1995

Good jobs, Bad Jobs: The Long-Run Implications of Employment at Different Wage Rates for the Disadvantaged

Timothy J. Bartik
W.E. Upjohn Institute, bartik@upjohn.org

Citation

This title is brought to you by the Upjohn Institute. For more information, please contact repository@upjohn.org.
Good Jobs, Bad Jobs:
The Long-Run Implications of Employment
at Different Wage Rates for the Disadvantaged

Timothy J. Bartik
Senior Economist
W. E. Upjohn Institute
300 S. Westnedge Ave.
Kalamazoo, MI 49007

November 1995

1. **Introduction**

"In contrast to the failed training programs of the past, a job, most any job, has shown itself capable of generating the earnings growth which will make welfare reform a reality." Carlos Bonilla, Chief Economist, Employment Policies Institute, testimony before the U.S. House Committee on Economic and Educational Opportunities, January 18, 1995.

"The vast majority of [welfare mothers we interviewed] who had worked at low wage jobs found that hard work at bad wages did not allow them to get ahead." Kathryn Edin, Rutgers University, "The Myths of Dependence and Self-Sufficiency," working paper, 1994.

Are the poor helped by obtaining any job, or must the job they obtain pay "good" wages? The answer to the "wage rate question" is important to designing welfare reform, job training programs, and economic development programs. If any job will help, with its starting wage not as important, perhaps welfare-to-work and job training programs should push the poor into any job. Economic developers should perhaps focus on encouraging job growth of any type. If the starting wage rate matters a great deal to the success of the poor, perhaps programs should invest more to get the poor into better paying jobs. This might be accomplished through more extensive training and education, more selective job placement efforts, and targeting economic development at higher wage jobs. These more intensive and selective programs will cost more, but the investment may pay off if the wage rate of jobs for the poor makes a major difference.

In part, the issue is the long-run consequences for the poor of employment at different wage rates. Does employment at any wage for the poor pay off in the long-run in earnings growth? Or, for a job to pay off in the long-run, must it be a "good" job? As shown in the above quotations, opinion is divided about the answers to these questions.
No research has directly addressed this issue of the long-run consequences for the poor of employment at different wages. Some research has been done on the long-run effects of youth employment and of worker displacement. This research will be briefly reviewed later, but findings from research on youth or displaced workers are of unknown relevance for disadvantaged adults. Some research has also been done on how wages affect the job retention of disadvantaged women who graduate from job training programs. As will be discussed later, however, this previous research has focused on the short-term.

Another problem with existing research is its inability to adequately control for unobserved personal characteristics of the individual that affect their earnings. A researcher can control for observed personal characteristics or fixed characteristics of an individual that affect earnings and work hours. But it is more difficult to control for unobserved changes in an individual that may lead to changes in their earnings and work hours, and these unobserved changes may persist. In other words, it may not be the job itself and the wage paid that affects long-run success: it may be the changes that the individual made to get that job that lead to long run success. For some policy purposes, it may be useful to know how much an individual's changes in earnings and work hours persist. This suggests the long-run effects of a program that changes people so they are typical of those who get a job at a particular wage. But for other policy purposes, one wants to know what the effect is of the job itself, holding constant both observed and unobserved characteristics of the individual. Many policies—public employment, wage subsidies, many welfare-to-work programs—take an individual, without changing their skills or attitudes, and put them in a job. To estimate the long-run effects of the job itself, holding
constant unobserved individual characteristics, one must use variables that exogenously shift the jobs available to an individual.

This paper examines the long-run effects of employment at different wages using data on disadvantaged persons from the Panel Survey of Income Dynamics (PSID). To examine the effects of the job itself, holding constant unobserved personal characteristics, the estimation uses local demand conditions as instruments to predict individual employment and earnings.

The paper finds, controlling for the observed history and current characteristics of a person, very high persistence of changes in employment or wages. This persistence occurs for employment at any wage. Higher wage jobs improve future earnings more than low wage jobs, but any job helps. But when the estimation uses local labor demand conditions as instruments, only employment at higher wages pays off for disadvantaged persons in the long-run.

2. Rationale for Possible Long-Run Effects of Employment at Different Wage Rates

Why might greater work hours for an individual in the short-run result in greater wages or work hours for that individual in the long-run? One reason is that work experience can develop general job skills and self-confidence, increasing an individual's productivity. In addition, work experience may result in other employers perceiving an individual as more productive. Either actual or perceived increases in an individual's productivity may increase their long-run wage rate. This increase in wage rates may either increase or decrease labor supply.
Work experience can also develop job skills that are specific job skills: skills that only increase productivity at the individual's current employer. Standard economic models of specific on-the-job training suggest that it will be optimal for the employer and employee to share the greater productivity resulting from firm-specific training. Wages should increase as the individual becomes more productive with this firm, to a level that is greater that the worker could receive elsewhere, but less than the worker's productive value to this firm. Both the firm and the worker will be less likely to terminate the employment relationship and lose the benefits they share from the worker's continued employment at that firm. Both wages and work hours should be greater in the long-run if the worker stays with the original firm.

Work experience might also alter an individual's preferences. Working more today could cause an individual to prefer to choose more work hours in the future.

The above arguments for effects of work experience apply to changes in work hours brought about by changes in labor market opportunities. If work hours change due to changes in the individual, we would expect these personal changes to persist to some extent in the future. For example, an individual might go through a drug treatment program or a job training program, and become more able or more motivated to work. Work hours should increase both in the short-run and long run. This positive correlation between work hours in the short-run and long-run does not occur because more work in the short-run in itself affects work hours in the long-run. Changes in the person's skills, attitudes, or self-confidence are causing changes in work hours in both the short-run and long-run.

Finally, work hours today could be different for one individual compared to others because of choices made in response to different expected life cycle patterns of wages (MaCurdy,
1981). An individual who chooses to work more hours today could do so because of an expectation that wages will be lower in the future. More work hours today will be associated with lower wages and work hours in the future. This association will not reflect a true causal effect of more work hours today, but an optimal choice of work hours.

Why might the wage-rate paid by a job in the short-run be associated with long-run differences in work hours or wages? Higher wage jobs could increase the individual's future work hours by reducing quit rates and increasing job retention. This increase in job retention will result in greater accumulation of general and specific job skills, increasing wages in the long-run. This argument assumes that a greater wage in the short-run has positive effects on labor supply.

In addition, higher wage jobs may differ from lower-wage jobs in the opportunities they offer for human capital acquisition. Traditional labor economic theory suggests that firms that provide more general job training will pay lower wages in the short-run than firms that provide less general training, holding constant worker characteristics. The lower short-run wages will be accepted by workers because of the prospect of higher future wages, and will be demanded by the firm to cover the firm's greater training costs. Unfortunately for this theory, the research literature finds insignificant (Parsons, 1990) or significantly positive associations (Lynch, 1992) between a worker's current wage and current training activities. An alternative theory is efficiency wage theory, which suggests that some firms and industries may offer "better jobs"—perhaps including both better wages and better training opportunities—than are usual in the labor market (Katz and Summers, 1989). Firms will offer "better jobs" if the costs are outweighed by the resulting
productivity gains. Productivity gains may occur because better job conditions result in a better job applicant pool, lower worker turnover, improved worker morale, and greater incentives to work hard to avoid being fired. Firms may differ in their incentives to offer better jobs because, among other things, of differences in technology across industries and firms that alter the productivity effects of worker quality, turnover, and voluntary work effect. Whether one accepts efficiency wage theories or traditional theories of firm-provided general training, wages may be correlated with general job training provided. Whichever types of jobs provide more general job training will lead to higher wages in the future.

Wage rates may also increase for an individual due to a change in the individual, in particular due to some change (a training program?) that increases their productivity. We would expect such productivity-induced wage changes to persist to some extent over time. It is not really the wage rate of the job today that is causing the higher wages in the future; higher wages today and in the future both have a common cause in whatever led to the initial productivity increase. Besides a productivity increase, wages might increase for a person due to some change in tastes that leads them to choose jobs with lower amenities and therefore higher wages. We would expect such taste changes to persist over time, leading to some persistence in wage rates. It is not the wage rate of the job itself that increases wage rates in the long-run, but rather the taste change that causes higher wages in both the short-run and the long-run.
3. *Previous Related Research*

No previous research has addressed the issue that is the focus of this paper: the long-run effects for disadvantaged adults of employment at different wages. There has been some research in three related areas: the long-run effects of worker displacement due to plant closings or mass layoffs; the long-run effects of the early employment experiences of youth; the effects of wages on job retention for disadvantaged women.

For displaced workers, the consensus until recently, as summarized by Jacobson et al's recent book on this topic, has been as follows: "The previous literature provides abundant evidence that worker displacement leads to substantial earnings losses....There is less consensus in the literature about whether these losses persist." (pp. 33-34, Jacobson, LaLonde and Sullivan, 1993). Jacobson et al report strong new evidence in their book that substantial earnings losses for displaced workers persist for at least five years after displacement, for workers in many industries and firms. Losses are greater for workers who probably initially received higher wages—for example, workers in primary metals industries and in larger firms.

The two most prominent research papers on the effects of the out-of-school work experiences of youth are by Ellwood (1982) for young men and Corcoran (1982) for young women.¹ Both papers attempted to identify effects of "exogenous" changes in employment for youth, that is the effects of the employment in and of itself, holding constant observed and unobserved personal characteristics. Both papers tried using local demand conditions as

---

¹There is also a research literature on the long-run effects of the in-school work experiences of youth, which I do not discuss here, because it seems to raise issues that are somewhat different, including the issue of how such work experience might interfere with schooling.
instruments, but were unable to get statistically significant results. As an alternative, both papers identified the effects of "exogenous" changes in the employment experiences of youth by imposing functional form restrictions. Ellwood found only very short-term and limited persistence in the work hours of male youths. Early work experience of males was found to have major long-run effects on wages. An extra year of work was found to increase wages by 10 to 20 percent. Corcoran's paper on young women found more persistence in work hours in the short-run than Ellwood found for men. She finds strong long-run effects of women's early work experience on wage rates, but not as strong as the effects found for men by Ellwood. Neither Ellwood nor Corcoran focused on the long-run consequences of different wages during early employment experiences.

Two recent studies have examined how the job retention rate for disadvantaged women graduates of training programs is associated with the wage rate paid by the job. The Urban Institute's study of the Massachusetts' ET welfare-to-work program found that a dollar per hour higher starting wage was associated with a 16% longer median employment duration. (p. 126, Nightingale et al, 1991). A research study by the 9 to 5 Working Women Education Fund focused on women graduates of the federally-funded Job Training Partnership Act (JTPA) program in Milwaukee and Cleveland. The study found that a dollar higher starting wage increased the length of job tenure by half a year. Both studies control for various demographic characteristics of the women included in the estimation sample. Neither study uses any statistical techniques to control for unobserved differences in the characteristics of these women that might be associated with both job tenure and the starting wage. In addition, both studies are short-run
studies: the Urban Institute study focused on women 12 to 16 months after finding a job, whereas the 9 to 5 study focused on women an average of 3 years after receiving training.

4. **Model and Data**

The model is a two equation system using pooled time-series cross-section data on individuals. The dependent variables are (1) annual real earnings for an individual, and (2) annual work hours for an individual, with seven annual observations on each individual in the panel. Individual data come from the Panel Survey on Income Dynamics (PSID), and include observations from 1981 to 1987. Estimation is restricted to individuals considered "disadvantaged" based on 1973-75 data, and who were prime-age adults for all years from 1976 to 1987; with this and other data restrictions, 275 individuals are included in the sample. The key independent variables of interest are five lagged values of annual real earnings and annual work hours for each individual. Other control variables include year dummies, dummies for each MSA, individual demographic characteristics, and measures of the individual's economic status during the 1973-75 period.

Individuals are considered "disadvantaged," and included in the sample, if their family's average income/'needs' during 1973-75 was less than 1.5 and the individual has less than 16 years of education. "Needs" as defined in the PSID is 25 percent above the usual poverty line for the family. Averaging over three years and excluding college graduates focuses on "persistently" low income individuals. Individuals were included in the sample only if they remained in the same MSA from 1975 to 1987, to make it simpler to define local demand conditions. To avoid
complications from schooling and retirement decisions, individuals were only included in the
sample if they were between 26 and 55 from 1976 to 1987.2

The two estimating equations can both be written as:

\[ Y_{imt} = B_0 + B(L)Y_{i,m-1} + B_1 + B_m + B_2X_{i,m-1} + B_3E_{i,m-1} + B_4D_{m-1} + B_5(D_{m-1})(E_{i,m-1}) + u_{i,m}. \]

\[ Y_{i,m-1} = \text{the level for individual } i \text{ in MSA m in year } t \text{ of real earnings or work hours.} \]

\[ B(L)Y_{i,m-1} \text{ indicates that five lags in real earnings and hours, each with their own } \]
\[ \text{coefficient, are included in the equations. Lags of both earnings and hours are included in each } \]
\[ \text{equation, with either an earnings or hours dependent variable.} \]

\[ B_1 \text{ and } B_m \text{ indicates that complete vectors of year dummies and MSA dummies,} \]
\[ \text{respectively, are included in the equations.} \]

\[ X_{i,m} = \text{a vector of control variables, including education, experience=age-education-6; } \]
\[ \text{experience squared; a discrete variable indicating gender; two discrete variables indicating } \]
\[ \text{whether the individual is Black or Hispanic; marital status; number of children under 18; } \]
\[ \text{interaction terms between gender, and the marital status and number of children variables.} \]

\[ E_{i,m} \text{ is a set of variables describing the individual's economic status during the years from } \]
\[ 1973 \text{ to 1975: the average income to needs ratio of the individual's family, average annual real } \]
\[ \text{earnings and work hours of the individual, and an indicator for the person receiving welfare any } \]
\[ \text{time from 1973 to 1975.} \]

2 In addition to these criteria, individuals must have had no more than 2 years from 1976 to
1987 in which their earnings or hours variables were subject to "major assignments" by PSID staff.
\( D_m \) is a set of demand indicators for the individual's MSA, including the log of MSA employment, and the average "wage premium" implied by the MSA's industry mix. The average wage premium implied by the MSA's industry mix is calculated by multiplying each 2-digit industry's share of MSA employment times the industry's national "efficiency wage" premium, as estimated by Krueger and Summers (1988).³

\((D_m)(E_m)\) represents five interaction terms between the local demand indicators and the 1973-75 economic status variables. These include interaction terms between the log of MSA employment and the 1973-75 income to needs ratio and work hours, and interaction terms between the MSA wage premium variable and the 1975-75 income to needs ratio, earnings, and work hours.

\( u_{jm} \) is the disturbance term.

Earnings and hours are not transformed in these equations by taking the natural logarithm (a common practice in labor economics) because many observations have zero earnings and zero hours.

Five lags in earnings and hours were included because this seemed to be the maximum lags that could be included and still retain a reasonable number of observations for each individual. The demographic controls included are standard. Year dummies control for unobserved national time period effects on earnings and hours—e.g., recessions and recoveries, or the national trend toward greater earnings inequality. MSA dummies control for unobserved fixed effects of the MSA upon real earnings or work hours, due to differences in local prices,

³Bartik (forthcoming) and Bartik (1993) provide more details on how the 2-digit industry share data are constructed and how the wage premium variable is calculated.
unionization, or wage standards. The log of MSA employment, holding the vector of MSA dummies constant, can be interpreted as MSA employment relative to its "average" over the sample, and has been shown in previous work to have significant effects on economic outcomes (Bartik, forthcoming). The MSA wage premium variable indicates the extent to which the MSA employment is concentrated in industries that pay above-average or below-average wages. Again, previous research shows that this is often a significant effect upon individual earnings (Bartik, forthcoming).

The controls for 1973-75 status attempt to measure "permanent effects" on real earnings and hours of indicators of the individual's economic status. They are averaged over three years in an attempt to approximate permanent or at least persistent economic status. The interaction terms between the MSA demand conditions and these economic status variables are intended to reflect variations in the effects of MSA demand conditions for individuals with different initial 1973-75 economic status. These five interaction terms were chosen after experimentation indicated that these five interaction terms had the most consistently significant effects on the dependent variable of the various interaction terms considered. These "current period" interaction terms are needed as controls because lags of these variables are used as instruments, as discussed below.

4 Other interaction terms considered were: the interaction between the log of MSA employment and the 1973-73 average for real earnings; two interaction terms for the interaction between the categorical variable for Black and the two demand indicators; two interaction terms for the interaction between the two demand indicators, and the number of kids times the indicator for whether the individual was female; a set of three interaction terms for each year in the data set, for an interaction between the complete set of year dummies and the 1973-75 averages for earnings, hours, and the income/needs ratio. These other interaction terms were generally insignificant or of marginal significance. These interaction terms were considered as possible instrumental variable candidates when lagged; hence, we would want to include them in the equation in current form, and as instruments in lagged form, only when they truly do shift earnings and hours in the sample.
The two equations were estimated in two ways. The first way was to simply estimate both equations by seemingly unrelated regressions (SUR), allowing for an arbitrary correlation between the residuals in the earnings equation and the hours equation. The second way was an instrumental variable (IV) approach treating all ten lagged earnings and hours variables as endogenous. Variables based on the lagged local demand variables were used as "excluded instruments": the instruments excluded from the equation being estimated but included in the equations predicting the endogenous variables. These "excluded instruments" include five lagged values of the MSA employment and MSA wage premium variables, and five lagged values of the interaction terms between these variables and the "permanent" economic status variables. Other interaction terms were considered as instruments, but proved to be poor predictors of earnings and hours; these other potential instruments were not used to avoid "overfitting" at the first stage of instrumental variable estimation.

The first estimation approach, using seemingly unrelated regressions, does not correct for the endogeneity of the lagged earnings and hours variables. This approach estimates the consequences for future earnings and hours of some change in earnings and hours, holding constant many demographic characteristics and the individual's 1973-75 economic status. This change in earnings and hours is probably due to some change in the individual.
The second estimation approach, using instrumental variables, controls for the endogeneity of lagged earnings and hours. It measures the short-run and long-run effects on earnings and hours of "shocks" to earnings and hours that are associated with local demand variation. These are good instruments if local demand variation is a good predictor of individual earnings and hours, but is uncorrelated with unobservable individual characteristics that affect earnings and hours.

One complication in both estimation approaches is that the residuals in either approach will be correlated over time for the same person. Both the SUR and IV estimation approaches are therefore adapted to allow for any arbitrary pattern of correlation in the residuals across time for the same person. This is done by treating each year as a "separate" equation, restricting all the coefficients to be the same across equations, and then telling SAS that the resulting equation is a SUR system of 14 equations (seven years times two dependent variables) or a three-stage-least-squares (3SLS) system of 14 equations.5

---

5The actual estimation approach is more complicated than the brief text description because of limitations of the SAS program. SAS does not allow 3SLS estimation with separate instruments for each equation, which is what is required here. For a particular year, with five lags, we want to use instruments whose time period corresponds to those lags. In particular, we don't want to use instruments for the five lagged variables if the instruments are dated after the year corresponding to the dependent variable. To allow different instruments for each equation, we had to actually create the fitted values for each equation using the desired instruments with the "right" lags. These fitted values were then used in an OLS procedure to get initially consistent estimates. Residuals were then calculated using actual values of the endogenous variables, but the coefficients from the OLS procedure, and the correlation matrix of the equation estimates was then calculated. This correlation matrix was then imposed on a re-estimation with fitted values reinserted on the right hand side, and SAS being told to re-estimate the system using "SUR" with that correlation matrix. This elaborate procedure tricks SAS into doing 3SLS with different instruments for each equation.
Data Description

Table 1 gives some descriptive statistics for key variables used in the project. These descriptive statistics emphasize that this is a disadvantaged group. Their average family income was less than family "needs" over the 1973-75 period. Almost half of the sample received welfare at some time during the period. The sample is predominantly Black and female, with an average 10th grade education level. Average work hours at the beginning of the sample period were less than half of a normal working year (900 out of 2000 "full-time" hours), and average real earnings per hour were around $7 (in 1989 dollars). Work hours and wages only increased modestly during the sample period; by 1987, work hours were slightly over half a normal work year, and average wage rates were slightly over $7 ($7.30=$8204/1124).

5. Results

Rather than presenting the coefficients on lagged earnings and hours, which are difficult to interpret, I present simulations of the effects of several different hours and earnings shocks. These simulations use the original coefficients to show what changes in earnings and hours would follow a shock to earnings and hours. The standard errors of the estimated effects in these simulations are derived by rerunning each simulation 100 times, with each simulation based on a random draw from the joint distribution of all the original coefficient estimates; the standard deviation of the estimated effects in these 100 draws is the standard error of these estimated effects. Because asymptotically the original coefficient estimates should be distributed normally,
and because the estimates in these simulations are a linear function (a complicated one) of the
coefficient estimates, the simulation estimates should also be distributed normally.

The simulations consider three possible shocks to annual earnings and annual work hours:

- **Case 1:** "Getting a bad job": An increase from zero hours of work to 2000 hours
  of work at $5/hour ($10,000 per year);

- **Case 2:** "Getting a good job": An increase from zero hours of work to 2000 hours
  of work at $10/hour ($20,000 per year);

- **Case 3:** "Getting a significant wage increase": Increase of $5 per hour in pay for
  someone working 2000 hours a year ($10,000 per year).

Because of the structure of the model, the effects in Case 2 have to be sums of the effects in
Cases 1 and 3.

I consider what happens to earnings and hours in all three cases for each of the two
estimation methods, SUR and 3SLS. As mentioned above, the SUR estimates show what
happens if an individual changes his or her skills, self-confidence, or attitudes so that higher
wages or more work hours occur. The 3SLS estimates show what happens if work hours or
earnings change due to exogenous shifts in the individual's job opportunities, with no other
change in the individual. The exogenous shifts in job opportunities considered are due to shifts in
local labor demand conditions. In other words, the 3SLS estimates show the effects of a job in
and of itself.

I present the results in two ways. Table 2 reports numbers for the effects on earnings and
hours in the short-run (one year after the initial shock to earnings and hours) and the long-run
The figures visually show the actual time path of reaction to the shock. One standard error to either side of the estimates is shaded in the figures.

SUR Estimates

Considering first the SUR estimates, the results show that changes in earnings and hours, when these changes are attributable to personal changes in an individual, are quite persistent. Persistence occurs for both good and bad jobs. A higher percentage of the initial earnings shock persists for getting a bad job, although the absolute dollar increase in earnings in the long-run is much greater for getting a good job. Perhaps it is more difficult for disadvantaged individuals to sustain the personal changes that allowed them to obtain a higher wage job. However, the estimates do reveal considerable persistence in maintaining higher wages that occur due to some personal change.

Persistence is not 100 percent, and it's possible to look at these estimated effects as revealing a glass that is more than half empty. Over time, in all three cases, well over half of the initial increase in earnings disappears after 10 years. Much of this loss is concentrated in the first year after the shock—from a third to a half of the initial increase in earnings disappears after one year in the three cases. If the individual is able to avoid this initial depreciation, and maintain the job or the higher wage for a second year, the effect on long-run earnings and hours would be far greater.

Over time, the effects of getting a job become more concentrated in earnings rather than hours. The effect on earnings after 10 years in cases 1 and 2 is a higher percentage of the initial shock or the one year effect than is true for the 10-year effect on hours.
Finally, the effects of wage increases on hours worked appear to be modest in this sample. For example, in case 3, the implied wage increases are quite large—over $2 per hour after one year, close to a 30 percent wage increase. Yet average work hours in year 1 only go up by 5 percent or so. This implies a quite modest positive wage elasticity of between .1 and .2.

3SLS Estimates

The 3SLS estimated effects of a shock are similar to the SUR estimated effects in the short-run, but much different in the long-run. Getting a job, in and of itself, or getting a wage increase, does have significant short-run effects. But the long-run effects of an exogenous change in job or wage opportunities are much less than if some personal change led to getting that job or wage increase.

Getting a good job has much more persistent effects than getting a bad job. Pushing a disadvantaged person into a $5 per hour job, absent personal change, has no important effects on their earnings or work hours 10 years later. Providing a disadvantaged person with the opportunity for a $10 per hour job does significantly increase their earnings even 10 years later.

Giving someone the opportunity to increase their wage rate also has persistent effects. About 10 percent of an initial exogenous increase in the wage rate will still be reflected in higher earnings as of 10 years later.

The long-run persistent effects of exogenous shocks to earnings and/or work hours are solely on wage rates, not work hours. The findings are consistent with the hypothesis that higher
wage jobs may have greater opportunities for human capital development. The lack of effects on work hours could be due to modest labor supply elasticities with respect to wages. Alternatively, perhaps the individuals for whom the effects of shocks persist are those who would have eventually increased their work hours anyway. The estimates presented here are "average" effects of shocks over the entire sample. It is important to remember that these averages probably reflect quite different patterns of persistence for different individuals.

Comparison to Previous Research

These estimated effects of exogenous shocks to work hours and earnings appear quite consistent with previous research on youth and displaced workers. Exogenous changes in work hours do appear to have important long-run effects on earnings for disadvantaged adults, just as they do for youth (Ellwood, 1982; Corcoran, 1982) and displaced workers (Jacobson, LaLonde, and Sullivan, 1993). The long-run effects on disadvantaged adults of exogenous increases in work hours are mostly on wage rates, not on future work hours, just as Ellwood (1982) found for young males.

The estimates do not appear consistent with previous estimates that higher wages have strong effects on job retention for disadvantaged women (Nightingale et al, 1991; 9 to 5, 1993). Even in the SUR estimates, higher wages only appear to have marginal effects on increasing work hours in the short-run or in the long-run. The 3SLS estimates imply that higher wage jobs in and of themselves are beneficial in the long-run not because of greater job retention, but because higher wage jobs increase future wages.
6. **Conclusion**

The clearest policy implications of this paper's estimates are for policies that only seek to get disadvantaged individuals into jobs, without any direct effort to induce personal change. Examples of such policies are welfare-to-work programs that lack a significant training component, aggressive job placement and job development efforts by welfare or training programs, economic development, wage subsidies, or public employment. For these types of policies, the estimates imply that employment in and of itself only pays off in the long-run if that employment is at higher wages. The payoff to a bad job is only short-run. Therefore, such policies must either stress higher wage jobs, or include some type of follow-up component, if they are to lead to long-run effects on the earnings of disadvantaged persons.

On the other hand, for policies that can change disadvantaged persons—through training, counseling, or group work—the personal changes that lead individuals to increase their work hours may pay off in the long-run even if the job pays poorly. Of course, such efforts toward personal change have an even greater long-run payoff if they lead to a higher wage job.

Based on these findings, policies to help the disadvantaged must do more than simply push individuals into any job. Policies should stress providing good jobs. Furthermore, policies should facilitate the personal changes that lead to employment at higher wages. In addition, job retention, especially during the first year after getting a job, is important. Policy makers should not count on the job retention problem being solved by high wages. Additional supports to increase job retention may be needed.

Finally, future research should explore what features of a job other than its wage are most important to long-run success for the disadvantaged. We would like to know how the long-run
References


