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ABSTRACT

A study used data from the National Longitudinal Survey of 5,083 women who were thirty to forty-four years old in 1967 to investigate factors relating to the determination of the asking wage. Among the findings of the study was that unemployed women substantially reduce their reservation wages as the period of unemployment progresses. Findings indicated that the average woman reduces her asking wage by 4.5 to 6.6 cents per week of unemployment. It was also found that women who receive unemployment benefits have substantially higher asking wages. (A simple model of the asking wage of women is outlined and discussed.) (LRA)

Job Search by Unemployed Women: Determinants of the Asking Wage

by

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ABSTRACT

This study uses actual observations of reservation wages from the National Longitudinal Surveys of Women who were 35 to 49 years of age in 1972 to examine the job search behavior of unemployed women. Their asking wages correspond both to labor market parameters and to their own circumstances. Variables reflecting wage expectations and unemployment duration are usually statistically significant in the anticipated directions. The model is estimated with a two-stage least squares procedure. Unemployed women substantially reduce their reservation wages as the period of their unemployment progresses. Recipients of unemployment insurance report asking wages that are substantially higher than those for other unemployed women.

Job Search by Unemployed Women: Determinants of the Asking Wage

Notwithstanding the fact that the unemployment rate for women is usually considerably higher than that for men,[1] relatively little research concentrates on the labor market behavior of unemployed women. Although the high unemployment rate for women is in part attributable to their high rates of entrance and reentrance into the labor force, it is instructive to examine the job search behavior of women who become unemployed immediately after an interval of paid employment. Insofar as the reservation wage (the lowest wage at which an unemployed individual will accept a job--the asking wage) reflects job search behavior, an exploration of the determinants of the reservation wage will enhance our understanding of the labor market behavior of unemployed women.

The contributions of this paper to the growing literature on job search include the use of a national sample of women, the actual observations of the unemployed women's reservation wages, and the two-stage least squares method of estimation. Our model of the reservation wage exemplifies the job search paradigm in the works of McCall[2] and Gronau.[3] Since the higher the asking wage, ceteris paribus, the longer the duration of unemployment, empirical estimates of the effect of personal and family characteristics, policy parameters, and local labor market conditions on the reservation wage lend insight into factors affecting that component of the female unemployment rate. This study devotes particular attention to the proposition that an unemployed woman will lower her wage demands as the duration of her unemployment lengthens, and to the effect of unemployment insurance on job search behavior. Several researchers have examined the relationship between the asking wage and the duration of unemployment.

Using data from state employment offices around the country, Barnes[4] found asking wage declines of .27 percent per week for the first three months of unemployment and .17 percent per week after twelve months of unemployment among an unemployed group primarily comprised of older men. Crosslin and Stevens,[5] who used a multi-equation approach and divided unemployed workers of both sexes and varying ages into those receiving maximum unemployment insurance benefits and those receiving fewer services, discovered weekly downward revisions of 1.28 percent for maximum receivers versus .7 percent for the others. A decline of .09 percent per week for unemployed workers of both sexes and all ages at the Minnesota Employment Service was reported by Kasper.[6] For a sample of young males at the Indiana Employment Service, Stephenson[7] calculated a downturn of .014 percent per week of unemployment. Katz[8] used a white BLS - Census sample of males aged 25 to 64 to get a decrease of .717 percent per week, while Sant[9] obtained results ranging from a decline of .0516 percent per week to an upward revision of .0637 percent per week from the National Longitudinal Survey of Young Men aged 14 to 24 in 1966. With the exception of Sant's results, all investigations of the asking wage confirm the proposition that asking wages are revised downward as unemployment progresses.

Often studies of reported reservation wages do not explicitly include the effects of unemployment insurance benefits. However, Crosslin and Stevens,[10] Katz,[11] Kiefer and Neuman,[12] and Schmidt[13] develop models which do consider unemployment insurance effects. Many studies of the effect of UI benefits on the duration of unemployment (for example, Brechling,[14] Classen,[15] Holen,[16] Feinberg,[17] and Ehrenberg and Oaxaca[18]) can be used to infer the effect of unemployment insurance on the reservation wage.

The article unfolds in the following manner. The next section models the determination of the asking wage. The third section presents an empirical analysis that subjects the implications of the model to statistical tests. The National Longitudinal Surveys (NLS) of Mature Women who were 35 to 49 years of age in 1972 suit our purpose because data are available on each woman's reservation wage, work history, and economic conditions in the local labor market. The last section summarizes our results and compares them to related research that examines the behavior of diverse samples of the unemployed. This closing section also discusses the implications of our findings for labor market policy toward women.

A SIMPLE MODEL OF THE ASKING WAGE

An unemployed woman by definition is actively seeking employment. Her asking wage reflects her job search strategy. If she acts rationally, then her asking wage has the property that the (expected) marginal cost of the additional search that a higher reservation wage entails exceeds its (expected) marginal benefit. Hence, her asking wage will reflect both her perception of the wage offer distribution that confronts her and her decision as to where within the perceived distribution she will stop searching and accept a job. Her decision to stop searching depends on the probability of receiving job offers, the value of her time, and the resources available to finance her search activities. As the period of unemployment progresses, there is reason to expect a change in her search strategy, which will be manifest in a revision of her asking wage (ASK).

(1) $ASK = A(W_e, S, V, D)$

where:

ASK = asking wage at the survey date

W_e = expected wage offer

S = search costs of obtaining an offer

V = value of her time while unemployed (i.e., the value of leisure and home production)

D = duration of unemployment prior to survey date

Let us assume that each unemployed woman faces a wage offer distribution that can be represented by its median or mean. This expected wage reflects what she perceives an employer would pay her to work. She bases this perception on her personal experience in the labor market, empirically represented by her wage at her most recent job.

(2) $W_{e_1} = W_1(W_{t-1})$

where:

W_{t-1} = wage at previous job

Alternatively, she bases her perception of the expected wage on her knowledge of what persons with similar characteristics (for example, education and experience) earn. The mean expected wage for an individual is estimated with a human capital wage function as follows: we substitute the values for the respondent's education, labor force experience, years out of the labor force, and tenure at current job (a value of zero since these women are looking for new employers) into the following wage functions for whites and blacks, respectively.[19]

(3) $W_{e_2} = W_2(\text{LnWage 1967})$

where:

(3a) LnWage 1967 (Whites, in cents per hour) = 4.42 (50.09) + .060 School (in years completed) (12.34)
+ .0088 Years worked (since leaving school) (3.48)
- .004 Years at home (since leaving school) (-1.75)
+ .011 Tenure (at current or last job) (4.22)

$F = 30.22$ $\bar{R}^2 = .278$ S.E.E. = .351 N = 1061 white women

(3b) LnWage 1967 (Blacks, in cents per hour) = 3.83 (30.00) + .091 School (in years completed) (12.91)
+ .0075 Years worked (since leaving school) (1.92)
+ .00016 Years at home (since leaving school) (.04)
+ .0063 Tenure (at current or last job) (1.67)

$F = 32.55$ $\bar{R}^2 = .514$ S.E.E. = .382 N = 418 black women

Universe: married (spouse present) women 30 to 44 years of age who worked in 1966. (t-values are in parentheses.)

The asking wage should be positively related to the expected offer wage:

$$\frac{\partial ASK}{\partial W_e} > 0.$$

The lower the probability of receiving a job offer (that is, the greater the expense in generating an additional job offer), the costlier the rejection of any job offer and, hence, the lower the optimal asking wage. The local

labor market unemployment rate (URATE) and the size of the local labor market (MKTSIZ) empirically represent the difficulty or cost of obtaining a wage offer. The cost of search (S) is positively related to the area unemployment rate. Insofar as geographic concentration of job opportunities promotes efficient search in large cities, we expect a negative relationship between the size of the local labor market and the cost of search.

Women who receive unemployment insurance (UI) and those who begin their unemployment spell with relatively extensive knowledge of job opportunities face a lower cost per job offer than other women. This proposition holds because unemployment insurance subsidizes women for the time spent in unemployment and because knowledgeable searchers can generate a job offer in less time than their less knowledgeable counterparts. Since women who involuntarily (INVOL) leave a job are often unaware of other employment opportunities at the outset of their unemployment spell because they are less likely than quitters to search for another job before terminating their employment, these involuntarily unemployed women have a higher cost per job offer than other women.[20] In sum, the cost of the search is represented by

$$S = S(URATE, MKTSIZ, UI, INVOL) \tag{4}$$

where we expect:

$$\frac{\partial S}{\partial URATE} > 0 \quad \frac{\partial S}{\partial MKTSIZ} < 0 \quad \frac{\partial S}{\partial UI} < 0 \quad \frac{\partial S}{\partial INVOL} > 0.$$

We posit the asking wage to be negatively related to the difficulty of obtaining a job offer, $\frac{\partial ASK}{\partial S} < 0$. Hence, we expect the asking wages of involuntarily unemployed women to be lower than those for other women. Contrarily, we predict higher asking wages for recipients of unemployment insurance and for women who search in large labor markets.

A woman's wage rate, or the value of her nonmarket productivity if she is not working, approximates the value of her time. If she actively seeks employment, she believes that the marginal value of job search exceeds the marginal value of leisure or home production. Casual empiricism suggests that most unemployed women do not devote the entire typical work week to job search; they instead spend some of their time in activities outside the labor market. The greater the value of these activities to the woman and her family, the less anxious the woman will be to return to paid employment.

The value of a woman's nonmarket time (V) is represented by

(5) $V = V(CHILD, HUBINC)$

where:

CHILD = number of childreh at home

HUBINC = other family (husband's) income

The value of a woman's home time is presumably positively related to the number of children at home. Working women, however, arrange for day care or otherwise provide for the supervision of their children. Temporary suspension of this service upon becoming unemployed may not substantially reduce the cost. Child care may continue throughout the unemployment interval to enable the woman to search for a new job and to reduce the cost of reestablishing child care provisions when she finds employment. This continuation of child care is an additional search cost which is offset by the reduction in rearrangement costs.

Since we are exploring a brief time interval, the long-run relationship between family size and the value of home time is obscured. In fact, given the greater financial need of larger families, children may actually pose an incentive for women to find new jobs quickly. The higher the husband's earnings, the more the family is willing to pay for the wife's home services

and/or leisure and to finance her job search. Thus, we expect

$$\frac{\partial V}{\partial CHILD} < 0 \text{ or } \frac{\partial V}{\partial CHILD} > 0 \text{ and } \frac{\partial V}{\partial HUBINC} > 0.$$

We posit the asking wage to be positively related to the home wage:

$$\frac{\partial ASK}{\partial V} > 0.$$

As the duration of job search increases, changing circumstances may require an alternative search strategy and a revision of the asking wage. Sant,[21] for example, notes that learning about the wage distribution may induce either an increase or a decrease in the reservation wage. On the other hand, relying on assorted rationales, several economists unambiguously predict a downward revision of the asking wage. The reduction occurs because the potential employment period shortens (Gronau),[22] the levels of assets and savings decline (Kasper),[23] the marginal cost of search increases (Burdett),[24] or the marginal utility of leisure decreases (Crosslin and Kasper).[25] We therefore expect women who have already experienced relatively long spells of unemployment to report lower asking wages than other women:

$$\frac{\partial ASK}{\partial D} < 0.$$

EMPIRICAL RESULTS

Crucial econometric problems preclude estimating the model in equation (1) by ordinary least squares. First, the problem of selectivity bias arises because the sample includes only those women who remain unemployed at the time of the survey. Second, the fact that the reservation wage affects the duration of unemployment as well as vice versa violates the assumption that the variables on the right hand side of the equation are exogenous. Since

higher asking wages, ceteris paribus, induce longer unemployment spells, the latter term is positively correlated with the disturbance term. Thus, the estimate of the effect of duration on the asking wage obtained using ordinary least squares will be biased and inconsistent. In this paper the former problem is remedied with a technique developed by Heckman,[26] while two-stage least squares (TSLS) estimates of the model alleviate the latter problem. The magnitude of the selectivity bias is apparently small since the results using Heckman's method are not significantly different from the ordinary least squares estimates.[27]

Employing the TSLS technique in which equations for duration (D_1 and D_2) are the first stage equations, we estimate equations (6a) and (6b) below. A dummy variable representing the respondent's race (BLACK) tests the impact of this factor on search behavior, after controlling for the other characteristics. We enclose the expected signs of the regression coefficients within parentheses under each acronym.

(6a) $ASK = A_1(W_{e_1}, URATE, MKTSIZ, UI, INVOL, CHILD, HUBINC, D_1, BLACK)$

$(+) \quad (-) \quad (+) \quad (+) \quad (-) \quad (?) \quad (+) \quad (-) \quad (?)$

(6b) $ASK = A_2(W_{e_2}, URATE, MKTSIZ, UI, INVOL, CHILD, HUBINC, D_2, BLACK)$

$(+) \quad (-) \quad (+) \quad (+) \quad (-) \quad (?) \quad (+) \quad (-) \quad (?)$

where:

W_{e_1} is the hourly rate of pay (in cents) at the previous job;

W_{e_2} is an instrumental variable for the hourly rate of pay obtained from equations (3a) and (3b);

URATE is the unemployment rate of the local labor market;

MKTSIZ is the size (in thousands of persons) of the local labor market;

UI is a dummy variable which takes a value of one if unemployment compensation was received at any time in the year previous to the survey date;

INVOL represents a dummy variable which takes a value of one if the separation from the previous job was involuntary;

CHILD is the number of children in the home under age 18;

HUBINC is the husband's income in the past year (in 1967 dollars);

D_1 and D_2 are first-stage estimates of the duration of unemployment (in weeks) before the survey using the respondent's previous wage (W_{e_1}) and an instrumental wage (W_{e_2}), respectively;

BLACK is a dummy variable assuming a value of one for black respondents in the sample.

The National Longitudinal Surveys (NLS), consisting of 5,083 women who were 30 to 44 years old in 1967, provide the data for this study.[29] The present analysis includes respondents who are married, spouse present, and unemployed at a survey date. Respondents who are unemployed and looking for work at a survey date are asked, "How much would the job have to pay for you to be willing to take it?" A retrospective question provides information on the duration of the unemployment spell.

Only married women who worked for pay at some time during the two years before their reported unemployment are in our sample. This specification enables us to circumvent the special problems associated with women who return to the labor force after a long absence. To augment the sample size of a single year cross section, we include persons who are unemployed and who

report a rate of pay at which they are willing to accept a job at the 1967, 1969, 1971, or 1972 interview.[30] Sample summary statistics are provided in Appendix Table 4a.

Table 1 presents the estimates of the model. Columns 1 and 2, respectively, display the regression equations with the actual wage at the previous job (W_{e_1}) and with the instrumental wage (W_{e_2}) as independent variables. In general, the empirical results are consistent with the hypotheses of our model.

Both proxies for the expected wage bear a strong positive relationship to the reported asking wage. Although the magnitudes of the coefficients do not diverge, the actual previous wage is statistically significant, whereas the instrumental wage is not quite significant at the 10 percent level. It should be remembered that insofar as the effects on job search strategy of education, work experience, and time at home (or age) are manifest in the expected wage, we have controlled for these variables.[31]

Variables that represent the cost of the job search elicit mixed results. The sign of the coefficient for the local labor market unemployment rate is not in the anticipated direction.[32] Unemployed women who reside in larger labor markets seek higher paying jobs than those who search in less populated areas. This reflects both the lower cost of generating a job offer in larger labor markets and the higher price levels of big cities.[33] Dummy variables for involuntarily unemployed women are not statistically significant predictors of the asking wage.

Perhaps the most startling result is the magnitude of the coefficients for receipt of unemployment insurance. Recipients of unemployment insurance report asking wages that are 74 to 109 cents per hour higher, on average, than those for other unemployed women. Our findings are greater in magnitude

than comparable results in other studies partly because some of these studies estimate the effect of unemployment insurance for samples of individuals who have found employment.[34] Consequently, unemployment insurance recipients who choose to drop out of the labor force after a spell of unemployment or who are still unemployed as a result of their high asking wages are excluded from these studies but included in our sample.

Husband's earnings are significantly and positively related to the unemployed woman's reported asking wage. This probably reflects both the greater value the family assigns to the wife's home production and leisure and the family's greater ability to finance extended job search. A family with extensive alternative sources of income (namely, relatively high earnings by the husband) can afford greater investment in the wife's job search. This latter explanation also illuminates the negative coefficient for number of children insofar as an increase in number of children denotes a greater financial need.

We interpret the negative coefficient for the dummy variable representing blacks as follows: after controlling for personal and labor market characteristics, including previous wage, black women ask for 24 to 34 cents per hour less than similarly circumstanced white women. This implies that even after adjusting for their lower wage opportunities, black women's job search strategies are more conservative than those of white women. This is consistent with racial differences in labor market behavior observed by other researchers.[35] Black women's higher unemployment rates could reflect their greater likelihood of becoming unemployed as well as the greater likelihood of white women leaving unemployment by withdrawing from the labor force.[36]

The negative coefficients for the number of weeks unemployed before the survey date indicate that women reduce their asking wage by approximately 4.5 and 6.6 cents per hour, respectively, for each week that they are unemployed. Converting this to percentage terms we can compare these revisions to those in other studies. We find that this implies adjustments of 2.65 percent and 3.93 percent per week in the two specifications of the model, substantially greater than several earlier studies.

CONCLUSIONS AND IMPLICATIONS

This study uses actual observations of women's reservation wages to show that the behavior of a national sample of unemployed women is consistent with the predictions of the job search paradigm. The job search strategy of women corresponds to both labor market parameters and their own circumstances. Variables reflecting wage expectations and unemployment duration are usually statistically significant in the anticipated directions when we estimate the model with a two-stage least squares procedure.

One of our most striking findings is that unemployed women substantially reduce their reservation wages as the period of their unemployment progresses. The reductions that we estimate here appear much larger than those found in previous studies. In the two variants of the model with the two-stage least squares procedure, we find that the average woman reduces her asking wage by 4.5 and 6.6 cents per week of unemployment. Other researchers have found evidence of downward revision of asking wages for various samples. Our results concur, although the magnitude of our estimates is greater than many of the previous studies. Comparison of our two-stage results in Table 1 and ordinary

least squares estimates in Appendix Table 2a shows that the difference is mostly due to our more appropriate estimation technique.

We also note substantially higher asking wages for women who receive unemployment insurance benefits. Our estimates are somewhat higher than those produced by other studies of the effect of unemployment insurance, but this is attributable to the fact that some studies use samples of workers who eventually find employment and thus exclude searchers whose reservations wages are set unduly high.

Taken as a whole, these results shed additional light on the character of unemployment among an important segment of the female labor force. These women are committed to finding work. Withdrawal from the labor force is apparently not a desirable alternative for many unemployed women. Furthermore, unemployed women respond to economic incentives in their job search behavior. Thus, changing policy parameters, particularly unemployment insurance and other income support programs, will influence both the behavior and the prospects of unemployed women.

FOOTNOTES

[1]For example, the yearly average unemployment rate in 1977 was 8.2 percent for women and 6.2 percent for men over 16 years of age, according to the 1978 Employment and Training Report of the President (Washington, D.C.: G.P.O., 1978), p. 212.

[2]John J. McCall, "Economics of Information and Job Search," Quarterly Journal of Economics, Vol. 84, No. 1 (February 1970), pp. 113-26.

[3]Reuben Gronau, "Information and Frictional Unemployment," American Economic Review, Vol. 61, No. 3 (June 1971), pp. 290-301.

[4]William F. Barnes, "Job Search Models, the Duration of Unemployment, and the Asking Wage: Some Empirical Evidence," Journal of Human Resources, Vol. 10, No. 2 (Spring 1975), pp. 230-40.

[5]Robert L. Crosslin and David W. Stevens, "The Asking Wage-Duration of Unemployment Relation Revisited," Southern Economic Journal, Vol. 43, No. 3. (January 1977), pp. 1298-1302.

[6]Hirschel Kasper, "The Asking Price of Labor and the Duration of Unemployment," Review of Economics and Statistics, Vol. 49, No. 2 (May 1967), pp. 165-73.

[7]Stanley P. Stephenson, Jr., "The Economics of Youth Job Search Behavior," Review of Economics and Statistics, Vol. 58, No. 1 (February 1976), pp. 104-11.

[8]Arnold Katz, "Reservation Wages of the Longer-Term Unemployed," Working Paper no. 13, University of Pittsburgh (May 1975).

[9]Donald T. Sant, "Reservation Wage Rules and Learning Behavior," Review of Economics and Statistics, Vol. 59, No. 1 (February 1977), pp. 43-49.

[10]See Crosslin and Stevens, "The Asking Wage-Duration of Unemployment Relation Revisited."

[11]See Katz, "Reservation Wages of the Longer-Term Unemployed."

FOOTNOTES (cont.)

[12]N. M. Kiefer and G. R. Neuman, "Structural and Reduced Form Approaches to Simulating the Outcome of the Job Search Process," Mimeographed, University of Chicago (June 1978).

[13]Ronald M. Schmidt, "The Determinants of Search Behavior and the Value of Additional Unemployment," Working Paper Series No. 7429, The University of Rochester (September 1974).

[14]Frank Brechling, "Layoffs and Unemployment Insurance," Conference on Low Income Labor Markets, National Bureau of Economic Research, New York, N.Y. (June 1978).

[15]Kathleen P. Classen, "The Effect of Unemployment Insurance on the Duration of Unemployment and Subsequent Earnings," Industrial and Labor Relations Review, Vol. 30, No. 4 (July 1977), pp. 438-44.

[16]Arlene Holen, "Effects of Unemployment Insurance Entitlement on Duration and Job Search Outcome," Industrial and Labor Relations Review, Vol. 30, No. 4 (July 1977), pp. 445-50.

[17]Robert M. Feinberg, "Risk, Risk Aversion, and the Duration of Unemployment," Review of Economics and Statistics, Vol. 59, No. 3 (August 1977), pp. 264-71.

[18]Ronald G. Ehrenberg and Ronald L. Oaxaca, "Unemployment Insurance, Duration of Unemployment, and Subsequent Wage Gain," American Economic Review, Vol. 66, No. 5 (December 1976), pp. 754-66.

[19]Dummy variables for Census divisions, residence in an SMSA, and work-limiting health problems are also included in the regressions. It should be noted that this estimate is based on observed acceptance wages. However, since the instrument avoids biases associated with person-specific variations in search strategy and the acceptance wage is a monotonic transformation of the

offer wage, there is no directional bias in the coefficient of W_{e_2} in the estimates of equation (6b).

[20]To the extent that persons fired are less productive than their previous wage indicates, the selectivity bias could imply a negative relationship between involuntary discharges and the asking wage.

[21]See Sant, "Reservation Wage Rules and Learning Behavior."

[22]Discussed in Gronau, "Information and Frictional Unemployment."

[23]See Kasper, "The Asking Price of Labor and the Duration of Unemployment."

[24]Kenneth Burdett, "Theories of Search in a Labor Market," Technical Analysis Paper No. 13, U.S. Department of Labor, Office of the Assistant Secretary for Policy, Evaluation and Research (October 1973).

[25]In Robert L. Crosslin, "Asking Wage Behavior of Unemployed Workers: An Empirical Investigation," Ph.D. dissertation, University of Missouri, (August 1973), and in Kasper, "The Asking Price of Labor and the Duration of Unemployment."

[26]James J. Heckman, "Sample Selection Bias as a Specification Error," Econometrica, Vol. 47, No. 1 (January 1979), pp. 153-61.

[27]These results are deferred until Appendix Tables 1a and 2a, respectively.

[28]The first stage estimates are presented in Appendix Table 3a, along with the variables included in the equations.

[29]See U.S. Department of Labor, Manpower Administration, Dual Careers, Vols. I-III, Manpower R & D Monograph No. 21 (Washington, D.C.: U.S.G.P.O., 1970-1975) for a complete description of the NLS.

[30]Since the observations arise from surveys in four different years, we: (a) obtained personal and environmental characteristics from the survey at which the respondent reported unemployment and an asking wage; (b) converted all money

wages to 1967 dollars; and (c) selected information from the first unemployment spell if the respondent was unemployed at more than one survey date.

[31]It should be pointed out that existence of high marginal tax rates for married women might bias the coefficient estimates. Controlling for husbands' incomes and number of children mitigates this problem to a large extent. However, nonpecuniary (and therefore nontaxed) aspects of the job might be more important to women in high marginal tax brackets than other women, distorting our estimates of job search strategies.

[32]A plausible explanation, that the local unemployment rate and the wage offer level are positively correlated, is provided by Robert E. Hall, "Turnover in the Labor Force," in Brookings Papers on Economic Activity (Washington, D.C.: The Brookings Institution, 1972), pp. 709-64.

[33]That this result holds in regressions that control for the actual wage on the previous job buttresses our search cost hypothesis.

[34]Since women who receive unemployment insurance had to work in covered employment a sufficient number of weeks in the base period to qualify, and since recipients may have asking wages that are positively correlated to this and to traits omitted from the model, the effect of unemployment insurance on the asking wage may be overstated.

[35]One explanation is the existence of an anti-commercial legacy for blacks. This implies that their choices would be in the direction of the secure and less remunerative occupations. Another explanation of blacks' conservatism in the labor market is that their "chances of success are not only lower than white chances, but that black failure tends to involve a greater loss than white failure." Raymond S. Franklin and Solomon Resnik, The Political Economy of Racism, (Hinsdale, Ill.: Dryden Press, 1973), p. 12.

FOOTNOTES (cont.)

[36]The first part of this deduction is verified by Marston's decomposition of CPS data. He found that 2.1 percent of white and 3.4 percent of nonwhite females (aged 25 to 59) who are in the labor force experience, on average, a spell of unemployment per month, in Stephen T. Marston, "Employment Instability and High Unemployment Rates," in Brookings Papers on Economic Activity (Washington, D.C.: The Brookings Institution, 1976), p. 176.

Table 1. Determinants of the Reported Asking Wage: Second Stage Regression Results.

(t-values are in parentheses)

Independent Variables	Equation (1)	Equation (2)
W_{e_1}	.339** (2.52)	
W_{e_2}		.279 (1.19)
URATE	4.995 (1.51)	7.097* (1.71)
MKTSIZ	.0069 (1.41)	.0044 (0.69)
UI	73.935** (2.04)	108.722*** (2.66)
INVOL	7.201 (0.46)	17.801 (0.94)
CHILD	-3.056 (-1.13)	-2.885 (-0.83)
HUBINC	.0037** (2.12)	.0049** (2.30)
D_1	-4.533** (-2.26)	
D_2		-6.634*** (-3.00)
BLACK	-23.846 (-1.55)	-33.923* (-1.80)
CONSTANT	106.007*** (3.91)	113.296*** (2.78)

NOTE: First-stage equations are reported in Appendix Table 3a. Coefficients and t-values are computed using the Theil method with n=80 degrees.

Table 1. (Cont.)

Sample: 80 married (spouse present) women aged 30 to 44 in 1967 who had recent work experience but were unemployed at any of the following survey dates: 1967, 1969, 1971, or 1972.

*Significant at the .10 level, two-tailed t-test.

**Significant at the .05 level, two-tailed t-test.

***Significant at the .01 level, two-tailed t-test.

APPENDIX

Table 1a. Determinants of the Asking Wage: Regression Results Using Heckman's Method.

(t-values are in parentheses)

Independent Variables	Equation (1)	Equation (2)
W_{e_1}	.468*** (5.59)	
W_{e_2}		.523*** (3.41)
URATE	2.314 (1.00)	1.483 (0.56)
MKTSIZ	.008** (2.00)	.006 (1.18)
UI	15.502 (1.05)	20.581 (1.25)
INVOL	-4.401 (-0.41)	-4.560 (-0.38)
CHILD	-3.214 (-1.44)	-2.509 (-1.00)
HUBINC	.002 (1.50)	.002 (1.36)
D	-.831 (-1.57)	-1.208** (-2.06)
BLACK	-14.246 (-1.20)	-21.747 (-1.63)
UN69	-15.545 (-1.19)	-8.543 (-0.58)
UN71	-16.511 (-1.10)	1.140 (0.07)
UN72	-34.446** (-2.30)	-25.192 (-1.40)
λ	30.756 (1.53)	32.060 (1.43)

Table 1a. (Cont.)

Independent Variables	Equation (1)	Equation (2)
CONSTANT	39.337 (0.83)	29.778 (0.53)
STANDARD ERROR	40.11	44.90
F	10.04	6.99
R^2	0.60	0.50

NOTE: λ is a function of the probability of being unemployed in a survey week (i.e., the probability of selection into the sample). The independent variables used to predict the probability were education, labor force experience, tenure at current or last job, number of children, race, husband's income and the local labor market unemployment rate.

*Significant at the .10 level, two-tailed t-test.

**Significant at the .05 level, two-tailed t-test.

***Significant at the .01 level, two-tailed t-test.

Table 2a. Determinants of the Asking Wage: Ordinary Least Squares Regression Results.

(t-values are in parentheses)

Independent Variables	(1)	(2)	(3)	(4)
W_{e_1}	.470*** (5.56)	.506*** (6.18)		
W_{e_2}			.525*** (3.40)	.598*** (4.26)
URATE	.515 (.26)	.628 (.33)	-.392 (-.17)	-.089 (-.04)
MKTSIZ	.010** (2.53)	.010** (2.48)	.007 (1.63)	.007* (1.65)
UI	15.328 (1.03)	16.788 (1.14)	20.440 (1.23)	23.193 (1.43)
INVOL	-6.536 (-.61)	-9.423 (-.90)	-6.776 (-.56)	-6.575 (-.57)
CHILD	-3.309 (-1.47)	-2.922 (-1.30)	-2.608 (-1.03)	-2.375 (-.95)
HUBINC	.002* (1.93)	.002* (1.51)	.002* (1.76)	.002 (1.49)
D	-.791 (-1.48)	-1.074** (-2.09)	-1.168** (-1.98)	-1.454)*** (-2.59)
BLACK	-16.629 (-1.40)	-13.451 (-1.13)	-24.303* (-1.82)	-21.471* (-1.65)
UN69	-12.925 (-.99)		-5.796 (-.39)	
UN71	-8.639 (-.61)		9.406 (.58)	
UN72	-29.604** (-2.01)		-20.151 (-1.13)	

Table 2a. (Cont.)

Independent Variables	(1)	(2)	(3)	(4)
CONSTANT	103.350*** (4.51)	89.640*** (4.20)	96.630*** (3.05)	82.125*** (2.95)
STANDARD ERROR	40.51	40.84	45.24	45.27
F	10.47	13.29	7.29	9.37
R^2	.59	.58	.49	.49

*Significant at the .10 level, two-tailed t-test.

**Significant at the .05 level, two-tailed t-test.

***Significant at the .01 level, two-tailed t-test.

Table 3a. The Duration of Unemployment: First Stage Estimates.

(t-values are in parentheses)

Independent Variables	D_1	D_2
We_1	-.034** (-1.99)	
We_2		-.035 (-1.21)
URATE	1.368*** (3.52)	1.461*** (3.60)
MKTSIZ	-.0006 (-.73)	-.0005 (-.55)
UI	16.267*** (6.41)	16.311*** (6.31)
INVOL	3.774* (1.72)	3.869* (1.73)
CHILD	.0013 (.003)	-.042 (-0.09)
HUBINC	.0004* (1.79)	.0004* (1.68)
BLACK	-2.021 (-.82)	-1.361 (-.54)
UN69	5.026* (1.88)	4.704* (1.71)
UN71	-.116 (-0.04)	-1.389 (-.45)
UN72	6.480** (2.16)	6.163* (1.87)
CONSTANT	-.320 (-.07)	-.463 (-.08)

Table 3a. (Cont.)

NOTE: UN69, UN71, and UN72 are dummy variables which receive the value of one for the year unemployed, 1969, 1971, or 1972, respectively. The remaining variables are defined in the text.

*Significant at the .10 level, two-tailed t-test.

**Significant at the .05 level, two-tailed t-test.

***Significant at the .01 level, two-tailed t-test.

Table 4a. Summary Statistics.

Variables	Mean	Standard deviation
W_{e_1}	171.01	67.93
W_{e_2}	169.70	46.46
URATE	5.62	2.64
MKTSIZ	681.99	1275.39
UI	.21	.41
INVOL	.34	.48
CHILD	2.21	2.20
HUBINC	6621.76	4966.57
D	10.99	12.77
BLACK	.29	.46
UN69	.29	.46
UN71	.20	.40
UN72	.24	.43
ASK	175.66	63.26

The Center for Human Resource Research

The Center for Human Resource Research is a policy-oriented research unit based in the College of Administrative Science of The Ohio State University. Established in 1965, the Center is concerned with a wide range of contemporary problems associated with human resource development, conservation and utilization. The personnel include approximately twenty senior staff members drawn from the disciplines of economics, education, health sciences, industrial relations, management science, psychology, public administration, social work and sociology. This multidisciplinary team is supported by approximately 50 graduate research associates, full-time research assistants, computer programmers and other personnel.

The Center has acquired pre-eminence in the fields of labor market research and manpower planning. The National Longitudinal Surveys of Labor Force Behavior have been the responsibility of the Center since 1965 under continuing support from the United States Department of Labor. Staff have been called upon for human resource planning assistance throughout the world with major studies conducted in Bolivia, Ecuador and Venezuela, and recently the National Science Foundation requested a review of the state of the art in human resource planning. Senior personnel are also engaged in several other areas of research including collective bargaining and labor relations, evaluation and monitoring of the operation of government employment and training programs and the projection of health education and facility needs.

The Center for Human Resource Research has received over one million dollars annually from government agencies and private foundations to support its research in recent years. Providing support have been the U.S. Departments of Labor, State, and Health, Education and Welfare; Ohio's Health and Education Departments and Bureau of Employment Services; the Ohio cities of Columbus and Springfield; the Ohio AFL-CIO; and the George Gund Foundation. The breadth of research interests may be seen by examining a few of the present projects.

The largest of the current projects is the National Longitudinal Surveys of Labor Force Behavior. This project involves repeated interviews over a fifteen year period with four groups of the United State population; older men, middle-aged women, and young men and women. The data are collected for 20,000 individuals by the U.S. Bureau of the Census, and the Center is responsible for data anlysis. To date dozens of research monographs and special reports have been prepared by the staff. Responsibilities also include the preparation and distribution of data tapes for public use. Beginning in 1979, an additional cohort of 12,000 young men and women between the ages of 14 and 21 will be studied on an annual basis for the following five years. Again the Center will provide analysis and public use tapes for this cohort.

The Quality of Working Life Project is another ongoing study operated in conjunction with the cities of Springfield and Columbus, in an attempt to improve both the productivity and the meaningfulness of work for public employees in these two municipalities. Center staff serve as third party advisors, as well as researchers, to explore new techniques for attaining management-worker cooperation.

(continued on inside of back cover)

A third area of research in which the Center has been active is manpower planning both in the U.S. and in developing countries. A current project for the Ohio Advisory Council for Vocational Education seeks to identify and inventory the highly fragmented institutions and agencies responsible for supplying vocational and technical training in Ohio. These data will subsequently be integrated into a comprehensive model for forecasting the State's supply of vocational and technical skills.

Another focus of research is collective bargaining. In a project for the U.S. Department of Labor, staff members are evaluating several current experiments for "expedited grievance procedures," working with unions and management in a variety of industries. The procedural adequacies, safeguards for due process, cost and timing of the new procedure are being weighed against traditional arbitration techniques.

Senior staff also serve as consultants to many boards and commissions at the national and state level. Recent papers have been written for the Joint Economic Committee of Congress, The National Commission for Employment and Unemployment Statistics, The National Commission for Manpower Policy, The White House Conference on the Family, the Ohio Board of Regents, the Ohio Governor's Task Force on Health, and the Ohio Governor's Task Force on Welfare.

The Center maintains a working library of approximately 9,000 titles which includes a wide range of reference works and current periodicals. Also provided are computer facilities linked with those of the University and staffed by approximately a dozen computer programmers. They serve the needs of in-house researchers and users of the National Longitudinal Survey tapes.

For more information on specific Center activities or for a copy of the Publications List, write: Director, Center for Human Resource Research, Suite 585, 1375 Perry Street, Columbus, Ohio 43201.