, the result for family income implies that the elasticity of son's income with respect to father's income is .249. For sons, much of the relationship in incomes appears to operate through education and, to a lesser extent, race. To see this, note first that when we use control set II, we obtain .073 as the coefficient on father's family income. By adding the son's race, father's education, and son's education one at time to control set I, we have

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15. When control variables are excluded, the probability limit of the correlation coefficient is equal to the probability of the regression coefficient times the probability limit of the standard deviation of the father's outcome variable divided by the standard deviation of the son's outcome variable.

determined that including the son's education as a regressor has the largest negative impact on the magnitude of the father's family income coefficient, which is what we would have expected a priori.[16]

The estimates of the relationship between family income of the mother and family income of sons and daughters are typically stronger than the corresponding results for the father-son and father-daughter samples. The IV estimate for mother-son pairs with controls for their ages only (control set I) is .340. The estimate for mother-daughter pairs is .422. The estimates for mother-son and mother-daughter pairs fall to .163 and .152 (respectively) when control set II is used.

Since in the case of two parent households the family income of mothers and fathers is the same, the larger estimates when using the mother-daughter and mother-son samples merit some discussion. We suspect that the difference in father-child and mother-child regression coefficients arises for two reasons. First, because of the design of the NLS, the parent's family income data in the father-son and father-daughter sample is obtained when the father is somewhat older than in the mother-son and mother-daughter sample. To the extent that family income is subject to permanent shifts that occur after children leave the household, then parental income in later years may have a weaker relationship with children's permanent income.[17] Second, the mother-

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16. When one adds only race to control variable set I as regressors in the IV equations for family income, earnings, and wages one obtains coefficients on the father's variables of .217, .153, and .244, respectively. Adding father's education (with race excluded) leads to IV estimates of .227, .166, and .278. Adding only son's education to control set I leads to smaller IV coefficients on the father's variables: .136, .092, and .197.

17. See footnote 3. A number of studies, such as MaCurdy (1982) and Altonji et al (1986), provide evidence that family income and earnings are subject to highly persistent shocks.

son and mother-daughter samples obviously include female headed, single parent families, while the father-son and father-daughter samples do not. It is possible that family income has larger effects in the case of single parent families than two parent families.[18] We suspect that estimates based on the father-son and father-daughter samples understate intergenerational links in family income.[19]

In summary, we find very strong intra and intergenerational correlations in family incomes. The sibling correlations are stronger for sisters than for brothers. The regression analysis suggests that a one percent increase in the permanent family income of the parents raises the conditional mean of children's family income by .25 to .34 for sons and .32 to .42 for daughters. A substantial part of this effect operates through education and race.

III.2 Earnings, Wage Rates, and Work Hours

When we use time averages, the estimated correlations of log earnings are .28 for brothers, .23 for sisters, and only .08 for brother-sister pairs. However, we obtain corresponding estimates of .35, .26, and .29 when we use

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18. We plan to investigate this hypothesis by including an indicator for "female-headed household" interacted with the mother's family income measure in the family income equations for the matched mother-son and mother-daughter data sets, and observing whether the link in incomes is sensitive to the presence of the father in the household.

19. Altonji (1988) uses a small sample of father-son pairs from the PSID to estimate separate regressions for son's average values (over the years in which he works positive hours) of annual work hours, annual hours of unemployment, the log of the real hourly wage rate, the log of real earnings, and the job separation probability against the corresponding variable for the father and controls for the son's education, experience and race, and the father's education and experience. His results show that virtually all of the father's labor market variables have a strong positive association with the corresponding labor market variable of the son. His results also suggest that race and father's education have independent influences on the labor market outcomes.

the method of moments procedure to isolate the correlation of the permanent components of earnings. The intergenerational correlation coefficients for earnings are also sensitive to the estimation method. We prefer the estimates based on the method of moments procedure, which are .39 for fathers and sons, .29 for mothers and sons, .40 for fathers and daughters, and .27 for mothers and daughters.[20] The method of moments estimates of the earnings correlation between fathers and sons are large relative to the estimates summarized in Becker and Tomes (1986) but are comparable to the results of Solon (1989) using the PSID.

It is interesting to look separately at the components of earnings: hourly wage rates and annual hours. Using the method of moments approach we obtain log wage correlations of .42 for brothers, .39 for sisters, .41 for brother-sister pairs, .41 father-son pairs, .38 for father-daughter pairs, .36 for mother-son pairs, and .35 for mother-daughter pairs. (The corresponding estimates based on time averages are typically slightly smaller.) Thus, we find somewhat stronger family relationships in log wages than in log earnings.

Given this fact and the fact that earnings depend upon work hours as well as upon wages, it is not surprising that the correlations in annual hours are usually smaller than the correlations in wages. However, the method of moments estimates are substantial in all cases involving family members of the same sex. For example, the annual hours correlation is .34 for brothers, .28

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[20] A comparison of the covariances reported in Tables 1 and 3 and the variance estimates reported in Tables 2 and 4 suggests that in most cases the larger correlations obtained with method of moments procedure result from smaller estimates of the variances for family member type rather than larger estimates of the covariances across family members of the various labor market outcomes.

for sisters, .23 for fathers and sons, and .24 for mothers and daughters.[21,22] The large correlations between brothers and between fathers and sons are particularly striking in light of the fact that hundreds of studies of male labor supply have examined the effects of family characteristics, wages and income on hours worked and have met with little success in explaining hours worked for males.[23] (See Killingsworth (1983) and Pencavel (1986) for surveys of the literature.) The findings in Table 3 suggest that factors common to family members explain a substantial part of the permanent variation in work hours among males. In Chapter 2 of this report, we show that the similarity in the wage rates of brothers plays only a small role in the similarity in their hours worked.

Part of the relationship in annual hours, then, may be due to correlation

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21. The lower correlation for sisters masks the fact that the covariance in hours is much larger for sister pairs than brother pairs.

22. Solon et al (1987), using data from the PSID and analysis of variance estimators, find the correlations of brothers' log earnings, log annual hours, and log wages to be .448, .410, and .534; all are larger than our corresponding method of moments estimates which were .35, .34, and .42. Corcoran and Jencks (1979) provide estimates from several survey data sets and pick .17 as the best available point estimate of the earnings correlation between brothers. They pick .12 as a minimum estimate and .28 as the maximum. We believe their estimates are biased downward as a result of an inadequate correction for measurement error and transitory earnings components.

23. Table 1 also presents family covariances and correlations for the time averages of the log of hours worked per week and the log of weeks worked per year. For brothers, the correlations based upon the time averages for hours per week and weeks per year are only .14 and .18 respectively. But in view of the time average correlations for annual hours it is likely that these correlations are substantially reduced by the effects of measurement error and transitory variation in the time averages of hours worked per week and weeks worked per year.

The corresponding estimates for father-son pairs are .10 and .08, which are in line with the father-son correlation in the time average of annual hours of .06. (We have not produced separate estimates of weekly hours and yearly weeks worked using the method of moments approach.) Finally, we do not detect interesting sex differences in the relative strength of the family correlations between hours worked per week and weeks worked per year.

in labor market constraints that lead to unemployment, and the results for unemployment in Table 1 indicate that the unemployment rates of family members are correlated. The correlations based on time averages of the log of weeks of unemployment (with zeroes excluded from the calculation) are .07 for fathers and sons, .08 for brothers, .09 for sisters, and .10 for mothers and daughters. The correlations between fathers and daughters, mothers and sons, and brothers and sisters are weaker. In retrospect, our decision to work with the log of weeks of unemployment was a mistake. We therefore estimated the correlations in the level of weeks of unemployment and found the strongest correlations for brother pairs (.19), father-son pairs (.10), mother-daughter pairs (.08), and brother-sister pairs (.07).[24] For the level of weeks worked, the strongest correlations are found for sister pairs (.22), brother pairs (.15), mother-son and mother-daughter pairs (both are .10).

In contrast to the strong annual hours correlations for fathers and sons, brothers, sisters, and mothers and daughters, the correlations of the annual hours of brothers and sisters, fathers and daughters, and mothers and sons are close to zero. Why do hours tend to be correlated only among family members of the same sex? The result suggests that family factors influencing work hours are different for males and females. We speculate that preferences for leisure and correlations in labor market constraints are a key factor among men, most of whom choose to work more or less full time, while preferences and incentives for market work versus nonmarket work play a key role in the sisters' and mother-daughter correlations and in the total variance in the

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[24]. Altonji (1988) obtains correlations of .171 for brothers and .151 for fathers and sons using the PSID and hours of unemployment during the year. Part of the correlation might arise because of regional variation in labor market conditions that affects family members living in the same geographic area.

work hours of women. With data on hours spent on housework and child care, one could examine the correlation between leisure time of female and male family members. We conjecture that one would find larger mother-son and father-daughter correlations in hours if such a measure were used.[25]

Regression Results for Earnings, Hours, and Wages

As noted above, Tables 5a through 5d contain IV estimates of the regressions relating the earnings, hours, and wages of sons and daughters to the earnings, hours, and wages of fathers and mothers. The IV estimate of the effect of father's earnings on son's earnings is .210. However, the coefficient falls to -.005 (not significant) after we control for race, educations of the father and son, and location variables. The corresponding results for daughters are .335 and .179. For wages we obtain a coefficient of .282 with control set I and .098 with control set II for fathers and sons, and .238 and .118 for fathers and daughters. Overall the regression relationship between the wages and earnings of fathers and sons and fathers and daughters are similar to the relationships for family income. As before, we find that a substantial part of the relationship operates through education and race, particularly for sons.

The results for annual hours show a relatively weak relationship between annual hours of the father and the son. The OLS results are in line with the correlations between the time averages discussed earlier, and in view of the large variability in the time averages of father's annual hours, the small

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25. The Young Women and Mature Women NLS data sets do provide some information on time spent on child care and household chores which would make such an investigation possible. The Panel Study of Income Dynamics also contains the necessary data.

regression coefficient does not come as surprise. However, the IV estimates are much weaker than we would have expected given the method of moments results. The IV estimate with control set I is only .055, which is actually slightly smaller than the OLS estimate. In contrast, the regression coefficient implied by dividing the method of moments estimate of the covariance of hours of fathers and sons by the method of moments estimate of the variance of the hours of older men is .21. Since the time average of father's hours has a coefficient of .243 in the first stage IV equation for father's hours in 1965, we would have expected the second stage estimates to be roughly 4.12 (= 1/.243) times larger than the OLS estimate (of .063), which would be roughly consistent with the method of moments "regression coefficient" of .21. We are puzzled by the discrepancy. We have shown that it does not result from the fact that a smaller sample is available to compute the IV estimates.[26] The relationship for log hours per week is statistically significant under OLS for control set I but not for control set II, and the IV estimates are not statistically significant for either set of explanatory variables. The regression results for fathers and daughters do not show a relationship in annual or weekly hours worked, which is fully consistent with the correlations discussed earlier.

Mother's earnings has only a weak relationship to son's earnings, despite the fact that the mother's wage has a relatively strong link to the son's

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[26]. The IV sample is smaller because either log annual hours in 1965 or the average of the log of father's hours in years other than 1965 are missing in a few cases. (A similar explanation underlies the discrepancy in the OLS and IV sample sizes for the other variables in Tables 5a-5d.) We do obtain strong and statistically significant IV estimates of the link between log weeks worked by the father and log weeks worked by the son. As we point out below, the IV and method of moments estimates of the regression coefficient are quite close in the case of mothers and daughters.

wage (.341 with control set I). This reflects the facts that (1) hours of work of mothers and sons are only weakly related, and (2) the variance across women in work hours has a large effect on the variance in female earnings. The results for daughters and mothers are an interesting contrast: the coefficients on earnings and the wage rate are .348 and .325, respectively.

The strong link between the earnings of mothers and daughters reflects the fact that both work hours as well as the wage rates of mothers and daughters are strongly related. The IV coefficient on log weeks worked is .548 with a t-value of 4.5 using control set I. The corresponding coefficient for annual work hours is .347 with a t-statistic of 1.94. The latter result is basically consistent with the regression coefficient of (.275) implied by the method of moments estimates of the covariances and variances for mothers and daughters reported in Tables 3 and 4.

In summary, we find strong family links in earnings and in wages. We also find fairly strong correlations and regression relationships in the work hours of family members of the same sex (discounting the IV estimates for fathers and sons). Much of the effect of parental background on earnings and wage rates, particularly in the case of fathers and sons, operates through education and race.

III.3 Correlations Between Labor Market Outcomes of Individuals Related by Marriage

Tables 6 and 7 report covariances and correlations based on time averages of earnings, hours worked per week, weeks worked per year, and weeks unemployed per year for husbands and wives, fathers and sons-in-law, mothers and sons-in-law, brothers-in-law, fathers and daughters-in-law, mothers and

daughters-in-law, and sisters-in-law.[27] We focus our discussion on the relationships in earnings. We suspect that the correlations are downward biased because in most cases very few observations are available to compute the time averages for spouses. Consequently, we place greater emphasis on the covariances.

As an aid to interpreting the results, consider the following simple model of the relationship between individual earnings and spouse's earnings. Suppose that one's value in the labor market is related both to one's own earnings potential and to the earnings potential of one's blood relatives. To be specific, let the permanent earnings E_{ij} of child j from family i be determined by

$$(7) \quad E_{ij} = c_o + u_i + u_{ij}$$

where E_{ij} are the permanent earnings of a young woman j from family i, c_o is a constant, u_i are parental and sibling influences that have a common effect on the earnings of siblings, and u_{ij} is a child specific earnings factor that is uncorrelated across families and across children from family i.

Assume also that one's value in the marriage market depends on one's own earnings capacity and on the earnings capacity of one's siblings and parents. This assumption plus competition in the marriage market suggest that spouse's earnings capacity (and other traits that are valued in the marriage market) tend to be positively related to one's own earnings capacity and those of

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27. To be precise, Table 6 reports covariances and correlations of a young woman's reports of her husband's variables with the variables of the father, mother, and brother to whom the young woman can be matched. Similarly, young men supply the reports of their wives' variables for the covariances and correlations shown in Table 7.

one's relatives. Let the regression equation relating the earnings of the spouse of woman ij to the family i earnings component, u_i, and to her earnings, E_{ij}, be

$$(8) \quad E^S_{ij} = b_0 + b_1 u_i + b_2 E_{ij} + e^S_{ij}$$

where the error term e^S_{ij} is uncorrelated with u_i and E_{ij}.

Using (7) and (8) the covariances of the earnings of spouses, siblings and "in-laws" can be derived easily. For instance, the covariance between the earnings of spouses, E^S_{ij} and E_{ij}, is $(b_1 + b_2)*Var(u_i) + b_2*Var(u_{ij})$. The covariance between the earnings siblings ij and ij' implied by (7) is equal to $Var(u_i)$, where to keep the discussion simple we have ignored the important fact that the factor loading on the family component u_i may be different for young men than for young women. And the covariance between brothers-in-laws' earnings, E^S_{ij} and $E_{ij'}$, is $(b_1 + b_2)*Var(u_i)$.

If $b_1 = 0$ then the family effect, u_i, has no direct influence on spouse's earnings, and the covariance between the "in-laws'" earnings arises simply because u_i affects E^S_{ij} through E_{ij}. On the other hand, if only the income of the family matters, $(b_2 = 0)$, then the brother-in-law and spouse covariances are both equal to $b_1*Var(u_i)$, and both are less than the sibling covariance, $Var(u_i)$, when $b_1 < 1$. An increase in b_1 holding b_2 fixed raises the value of the in-law covariance relative to the sibling covariance, and relative to the spouse covariance. Consequently, the larger the value of the brother-in-law covariance relative to the sibling covariance and relative to the spouse covariance, the more likely it is that the family has influence on the permanent earnings of the spouse.

The earnings covariance is .168 for father and son-in-law pairs and .117 for fathers and son.[28] The earnings covariances (correlations) for brothers-in-law is .072 (.18), which compares to .117 (.28) for brothers. The earnings covariance for sisters-in-law is .105, which compares to .179 for sisters. The corresponding correlations are .13 and .23.[29]

Thus, we find that siblings-in-law covariances and correlations in earnings are somewhat weaker than the corresponding figures for sibling pairs. However, they seem large enough, particularly in light of the strong father and son-in-law covariance, to suggest that a family earnings component has an effect on the earnings capacity of spouses. The brothers-in-law and sisters-in-law covariances are also large relative to the covariances of spouses

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28. The correlation between the earnings of fathers and sons-in-law is estimated to be .32, which is actually larger than the corresponding estimate (.22) for fathers and sons in Table 1.

29. It is not difficult to fit the estimated earnings covariances to our simple model of family earnings relationships. First note that when $Var(u_i) = 1/3*Var(u_{ij})$, the implied siblings earnings correlation is .25 which is typical of the estimated siblings earnings covariances reported in Tables 3 and 1. (The sibling earnings correlation is $Corr(E_{ij}, E_{ij'}) = Var(u_i)/[Var(u_i) + Var(u_{ij})]$ which equals .25 when $Var(u_i) = 1/3*Var(u_{ij})$.)

Simply dividing the brothers-in-law covariance (.072) by the brothers earnings covariance (.117) suggests $(b_1 + b_2) = .62$. Similarly, the sisters-in-law and sisters results suggest $(b_1 + b_2) = .59$.

Also, when the spouses estimated earnings covariance-- equal to about .070 (see next footnote)-- is fitted into the model, the brothers and brothers-in-law results indicate that $b_2*Var(u_{ij}) = 0$, while the sisters' numbers imply $b_2*Var(u_{ij}) = -.033$. A richer earnings model which allows sex differences in the influences of spouses might be able to explain the differences in the moments implied by brothers' and the sisters' results; such a model is currently being developed.

earnings[30], which, in the context of the simple model sketched above, also points to an important direct effect of the family earnings component on the expected earnings capacity of the spouse. As a cautionary note, we do not wish to make too much of this interpretation, because the framework presented above ignores differences between men and women in family linkages, substitution in labor supply between husbands and wives, selectivity in who gets married, and other factors. In future work we plan to explore the issues systematically by combining a more elaborate version of the factor model sketched above with the factor model of earnings, hours and wages estimated in Chapter 2.

IV. Family Correlations in Turnover Behavior

Table 1 also provide estimates of the correlations across family members of the number of employers the individuals have worked for over the years of the survey. In the literature on wages and job mobility there has been considerable discussion of the importance of observed and unobserved personal characteristics in explaining the large differences found across individuals in the propensity to change jobs. A positive correlation in the separation rates of family members would arise if the desire and ability to "hold a job" has an important effect on turnover behavior and is correlated among family members. That is, mobility costs and personality traits that influence quits and layoffs may be correlated among family members. A number of authors have argued that personal characteristics related to turnover are negatively

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30. From Table 6 the covariance and correlation of spouses' earnings are .065 and .13 when the young woman supplies both reports. In Table 7, when the young man supplies reports on himself and his wife, the covariance is .072 and the correlation is .15.

related to productivity. As a result, ex post measures of turnover behavior, such as job seniority, are endogenous in a wage equation. We can investigate whether individual heterogeneity in turnover behavior is negatively related to productivity by examining the sign of the correlation between the turnover behavior of one family member with the wage rate of another. Job instability has been featured prominently in discussions of low income workers.[31] It is natural to ask if job instability is in part a family characteristic and whether the common family component of turnover behavior is negatively related to the family component of wages.

Before turning to the evidence, it is also important to point out that other theories of job mobility imply that variation across firms in wage offers as well as differences across specific firm-worker matches in productivity will lead to ex post differences in turnover even if the propensity of all workers to quit or induce a layoff or discharge is the same.[32] Some of the differences (such as initial wage offers) are readily observable, and workers may switch jobs in response to a higher wage offer. Other differences can be observed only after a trial period on the job, and will also lead to ex post differences in separation rates even if the expected value of separation rates are the same for all workers. What are the implications of wage offer and job match heterogeneity for family correlations among turnover and wages? If the expected value of separation rates are the same for all workers, then one would not expect job mobility to be correlated across family members. Also, simple matching models do not have a clear

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31. See, for example, Ballen and Freeman (1986) and Jackson and Montgomery (1986).

32. Garen (1988) provides a recent survey of the literature.

implication for the relationship between actual separation rates and productivity. Consequently, matching models in which differences in workers are unrelated to differences in expected mobility do not lead us to expect a correlation between the wages and mobility of one family member with the mobility patterns of another.

Unfortunately, the implications of matching and job search models of labor turnover for family correlations are less clear if the optimal amount of turnover associate with finding a good job match is related to occupation, ability, education, or other worker characteristics that are correlated among family members. In this case one might also find positive family correlations in turnover behavior even if matching and job search provide a complete explanation for turnover. The family correlations could also arise if the number and strength of personal contacts are correlated among family members and are an important determinant of turnover.

Table 1 reports the correlations in number of employers for sibling pairs and parent-child pairs. The correlation between the number of employers is positive and statistically significant in all case except for father-daughter pairs. For example, the correlation is .16 for brother pairs and .10 for father-son pairs. Altonji (1988) also finds a significant correlation between the separation rates of fathers and sons and between brothers. (This is the only other evidence on intra- and inter- generational links in turnover behavior of which we are aware.)[33]

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[33]. It is important to point out the variables in Tables 1 and 2 have not been adjusted for age differences. Since the variables measure the number of different employers and the number of different jobs over the years 1966 to 1981, the positive covariance in the ages and education of the brothers will lead to a positive covariance in the number of years since leaving school and in the number of years that they are in the labor market. This could lead to a covariance in the number of years that they are at risk to change employers

Tables 5a-5d presents OLS estimates of the relationship between the number of employers for matched family members. As noted above, a positive sibling correlation or intergenerational correlation in turnover rates is unlikely to arise from a simple matching model. Not much should be made of the specific values of the regression coefficients given that turnover behavior is highly dependent on years of labor market experience. However, we find a highly significant, positive relationship between the turnover rates of fathers and sons.[34] We also find a statistically significant relationship between the turnover rates of mothers and sons and mothers and daughters; however, we do not find a relationship between the turnover rates of fathers and daughters. Also note that the correlation and the covariance between the number of employers of brother-sister pairs are well below the values for sister pairs or brother pairs (.07 versus .13 and .16, respectively). We find stronger links between mothers and daughters than between mothers and sons, both in the correlations and in the regression coefficients (which appear in Tables 5c and 5d).

Thus, inter- and intragenerational links in turnover behavior appear to be stronger for persons of the same sex. We do not have a theory that can

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and might explain part of the positive correlation.

We re-estimated the brothers correlations of job turnovers and number of employers after first controlling for the ages and educations of the brothers; the resulting correlations were equal (at two decimal places) to the figures reported in Table 1.

(As noted earlier, the method of moments covariances, correlations, and variances reported in Tables 3 and 4 are based upon residuals from regressions of log earnings, the log hourly wage and log annual hours against time dummies and a cubic specification in age.)

34. The results do not change much when we add controls for education of the son and the father, race, residence in the South, and residence in an SMSA.

explain this finding. One explanation is that individual differences in labor supply behavior play a larger role in the turnover behavior of women. Recall from Section III.2 that correlations in hours worked were also much stronger for individuals of the same sex.

We do find that the wage rates of one family member are negatively correlated with the turnover behavior of other family members. The correlations are inconsistent in sign and are typically insignificant. (See the Appendix tables.) For example, the number of employers the father worked for from 1966 until retirement or age 60 has a correlation of -.043 with the son's log wage rate, but the p-value is .214 (see Table A2). On the other hand, the corresponding correlation for brother pairs is positive (though insignificant). Consequently, there is no strong evidence in the NLS data that the family component of turnover behavior is negatively related to wages rates. These results stand in contrast to those of Altonji (1988) for a sample of fathers and sons and brother pairs from the PSID. He finds a significant negative correlation between the separation rate of fathers and the wages of sons. He also finds that the separation rates of young men are negatively correlated with the wage rate of their brothers.

In summary, while there is consistent evidence from the NLS and PSID that turnover behavior depends on family characteristics, the evidence is conflicting on whether the family component of turnover behavior is negatively related to labor market productivity. In the NLS data, turnover behavior does not appear to play an important role in the inter- and intra-generational links in wages.

V. Are "Industry Wage Premiums" Correlated Across Generations?

In this section we ask whether the sons of men who work in industries that pay high wages (controlling for occupation and human capital) also tend to work in industries that pay high wages. We examine this correlation in part because we are interested in the magnitude of the link in the "industry component" of wages relative to the overall link. However, under certain assumptions, this correlation provides information about the extent to which industry wage differentials are market clearing differentials that compensate for differences across industries in worker quality or job characteristics, and the extent to which they are nonmarket clearing differentials that arise because firms choose to pay efficiency wages (or for other reasons.)

Assume first that employers select workers, and that family connections play an insignificant role in the allocation of workers across jobs. If industry differentials reflect differentials in worker quality, then one would expect the relation between the industry components of the father and the son's wage rates to be similar to the relationship between the wages of the father and the son. On the other hand, if industry wage premiums are rents that are unrelated to worker quality, and employers select workers without regard to family connections, then the industry wage effects of the father and the son should be unrelated. However, if family connections are important in the rationing of jobs, then fathers who are in industries that pay rents may be able get jobs for their children in the industry. In this case, both neoclassical and efficiency wage explanations for industry differentials would predict a positive relationship between the industry wage

effects of fathers and sons.[35]

To investigate the issue empirically, we first constructed estimates of industry wage components. We pooled the panel data on young men and older men and estimated a set of 18 coefficients on industry dummies using a regression equation that also included controls for education, experience, residence in the South, year dummies, residence in an SMSA, and a set of 11 dummy variables for occupation. Let λ_I denote the (18 × 1) vector of estimated industry coefficients and D_{ikt} denote the (18 × 1) vector of industry dummies for person k from family i in year t. We define D_{ik} (k=s, f) to be the average of D_{ikt} taken over the years in which the person meets the age and retirement criteria for inclusion in the analysis and has valid reports of his wage and industry. D_{ik} then is the average time each young man (k= s) or older man (k= f) spends in each of the 18 industries over his working history. We use the time average as a simple way of dealing with the fact that industry classifications vary from year to year due to measurement error and industry switches. We then form the time average of the industry wage premiums as $I_{ik} = \lambda'_I D_{ik}$. We use matched data on father-son pairs to estimate the following regression relating the industry wage component of sons, I_{is}, to the industry wage component of their fathers, I_{if}:

$$I_{is} = \gamma_I I_{if} + B_1 X_{is} + B_2 X_{if} + \text{error}$$

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35. It is interesting to note that whether or not one believes in noncompetitive wage differentials has implications for how one views the role of networks in the labor market. If wage differentials are competitive, and one views personal connections as important, then one must view them as important because they convey information about job openings and the characteristics of workers and jobs. If differentials are noncompetitive, then connections may be important because they provide access to rents.

where X_{is} and X_{if} are control variables and the subscripts f and s denote the father and son. The regression results are presented in Table 8. The simple regression coefficient of the father's average industry premium is .227 with a t-value of 7.2.[36] Not surprisingly (given the way the industry coefficients are constructed) this estimate is relatively insensitive to adding controls for the father's and son's mean occupation coefficients (constructed in the same way as I_{if} and I_{is}) and to the addition of other control variables.[37] The estimate of .227 can be compared to the OLS and IV estimates of .273 and .282 relating the son's wage rate and the father's wage rate (see equation (6) above and Table 5a). However, the latter estimates fall to .086 and .098 when one includes controls for race, educations of the son and father, region and SMSA, and ages of the son and the father. When we add controls for the union status and occupation coefficients of both the father and the son, the father's industry coefficient falls by about one-third to .130 with a t-statistic of 3.0 (column 6 of Table 8).

Our estimate of .227 relating the industry wage components of fathers and sons is about half as large as the estimated relationship between the permanent wage rates of fathers and sons (.41) reported in Table 3. As we have noted earlier, these results are largely consistent with the hypothesis that unobserved ability differences underlie industry wage differentials (see Murphy and Topel (1987)) or the joint hypothesis that (a) industry differences are not market clearing and (b) family ties are important in gaining access to

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36. The simple correlation between I_{is} and I_{if} is .23.

37. The set of control variables includes: son's age and education, father's age and education (all in cubic specifications), son's race, residence in the South and in an SMSA.

jobs in high wage industries.[38] However, they are inconsistent with a nonmarket clearing model in which the family does not play a role in the allocation of jobs, where one would not expect industry wage premiums of sons and fathers to be related.

We have also examined intergenerational links in union status. For fathers and sons, we computed the time averages of dummy variables indicating membership in a collective bargaining unit. Table 9 reports the results of various regression specifications; the simple regression coefficient is .195 with a t-value of 5.1.[39] Since the mean of the collective bargaining variable for the young men in the matched sample is .32, this indicates that whether or

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[38]. If one assumes that the father is able to help his son get a job in his own industry but not in another industry, then in principle one can try to discriminate between the two hypotheses by examining the sample of sons who do not work in the same industries as their fathers. The fact that individuals frequently report more than one industry over a period of years complicates selection of the appropriate subsample of fathers and sons. However, one can take the inner product of the vector of time means of the industry dummies of the fathers and sons, and re-estimate over the sample for which the inner product is zero or below a certain threshold.

Unfortunately, a second problem is introduced: by eliminating fathers and sons who are in the same industry, one induces a systematic negative correlation between the industry coefficients of fathers and sons. Thus far, we have not found a simple econometric procedure to eliminate this bias. If one ignores the bias, and estimates the industry effects on the sample of fathers and sons who rarely work in the same industry, one obtains (unsurprisingly) a negative relationship between the average industry premiums. In future work, we plan to provide a descriptive analysis of the links between industries of fathers and sons and (hopefully) an estimation procedure that provides consistent estimates of the effects of the father's industry wage effect on the wage effect of the son when they are not in the same industry.

We did add the square of the father's industry premium to our regression specifications on the grounds that if family connections provide a young man the option to work in the father's industry, the option would only be exercised if the father worked in a high wage industry. This line of reasoning would lead one to expect a positive coefficient on the quadratic term; in fact, we obtained a positive and large (.183) but statistically insignificant coefficient on the father's squared industry component.

[39]. The simple correlation of father's and son's mean collective bargaining status is .22.

not one's father was a union member has a quantitatively large effect on the union membership probability. The coefficient falls to .108 when controls for father's age and education, son's age and education, residence in the South and in an SMSA, and race are added. The coefficient on father's collective bargaining status ranges between .099 and .113 and remains significant as controls for I_{is}, I_{if}, and the mean occupation coefficients of the father and the son are added.

Although the results are not reported, a series of regressions relating the son's mean occupation component of wages to his father's were also run. When one controls for education, age, residence, and race, the regression coefficient relating the son's occupation coefficient to the father's mean occupation coefficient (t-statistic) is .084 (2.9). (The simple regression coefficient is .298 with a t-value of 10.6, and the simple correlation is .34.) The positive relationship in the occupations ranked by wage rates is consistent with the literature on intergenerational links in the SES scores of occupation.[40]

VI. Conclusions

In this paper we examine the links between the labor market outcomes and family incomes of individuals who are related by blood or by marriage using panel data on siblings, their parents, and their spouses from the four original cohorts of the National Longitudinal Surveys of Labor Market Experience. The motivation for the analysis and implications for future research is spelled out in the introduction and in the text, and so here we will simply summarize the main empirical findings.

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[40]. See for example, Blau and Duncan (1967).

First, we find very strong intra and intergenerational correlations in family incomes. The sibling correlations are stronger for sisters than for brothers. Our preferred estimates are based upon the method of moments procedure. The correlations are .38 for brothers, .52 for sisters, and .56 for brothers and sisters, which are very large relative to most of the existing literature. The method of moments estimates of the intergenerational correlations of family income .34 for son-father pairs, .46 for daughter-father pairs, .55 for daughter-mother pairs, and .54 for son-mother pairs. The method of moments estimates for all intergenerational pairs except son-father are higher than any previous estimates for the U.S. that we are aware of. The regression analysis suggests that a one percent increase in the permanent family income of the parents raises the conditional mean of children's family income by .25 to .34 for sons and .32 to .42 for daughters. A substantial part of this effect operates through education and race.

Second, we find strong family links in earnings and in wages. Much of the effect of parental background on earnings and wage rates, particularly in the case of fathers and sons, operates through education and race.

Third, we also find fairly strong correlations and regression relationships in the work hours of family members of the same sex, discounting the IV estimates of the regression equation relating the work hours of fathers and sons. Our results suggest that family components plays an important role in hours determination.

Fifth, we find substantial covariances in the earnings of in-laws.

Sixth, we examine theories of labor turnover, and theories of wage structure. There is consistent evidence from the NLS and PSID (reported in Altonji (1988)) that turnover behavior depends on family characteristics, the

evidence is conflicting on whether the family component of turnover behavior is negatively related to labor market productivity. In the NLS data, turnover behavior does not appear to play an important role in the inter- and intra-generational links in wages. We also show that young men whose fathers work in high wage industries (controlling for human capital characteristics) tend themselves to work in high wage industries. We argue that the results are consistent with nonmarket clearing explanations for industry wage premiums (such as efficiency wages) only if family connections play a key role in gaining access to high wage firms.

Table 1
Summary of
Covariances & Correlations of Time Averages of
Selected Labor Market Variables
for Matched Family Members

Covariance
Correlation

Labor Market Variable	Family Relationship								
	Brother-Brother	Sister-Sister	Brother-Sister	Son-Father	Daughter-Father	Son-Mother	Daughter-Mother	Father-Mother	Husband-Wife
Log Family Income	.092	.201	.092	.100	.155	.134	.145	.313	.327
	.27	.37	.20	.27	.31	.31	.30	.82	.84
	295	286	854	690	623	975	1115	315	460
Log Earnings	.117	.179	.054	.117	.176	.084	.141	.193	.171
	.28	.23	.08	.22	.21	.13	.17	.31	.26
	420	360	1170	720	597	945	1082	220	327
Log Hourly Wage	.058	.053	.044	.076	.074	.046	.041	.089	.076
	.35	.36	.25	.36	.32	.27	.26	.44	.38
	408	371	1161	695	579	911	1082	214	315
Log Hours Worked	.005	.015	-.005	.005	.001	-.005	.006	-.000	-.003
per Week	.14	.09	-.06	.10	.01	-.05	.03	-.00	-.02
	427	396	1228	848	749	1022	1186	264	388
Log Weeks Worked	.034	.046	-.000	.008	.005	.007	.042	.014	.021
per Year	.18	.15	-.00	.08	.04	.03	.11	.10	.13
	383	344	1102	810	696	974	1156	279	407
Log Weeks Unemployed	.001	.004	-.000	.001	.001	.001	.005	.002	.078
per Year	.08	.09	-.01	.07	.05	.03	.10	.10	.08
	382	343	1093	809	687	971	1148	278	66
Log Annual Hours	.012	.074	-.004	.010	-.006	.008	.049	.021	.017
	.10	.13	-.01	.06	-.02	.02	.08	.06	.05
	369	253	931	793	615	921	928	259	379
Number of Employers	.512	.334	.206	.183	-.012	.243	.312	.078	.142
	.16	.13	.07	.10	-.01	.10	.14	.05	.10
	583	545	1692	1005	861	1256	1363	251	368
Number of Job Turnovers	.624	.365	.230	.121	-.001	.371	.330	.038	.133
	.17	.13	.07	.06	-.00	.12	.13	.02	.08
	583	545	1692	1005	861	1256	1363	251	368
Potential Number of Matches	621	646	1921	1099	988	1671	1848	345	492

Table 2
Summary of
Means and Variances of Time Averages of Selected Labor Market Variables for All Young Men, Young Women, Older Men, and Mature Women

Mean
Variance
Sample Size

Labor Market Variable	All Young Men	All Young Women	All Older Men	All Mature Women
Log Family Income	8.94	8.73	8.87	8.83
	.339	.477	.509	.461
	3569	3516	4471	4845
Log Earnings	8.56	7.63	8.62	7.60
	.454	.883	.610	.839
	4159	3900	3800	3974
Log Hourly Wage	1.10	0.64	1.04	0.57
	.176	.156	.270	.182
	4138	3907	3932	3996
Log Hours Worked per Week	3.76	3.46	3.74	3.42
	.038	.177	.069	.197
	4222	4034	4753	4264
Log Weeks Worked per Year	3.72	3.51	3.82	3.52
	.173	.380	.095	.334
	4044	3786	4779	4284
Log Weeks Unemployed per Year	1.33	1.23	1.33	1.23
	.010	.055	.012	.046
	4043	3737	4776	4271
Log Annual Hours Worked	7.58	7.07	7.57	6.99
	.148	.713	.214	.657
	3975	3314	4741	4155
Number of Employers	3.28	2.73	1.25	2.02
	3.42	2.56	.975	1.87
	5061	4608	4545	4117
Number of Job Turnovers	2.64	1.89	0.55	1.29
	4.06	2.77	1.08	2.33
	5061	4608	4545	4117
Potential Sample Size	5225	5159	5020	5083

Table 3
Summary of
Covariances & Correlations of Permanent Components of
Log Real Earnings, Log Real Wage Rates, and Log Annual Hours
Using Method of Moments Estimators
for Matched Family Members

Covariance
Correlation

	Family Relationship							
Labor Market Variable	Brother-Brother	Sister-Sister	Brother-Sister	Son-Father	Daughter-Father	Son-Mother	Daughter-Mother	Father-Mother
Log Earnings	.085	.097	.088	.106	.133	.086	.103	.114
	.35	.26	.29	.39	.40	.29	.27	
Log Hourly Wage	.056	.042	.050	.067	.054	.045	.040	.053
	.42	.39	.41	.41	.38	.36	.35	.35
Log Annual Hours	.009	.054	.001	.007	.000	.004	.041	.018
	.34	.28	.01	.23	.00	.07	.24	.26
Log Family Income	.070	.118	.115	.080	.119	.136	.154	.258
	.38	.52	.56	.34	.46	.54	.55	.81

Table 4
Summary of
Variances of Permanent Components of
Log Real Earnings, Log Real Wages, and Log Annual Hours
for All Young Men, Young Women, Older Men, and Mature Women

Variance
Sample Size

Labor Market Variable	All Young Men	All Young Women	All Older Men	All Mature Women
Log Earnings	.243	.376	.299	.376
	36630	18067	6417	18284
Log Hourly Wage	.135	.107	.196	.120
	33468	17742	3487	27304
Log Annual Hours	.027	.197	.033	.149
	8922	3464	3485	11593
Log Family Income	.185	.226	.293	.345
	6785	4481	4336	15731

Table 5a

Regression Analysis of Relationship Between the Time Averages of the Son's Labor Market Outcomes and His Father's Labor Market Outcomes

Independent Variables:	Log Family Income	Log Earnings	Log Wage Rate	Log Hours per Week	Log Weeks Worked	Log Annual Hours Worked	Number of Employers
	SON'S LABOR MARKET OUTCOME						
	ORDINARY LEAST SQUARES						
Time Mean of Father's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.227	.191	.273	.074	.134	.063	.195
	(.032)	(.032)	(.028)	(.030)	(.067)	(.041)	(.058)
With Control Variable Set II[2]	.073	.022	.086	.053	.095	.030	.223
	(.042)	(.039)	(.035)	(.031)	(.069)	(.042)	(.058)
SAMPLE SIZE	690	720	695	847	809	792	1003
	INSTRUMENTAL VARIABLES[3]						
Father's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.249	.210	.282	.032	.611	.055	
	(.044)	(.037)	(.033)	(.065)	(.210)	(.131)	
With Control Variable Set II[2]	.073	-.005	.098	.007	.555	-.026	
	(.068)	(.052)	(.048)	(.068)	(.228)	(.149)	
SAMPLE SIZE	543	670	611	752	759	699	

standard errors are in parentheses
potential sample size= 1099

1. All equations contain the following set of control variables: child's age in 1966, age squared, age cubed, and parent's age in 1966, age squared, and age cubed.

2. All equations contain controls for child's race, child's education, education squared, education cubed, child's age in 1966, age squared, age cubed, child's mean residence in the South and in an SMSA, and parent's education, education squared, education cubed, parent's age in 1966, age squared, and age cubed.

3. In the IV equations, the following variables were used as measures of the father's (mother's) labor market outcomes: the log wage in 1966 (1967), log wage and salary income in 1965 (1966), log family income in 1965 (1967), log average hours worked per week in 1965 (1967), log weeks worked in 1965 (1967), and log annual hours in 1965 (1967). The instrumental variables consist of all the control variables in the corresponding labor market outcome equations (see notes 1 and 2 above) plus the father's (mother's) time average of the particular outcome variable constructed from all later years: for example, in the family income equation we use the average of log family income reports for the father (mother) for years after 1965 (1967).

Table 5b

Regression Analysis of Relationship Between the Time Averages of the Daughter's Labor Market Outcomes and Her Father's Labor Market Outcomes

Independent Variables:	Log Family Income	Log Earnings	Log Wage Rate	Log Hours per Week	Log Weeks Worked	Log Annual Hours Worked	Number of Employers
	DAUGHTER'S LABOR MARKET OUTCOME						
	ORDINARY LEAST SQUARES						
Time Mean of Father's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.296	.238	.238	.026	.124	-.004	-.012
	(.039)	(.045)	(.030)	(.057)	(.098)	(.079)	(.054)
With Control Variable Set II[2]	.158	.083	.096	.057	.139	.023	.009
	(.053)	(.054)	(.038)	(.058)	(.101)	(.082)	(.054)
SAMPLE SIZE	623	597	578	748	696	615	861
	INSTRUMENTAL VARIABLES[3]						
Father's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.322	.335	.238	.110	.042	-.072	
	(.049)	(.067)	(.036)	(.148)	(.266)	(.230)	
With Control Variable Set II[2]	.220	.179	.118	.184	.141	.058	
	(.080)	(.090)	(.048)	(.156)	(.281)	(.257)	
SAMPLE SIZE	485	540	475	656	641	530	

standard errors are in parentheses
potential sample size= 988

1. All equations contain the following set of control variables: child's age in 1966, age squared, age cubed, and parent's age in 1966, age squared, and age cubed.

2. All equations contain controls for child's race, child's education, education squared, education cubed, child's age in 1966, age squared, age cubed, child's mean residence in the South and in an SMSA, and parent's education, education squared, education cubed, parent's age in 1966, age squared, and age cubed.

3. In the IV equations, the following variables were used as measures of the father's (mother's) labor market outcomes: the log wage in 1966 (1967), log wage and salary income in 1965 (1966), log family income in 1965 (1967), log average hours worked per week in 1965 (1967), log weeks worked in 1965 (1967), and log annual hours in 1965 (1967). The instrumental variables consist of all the control variables in the corresponding labor market outcome equations (see notes 1 and 2 above) plus the father's (mother's) time average of the particular outcome variable constructed from all later years: for example, in the family income equation we use the average of log family income reports for the father (mother) for years after 1965 (1967).

Table 5c

Regression Analysis of Relationship Between the Time Averages of the Son's Labor Market Outcomes and His Mother's Labor Market Outcomes

Independent Variables:	Log Family Income	Log Earnings	Log Wage Rate	Log Hours per Week	Log Weeks Worked	Log Annual Hours Worked	Number of Employers
			SON'S LABOR MARKET OUTCOME				
			ORDINARY LEAST SQUARES				
Time Mean of Mother's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.285	.083	.264	-.025	.007	.010	.126
	(.029)	(.023)	(.034)	(.016)	(.023)	(.016)	(.037)
With Control Variable Set II[2]	.132	-.001	.059	-.030	-.006	.008	.129
	(.035)	(.024)	(.038)	(.016)	(.023)	(.016)	(.037)
SAMPLE SIZE	973	944	910	1021	986	920	1254
			INSTRUMENTAL VARIABLES[3]				
Mother's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.340	.148	.341	-.002	.042	.016	
	(.042)	(.042)	(.050)	(.036)	(.079)	(.045)	
With Control Variable Set II[2]	.163	-.021	.124	-.019	-.019	-.038	
	(.073)	(.051)	(.072)	(.039)	(.087)	(.049)	
SAMPLE SIZE	808	565	553	640	675	554	

standard errors are in parentheses
potential sample size= 1671

1. All equations contain the following set of control variables: child's age in 1966, age squared, age cubed, and parent's age in 1966, age squared, and age cubed.

2. All equations contain controls for child's race, child's education, education squared, education cubed, child's age in 1966, age squared, age cubed, child's mean residence in the South and in an SMSA, and parent's education, education squared, education cubed, parent's age in 1966, age squared, and age cubed.

3. In the IV equations, the following variables were used as measures of the father's (mother's) labor market outcomes: the log wage in 1966 (1967), log wage and salary income in 1965 (1966), log family income in 1965 (1967), log average hours worked per week in 1965 (1967), log weeks worked in 1965 (1967), and log annual hours in 1965 (1967). The instrumental variables consist of all the control variables in the corresponding labor market outcome equations (see notes 1 and 2 above) plus the father's (mother's) time average of the particular outcome variable constructed from all later years: for example, in the family income equation we use the average of log family income reports for the father (mother) for years after 1965 (1967).

Table 5d

Regression Analysis of Relationship Between the Time Averages of the Daughter's Labor Market Outcomes and Her Mother's Labor Market Outcomes

Independent Variables:	Log Family Income	Log Earnings	Log Wage Rate	Log Hours per Week	Log Weeks Worked	Log Annual Hours Worked	Number of Employers
	DAUGHTER'S LABOR MARKET OUTCOME						
	ORDINARY LEAST SQUARES						
Time Mean of Mother's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.329	.170	.232	.037	.133	.081	.167
	(.032)	(.031)	(.027)	(.028)	(.030)	(.035)	(.033)
With Control Variable Set II[2]	.107	.072	.077	.039	.096	.071	.191
	(.040)	(.031)	(.030)	(.028)	(.031)	(.036)	(.033)
SAMPLE SIZE	1114	1082	1082	1186	1168	928	1363
	INSTRUMENTAL VARIABLES[3]						
Mother's Corresponding Labor Market Outcome							
With Control Variable Set I[1]	.422	.348	.325	.101	.548	.347	
	(.048)	(.067)	(.050)	(.103)	(.121)	(.179)	
With Control Variable Set II[2]	.152	.263	.181	.176	.485	.337	
	(.092)	(.091)	(.077)	(.121)	(.126)	(.187)	
SAMPLE SIZE	909	677	643	758	817	579	

standard errors are in parentheses
potential sample size= 1848

1. All equations contain the following set of control variables: child's age in 1966, age squared, age cubed, and parent's age in 1966, age squared, and age cubed.

2. All equations contain controls for child's race, child's education, education squared, education cubed, child's age in 1966, age squared, age cubed, child's mean residence the South and in an SMSA, and parent's education, education squared, parent's age in 1966, age squared, and age cubed.

3. In the IV equations, the following variables were used as measures of the father's (mother's) labor market outcomes: the log wage in 1966 (1967), log wage and salary income in 1965 (1966), log family income in 1965 (1967), log average hours worked per week in 1965 (1967), log weeks worked in 1965 (1967), and log annual hours in 1965 (1967). The instrumental variables consist of all the control variables in the corresponding labor market outcome equations (see notes 1 and 2 above) plus the father's (mother's) time average of the particular outcome variable constructed from all later years: for example, in the family income equation we use the average of log family income reports for the father (mother) for years after 1965 (1967).

Table 6
Summary of
Covariances & Correlations of Time Averages of
Selected Labor Market Variables
for Young Women's Reports of Their Husbands and Other
Matched Family Members

Covariance
Correlation
Sample Size

	Family Relationship			
Labor Market Variable	Young Woman-Husband	Husband-Father-in-Law	Husband-Mother-in-Law	Husband-Brother-in-Law
Log Earnings	.065	.168	.081	.072
	.13	.32	.16	.18
	3209	556	1035	1057
Log Hours Worked	-.001	.002	.002	.001
per Week	-.02	.03	.03	.02
	3221	635	1046	1036
Log Weeks Worked	.003	-.001	.010	.009
per Year	.02	-.02	.06	.07
	3031	629	1063	977
Log Weeks Unemployed	.001	-.000	-.014	-.007
per Year	.00	-.00	-.07	-.08
	904	164	310	317
Log Annual Hours	.000	.003	.007	.011
	.00	.02	.03	.07
	2630	623	1003	948

Table 7
Summary of
Covariances & Correlations of Time Averages of
Selected Labor Market Variables
for Young Men's Reports of Their Wives and Other
Matched Family Members

Covariance
Correlation
Sample Size

Labor Market Variable	Family Relationship			
	Young Man-Wife	Wife-Father-in-Law	Wife-Mother-in-Law	Wife-Sister-in-Law
Log Earnings	.076 .15 2939	.089 .13 509	.078 .09 714	.105 .13 814
Log Hours Worked per Week	-.004 -.05 2189	.001 .02 440	.012 .06 587	.016 .09 647
Log Weeks Worked per Year	.018 .07 2694	.005 .03 544	.016 .04 695	.038 .08 726
Log Annual Hours	-.007 -.03 2124	.016 .05 439	.055 .07 575	.123 .15 539

Table 8
Regression Analysis of Relationship Between Father's and Son's Industry Components

Independent Variables:	Dependent Variable: Son's Mean Industry Wage Component (1)	(2)	(3)	(4)	(5)	(6)
Father's Mean Industry Wage Component	.227 (7.2)	.227 (7.2)	.224 (7.1)	.223 (7.1)	.203 (6.3)	.130 (3.0)
Son's Mean Occupation Component			-.110 (-2.7)	-.118 (-2.9)	-.114 (-2.7)	-.151 (-3.0)
Father's Mean Occupation Component				.071 (2.0)	.089 (2.5)	.161 (3.5)
Son's Mean Collective Bargaining Status					.059 (5.6)	.063 (5.2)
Father's Mean Collective Bargaining Status						-.001 (-0.1)
Controls Included?	no	yes	yes	yes	yes	yes
R^2	.06	.14	.14	.15	.20	.26
N	894	888	887	887	791	542

Notes:
1. t- statistics are in parentheses.

2. Control variables are the following: son's education, father's education, son's age, father's age, (all in cubic specifications), indicators for race, and for residence in the South and residence in an SMSA.

3. The dependent variable has mean equal to .14 with a standard error of .120. The father's corresponding variable has mean equal to .14 and standard error of .127.

Table 9
Regression Analysis of Relationship Between Father's and Son's Collective Bargaining Status

Independent Variables:	Dependent Variable: Son's Mean Collective Bargaining (1)	(2)	(3)	(4)	(5)	(6)
Father's Mean Collective Bargaining Status	.195 (5.1)	.108 (2.8)	.099 (2.6)	.104 (2.6)	.113 (2.9)	.100 (2.5)
Son's Mean Industry Component			.853 (5.8)	.862 (5.8)		.771 (5.2)
Son's Mean Occupation Component					-.921 (-5.3)	-.755 (4.4)
Father's Mean Industry Component				-.055 (-0.4)		-.015 (-0.1)
Father's Mean Occupation Component					.043 (0.3)	-.099 (-0.6)
Controls Included?	no	yes	yes	yes	yes	yes
R^2	.05	.17	.22	.22	.21	.25
N	544	543	543	543	542	542

Notes:
1. t- statistics are in parentheses.

2. Control variables are the following: son's education, father's education, son's age, father's age, (all in cubic specifications), indicators for race, and for residence in the South and residence in an SMSA.

3. The dependent variable has mean equal to .32 with a standard error of .414. The father's corresponding variable has mean .37 with a standard error of .457.

Table A1
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Men and Brothers

Correlation
p-value
Sample Size

Young Man's Variables

Brother's Variables	NMFINC	NMEARN	NMWAGE	NMLHRWK	NMLWW	NMLWU	NNUMEMP	NTURNOV
BMFINC	**0.26795**	0.29525	0.32287	-0.00920	0.07019	0.06171	-0.07398	-0.04031
MEAN FAMILY INCOME (IN LOGS)	0.0001	0.0001	0.0001	0.8646	0.1980	0.2586	0.1544	0.4382
	295	342	343	346	338	337	372	372
BMEARN	0.24952	**0.27868**	0.31409	0.08295	0.19186	0.14593	-0.03060	0.00509
MEAN INCOME FROM WAG&SAL (IN LOGS)	0.0001	0.0001	0.0001	0.0888	0.0001	0.0031	0.5118	0.9131
	353	420	418	422	409	408	462	462
BMWAGE	0.28204	0.28557	**0.35011**	0.10211	0.09499	0.06064	-0.01878	0.01308
MEAN HOURLY WAGE RATE (IN LOGS)	0.0001	0.0001	0.0001	0.0383	0.0583	0.2280	0.6912	0.7820
	344	410	408	412	398	397	450	450
BMLHRWK	0.07779	0.13738	0.12145	**0.14172**	0.04547	0.05667	0.05883	0.10368
MEAN LOG # HRS WORKD PR WEEK 67-81	0.1424	0.0047	0.0126	0.0033	0.3567	0.2511	0.2040	0.0249
	357	422	421	427	413	412	468	468
BMLWW	0.07893	0.14424	0.07902	0.06634	**0.18343**	0.06917	0.09265	0.10560
MEAN LOG # WKS WORKD PR YEAR 66-80	0.1531	0.0044	0.1197	0.1883	0.0003	0.1773	0.0543	0.0282
	329	389	389	395	383	382	432	432
BMLWU	0.05116	0.16864	0.11107	0.08838	0.24162	**0.08161**	0.08934	0.10257
MEAN LOG # WKS UNEMPLD PR YR 66-80	0.3549	0.0008	0.0285	0.0794	0.0001	0.1113	0.0636	0.0331
	329	389	389	395	383	382	432	432
BNUMEMP	0.01041	0.11061	0.05069	0.02958	-0.02584	0.02760	**0.16303**	0.14963
# DIFFT EMPLOYERS OVER YRS 66-81	0.8301	0.0123	0.2541	0.5038	0.5671	0.5414	0.0001	0.0003
	427	512	508	513	493	492	583	583
BTURNOV	0.05038	0.13793	0.06155	0.07264	0.00349	0.05927	0.15394	**0.16840**
# JOB TURNOVERS OVER YRS 66-81	0.2990	0.0018	0.1660	0.1003	0.9385	0.1894	0.0002	0.0001
	427	512	508	513	493	492	583	583

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
NMFINC	435	8.94898478	0.58457120	BMFINC	377	8.86968875	0.64499869
NMEARN	523	8.57192181	0.67443341	BMEARN	473	8.47427270	0.66324562
NMWAGE	519	1.10481303	0.40271647	BMWAGE	460	1.04541711	0.40560557
NMLHRWK	524	3.78240371	0.17496858	BMLHRWK	478	3.73618087	0.18427594
NMLWW	504	3.70755194	0.46217962	BMLWW	441	3.72132874	0.44894458
NMLWU	503	1.33651255	0.06670024	BMLWU	441	1.31982820	0.14769964
NNUMEMP	604	3.35264901	1.80834887	BNUMEMP	599	3.38564274	1.74547505
NTURNOV	604	2.66225166	1.94752866	BTURNOV	599	2.70784641	1.91799833

Table A2
Correlations Among Time Averages of
Selected Labor Market Variables of
Sons and Fathers

Correlation
p-value
Sample Size

Son's Variables

Father's Variables	NMFINC	NMEARN	NMWAGE	NMLHRWK	NMLWW	NMLWU	NNUMEMP	NTURNOV
MMFINC	**0.27435**	0.25984	0.34316	-0.00063	0.05673	0.04690	-0.00931	0.02217
MEAN TOT NET FAM INC <RETMNT (LOG)	0.0001	0.0001	0.0001	0.9856	0.1124	0.1896	0.7695	0.4853
	690	819	814	826	784	784	993	993
MMEARN	0.23680	**0.22475**	0.31802	-0.03014	0.03312	0.01885	-0.01945	-0.00987
MEAN INC FRM WAG&SAL <RETMNT (LOG)	0.0001	0.0001	0.0001	0.4193	0.3882	0.6234	0.5701	0.7731
	599	720	715	720	681	681	855	855
MMWAGE	0.23731	0.22248	**0.36292**	0.03606	0.02626	0.03563	-0.05424	-0.01901
MEAN HOURLY WAGE < RETIREMENT (LOG)	0.0001	0.0001	0.0001	0.3404	0.4990	0.3590	0.1143	0.5802
	585	701	695	701	665	665	849	849
MMLHRWK	0.06052	0.00809	0.04288	**0.09842**	0.00491	0.02258	0.02130	0.05039
MEAN LOG # HRS WORKD PR WEEK 65-83	0.1084	0.8149	0.2161	0.0041	0.8894	0.5226	0.4952	0.1064
	705	840	834	848	805	804	1028	1028
MMLWW	0.08819	0.06080	0.07032	0.02579	**0.07874**	0.07473	0.00004	0.02612
MEAN LOG # WKS WORKD PR YEAR 65-83	0.0188	0.0773	0.0416	0.4517	0.0250	0.0336	0.9990	0.4015
	709	845	840	854	810	809	1034	1034
MMLWU	0.07304	0.04909	0.06550	0.01881	0.06898	**0.06886**	0.00762	0.03048
MEAN LOG # WKS UNEMPLD PR YR 65-83	0.0519	0.1539	0.0577	0.5830	0.0497	0.0502	0.8068	0.3275
	709	845	840	854	810	809	1034	1034
MNUMEMP	-0.05604	-0.01419	-0.04343	-0.05990	-0.04528	0.00138	**0.10434**	0.05112
# DIFFT EMPLOYERS OVER YRS 66-83	0.1400	0.6838	0.2139	0.0837	0.2025	0.9690	0.0009	0.1053
	695	826	821	835	794	794	1005	1005
MTURNOV	-0.04088	0.01662	-0.00690	-0.01226	0.00182	0.04091	0.07780	**0.06172**
# JOB TURNOVERS OVER YRS 66-83	0.2818	0.6334	0.8435	0.7236	0.9591	0.2495	0.0136	0.0505
	695	826	821	835	794	794	1005	1005

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
NMFINC	720	8.99599105	0.55514690	MMFINC	1025	9.01926414	0.6649556
NMEARN	862	8.57389244	0.67495675	MMEARN	886	8.68951833	0.75226464
NMWAGE	857	1.11660109	0.42159527	MMWAGE	881	1.10229976	0.53071836
NMLHRWK	871	3.74704658	0.20205401	MMLHRWK	1065	3.76518621	0.2324143
NMLWW	825	3.70246899	0.44863394	MMLWW	1071	3.84279891	0.2393780
NMLWU	824	1.32878434	0.10059962	MMLWU	1071	1.34028703	0.08778533
NNUMEMP	1061	3.26390198	1.80097129	MNUMEMP	1042	1.24568138	0.9767250
NTURNOV	1061	2.61922714	1.95036711	MTURNOV	1042	0.56429942	1.0024906

Table A3
Correlations Among Time Averages of
Selected Labor Market Variables of
Sons and Mothers

Correlation
p-value
Sample Size

	Son's Variables							
Mother's Variables	NMFINC	NMEARN	NMWAGE	NMLHRWK	NMLWW	NMLWU	NNUMEMP	NTURNOV
WMFINC	**0.30870**	0.27206	0.34189	0.08697	0.12446	0.12690	0.01211	0.04207
MEAN FAMILY INCOME (IN LOGS)	0.0001	0.0001	0.0001	0.0026	0.0001	0.0001	0.6345	0.0985
	975	1183	1175	1195	1119	1119	1544	1544
WMEARN	0.18331	**0.12769**	0.17694	0.02326	0.03661	0.03762	0.00494	0.00517
MEAN INCOME FROM WG&SAL (IN LOGS)	0.0001	0.0001	0.0001	0.4734	0.2748	0.2617	0.8630	0.8569
	774	945	934	952	892	892	1220	1220
WMWAGE	0.24405	0.17708	**0.26680**	0.00759	0.01122	0.02216	-0.00613	0.01171
MEAN HOURLY WAGE RATE (IN LOGS)	0.0001	0.0001	0.0001	0.8173	0.7405	0.5132	0.8317	0.6846
	755	921	911	930	873	873	1206	1206
WMLHRWK	0.04480	0.02635	0.05598	**-0.05138**	0.02579	0.01793	-0.00402	-0.02051
MEAN LOG # HRS WORKD PR WEEK 67-84	0.1954	0.4018	0.0764	0.1006	0.4249	0.5789	0.8837	0.4549
	837	1015	1003	1022	960	960	1329	1329
WMLWW	0.11821	0.09746	0.07135	0.04214	**0.02722**	0.03185	0.03203	0.02895
MEAN LOG # WKS WORKD PR YEAR 67-84	0.0006	0.0017	0.0227	0.1747	0.3962	0.3208	0.2407	0.2890
	848	1029	1019	1039	974	974	1343	1343
WMLWU	0.11713	0.11219	0.07512	0.05679	0.03606	**0.03390**	0.03852	0.03640
MEAN LOG # WKS UNEMPLD PR YR 67-84	0.0007	0.0003	0.0167	0.0678	0.2616	0.2913	0.1589	0.1831
	844	1025	1015	1035	971	971	1339	1339
WNUMEMP	-0.07669	-0.06534	-0.08111	-0.01242	-0.00061	-0.02214	**0.09729**	0.10786
# DIFFT EMPLOYERS OVER YRS 67-84	0.0306	0.0425	0.0122	0.6992	0.9853	0.5051	0.0006	0.0001
	795	964	954	970	909	909	1256	1256
WTURNOV	-0.06966	-0.04749	-0.09706	0.00571	0.01226	-0.01424	0.09853	**0.12066**
# JOB TURNOVERS OVER YRS 67-84	0.0496	0.1407	0.0027	0.8590	0.7121	0.6680	0.0005	0.0001
	795	964	954	970	909	909	1256	1256

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
NMFINC	1004	8.88224651	0.63449188	WMFINC	1599	8.78165702	0.68421014
NMEARN	1219	8.46063716	0.71173909	WMEARN	1258	7.44408290	0.94516679
NMWAGE	1211	1.04178913	0.42073483	WMWAGE	1244	0.48339998	0.40172855
NMLHRWK	1234	3.73860891	0.22673824	WMLHRWK	1373	3.40906255	0.45839787
NMLWW	1154	3.72356021	0.44131858	WMLWW	1392	3.48733496	0.62268848
NMLWU	1154	1.32480685	0.11687655	WMLWU	1388	1.21900723	0.24004305
NNUMEMP	1608	3.42164179	1.80439325	WNUMEMP	1296	1.92669753	1.37827497
NTURNOV	1608	2.73072139	1.95124174	WTURNOV	1296	1.22530864	1.56757932

Table A4
Correlations Among Time Averages of
Selected Labor Market Variables of
Brothers and Sisters

Correlation
p-value
Sample Size

	Brother's Variables							
Sister's Variables	NMFINC	NMEARN	NMWAGE	NMLHRWK	NMLWW	NMLWU	NNUMEMP	NTURNOV
GMFINC	**0.19781**	0.19289	0.26592	0.02432	0.00716	0.03579	-0.07837	-0.06461
MEAN FAMILY INCOME (IN LOGS)	0.0001	0.0001	0.0001	0.4323	0.8228	0.2627	0.0059	0.0233
	854	1034	1029	1045	982	981	1233	1233
GMEARN	0.14614	**0.08063**	0.14718	-0.01438	0.00242	-0.01859	-0.09755	-0.09164
MEAN INCOME FROM WAG&SAL (IN LOGS)	0.0001	0.0058	0.0001	0.6215	0.9356	0.5351	0.0002	0.0006
	968	1170	1165	1181	1117	1116	1411	1411
GMWAGE	0.20222	0.15560	**0.25118**	-0.00252	0.00676	0.00337	-0.05991	-0.04010
MEAN HOURLY WAGE RATE (IN LOGS)	0.0001	0.0001	0.0001	0.9313	0.8219	0.9108	0.0247	0.1328
	960	1167	1161	1177	1111	1110	1406	1406
GMLHRWK	-0.04064	-0.09098	-0.06265	**-0.05911**	-0.01812	-0.03000	-0.04593	-0.06129
MEAN LOG # HRS WORKD PR WEEK 68-82	0.1996	0.0015	0.0295	0.0384	0.5376	0.3075	0.0789	0.0190
	998	1214	1208	1228	1160	1159	1465	1465
GMLWW	0.07520	0.04993	0.03861	0.05291	**-0.00015**	0.00158	-0.06954	-0.08217
MEAN LOG # WKS WORKD PR YEAR 68-82	0.0203	0.0900	0.1913	0.0709	0.9961	0.9581	0.0098	0.0023
	953	1154	1147	1166	1102	1101	1379	1379
GMLWU	0.05103	0.02698	0.03226	0.01660	-0.01098	**-0.01207**	-0.06577	-0.07147
MEAN LOG # WKS UNEMPLD PR YR 69-82	0.1166	0.3614	0.2766	0.5725	0.7168	0.6903	0.0149	0.0081
	947	1147	1139	1158	1094	1093	1371	1371
GNUMEMP	0.06832	0.03092	0.05079	0.03313	0.00068	-0.00817	**0.06936**	0.07788
# DIFFT EMPLOYERS OVER YRS 68-82	0.0220	0.2527	0.0610	0.2175	0.9803	0.7684	0.0043	0.0013
	1124	1371	1361	1387	1302	1301	1692	1692
GTURNOV	0.08422	0.05149	0.07238	0.04184	0.01099	0.00314	0.05626	**0.07027**
# JOB TURNOVERS OVER YRS 68-82	0.0047	0.0566	0.0076	0.1193	0.6919	0.9098	0.0207	0.0038
	1124	1371	1361	1387	1302	1301	1692	1692

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DE
NMFINC	1215	8.83289187	0.64938507	GMFINC	1252	8.63047396	0.7460427
NMEARN	1497	8.44208753	0.71940052	GMEARN	1437	7.62984918	0.9347836
NMWAGE	1486	1.02901971	0.43941944	GMWAGE	1435	0.61805095	0.3902284
NMLHRWK	1516	3.73979589	0.20765965	GMLHRWK	1493	3.49014277	0.3914011
NMLWW	1422	3.69584603	0.43254518	GMLWW	1402	3.50751262	0.6257034
NMLWU	1421	1.32219729	0.10829522	GMLWU	1394	1.22812330	0.2433001
NNUMEMP	1872	3.39155983	1.85497535	GNUMEMP	1732	2.74769053	1.6167702
NTURNOV	1872	2.71420940	1.98202802	GTURNOV	1732	1.86836028	1.6627891

Table A5
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Women and Sisters

Correlation
p-value
Sample Size

	Young Woman's Variables							
Sister's Variables	GMFINC	GMEARN	GMWAGE	GMLHRWK	GMLWW	GMLWU	GNUMEMP	GTURNOV
SMFINC	**0.37347**	0.19400	0.26737	0.00916	0.04243	0.05177	0.07507	0.12509
MEAN FAMILY INCOME (IN LOGS)	0.0001	0.0006	0.0001	0.8690	0.4626	0.3700	0.1501	0.0162
	286	306	316	327	302	302	369	369
SMEARN	0.20920	**0.23128**	0.28406	0.06598	0.14976	0.10998	0.07708	0.10312
MEAN INCOME FROM WAG&SAL (IN LOGS)	0.0002	0.0001	0.0001	0.1999	0.0050	0.0397	0.1109	0.0327
	323	360	366	379	350	350	429	429
SMWAGE	0.29902	0.23707	**0.35651**	0.00019	0.09178	0.06652	0.06229	0.09325
MEAN HOURLY WAGE RATE (IN LOGS)	0.0001	0.0001	0.0001	0.9970	0.0851	0.2125	0.1958	0.0525
	326	364	371	382	353	353	433	433
SMLHRWK	-0.01823	0.00023	-0.01982	**0.08964**	0.04990	0.04552	0.04614	0.04495
MEAN LOG # HRS WORKD PR WEEK 68-82	0.7399	0.9965	0.6993	0.0748	0.3405	0.3853	0.3304	0.3430
	334	376	382	396	367	366	447	447
SMLWW	0.10346	0.06385	0.13499	0.07433	**0.14525**	0.10902	0.01411	0.01168
MEAN LOG # WKS WORKD PR YEAR 68-82	0.0663	0.2315	0.0105	0.1530	0.0070	0.0433	0.7731	0.8113
	316	353	359	371	344	344	420	420
SMLWU	0.07863	0.02184	0.11694	0.04483	0.12444	**0.09440**	0.00082	-0.00331
MEAN LOG # WKS UNEMPLD PR YR 69-82	0.1639	0.6831	0.0269	0.3898	0.0212	0.0808	0.9867	0.9461
	315	352	358	370	343	343	419	419
SNUMEMP	0.03700	0.01863	0.04046	-0.00651	-0.04514	-0.03462	**0.13375**	0.12412
# DIFFT EMPLOYERS OVER YRS 68-82	0.4662	0.6958	0.3903	0.8881	0.3527	0.4766	0.0018	0.0037
	390	443	453	469	426	425	545	545
STURNOV	0.04163	0.01954	0.02507	-0.04146	-0.03170	-0.01891	0.13608	**0.13253**
# JOB TURNOVERS OVER YRS 68-82	0.4123	0.6818	0.5946	0.3703	0.5140	0.6976	0.0015	0.0019
	390	443	453	469	426	425	545	545

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
GMFINC	423	8.75641279	0.69575256	SMFINC	397	8.58809702	0.77762646
GMEARN	477	7.74034655	0.89353725	SMEARN	459	7.74537284	0.89158849
GMWAGE	490	0.66568278	0.39148023	SMWAGE	462	0.64869695	0.37319593
GMLHRWK	507	3.48829290	0.42869323	SMLHRWK	474	3.51407106	0.38214244
GMLWW	458	3.53754845	0.59748806	SMLWW	445	3.57402129	0.57014700
GMLWU	457	1.23831950	0.22708133	SMLWU	444	1.25062942	0.21491557
GNUMEMP	594	2.79124579	1.58519418	SNUMEMP	586	2.77474403	1.53826754
GTURNOV	594	1.95286195	1.66639240	STURNOV	586	1.88225256	1.60601190

Table A6
Correlations Among Time Averages of
Selected Labor Market Variables of
Daughters and Fathers

Correlation
p-value
Sample Size

	Daughter's Variables							
Father's Variables	GMFINC	GMEARN	GMWAGE	GMLHRWK	GMLWW	GMLWU	GNUMEMP	GTURNOV
MMFINC	**0.31299**	0.16572	0.31826	-0.08060	0.03234	0.03373	0.08783	0.10569
MEAN TOT NET FAM INC <RETMNT (LOG)	0.0001	0.0001	0.0001	0.0289	0.3997	0.3830	0.0098	0.0019
	623	709	707	735	680	671	864	864
MMEARN	0.25419	**0.21434**	0.31605	-0.01327	0.07677	0.08728	0.09311	0.10776
MEAN INC FRM WAG&SAL <RETMNT (LOG)	0.0001	0.0001	0.0001	0.7421	0.0672	0.0388	0.0118	0.0035
	525	597	595	617	569	561	731	731
MMWAGE	0.32576	0.20746	**0.32259**	-0.02216	0.04276	0.03906	0.06532	0.08046
MEAN WAGE < RETIREMENT (LOG)	0.0001	0.0001	0.0001	0.5896	0.3182	0.3654	0.0809	0.0315
	512	579	579	595	547	539	715	715
MMLHRWK	0.05053	0.12049	0.07755	**0.00661**	0.00476	0.01041	0.06430	0.07795
MEAN LOG # HRS WORKD PR WEEK 65-83	0.2043	0.0012	0.0376	0.8568	0.9004	0.7856	0.0566	0.0207
	633	722	719	749	694	685	880	880
MMLWW	0.11024	0.09175	0.04191	-0.02715	**0.03610**	0.03515	0.01406	0.02105
MEAN LOG # WKS WORKD PR YEAR 65-83	0.0054	0.0135	0.2607	0.4570	0.3416	0.3577	0.6762	0.5320
	636	724	722	753	696	687	884	884
MMLWU	0.09283	0.09257	0.04781	-0.00729	0.04419	**0.04604**	0.02519	0.03063
MEAN LOG # WKS UNEMPLD PR YR 65-83	0.0192	0.0127	0.1998	0.8419	0.2443	0.2281	0.4544	0.3630
	636	724	721	752	696	687	884	884
MNUMEMP	-0.02412	-0.00647	-0.00761	0.03418	-0.05759	-0.05224	-0.00754	-0.02176
# DIFFT EMPLOYERS OVER YRS 66-83	0.5482	0.8638	0.8402	0.3554	0.1338	0.1768	0.8251	0.5236
	622	706	704	733	679	670	861	861
MTURNOV	-0.03627	-0.01381	-0.02857	0.05437	-0.07532	-0.06456	0.00582	-0.00047
# JOB TURNOVERS OVER YRS 66-83	0.3665	0.7141	0.4492	0.1414	0.0498	0.0950	0.8647	0.9890
	622	706	704	733	679	670	861	861

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
GMFINC	652	8.77262992	0.69939512	MMFINC	936	9.01979965	0.6907263(
GMEARN	741	7.74771004	0.94095788	MMEARN	798	8.67935380	0.85776234
GMWAGE	739	0.69587494	0.42082681	MMWAGE	786	1.09932343	0.56074908
GMLHRWK	769	3.47027528	0.42176496	MMLHRWK	958	3.75238655	0.2988839:
GMLWW	711	3.53858016	0.61430912	MMLWW	963	3.82750698	0.28429812
GMLWU	702	1.24109363	0.22768111	MMLWU	962	1.33716690	0.09162740
GNUMEMP	906	2.78918322	1.57070347	MNUMEMP	937	1.24119530	1.00929963
GTURNOV	906	1.92715232	1.67503345	MTURNOV	937	0.59765208	1.08865303

Table A7
Correlations Among Time Averages of
Selected Labor Market Variables of
Daughters and Mothers

Correlation
p-value
Sample Size

Mother's Variables	GMFINC	GMEARN	GMWAGE	GMLHRWK	GMLWW	GMLWU	GNUMEMP	GTURNOV
	Daughter's Variables							
WMFINC	**0.29619**	0.19534	0.30843	-0.07192	0.10577	0.11844	0.08377	0.09997
MEAN FAMILY INCOME (IN LOGS)	0.0001	0.0001	0.0001	0.0076	0.0001	0.0001	0.0008	0.0001
	1115	1320	1336	1376	1306	1303	1612	1612
WMEARN	0.18107	**0.16722**	0.16436	0.04382	0.10945	0.10931	0.04967	0.04720
MEAN INCOME FROM WG&SAL (IN LOGS)	0.0001	0.0001	0.0001	0.1435	0.0003	0.0004	0.0714	0.0867
	898	1082	1099	1116	1064	1061	1318	1318
WMWAGE	0.19038	0.20077	**0.25651**	0.01903	0.05912	0.06444	0.07004	0.08601
MEAN HOURLY WAGE RATE (IN LOGS)	0.0001	0.0001	0.0001	0.5280	0.0551	0.0368	0.0114	0.0019
	879	1067	1082	1102	1053	1050	1306	1306
WMLHRWK	0.13956	0.05252	0.07882	**0.03499**	0.02882	0.02304	-0.02755	-0.03456
MEAN LOG # HRS WORKD PR WEEK 67-84	0.0001	0.0754	0.0072	0.2285	0.3322	0.4390	0.3021	0.1954
	954	1147	1162	1186	1134	1131	1405	1405
WMLWW	0.13607	0.14187	0.11504	0.07704	**0.11224**	0.10232	0.08002	0.08614
MEAN LOG # WKS WORKD PR YEAR 67-84	0.0001	0.0001	0.0001	0.0073	0.0001	0.0005	0.0024	0.0011
	972	1165	1181	1210	1156	1153	1432	1432
WMLWU	0.09485	0.09406	0.06400	0.07257	0.10251	**0.09880**	0.06779	0.07154
MEAN LOG # WKS UNEMPLD PR YR 67-84	0.0031	0.0013	0.0282	0.0117	0.0005	0.0008	0.0104	0.0069
	968	1160	1176	1205	1151	1148	1427	1427
WNUMEMP	-0.05518	-0.06238	-0.10754	-0.00073	-0.02883	-0.02243	**0.14294**	0.13282
# DIFFT EMPLOYERS OVER YRS 67-84	0.0944	0.0374	0.0003	0.9804	0.3394	0.4581	0.0001	0.0001
	920	1114	1127	1151	1100	1097	1363	1363
WTURNOV	-0.02247	-0.04244	-0.08244	-0.03274	-0.01589	-0.01755	0.13467	**0.13082**
# JOB TURNOVERS OVER YRS 67-84	0.4960	0.1569	0.0056	0.2670	0.5986	0.5615	0.0001	0.0001
	920	1114	1127	1151	1100	1097	1363	1363

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
GMFINC	1137	8.65487205	0.73414347	WMFINC	1776	8.78442560	0.66527286
GMEARN	1351	7.65779527	0.92708343	WMEARN	1447	7.45301032	0.90764630
GMWAGE	1369	0.62971649	0.38441806	WMWAGE	1429	0.48068515	0.41305938
GMLHRWK	1410	3.49383313	0.40348531	WMLHRWK	1544	3.43528137	0.39868274
GMLWW	1339	3.51822565	0.62356326	WMLWW	1573	3.47699033	0.59614040
GMLWU	1336	1.23198659	0.24003852	WMLWU	1568	1.21755883	0.22433432
GNUMEMP	1670	2.87784431	1.62534602	WNUMEMP	1493	2.02545211	1.32642579
GTURNOV	1670	1.99401198	1.67130294	WTURNOV	1493	1.31480241	1.49306773

Table A8
Correlations Among Time Averages of
Selected Labor Market Variables of
Fathers and Mothers

Correlation
p-value
Sample Size

	Father's Variables						
Mother's Variables	MMFINC	MMEARN	MMWAGE	MMLHRWK	MMLWW	MMLWU	MNUMEMP	MTURNOV
WMFINC	**0.81738**	0.66224	0.62235	0.12611	0.29904	0.27300	-0.01738	0.00029
MEAN FAMILY INCOME (IN LOGS)	0.0001	0.0001	0.0001	0.0247	0.0001	0.0001	0.7591	0.9959
	315	284	282	317	319	319	314	314
WMEARN	0.50645	**0.30612**	0.32577	-0.01964	0.10838	0.09368	0.05534	0.02026
MEAN INCOME FROM WG&SAL (IN LOGS)	0.0001	0.0001	0.0001	0.7592	0.0885	0.1413	0.3894	0.7528
	242	220	223	246	248	248	244	244
WMWAGE	0.59219	0.36570	**0.44401**	0.03377	0.03441	0.02763	0.01138	0.01510
MEAN HOURLY WAGE RATE (IN LOGS)	0.0001	0.0001	0.0001	0.6049	0.5965	0.6708	0.8622	0.8179
	232	210	214	237	239	239	235	235
WMLHRWK	0.16172	0.09284	0.05862	**-0.00131**	0.03044	0.00539	0.08523	0.07651
MEAN LOG # HRS WORKD PR WEEK 67-84	0.0091	0.1605	0.3721	0.9830	0.6205	0.9301	0.1682	0.2162
	259	230	234	264	267	267	263	263
WMLWW	0.19139	0.06477	0.04910	0.04714	**0.09925**	0.10087	-0.09350	-0.05371
MEAN LOG # WKS WORKD PR YEAR 67-84	0.0015	0.3177	0.4452	0.4354	0.0980	0.0927	0.1219	0.3749
	272	240	244	276	279	279	275	275
WMLWU	0.19942	0.08138	0.05655	0.06038	0.09801	**0.09944**	-0.09127	-0.06417
MEAN LOG # WKS UNEMPLD PR YR 67-84	0.0010	0.2100	0.3801	0.3184	0.1030	0.0980	0.1318	0.2899
	271	239	243	275	278	278	274	274
WNUMEMP	0.01282	-0.08195	-0.10685	0.04549	0.00541	0.02547	**0.05193**	0.05415
# DIFFT EMPLOYERS OVER YRS 67-84	0.8418	0.2293	0.1140	0.4731	0.9317	0.6862	0.4127	0.3929
	245	217	220	251	254	254	251	251
WTURNOV	-0.03012	-0.13003	-0.09544	0.08010	0.04539	0.05817	-0.00903	**0.02155**
# JOB TURNOVERS OVER YRS 67-84	0.6389	0.0558	0.1583	0.2060	0.4714	0.3559	0.8868	0.7341
	245	217	220	251	254	254	251	251

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DE
MMFINC	326	8.93863089	0.61288137	WMFINC	330	8.81367053	0.644725
MMEARN	290	8.57478001	0.76237365	WMEARN	254	7.48377654	0.878738
MMWAGE	289	1.00016933	0.51173680	WMWAGE	246	0.47062167	0.417836
MMLHRWK	331	3.75400070	0.26094121	WMLHRWK	274	3.41572747	0.475860
MMLWW	334	3.82238799	0.25559933	WMLWW	287	3.52379513	0.569820
MMLWU	334	1.33515478	0.08442340	WMLWU	286	1.23516459	0.200300
MNUMEMP	328	1.35975610	1.09145805	WNUMEMP	260	1.86538462	1.333107
MTURNOV	328	0.71036585	1.19053962	WTURNOV	260	1.10384615	1.417208

Table A9
Correlations Among Time Averages of
Selected Labor Market Variables of
(Mature) Husbands and Wives

Correlation
p-value
Sample Size

	Husband's Variables							
Wife's Variables	MMFINC	MMEARN	MMWAGE	MMLHRWK	MMLWW	MMLWU	MNUMEMP	MTURNOV
WMFINC	**0.83930**	0.68117	0.64496	0.10651	0.25903	-0.21989	-0.02710	-0.02579
MEAN FAMILY INCOME (IN LOGS)	0.0001	0.0001	0.0001	0.0231	0.0001	0.0104	0.5663	0.5853
	460	405	399	455	456	135	450	450
WMEARN	0.48270	**0.25930**	0.22540	-0.01123	0.12076	-0.13967	0.00144	-0.01258
MEAN INCOME FROM WG&SAL (IN LOGS)	0.0001	0.0001	0.0001	0.8307	0.0208	0.1282	0.9783	0.8119
	364	327	329	365	366	120	360	360
WMWAGE	0.57124	0.36560	**0.38304**	0.02007	0.07856	-0.17331	-0.00222	0.00609
MEAN HOURLY WAGE RATE (IN LOGS)	0.0001	0.0001	0.0001	0.7079	0.1413	0.0594	0.9672	0.9102
	349	311	315	351	352	119	346	346
WMLHRWK	0.14453	0.04085	0.01185	**-0.02435**	0.01013	-0.04686	0.06836	0.05309
MEAN LOG # HRS WORKD PR WEEK 67-84	0.0045	0.4548	0.8279	0.6325	0.8421	0.6053	0.1819	0.3001
	385	337	339	388	389	124	383	383
WMLWW	0.21735	0.07789	0.05597	0.04715	**0.13472**	-0.00655	-0.08160	-0.03515
MEAN LOG # WKS WORKD PR YEAR 67-84	0.0001	0.1453	0.2943	0.3433	0.0065	0.9412	0.1027	0.4828
	404	351	353	406	407	129	401	401
WMLWU	0.05691	0.08630	0.04359	0.06955	0.10482	**0.07840**	-0.01802	-0.05742
MEAN LOG # WKS UNEMPLD PR YR 67-84	0.4531	0.2749	0.5818	0.3563	0.1626	0.5315	0.8129	0.4504
	176	162	162	178	179	66	175	175
WNUMEMP	-0.02852	-0.05297	-0.05143	-0.01265	-0.07003	0.00918	**0.10281**	0.09176
# DIFFT EMPLOYERS OVER YRS 67-84	0.5855	0.3457	0.3591	0.8078	0.1771	0.9214	0.0488	0.0787
	368	319	320	372	373	118	368	368
WTURNOV	-0.07797	-0.10849	-0.07394	0.03373	-0.03409	0.01212	0.05922	**0.08153**
# JOB TURNOVERS OVER YRS 67-84	0.1355	0.0529	0.1871	0.5166	0.5115	0.8963	0.2572	0.1185
	368	319	320	372	373	118	368	368

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
MMFINC	479	8.96791268	0.62795181	WMFINC	468	8.84148753	0.63522996
MMEARN	415	8.63473459	0.72767959	WMEARN	370	7.49317685	0.93147168
MMWAGE	411	1.02739934	0.48223215	WMWAGE	357	0.50530654	0.42124986
MMLHRWK	479	3.75391816	0.24151169	WMLHRWK	394	3.40354360	0.48458471
MMLWW	480	3.83264548	0.25843802	WMLWW	413	3.56977447	0.58682125
MMLWU	141	2.09344488	0.96504691	WMLWU	180	2.01399324	1.06269132
MNUMEMP	472	1.33050847	1.08496840	WNUMEMP	377	1.81432361	1.23663348
MTURNOV	472	0.66101695	1.17634389	WTURNOV	377	1.05570292	1.34067925

Table A10
Correlations Among Time Averages of
Selected Labor Market Variables of
All Young Men

Correlation
p-value
Sample Size

Young Man's Variables	NMFINC	NMEARN	NMWAGE	NMLHRWK	NMLWW	NMLWU	NNUMEMP	NTURNOV
NMFINC	1.00000	0.70589	0.63149	0.21001	0.26153	0.26505	-0.13085	-0.12261
MEAN FAMILY INCOME (IN LOGS)	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	3569	3505	3499	3530	3421	3421	3555	3555
NMEARN		1.00000	0.69732	0.27175	0.41878	0.45621	-0.11829	-0.13763
MEAN INCOME FROM WAG&SAL (IN LOGS)		0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
		4159	4085	4114	3948	3947	4149	4149
NMWAGE			1.00000	0.00081	0.15742	0.15354	-0.12961	-0.12249
MEAN HOURLY WAGE RATE (IN LOGS)			0.0000	0.9584	0.0001	0.0001	0.0001	0.0001
			4138	4121	3925	3924	4130	4130
NMLHRWK				1.00000	0.21221	0.23684	-0.06495	-0.00666
MEAN LOG # HRS WORKD PR WEEK 67-81				0.0000	0.0001	0.0001	0.0001	0.6654
				4222	4011	4010	4214	4214
NMLWW					1.00000	0.74635	-0.08595	-0.07762
MEAN LOG # WKS WORKD PR YEAR 66-80					0.0000	0.0001	0.0001	0.0001
					4044	4043	4034	4034
NMLWU						1.00000	-0.06177	-0.05102
MEAN LOG # WKS UNEMPLD PR YR 66-80						0.0000	0.0001	0.0012
						4043	4033	4033
NNUMEMP							1.00000	0.93883
# DIFFT EMPLOYERS OVER YRS 66-81							0.0000	0.0001
							5061	5061
NTURNOV								1.00000
# JOB TURNOVERS OVER YRS 66-81								0.0000
								5061

VARIABLE	N	MEAN	STD DEV
NMFINC	3569	8.93757547	0.58202651
NMEARN	4159	8.56414998	0.67382711
NMWAGE	4138	1.09868604	0.41951552
NMLHRWK	4222	3.75894319	0.19425772
NMLWW	4044	3.72495852	0.41597247
NMLWU	4043	1.33131336	0.10052530
NNUMEMP	5061	3.28037937	1.84835905
NTURNOV	5061	2.64038728	2.01503758

Table A11
Correlations Among Time Averages of
Selected Labor Market Variables of
All Young Women

Correlation
p-value
Sample Size

Young Woman's Variables	GMFINC	GMEARN	GMWAGE	GMLHRWK	GMLWW	GMLWU	GNUMEMP	GTURNOV
GMFINC	1.00000	0.29979	0.42920	-0.03894	0.11022	0.12296	-0.01751	0.00341
MEAN FAMILY INCOME (IN LOGS)	0.0000	0.0001	0.0001	0.0280	0.0001	0.0001	0.3181	0.8460
	3516	3136	3116	3186	3011	2965	3251	3251
GMEARN		1.00000	0.66858	0.46599	0.63255	0.58129	0.10084	0.09242
MEAN INCOME FROM WAG&SAL (IN LOGS)		0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
		3900	3802	3810	3633	3591	3798	3798
GMWAGE			1.00000	0.13141	0.33321	0.29793	0.05573	0.05808
MEAN HOURLY WAGE RATE (IN LOGS)			0.0000	0.0001	0.0001	0.0001	0.0006	0.0003
			3907	3843	3628	3580	3800	3800
GMLHRWK				1.00000	0.27787	0.24194	0.05750	0.02547
MEAN LOG # HRS WORKD PR WEEK 68-82				0.0000	0.0001	0.0001	0.0003	0.1103
				4034	3776	3727	3932	3932
GMLWW					1.00000	0.95364	0.10178	0.11375
MEAN LOG # WKS WORKD PR YEAR 68-82					0.0000	0.0001	0.0001	0.0001
					3786	3737	3707	3707
GMLWU						1.00000	0.09616	0.10576
MEAN LOG # WKS UNEMPLD PR YR 69-82						0.0000	0.0001	0.0001
						3737	3663	3663
GNUMEMP							1.00000	0.94823
# DIFFT EMPLOYERS OVER YRS 68-82							0.0000	0.0001
							4608	4608
GTURNOV								1.00000
# JOB TURNOVERS OVER YRS 68-82								0.0000
								4608

VARIABLE	N	MEAN	STD DEV
GMFINC	3516	8.72745257	0.69030869
GMEARN	3900	7.62515006	0.93963328
GMWAGE	3907	0.63527491	0.39472813
GMLHRWK	4034	3.46409443	0.42015345
GMLWW	3786	3.51067020	0.61610517
GMLWU	3737	1.23120530	0.23418210
GNUMEMP	4608	2.73220486	1.60010994
GTURNOV	4608	1.88650174	1.66291281

Table A12
Correlations Among Time Averages of
Selected Labor Market Variables of
All Older Men

Correlation
p-value
Sample Size

Older Man's Variables	MMFINC	MMEARN	MMWAGE	MMLHRWK	MMLWW	MMLWU	MNUMEMP	MTURNOV
MMFINC	1.00000	0.78303	0.75666	0.18396	0.31315	0.28064	-0.07515	-0.11214
MEAN TOT NET FAM INC <RETMNT (LOG)	0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	4471	3737	3697	4284	4298	4296	4248	4248
MMEARN		1.00000	0.80191	0.19448	0.40255	0.37700	-0.09845	-0.16930
MEAN INC FRM WAG&SAL <RETMNT (LOG)		0.0000	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
		3800	3609	3784	3791	3791	3778	3778
MMWAGE			1.00000	0.00029	0.17061	0.15961	-0.10714	-0.09891
MEAN WAGE < RETIREMENT (LOG)			0.0000	0.9854	0.0001	0.0001	0.0001	0.0001
			3932	3882	3892	3890	3843	3843
MMLHRWK				1.00000	0.32859	0.30569	-0.09627	-0.02842
MEAN LOG # HRS WORKD PR WEEK 65-83				0.0000	0.0001	0.0001	0.0001	0.0564
				4753	4743	4741	4508	4508
MMLWW					1.00000	0.96415	-0.13869	-0.15275
MEAN LOG # WKS WORKD PR YEAR 65-83					0.0000	0.0001	0.0001	0.0001
					4779	4776	4532	4532
MMLWU						1.00000	-0.12605	-0.13762
MEAN LOG # WKS UNEMPLD PR YR 65-83						0.0000	0.0001	0.0001
						4776	4532	4532
MNUMEMP							1.00000	0.86083
# DIFFT EMPLOYERS OVER YRS 66-83							0.0000	0.0001
							4545	4545
MTURNOV								1.00000
# JOB TURNOVERS OVER YRS 66-83								0.0000
								4545

VARIABLE	N	MEAN	STD DEV
MMFINC	4471	8.86560349	0.71328544
MMEARN	3800	8.61582441	0.78093214
MMWAGE	3932	1.04399211	0.51982805
MMLHRWK	4753	3.74008359	0.26185557
MMLWW	4779	3.82287075	0.30841200
MMLWU	4776	1.33447226	0.10968131
MNUMEMP	4545	1.24598460	0.98726366
MTURNOV	4545	0.54543454	1.03661698

Table A13
Correlations Among Time Averages of
Selected Labor Market Variables of
All Mature Women

Correlation
p-value
Sample Size

Mature Woman's Variables	WMFINC	WMEARN	WMWAGE	WMLHRWK	WMLWW	WMLWU	WNUMEMP	WTURNOV
WMFINC	1.00000	0.38732	0.49766	0.05336	0.17228	0.16671	-0.13245	-0.11232
MEAN FAMILY INCOME (IN LOGS)	0.0000	0.0001	0.0001	0.0006	0.0001	0.0001	0.0001	0.0001
	4845	3877	3879	4121	4122	4110	3976	3976
WMEARN		1.00000	0.67654	0.54258	0.55966	0.52152	-0.05463	-0.08975
MEAN INCOME FROM WG&SAL (IN LOGS)		0.0000	0.0001	0.0001	0.0001	0.0001	0.0008	0.0001
		3974	3825	3908	3896	3893	3795	3795
WMWAGE			1.00000	0.21554	0.26296	0.23237	-0.13356	-0.13727
MEAN HOURLY WAGE RATE (IN LOGS)			0.0000	0.0001	0.0001	0.0001	0.0001	0.0001
			3996	3969	3908	3900	3803	3803
WMLHRWK				1.00000	0.27064	0.25328	0.02938	0.00756
MEAN LOG # HRS WORKD PR WEEK 67-84				0.0000	0.0001	0.0001	0.0617	0.6307
				4264	4178	4168	4043	4043
WMLWW					1.00000	0.95615	0.01531	0.03001
MEAN LOG # WKS WORKD PR YEAR 67-84					0.0000	0.0001	0.3297	0.0560
					4284	4271	4058	4058
WMLWU						1.00000	0.02515	0.03301
MEAN LOG # WKS UNEMPLD PR YR 67-84						0.0000	0.1094	0.0356
						4271	4054	4054
WNUMEMP							1.00000	0.89254
# DIFFT EMPLOYERS OVER YRS 67-84							0.0000	0.0001
							4117	4117
WTURNOV								1.00000
# JOB TURNOVERS OVER YRS 67-84								0.0000
								4117

VARIABLE	N	MEAN	STD DEV
WMFINC	4845	8.82951597	0.67864982
WMEARN	3974	7.59787198	0.91572237
WMWAGE	3996	0.57062039	0.42618245
WMLHRWK	4264	3.42414424	0.44408158
WMLWW	4284	3.51872849	0.57775924
WMLWU	4271	1.23344388	0.21461316
WNUMEMP	4117	2.01603109	1.36765904
WTURNOV	4117	1.28807384	1.52675717

Table A14
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Men's Fathers and Young Men's Reports of Their Wives

Correlation
p-value
Sample Size

	Young Man's Father's Variables							
Report of Wife's Variables	MMFINC	MMEARN	MMWAGE	MMLHRWK	MMLWW	MMLWU	MNUMEMP	MTURNOV
FMEARN	0.15584	**0.12842**	0.13590	0.04008	0.04042	0.02823	-0.03805	-0.02689
MEAN WIFE"S INC FRM WG&SAL 66-81	0.0001	0.0037	0.0023	0.3270	0.3217	0.4889	0.3575	0.5155
	588	509	500	600	603	603	587	587
FMLHRWK	0.04936	0.00439	-0.03747	**0.01580**	-0.05875	-0.03143	0.04604	0.00230
WIFE MEAN LOG # HRS WKD/WK 78&81	0.3060	0.9328	0.4755	0.7410	0.2177	0.5098	0.3398	0.9619
	432	371	365	440	442	442	432	432
FMLWW	0.07387	0.00227	-0.00425	0.04877	**0.03353**	0.06343	0.04021	0.02824
WIFE MEAN LOG # WKS WRKD 66-81	0.0899	0.9615	0.9286	0.2574	0.4351	0.1396	0.3560	0.5169
	528	453	446	541	544	544	529	529

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
MMFINC	1025	9.01926414	0.66495565	FMEARN	616	7.55834283	0.94164311
MMEARN	886	8.68951833	0.75226464	FMLHRWK	452	3.47232147	0.41754860
MMWAGE	881	1.10229976	0.53071836	FMLWW	555	3.37012677	0.71273750
MMLHRWK	1065	3.76518621	0.23241436				
MMLWW	1071	3.84279891	0.23937801				
MMLWU	1071	1.34028703	0.08778533				
MNUMEMP	1042	1.24568138	0.97672509				
MTURNOV	1042	0.56429942	1.00249062				

Table A15
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Men's Mothers and Young Men's Reports of Their Wives

Correlation
p-value
Sample Size

	Young Man's Mother's Variables							
Report of Wife's Variables	WMFINC	WMEARN	WMWAGE	WMLHRWK	WMLWW	WMLWU	WNUMEMP	WTURNOV
FMEARN	0.12442	**0.09107**	0.08298	0.06384	0.08287	0.09610	-0.00181	-0.02612
MEAN WIFE"S INC FRM WG&SAL 66-81	0.0002	0.0149	0.0287	0.0759	0.0203	0.0072	0.9607	0.4781
	887	714	695	774	784	781	740	740
FMLHRWK	-0.12600	-0.06568	-0.07648	**0.05664**	-0.05147	-0.04595	0.02866	0.01702
WIFE MEAN LOG # HRS WKD/WK 78&81	0.0011	0.1253	0.0769	0.1705	0.2100	0.2639	0.4985	0.6878
	668	546	536	587	595	593	560	560
FMLWW	0.04814	0.06767	0.00529	0.08189	**0.03755**	0.04923	0.00496	-0.03058
WIFE MEAN LOG # WKS WRKD 66-81	0.1795	0.0892	0.8957	0.0326	0.3229	0.1959	0.8990	0.4335
	779	632	617	681	695	692	658	658

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
WMFINC	1599	8.78165702	0.68421014	FMEARN	915	7.48278375	0.93354708
WMEARN	1258	7.44408290	0.94516679	FMLHRWK	692	3.45566786	0.47247324
WMWAGE	1244	0.48339998	0.40172855	FMLWW	809	3.38736305	0.71862711
WMLHRWK	1373	3.40906255	0.45839787				
WMLWW	1392	3.48733496	0.62268848				
WMLWU	1388	1.21900723	0.24004305				
WNUMEMP	1296	1.92669753	1.37827497				
WTURNOV	1296	1.22530864	1.56757932				

Table A16
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Women's Fathers and Young Women's Reports of Their Husbands

Correlation
p-value
Sample Size

	Young Woman's Father's Variables							
Report of Husband's Variables	MMFINC	MMEARN	MMWAGE	MMLHRWK	MMLWW	MMLWU	MNUMEMP	MTURNOV
HMEARN	0.28740	**0.32414**	0.34355	0.05242	0.09719	0.08272	0.03653	-0.01924
MEAN HUSB"S INC FRM WG&SAL 68-82	0.0001	0.0001	0.0001	0.1770	0.0120	0.0327	0.3535	0.6252
	656	556	539	665	667	667	647	647
HMLHRWK	0.02947	-0.02986	0.02683	**0.02591**	-0.00650	-0.01329	-0.06213	-0.03204
HUSB MEAN LOG # HRS WKD/WK 68-78	0.4620	0.4923	0.5443	0.5146	0.8700	0.7378	0.1229	0.4266
	625	531	513	635	637	637	618	618
HMLWW	0.05343	0.02370	0.07262	-0.01552	**-0.01541**	-0.01799	-0.01238	-0.00519
HUSB MEAN LOG # WKS WRKD 69-78	0.1847	0.5882	0.1024	0.6981	0.6997	0.6525	0.7602	0.8981
	618	524	507	627	629	629	611	611
HMLWU	-0.07361	-0.09394	-0.06769	-0.09463	-0.01935	**-0.00370**	-0.00709	-0.02506
HUSB MEAN LOG # WKS UNEMPL75-82	0.3534	0.2840	0.4496	0.2281	0.8057	0.9625	0.9289	0.7523
	161	132	127	164	164	164	161	161

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DE
MMFINC	936	9.01979965	0.69072630	HMEARN	687	8.49821886	0.6188452
MMEARN	798	8.67935380	0.85776234	HMLHRWK	656	3.74117661	0.2172409
MMWAGE	786	1.09932343	0.56074908	HMLWW	648	3.81892393	0.2561565
MMLHRWK	958	3.75238655	0.29888395	HMLWU	168	2.32955111	0.9127761
MMLWW	963	3.82750698	0.28429812				
MMLWU	962	1.33716690	0.09162740				
MNUMEMP	937	1.24119530	1.00929963				
MTURNOV	937	0.59765208	1.08865303				

Table A17

Correlations Among Time Averages of
Selected Labor Market Variables of
Young Women's Mothers and Young Women's Reports of Husbands

Correlation
p-value
Sample Size

	Young Woman's Mother's Variables							
Report of Husband's Variables	WMFINC	WMEARN	WMWAGE	WMLHRWK	WMLWW	WMLWU	WNUMEMP	WTURNOV
HMEARN	0.28650	**0.16223**	0.19969	0.05524	0.11604	0.09311	-0.08005	-0.05038
MEAN HUSB"S INC FRM WG&SAL 68-82	0.0001	0.0001	0.0001	0.0675	0.0001	0.0018	0.0089	0.1000
	1284	1035	1026	1096	1120	1117	1067	1067
HMLHRWK	0.02936	0.02286	-0.01618	**0.02686**	0.00633	0.00760	0.03000	0.03632
HUSB MEAN LOG # HRS WKD/WK 68-78	0.3051	0.4735	0.6137	0.3855	0.8362	0.8041	0.3390	0.2470
	1222	985	976	1046	1069	1067	1018	1018
HMLWW	-0.01846	0.03124	0.01812	0.02087	**0.06152**	0.00591	0.03047	0.04088
HUSB MEAN LOG # WKS WRKD 69-78	0.5196	0.3283	0.5726	0.5011	0.0449	0.8477	0.3324	0.1934
	1219	981	972	1041	1063	1060	1014	1014
HMLWU	-0.15557	-0.07664	-0.09538	-0.02661	-0.05952	**-0.06613**	-0.05208	-0.02992
HUSB MEAN LOG # WKS UNEMPL75-82	0.0033	0.1916	0.1056	0.6451	0.2954	0.2457	0.3752	0.6106
	355	292	289	302	311	310	292	292

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
WMFINC	1776	8.78442560	0.66527286	HMEARN	1316	8.43606315	0.54481404
WMEARN	1447	7.45301032	0.90764630	HMLHRWK	1259	3.74261147	0.19278883
WMWAGE	1429	0.48068515	0.41305938	HMLWW	1252	3.81051199	0.26980594
WMLHRWK	1544	3.43528137	0.39868274	HMLWU	363	2.23899812	0.98691518
WMLWW	1573	3.47699033	0.59614040				
WMLWU	1568	1.21755883	0.22433432				
WNUMEMP	1493	2.02545211	1.32642579				
WTURNOV	1493	1.31480241	1.49306773				

Table A18
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Men and Their Reports of Their Wives

Correlation
p-value
Sample Size

	Young Man's Variables							
Report of Wife's Variables	NMFINC	NMEARN	NMWAGE	NMLHRWK	NMLWW	NMLWU	NNUMEMP	NTURNOV
FMEARN	0.36621	0.15260	0.14185	0.01180	0.07406	0.06393	-0.04091	-0.05534
MEAN WIFE"S INC FRM WG&SAL 66-81	0.0001	0.0001	0.0001	0.5196	0.0001	0.0006	0.0219	0.0019
	2724	2939	2939	2978	2884	2883	3138	3138
FMLHRWK	0.00252	-0.13997	-0.14216	-0.04862	-0.03972	-0.07441	0.07650	0.06889
WIFE MEAN LOG # HRS WKD/WK 78&81	0.9099	0.0001	0.0001	0.0229	0.0665	0.0006	0.0003	0.0012
	2021	2149	2149	2189	2135	2134	2208	2208
FMLWW	0.16173	0.01089	-0.00321	-0.00967	0.07234	0.04685	-0.01578	-0.02906
WIFE MEAN LOG # WKS WRKD 66-81	0.0001	0.5702	0.8670	0.6105	0.0002	0.0150	0.3968	0.1186
	2535	2720	2728	2775	2694	2693	2886	2886

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DE
NMFINC	3569	8.93757547	0.58202651	FMEARN	3142	7.46703941	0.9068998
NMEARN	4159	8.56414998	0.67382711	FMLHRWK	2208	3.43212593	0.4912658
NMWAGE	4138	1.09868604	0.41951552	FMLWW	2889	3.33500203	0.7339398
NMLHRWK	4222	3.75894319	0.19425772				
NMLWW	4044	3.72495852	0.41597247				
NMLWU	4043	1.33131336	0.10052530				
NNUMEMP	5061	3.28037937	1.84835905				
NTURNOV	5061	2.64038728	2.01503758				

Table A19

Correlations Among Time Averages of
Selected Labor Market Variables of
Young Women and Their Reports of Their Husbands

Correlation
p-value
Sample Size

Young Woman's Variables

Report of Husband's Variables	GMFINC	GMEARN	GMWAGE	GMLHRWK	GMLWW	GMLWU	GNUMEMP	GTURNOV
HMEARN	0.53460	**0.12546**	0.26483	-0.08418	0.00955	0.01983	-0.00831	-0.00764
MEAN HUSB"S INC FRM WG&SAL 68-82	0.0001	0.0001	0.0001	0.0001	0.5933	0.2711	0.6207	0.6493
	2967	3209	3206	3305	3128	3083	3546	3546
HMLHRWK	0.09500	-0.06093	-0.05495	**-0.01604**	-0.02916	-0.01246	-0.04962	-0.01600
HUSB MEAN LOG # HRS WKD/WK 68-78	0.0001	0.0007	0.0022	0.3627	0.1080	0.4954	0.0035	0.3473
	2899	3113	3115	3221	3039	2994	3453	3453
HMLWW	0.18824	0.00053	-0.00647	-0.01369	**0.01677**	0.02395	-0.04360	-0.03734
HUSB MEAN LOG # WKS WRKD 69-78	0.0001	0.9764	0.7191	0.4386	0.3560	0.1906	0.0108	0.0289
	2877	3096	3096	3204	3031	2987	3422	3422
HMLWU	-0.16524	-0.02665	-0.05800	0.04067	0.00579	**0.00278**	-0.03018	-0.01649
HUSB MEAN LOG # WKS UNEMPL75-82	0.0001	0.4223	0.0790	0.2133	0.8617	0.9336	0.3510	0.6104
	849	909	918	938	907	904	957	957

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
GMFINC	3516	8.72745257	0.69030869	HMEARN	3865	8.48934328	0.57330051
GMEARN	3900	7.62515006	0.93963328	HMLHRWK	3774	3.75272962	0.19251187
GMWAGE	3907	0.63527491	0.39472813	HMLWW	3714	3.82161931	0.25649797
GMLHRWK	4034	3.46409443	0.42015345	HMLWU	1028	2.24607506	0.94750436
GMLWW	3786	3.51067020	0.61610517				
GMLWU	3737	1.23120530	0.23418210				
GNUMEMP	4608	2.73220486	1.60010994				
GTURNOV	4608	1.88650174	1.66291281				

Table A20
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Women and Their Brothers' Reports of Their Wives

Correlation
p-value
Sample Size

	Young Woman's Variables							
Brother's Report of Wife's Variables	GMFINC	GMEARN	GMWAGE	GMLHRWK	GMLWW	GMLWU	GNUMEMP	GTURNOV
FMEARN	0.10114	**0.12612**	0.12045	-0.01137	0.09748	0.07995	0.03363	0.04968
MEAN WIFE"S INC FRM WG&SAL 66-81	0.0068	0.0003	0.0006	0.7422	0.0056	0.0235	0.2981	0.1242
	716	814	805	840	807	803	959	959
FMLHRWK	-0.03761	-0.01297	-0.06759	**0.08843**	0.00748	0.00544	-0.05259	-0.04947
WIFE MEAN LOG # HRS WKD/WK 78&81	0.3817	0.7468	0.0924	0.0245	0.8524	0.8924	0.1604	0.1867
	543	622	621	647	621	620	714	714
FMLWW	0.09405	0.10919	0.04699	0.06418	**0.08279**	0.05730	0.00795	0.01462
WIFE MEAN LOG # WKS WRKD 66-81	0.0174	0.0032	0.2057	0.0778	0.0257	0.1235	0.8172	0.6708
	639	729	727	756	726	724	848	848

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DE
GMFINC	1252	8.63047396	0.74604271	FMEARN	1034	7.50009065	0.9164607
GMEARN	1437	7.62984918	0.93478365	FMLHRWK	758	3.44316001	0.4531525
GMWAGE	1435	0.61805095	0.39022845	FMLWW	907	3.35039103	0.7646456
GMLHRWK	1493	3.49014277	0.39140119				
GMLWW	1402	3.50751262	0.62570340				
GMLWU	1394	1.22812330	0.24330012				
GNUMEMP	1732	2.74769053	1.61677028				
GTURNOV	1732	1.86836028	1.66278916				

Table A21
Correlations Among Time Averages of
Selected Labor Market Variables of
Young Men and Their Sisters' Reports of Their Husbands

Correlation
p-value
Sample Size

Young Man's Variables

Sister's Report of Husband's Variables	NMFINC	NMEARN	NMWAGE	NMLHRWK	NMLWW	NMLWU	NNUMEMP	NTURNOV
HMEARN	0.18719	**0.17990**	0.24157	0.03641	0.05450	0.05056	-0.02420	-0.01759
MEAN HUSB"S INC FRM WG&SAL 68-82	0.0001	0.0001	0.0001	0.2342	0.0834	0.1085	0.3844	0.5274
	878	1057	1049	1069	1010	1009	1294	1294
HMLHRWK	0.02546	0.07247	0.09018	**0.01544**	0.06475	0.07383	-0.03866	-0.03447
HUSB MEAN LOG # HRS WKD/WK 68-78	0.4595	0.0208	0.0040	0.6197	0.0430	0.0211	0.1712	0.2226
	846	1018	1016	1036	977	976	1254	1254
HMLWW	0.01739	0.01594	0.02156	-0.03030	**0.06964**	0.07066	0.05205	0.04852
HUSB MEAN LOG # WKS WRKD 69-78	0.6131	0.6115	0.4927	0.3302	0.0295	0.0273	0.0658	0.0864
	848	1018	1015	1035	977	976	1250	1250
HMLWU	-0.01078	-0.00168	-0.02032	-0.08937	-0.06436	**-0.08180**	-0.10049	-0.12122
HUSB MEAN LOG # WKS UNEMPL75-82	0.8598	0.9763	0.7176	0.1078	0.2524	0.1462	0.0509	0.0184
	271	317	319	325	318	317	378	378

VARIABLE	N	MEAN	STD DEV	VARIABLE	N	MEAN	STD DEV
NMFINC	1215	8.83289187	0.64938507	HMEARN	1317	8.41259160	0.57789372
NMEARN	1497	8.44208753	0.71940052	HMLHRWK	1278	3.73869074	0.19622481
NMWAGE	1486	1.02901971	0.43941944	HMLWW	1274	3.79343839	0.28551931
NMLHRWK	1516	3.73979589	0.20765965	HMLWU	380	2.37504770	0.91987827
NMLWW	1422	3.69584603	0.43254518				
NMLWU	1421	1.32219729	0.10829522				
NNUMEMP	1872	3.39155983	1.85497535				
NTURNOV	1872	2.71420940	1.98202802				

Table A22

Family Covariances (and Correlations) Among the Permanent Components of Log Real Earnings, Log Real Wage Rates, and Log Annual Hours Using Method of Moments Estimators

Young Men

	Log Earnings	Log Wages	Log Hours
Themselves			
Log earnings	.2430 (1.0000) N=36630	.1555 (.8582) N=35057	.0365 (.4523) N=17390
Log wages	--	.1351 (1.0000) N=33468	.0103 (.1712) N=19180
Log hours	--	--	.0268 (1.0000) N=8922
Brothers			
Log earnings	.0853 (.3510) N=6966	.0658 (.3632) N=6505	.0127 (.1574) N=3754
Log wages	--	.0562 (.4160) N=6157	.0045 (.0748) N=3507
Log hours	--	--	.0091 (.3396) N=2166
Sisters			
Log earnings	.0881 (.2913) N=15629	.0689 (.3055) N=14841	-.0021 (-.0209) N=8868
Log wages	.0576 (.3570) N=15661	.0498 (.4140) N=14878	-.0009 (-.0168) N=8865
Log hours	-.0008 (-.0037) N=7794	-.0145 (-.0889) N=7376	.0008 (.0110) N=4415

(continued)

Table A22--Continued

	Log Earnings	Log Wages	Log Hours
Fathers			
Log earnings	.1060	.0812	.0005
	(.3931)	(.4039)	(.0056)
	N=13143	N=12518	N=7231
Log wages	.0709	.0670	.0060
	(.3251)	(.4121)	(.0828)
	N=10539	N=10063	N=5751
Log hours	.0135	.0056	.0068
	(.1502)	(.0836)	(.2278)
	N=12333	N=11694	N=6828
Mothers			
Log earnings	.0863	.0707	.0061
	(.2855)	(.3136)	(.0608)
	N=15960	N=15070	N=9290
Log wages	.0511	.0454	.0034
	(.2997)	(.3572)	(.0601)
	N=19466	N=18422	N=11321
Log hours	.0373	.0216	.0044
	(.1959)	(.1521)	(.0696)
	N=13684	N=12893	N=8003

Table A23

Family Covariances (and Correlations) Among the Permanent Components of Log Real Earnings, Log Real Wage Rates,and Log Annual Hours Using Method of Moments Estimators

Young Women

	Log Earnings	Log Wages	Log Hours
Themselves			
Log earnings	.3764 (1.0000) N=18067	.1449 (.7217) N=17626	.2865 (1.0524) N=7967
Log wages	--	.1071 (1.0000) N=17742	.0190 (.1308) N=10036
Log hours	--	--	.1969 (1.0000) N=3464
Sisters			
Log earnings	.0970 (.2577) N=4276	.0562 (.2799) N=4300	.0367 (.1348) N=2141
Log wages	--	.0421 (.3931) N=4417	.0031 (.0213) N=2187
Log hours	--	--	.0542 (.2753) N=1102
Brothers			
Log earnings	.0881 (.2913) N=15629	.0576 (.3570) N=15661	-.0008 (-.0037) N=7794
Log wages	.0689 (.3055) N=14841	.0498 (.4140) N=14878	-.0145 (-.0889) N=7376
Log hours	-.0021 (-.0209) N=8868	-.0009 (-.0168) N=8865	.0008 (.0110) N=4415

(continued)

Table A23--Continued

	Log Earnings	Log Wages	Log Hours
Fathers			
Log earnings	.1329	.0867	.0228
	(.3960)	(.4843)	(.0939)
	N=9536	N=9591	N=4744
Log wages	.0762	.0545	-.0039
	(.2808)	(.3765)	(-.0199)
	N=7292	N=7353	N=3594
Log hours	.0118	.0049	.0001
	(.1055)	(.0821)	(.0012)
	N=8852	N=8883	N=4409
Mothers			
Log earnings	.1027	.0543	.0553
	(.2730)	(.2706)	(.2032)
	N=17717	N=18008	N=5877
Log wages	.0617	.0398	.0138
	(.2908)	(.3517)	(.0899)
	N=21550	N=21953	N=7142
Log hours	.0562	.0242	.0408
	(.2372)	(.1914)	(.2380)
	N=15093	N=15293	N=5016

Table A24

Family Covariances (and Correlations) Among the Permanent Components of Log Real Earnings, Log Real Wage Rates, and Log Annual Hours Using Method of Moments Estimators

Older Men

	Log Earnings	Log Wages	Log Hours
Themselves			
Log earnings	.2992 (1.0000) N=6417	.1999 (.8261) N=4610	.0365 (.3659) N=6109
Log wages	--	.1957 (1.0000) N=3487	.0002 (.0025) N=2417
Log hours	--	--	.0333 (1.0000) N=3485
Sons			
Log earnings	.1060 (.3931) N=13143	.0709 (.3251) N=10539	.0135 (.1502) N=12333
Log wages	.0812 (.4039) N=12518	.0670 (.4121) N=10063	.0056 (.0836) N=11694
Log hours	.0005 (.0056) N=7231	.0060 (.0828) N=5751	.0068 (.2278) N=6828
Daughters			
Log earnings	.1329 (.3960) N=9536	.0762 (.2808) N=7292	.0118 (.1055) N=8852
Log wages	.0867 (.4843) N=9591	.0545 (.3765) N=7353	.0049 (.0821) N=8883
Log hours	.0228 (.0939) N=4744	-.0039 (-.0199) N=3594	.0001 (.0012) N=4409

(continued)

Table A24--Continued

	Log Earnings	Log Wages	Log Hours
Wives			
Log earnings	.1142 (.3404) N=5313	.0738 (.2720) N=4298	.0143 (.1279) N=4700
Log wages	.0688 (.3637) N=6411	.0532 (.3477) N=5227	.0115 (.1824) N=5690
Log hours	.0312 (.1477) N=4320	.0161 (.0942) N=3511	.0183 (.2598) N=3907

Table A25

Family Covariances (and Correlations) Among the Permanent Components of Log Real Earnings, Log Real Wage Rates, and Log Annual Hours Using Method of Moments Estimators

Mature Women

	Log Earnings	Log Wages	Log Hours
<u>Themselves</u>			
Log earnings	.3761 (1.0000) N=18284	.1753 (.8265) N=17645	.1906 (.8046) N=11893
Log wages	--	.1196 (1.0000) N=27304	.0521 (.3900) N=17564
Log hours	--	--	.1492 (1.0000) N=11593
<u>Sons</u>			
Log earnings	.0863 (.2855) N=15960	.0511 (.2997) N=19466	.0373 (.1959) N=13684
Log wages	.0707 (.3136) N=15070	.0454 (.3572) N=18422	.0216 (.1521) N=12893
Log hours	.0061 (.0608) N=9290	.0034 (.0601) N=11321	.0044 (.0696) N=8003
<u>Daughters</u>			
Log earnings	.1027 (.2730) N=17717	.0617 (.2908) N=21550	.0562 (.2372) N=15093
Log wages	.0543 (.2706) N=18008	.0398 (.3517) N=21953	.0242 (.1914) N=15293
Log hours	.0553 (.2032) N=5877	.0138 (.0899) N=7142	.0408 (.2380) N=5016

(continued)

Table A25--Continued

	Log Earnings	Log Wages	Log Hours
Husbands			
Log earnings	.1142 (.3404) N=5313	.0688 (.3637) N=6411	.0312 (.1477) N=4320
Log wages	.0738 (.2720) N=4298	.0532 (.3477) N=5227	.0161 (.0942) N=3511
Log hours	.0143 (.1279) N=4700	.0115 (.1824) N=5690	.0183 (.2598) N=3907

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