THE EFFECTS OF WEALTH AND UNEMPLOYMENT BENEFITS ON SEARCH BEHAVIOR AND LABOR MARKET TRANSITIONS[*]

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October 2004

Abstract

This paper explores the affect of wealth and unemployment benefits on the probability job seekers transition to employment by estimating a simultaneous equations model using data from the 1984 SIPP. We allow changes in wealth and unemployment benefits to affect both search intensity and reservation wages. Our results are consistent with the predictions of search models where individuals are risk averse and imperfectly insured. Higher levels of wealth or benefits increase reservation wages and decrease search effort. Both effects decrease the probability of transition. However, the majority of this decrease is due to increased reservation wages lowering the probability that a job is accepted.

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I. INTRODUCTION

An increasing number of researchers are using search models to understand labor market outcomes.[1] One branch of this literature has developed models where outcomes are effected by the individual's choice of search intensity, while the other branch typically abstracts from the search intensity decision and instead focuses on the impact of labor market policies and outside resources on reservation wages and unemployment duration.[2] Many of these models rule out the possibility that wealth influences labor market outcomes by implicitly assuming that individuals are risk neutral and face no borrowing constraints. However, if agents are risk averse Lentz and Tranaes(2004) show that search intensity can decline as wealth increases, and Danforth(1979), Browning et. al.(2002), and Rendon(2004) demonstrate that reservation wages rise with wealth levels. In this paper we estimate a simultaneous equations model of wealth, search intensity, reservation wages and transitions using information from the 1984 Survey of Income and Program Participation (SIPP).[3] Since we allow both reservation wages and effort to be affected by wealth, we can address two key questions. First, are the estimated relationships between wealth, reservation wages and search intensity consistent with the assumption of risk aversion? Second, do higher levels of wealth or unemployment benefits primarily affect spell duration by affecting search intensity or by influencing the reservation wage?

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[1] See Mortensen and Pissarides' (1999) handbook chapter, Ljungqvist and Sargent(1998), Fredriksson and Holmlund(2001) and Lentz and Tranaes(2004) for examples.

[2] See Mortensen(1986) and Mortensen and Pissarides(1999)

[3] Along some dimensions, this paper is similar to recent studies by Bloemen and Stancanelli(2001), and Alexopoulos and Gladden(2003) that explore the relationship between self-reported reservation wages and wealth using a simultaneous equations model. However, in contrast to this paper, they do not consider the case where search intensity is also endogenously determined.

Our analysis uses the 1984 SIPP because it has a unique mixture of information not available in the more widely used NLSY or PSID.[4] Individuals who report that they are currently looking for work or may look for work in the near future are asked questions about their reservation wage, their methods of job search, and how many employers they have contacted. In addition, the SIPP provides detailed information about wealth, family income, and the duration of their current unemployment spell. Individuals are then followed for 16 months after this information is collected which allows us to observe any transition out of unemployment and the wage received at the new place of employment. We augment this data with information on search requirements for unemployment insurance recipients. The resulting dataset helps us uncover the relationship between wealth, reservation wages and search effort, and to examine how the receipt of unemployment benefits, as well as the benefit levels, affects search intensity.

Our single equation estimates suggest that the number of contacts made by individuals decrease as net worth increases. We find no significant relationship between the level of unemployment insurance benefits and the number of contacts.[5] However, stronger search requirements for individuals receiving UI or aid (AFDC or Foodstamps) do increase the number of employers contacted.

Similar results emerge from the simultaneous equations model. Consistent with the models presented in Danforth(1979) and Lentz and Tranaes(2004), we find that increases

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[4] The National Longitudinal Survey of Youth and the Panel Study of Income Dynamics.

[5] Barron and Mellow(1979), Barron and Gilley(1979), and Keeley and Robins(1985) also use U.S. data to examine the relationship between search intensity and unemployment income. For a survey of the existing studies using direct evidence of search intensity through 1990, see Devine and Kiefer(1991).

in wealth raise the reservation wage and decrease search intensity.[6]   Both effects are consistent with the assumption that workers are risk averse and imply that higher wealth increases the duration of non-employment spells.[7]   However, our results suggest that the majority of the increase in duration is caused by the affect of wealth on the reservation wage.   The same result holds for increases in unemployment insurance.   Our estimates indicate that individuals who receive higher unemployment insurance benefits have higher reservation wages, and thus are less likely to accept low paying jobs.   In contrast, we find that search effort is not significantly decreased by an increase in the unemployment insurance benefit level. This is likely tied to the fact that in many states, individuals must meet job search requirements to maintain eligibility for unemployment insurance benefits.[8]

We organize the paper as follows. Section II presents the empirical model used in the estimation procedure. Section III discusses our data. Section IV presents the results of the estimation, and Section V concludes.

II. The Empirical Model

For tractability, search models generally allow either search intensity and offer arrival rates to be endogenously determined, or they focus on the job acceptance decision and allow the reservation wage to be affected by factors such as unemployment insurance, firing costs, and the probability of receiving an offer when searching.   When workers are not risk neutral, papers such as Danforth(1979), Rendon(2004) and Shimer and Werning(2003) demonstrate

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[6] Bloemen and Stancanelli (2001) and Alexopoulos and Gladden (2003) both find a positive relationship between wealth and self-reported reservation wages.

[7] Algan et al. (2003) also find evidence suggesting wealth levels affect labor market transitions in France.

[8] Similar findings emerge when we examine the affect of AFDC payments and food stamps on search effort.

that the reservation wage depends on the level of wealth. Moreover, Lentz and Tranaes(2004) show that search intensity can vary with wealth when workers are risk averse and cannot perfectly insure themselves against income risk. Unfortunately, analytic solutions for search models with risk averse agents are not generally available, especially for the case where both the reservation wage and search intensity can vary with wealth.[9] As a result, we focus on estimating a reduced form of a model that allows both reservation wages and search intensity to be affected by wealth and unemployment insurance that is similar in some respects to the model found in Bloemen and Stancanelli(2001).

In our model, jobs are characterized in terms of the wages they offer workers. Job-seekers face a lognormal wage offer distribution:

$$\ln w_{it} = \delta' k_{it} + e_{it} \text{ where } e_{it} \sim N(0, \sigma_e^2) \tag{1}$$

where i indexes individuals and k_{it} are the individual's characteristics at date t. The parameters of this wage-offer distribution, δ, are estimated using data on employed workers and a Heckman two step to correct for selection.[10] Once the parameters are determined, the estimates are used to help determine the probability an individual will accept an offer given the level of his reservation wage.

We assume that the log of the reservation wage, $R = \ln(w^R)$, is a function of the individual's wealth level, A_{it}, and other characteristics, X_{it}:

$$R_{it} = f(A_{it}) + \xi' X_{it} + \varepsilon_{it} \text{ where } \varepsilon_{it} \sim N(0, \sigma_\varepsilon^2). \tag{2}$$

For the purpose of our investigation we allow $f(A_{it})$ to be a quadratic function of wealth to

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[9] See, for example, Costain(1999).

[10] The results of this regression are reported in Table A in the appendix.

allow for a non-linear relationship between R_{it} and A_{it}.[11]

Consistent with standard models, an individual's wealth, A_{it}, is determined by lagged income and demographic information:

$$A_{it} = \Omega' H_{i,t-1} + \upsilon_{i,t-1} \text{ where } \upsilon_{i,t-1} \sim N(0, \sigma_\upsilon^2) \tag{3}$$

where $H_{i,t-1}$ includes the individual's characteristics as of period $t-1$. The period $t-1$ values are used because current wealth, A_{it}, is determined by lagged income and other lagged variables which affect the household savings decisions.[12]

Finally, we allow wealth to affect the arrival rate. Wealth and the arrival rate may be positively correlated due to unobserved worker heterogeneity or wealth's influence on search intensity. Workers who are higher quality conditional on the observables may have both higher wealth and a higher arrival rate, either because they search harder or because of factors observable to employers but not to the econometrician. Alternatively, wealthy workers may be able to pay higher search costs, increasing their arrival rate. On the other hand, higher wealth might reduce the marginal benefit of income and thus reduce search intensity, causing a negative correlation between wealth and the arrival rate. Given the potential correlation between wealth, search intensity and arrival rates, we assume that an individual's search intensity is determined by the equation:

$$E_{it} = g(A_{it}) + \xi' z + \tau_{it} \text{ where } \tau_{it} \sim N(0, \sigma_\tau^2).$$

Again, the function $g(A_{it})$ is assumed to be a quadratic function in wealth to allow for a

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[11] As in Bloemen and Stancanelli(2001) and Alexopoulos and Gladden(2003), this reservation wage equation can be interpreted as an approximation to the solution of a structural search model where the error term may represent measurement error, approximation error or randomness in preferences.

[12] E.g., previous marital status, number of children in the household, previous spells of unemployment, etc.

non-linear relationship. The measure of search intensity is censored below at zero. We take this into account by using a Tobit estimation procedure in single equation models of search intensity, and by correcting for censoring in the likelihood function for the simultaneous equation model.

In a standard search model, the probability of a transition to employment depends on both the probability that an individual will receive a job offer and the probability that the offer will be accepted. We assume that the probability of receiving a job offer during a period is:

$$\Pr(job\ offer|Z_{it}) = \lambda_{it} = 1 - \exp(-\exp(\gamma' Z_{it})) \tag{4}$$

where γ is a parameter vector and Z_{it} includes characteristics such as the elapsed unemployment duration and our measure of the individual's search effort (the number of contacts made last month). Using this functional form, the larger the value of $\gamma' Z_{it}$, the higher the probability that the individual will receive an offer. We also assume joint normality of the error terms, e, ε, τ and υ and define $\rho_{e\varepsilon}$ as the correlation between the errors in the offer and reservation wage equations (e_{it} and ε_{it}), $\rho_{e\upsilon}$ as the correlation between the errors in the offer and wealth equations (e_{it} and $\upsilon_{i,t-1}$) and $\rho_{\varepsilon\upsilon}$ as the correlation between the errors in the wealth and reservation wage equations ($\upsilon_{i,t-1}$ and ε_{it}). We set the cross-correlations of $\rho_{\tau\upsilon}, \rho_{\tau\varepsilon}$ and $\rho_{\tau e}$ to zero to make our analysis tractable.[13]

An individual accepts a job offer if the wage offered exceeds his reservation wage. The acceptance probability conditional on wealth and the observed reservation wage can be written

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[13] To explore how problematic these assumptions are, we estimated single equation models of the reservation wage equation and the wealth equation, and tested whether the errors from these regressions were significant predictors of the individual's search intensity. These errors were not significant predictors of the number of employers contacted.

as:

$$\Pr(\ln w_{it} > R_{it} \mid R_{it}, A_{it}) = \left(1 - \Phi\left(\frac{R_{it} - k'_{it}\delta - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v.\tau}}\right)\right) \tag{5}$$

where $\Phi(\cdot)$ is the standard normal distribution function, $\psi_{e|\varepsilon,v,\tau}$ is the part of the conditional mean that arises due to the possible nonzero correlation between the errors of the equations and $\sigma_{e|\varepsilon,v.\tau}$ is the conditional variance of the wage error term.[14] It follows that the probability of observing a transition from unemployment to employment is the probability of a job offer multiplied by the probability that the job offer is accepted:

$$\Pr(\text{Transition}_i = 1) = (1 - \exp(-\exp(Z'_{it}\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k'_{it}\delta - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v.\tau}}\right)\right) \tag{6}$$

For each individual who makes a transition, the likelihood contribution is obtained by multiplying the transition probability by the joint density of wealth and reservation wages. For individuals who do not make the transition, the likelihood contribution is obtained by multiplying 1-Pr(Transition) by the joint density of wealth and reservation wages.

Wealth enters our model in three places: as one of the four simultaneously determined endogenous variables, as a determinant of the individual's search effort and as a determinant of the individual's reservation wage. Therefore, wealth only affects the probability of a transition into employment indirectly, through the reservation wage, search intensity, or possible correlations between the error terms. Similarly, unemployment insurance affects the transition probability through its affect on search intensity and reservation wages.

III. The Data

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[14] The formulas, along with the derivation of the likelihood function, are available in a technical appendix available from the authors upon request.

We construct a sample from the 1984 Survey of Income and Program Participation (SIPP). The 1984 SIPP is survey of about 21,000 households representative of the United States population. These households were originally interviewed between October 1983 and January 1984, and were then re-interviewed every four months until late 1986. During each of the nine interviews, monthly information is collected on wages, earnings, labor market status, spouse's earnings, and income received from government programs. In addition, during the fifth interview, individuals who are looking for work are asked a series of questions about reservation wages and job search intensity. The SIPP also provides detailed information on wealth, assets, and past employment history. We combine the data from waves 2 through 9 with state level information on search requirements mandated for unemployment insurance eligibility, unemployment benefits, maximum unemployment insurance employer taxes, labor market conditions and cost of living.[15]

The Selection of the Sample: Since we are interested in job market transitions, we limit our sample to individuals who are likely to be available for work (individuals age 18-64 who are not enrolled in school) for whom we have information on reservation wages[16] and wealth levels.[17]   Because wealth information is collected at the household level, we restrict our sample to household heads and wives.[18]   Reservation wage and search intensity information is only collected for the individual interviewed in wave 5 (and not for their

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[15] Our analysis uses information from interviews 2 through 9 because changes in the questionnaire make the information from the first interview less reliable.

[16] We exclude individuals who report a reservation wage of less than $1 per hour.

[17] To check for robustness, we estimated models using only prime age workers (18-50). Our qualitative results do not change, although the sample size falls from 1412 to 1175 and the standard errors increase somewhat.

[18] We exclude single individuals still living with their parents since their household wealth information includes their parents' wealth. In earlier specifications including single non-heads we found no evidence that our measures of wealth influenced this group's reservation wages or transition probabilities.

family members), and is only collected for individuals who are either unemployed or out of the labor force but likely to look for work in the next year (the OLF sample). This leaves us with a sample of 1412 heads and wives. After the date the reservation wage information is collected, individuals are followed for an additional 16 months (through 4 more interviews). This allows us to observe whether they accept a job during this time frame and the wage at the job if it is accepted.

Descriptive Statistics: Table I presents summary statistics for wealth, non-earned income, search intensity and reservation wages for the heads and wives in our sample. Since our sample includes both unemployed and out of labor force individuals, separate summary statistics are presented for these two groups.[19]

Wealth and Income Data: Our measure of wealth uses information from the wave 4 questions on the household's assets and liabilities.[20] We define wealth as total net worth: total wealth minus total unsecured debt, where total wealth includes the household's home equity, net equity in vehicles, business equity, interest earning assets held in banking and other institutions, equity in stocks and mutual fund shares, equity in other real estate, total of mortgages held, money owed from sale of business, bonds, IRA and Keogh accounts.[21] This measure of wealth is chosen since it includes most of the major assets that a household

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[19] See Alexopoulos and Gladden(2003) for a comparison of the unemployed and OLF individuals in the SIPP to the unemployed and OLF individuals in the representative sample from the 1984 Current Population Survey.

[20] McNeil and Lamas(1989), and Curtin, Juster and Morgan(1989) find that the wealth information in the SIPP is comparable to that in the PSID. The differences between the SIPP and the Survey of Consumer Finances (SCF) seem to be related to measures of equity in motor vehicles and businesses, and the fact that the SCF over samples the high income portion of the population. Since our sample eliminates a large part of the high income population, our wealth information should not differ significantly that in other surveys.

[21] This measure is very similar to the one used by Bloemen and Stancanelli(2001), which allows us to compare our results for the reservation wage to theirs.

would hold, and takes into account the total amount of the household's debt (secured and unsecured).[22]

Table I presents summary statistics for wealth, unemployment insurance income and reservation wages for the heads and wives in the reservation wage sample. Compared to household heads, wives are younger, wealthier, have higher total family income and are more likely to be currently out of the labor force. Heads are much more likely to receive unemployment insurance, report working more hours at their previous job, and have an average reservation wage of $5.44, which is about one dollar higher than the average reservation wage for wives and approximately $2.10 higher than the legal minimum wage at the time ($3.35/hour).

Table I also reveals important differences between the unemployed sample and the OLF sample. Individuals in the OLF sample are more likely to be female, more likely to be single, and more likely to be black than the unemployed sample. About 74 percent of the unemployed sample reports having held a job in the previous 16 months, compared with about 41 percent of the OLF sample. Among household heads, the unemployed report lower net worth, but a higher wage at their previous job and a higher reservation wage, than OLF sample.

Heads - especially female heads - are much more likely to receive income from AFDC and Food Stamps than are wives. Among out of the labor force heads, approximately 35 percent receive AFDC and 50 percent receive Food Stamps, while less than 5 percent of OLF wives receive income from either of these programs. Unemployed workers are less likely to

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[22] To check for robustness, we also estimated models defining wealth as liquid net worth, which includes interest earning assets held in banking and other institutions, equity in stocks, bonds, and mutual fund shares minus unsecured debt. The substance of these results is the same as the results presented here.

participate in these programs, but again heads are more likely to participate than wives. We find that 16 percent of unemployed heads participate in AFDC and 28 percent in Food Stamps, compared to 3.7 percent of unemployed wives who receive AFDC and 7.9 percent who receive food stamps.[23]

Table II reports the quantiles of the distribution for net worth. The top panel reports the quantiles for the representative panel from the 1984 SIPP, while the bottom panel reports wealth for our sample of job seekers. Individuals looking for jobs have much lower levels of wealth than the representative sample: in the representative sample, median total net worth is about $34,800, compared with a median of $9,500 in the sample of job seekers. Both heads and wives in our sample have lower total net worth than their counterparts in the representative sample. One striking fact is that only about 10 percent of our sample reports zero total net worth. This reduces concern about measurement error due to people mis-reporting zero wealth.

Search Intensity Data: During the wave 5 interview, each job seeker is asked if they have directly contacted employers, and if so how many they have contacted in the past month. In addition, they are asked if they have searched for a job by (i) contacting the unemployment office, (ii) using a private employment agency, (iii) asking friends or relatives, or (iv) doing anything else. Table III presents summary statistics for these measures of search intensity. Results are presented separately for heads and wives, and for men and women.

Over 90 percent of unemployed individuals in all sub-groups of our sample report directly contacting employers as a method of job search. However, male heads report contacting

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[23] Again, female heads are much more likely than male heads to receive AFDC and food stamps: 47 percent of unemployed female heads receive AFDC and 68 percent receive food stamps.

more employers in the past month than female heads or wives: on average, male heads report contacting 9 employers in the past month, while female heads report contacting 6.5 employers and wives report contacting about 5 employers. Slightly more than 9 percent of the sample reports searching for a job using a method other than directly contacting employers.

We find some indication that job seekers move to other methods only after they do not find a job using direct employer contact. Individuals who report using two or more methods of search have spell duration that is 20 weeks longer, on average, than individuals who are using only one search method, or who are searching by directly contacting employers. Since only 60 individuals report using search methods other than direct employer contact, the results below measure search intensity as the number of direct employer contacts.

Reservation Wage Data: Our measure of the reservation wage is based on the response to the question: What is the lowest wage or salary that you would accept for a job? Survey respondents are asked to report the minimum wage they would accept per hour, per week, per month, and per year. Most respondents provide an hourly wage. For the other respondents, the answer is converted to an hourly wage assuming that individuals work 40 hours per week, 176 hours per month, and 2000 hours per year. Table IV compares self-reported hourly reservation wages with the hourly wage received before the non-employment spell, and with the hourly wage at the next job accepted.[24]

We first compare the reservation wage with the wage received at an individual's most re-

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[24] Ryscavage(1988) compares the properties of the self reported reservation wages in the SIPP with the self-reported reservation wages in the 1976 CPS. He finds that the two datasets are similar in terms of the percent of individuals who report reservation wages below the federal minimum wage and the fraction of individuals who report reservation wages above their previous wage.

cent job. The previous wage is observed for about 52 percent of our sample. This comparison provides evidence that individuals are not simply reporting their wage at their most recent job as their reservation wage. Previous wages are on average about $1 higher than reservation wages. This difference is larger for the groups most attached to the labor force: heads and the unemployed sample. About 57 percent of individuals report a reservation wage that is lower than their most recent wage, and 75 percent of individuals report a reservation wage no more than ten cents higher than their most recent wage. In addition, columns (6)-(10) indicate that at all levels of the reservation wage, the previous wage is on average higher than the reservation wage.

We next compare the self reported reservation wage to the wage accepted at the next job. We observe the accepted wage for over 45 percent of the sample.[25] For about 72 percent of these individuals, the accepted wage is in fact higher than the reservation wage. Another 10 percent of these individuals accept a wage no more than ten cents lower than their reservation wage. On average, the accepted wage is two dollars higher than the reservation wage. Once again, these results are consistent across demographic groups and at all levels of the reservation wage.

Unemployment Insurance Search Requirement Data: In order to identify the search intensity equation, we need variables that affect search intensity but not wealth, reservation wages, or the probability that an individual will transition to a job. Since search requirements for individuals who receive UI benefits vary significantly between states, these requirements provide identifying variables. We create three variables to capture between

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[25] The value of the next wage is not recorded for all individuals in our sample who make the transition into employment.

state variation in UI eligibility requirements in 1985: (1) the number of employer contacts the state required the individual to make in the previous month to maintain UI eligibility; (2) an indicator that takes the value of one if state search requirements were not specified by law; and (3) an indicator that takes the value of one if there was variation in the number of weekly contacts required by the state, multiplied by the number of weeks in the past month that the individual receive UI benefits.

For a small subset of states, information on 1985 search requirements is recorded in Corson et al. (1988). For the other states, we contacted the state government department that was responsible for running the unemployment insurance program. Each state agency was asked three questions: (1) What was the usual number of weekly contacts required for individuals who were on unemployment insurance in 1985? (2) Was the number of required contacts specified by law? and (3) Was their variation in the required number of weekly contacts?[26]

To calculate number of employer contacts required for UI eligibility in the past month, we multiply the number of weekly contacts required by the state by the number of weeks in the past month that the individual received UI.

The rules for search requirements were given by law in some states. In other states, local unemployment offices had more flexibility in setting job search requirements. To capture the affect of this type of discretion, we define a dummy variable which takes the value of one if the search requirements were not given by legislation.

Finally, in many states the number of required weekly contacts could vary significantly

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[26] We are able to obtain information for all states except Indiana, representing about 4.5 percent of our sample. Of this group, only 10 people were on UI benefits in Wave 5. For this 0.7 percent of our sample we used information on Indiana's more current search requirements .

across individuals. Some states reported allowing UI offices to increase the number of required contacts for individuals whose skills were in high demand, decrease the number of required contacts for individuals in areas where the unemployment rate was especially high, or require fewer contacts for individuals who were on lay-off or mothers with young children. To account for this, we define an indicator that takes the value of one for individuals who live in states that report variation in the required number of contacts. We then multiply this variable by the number of weeks in the past month that the individual received UI benefits. The resulting variable captures the degree to which the actual number of contacts required for a given individual may have varied from the number the state usually required.

Table V reports the means for the variables discussed above. The top panel of Table V presents results for the portion of the unemployed sample receiving UI benefits - the portion of the sample for which we would expect state search requirements to affect search behavior. For comparison, the bottom panel presents results for unemployed not receiving UI Separate results are presented for the full sample and for sub-groups of states with and without contacts required by law and with and without variation in required contacts.[27]

As expected, individuals seem to search most when they reside in states where the requirements are the most stringent: states where the number of required contacts is specified by law and there is no variation in the requirements. The average monthly number of contacts for UI recipients in these states is 9.9, compared with an average of 6.5 contacts for the unemployed not on UI in the same states, and an average of 8.7 contacts for all UI

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[27] The percent of people with fewer contacts than required for those who received UI during the last month may overstate the percent of recipients who are not complying since some individuals may have exhausted their benefits during the month, while others just entering the system may not have been on benefits for the first week or two of their unemployment spell.

recipients.

Also consistent with our expectations, UI recipients make fewer contacts in states where search requirements are not specified by law and UI offices do not have the ability to vary the requirements. In states where search requirements are set by law, UI offices seem to use their discretion to reduce the number of contacts required - the typical UI recipient in such a state was required to make only 5.2 employer contacts per month, compared with a requirement of 8.9 contacts in states where UI offices were not allowed to vary state requirements. In response, the typical UI recipient contacted almost 2 fewer employers each month. However, in states where the law does not specify the number of contacts, UI offices used their discretion to impose fairly strict requirements. UI recipients in these states were required to contact 8 employers per month on average.

IV. Empirical Results

In this section, we discuss our empirical results. First we present single equation estimates of the search intensity equation. Next, we estimate the simultaneous equation model of reservation wages, search intensity, wealth and transitions to employment. Finally, we explore the relationship between search intensity, reservation wages, and the probability of transitioning to a job.

IV.1. Single Equation Determinants of Search Intensity:

Models such as that in Lentz and Tranaes(2004) suggest that after controlling for demographic variables and education, wealth and family income may be negatively correlated with search intensity. To examine this hypothesis, we estimate a Tobit model of the number of employers contacted. Explanatory variables include wealth, wealth squared, the amount

of the monthly UI payment, other monthly family income, a quadratic in the number of weeks since the individual last worked interacted with a dummy indicating if an individual currently receives UI[28] , a quadratic in experience[29] , and indicators which take the value of one if an individual currently receives unemployment insurance, is looking for a part time job, and expects to be recalled. We also control for standard demographic variables: education, gender, marital status, head, and black and kids interacted with gender.[30] A finding that wealth is negatively correlated with search intensity may indicate that individuals are risk averse and do not have access to perfect income insurance. The results are reported in Table VI.[31]

Wealth and Other Income: Our results indicate that the number of employers contacted decreases as wealth increases, although the effect is not statistically significant for household heads.[32] A $10,000 increase in wealth is associated with a decrease in the number of employers contacted each month of 0.06 for wives and of 0.21 for heads.[33] However, given the significance level for heads, we cannot reject that the effect of wealth on contacts made by heads is zero.

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[28] To examine if the inclusion of weeks not worked bias our estimates, we estimated a version of the model excluding these variables. Including these variables does not significantly alter our findings.

[29] Experience is measured as age-education-6.

[30] Questions about search were only asked of the unemployed sample. We estimated models using only the unemployed sample and models using liquid net worth instead of total net worth. The substance did not change. We present results assuming individuals who are out of the labor force do not search and using total net worth.

[31] We also estimated a model including the state unemployment rate, the state average wage and the state CPI. None of these variables are statistically significant predictors of the number of contacts made when the state search requirement variables are included.

[32] To examine if our results are caused by unobserved heterogeneity, we use the procedure suggested by Newey(1987) to estimate the search intensity equation using historical state and federal marginal tax rates as instruments for wealth. Our IV estimates indicate that the relationship between search intensity and wealth is small and insignificant.

[33] The results from a Poisson count model are similar.

As expected, individuals who receive unemployment insurance contact more employers, since they are often required to do this to maintain their UI eligibility.[34] However, the amount of the monthly payment has little effect on the number of employers contacted, although the coefficient is negative for heads. The number of employers contacted by wives actually increases as the UI payment increases, possibly because higher UI benefits indicate higher levels of attachment to the labor force. Finally, the number of employers contacted decreases as other family income increases: a $1000 increase in other family income reduces the number of employers contacted by approximately 1.5 per month for heads and by about 0.6 per month for wives.

Search Requirements: Several variables are included to measure variation in search requirements across individuals. We include the three variables discussed above to capture state variation in requirements for unemployment insurance eligibility: the number of employer contacts an individual was required to make in the previous month to maintain UI eligibility, an indicator that takes the value of one if the number of required contacts for UI eligibility is not determined by law, and a variable that indicates the number of weeks in the past month that there could have been variation in the number of required contacts.[35]

In many states, AFDC and Food Stamp recipients are required to engage in job search activity.[36] To capture the affect of these search requirements, we include an indicator which

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[34] The effect of receiving unemployment insurance is insignificant when the variables with state rules for UI eligibility are included in the model, but is positive and significant if the state rule variables are excluded from the model.

[35] In alternative specifications, we included an indicator that takes the value of one if a state required individuals to actively seek work to maintain UI eligibility. This variable is not a significant predictor of the number of contacts once the other search requirement variables are included in the regression.

[36] See Keeley and Robins(1985) for a study of how search requirements associated with AFCD, food stamps and WIN programs affected search behavior.

takes the value of one if an individual received income from either of these programs in the previous month.

State search requirements have the expected affect on the number of employers contacted by wives: living in a state where search requirements are not specified by law reduces the number of employers contacted by a wife on UI by about 4 per month. However, living in a state where search requirements are not specified by law has no statistically significant effect on the number of employers contacted by heads. For every additional required employer contact, wives contact about 0.4 additional employers, while there is no statistically significant effect for heads.

The variable that does affect search intensity for heads is whether or not the state reports any variation in the search requirements for workers on UI. Living in a state with variability in search requirements reduces the number of employers contacted by a heads on UI by about 0.8 per week. Thus, a typical head who was on UI all four weeks of a given month would contact 3.2 fewer employers that month if he is living in a state with variability in search requirements.

Finally, we find that male heads and wives who receive AFDC or Food Stamps contact more employers. However, female heads who receive AFDC or Food Stamps search less than other individuals, possibly because the search requirements for these programs are more likely to be imposed on married couples or single males.[37]

Spell Duration: If unemployed individuals get discouraged over time, we would expect search intensity to decrease as spell duration increases. However, the incentives from the UI

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[37] The number of male heads and wives on AFDC is too small to identify the effect of the two programs separately. We estimated models including the amount of AFDC and food stamp benefits, and found that this did not significantly effect search intensity.

program alter this prediction for UI recipients. In particular, we would expect UI recipients to increase their search intensity as they near the time when their benefits expire, then to decrease their intensity beyond this point.

Figure I shows changes in the predicted number of contacts as spell duration increases. Unemployed workers who are not receiving unemployment insurance decrease their search intensity as spell duration increases. For each additional week of duration, heads reduce the number of employers contacted each month by about 0.3, and wives reduce the number of employers contacted each month by about 0.4. However, UI recipients increase the number of employers contacted as the duration of their spell increases, possibly because they increase their search intensity as they get nearer to the time when their benefits lapse. For both heads and wives on UI, the predicted number of employer contacts peaks at about 26-30 weeks, or near the duration at which UI benefits expire.[38]   This is consistent with the patterns reported in Meyer(1990).

Individuals looking for part time work make 7-8 fewer contacts than individuals looking for full time employment, while individuals who are currently laid off but expect to be recalled make at least two fewer contacts per month. In general, the demographic variables have the expected effects. Search intensity increases with education. The affect of experience on the number of contacts is non-linear but is significant only for wives. The coefficients indicate that search increases with experience until near retirement age. This pattern may be due to experienced individual's beliefs about the likelihood of getting a good job offer late in their career. We also find that, all else equal, men and individuals living in metropolitan areas

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[38] U.I. benefits typically expire at 26 or 39 weeks, although as Meyer(1990) notes, there is considerable variability in the number of weeks of eligibility.

contact more employers.

IV.2. Simultaneous Equations Estimation

Although the single equation model provides important insights into the relationship between search intensity and resources such as wealth and unemployment insurance, it does not allow us to determine the impact of changes in wealth or benefit levels on the probability of transitioning into employment. To explore this relationship, we estimate a simultaneous equations model. In this model we allow both the reservation wage and search intensity to depend on wealth and unemployment benefits, and we estimate the effect of the number of employers contacted in the previous month on the probability of receiving a job offer and making a transition. Our results help us determine: (1) why individuals with higher net worth stay unemployed for longer periods of time and (2) whether unemployment benefits lead to longer spells of unemployment. Our results are reported in Tables VII through IX.[39] The corresponding elasticities for the number of contacts, the probability of a job offer, the reservation wage, the probability that an individual accepts a job offer, and the probability of transitioning to employment with respect to wealth, unemployment insurance and search requirements are found in Tables X through XV. To identify the parameters in our equations, we assume that some variables only effect reservation wages, while others only affect search intensity. Our identifying assumptions, which are discussed below, are motivated by the fact that some variables are likely to have only an indirect effect on the other endogenously determined variables. For example, tests showed that variables excluded from the reservation wage equation are not significant predictors of the reservation wage, and variables omitted

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[39] We present results allowing heads and wives to draw wages from different wage offer distributions.The results do not qualitatively change if we instead assume that heads and wives draw from the same wage offer distribution. The estimated parameters of these wage-offer equations are found in Table A.

from search intensity equation are not signficant predictors of the number of contacts made.

IV.2.1. The Wealth Accumulation Equation:

Standard theory predicts that wealth depends on previous income levels and characteristics that influence the individual's savings decisions. Therefore, we allow wealth accumulation to depend on previous period household earnings and unearned income, as well as demographic and human capital variables. Since previous period income variables should be uncorrelated with the reservation wage and with search intensity once we have controlled for current period wealth and income these variables allow us to identify the wealth equation. The simultaneous equations estimates of the wealth accumulation equation are given in column (4) of Tables VII to IX.

Our results are generally consistent with the theory. Individuals with higher previous period earnings and higher previous period other family income have higher current wealth. A $1000 increase in lagged own monthly earnings is associated with a $6,385 increase in current total net worth for heads and a $9503 increase for wives, suggesting that income received by working wives is more likely to be used to augment savings.

Lagged other family income[40] is also a significant predictor of total net worth. A $1000 increase in lagged other income translates to an increase in total net worth of $10,140 for heads and $19,837 for wives. Once again, additional income is more likely to be used to augment savings in households with working wives.

The demographic variables have the expected effect on wealth. Wealth accumulation increases with education and decreases with the number of children. Individuals who are unemployed have lower levels of accumulated wealth, while, all else equal, married individuals

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[40] This is defined as the sum of spouse's earnings and unearned income.

have higher asset levels than single individuals. This may be because married couples are more likely to save to purchase a house or for future expenses such as children's college funds.

We allow wealth to depend on a quadratic in experience to capture the life cycle patterns of wealth accumulation. The point estimates indicate that individuals' wealth levels increase until retirement, although the effect is insignificant. Controlling for other observables, black individuals accumulate less wealth than their white counterparts. A black individual has, on average, $15,400 less total net worth than a comparable white individual. The fact that we do not control for parent's wealth may explain part of this result. If white individuals start out life with more wealth (or less debt), this may lead to greater wealth accumulation, all else held constant.

IV.2.2. The Search Effort Equation:

Search effort is measured as the number of employers contacted in the past month. We allow search effort to depend on the same set of explanatory variables as in the model presented in Table VI. The variables included in the search effort equation that are not included in any other equation in our system include: the variables measuring variation in search requirements for UI recipients (number of required contacts, variation in required contacts × weeks on UI last month, and search requirements not specified by law), an indicator representing whether the individual received aid from either Food Stamps or AFDC, a dummy which takes the value of one if the individual expects to be recalled to his previous job, and the number of weeks the individual was not employed last month.[41]   The results for this equation are presented in column (3) of Tables VII to IX. Since we assume that the

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[41] We examined whether recall, aid receipt and the unemployment search requirement variables were significant predictors of the reservation wages found that they were not.

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errors in the search effort equation are uncorrelated with the errors from the other equations in our model, the parameter estimates are the same as in the single equation Tobit model.[42]

However, the standard errors differ because of the increased efficiency. Table X reports the elasticity of search effort with respect to wealth, unemployment benefits, and search requirements for UI eligibility.

As in the single equation estimates, the point estimates indicate that the number of employers contacted decreases as wealth increases, although the affect is only significant for the full sample and the wives. Column (3) of Table X presents the elasticity of search intensity with respect to changes in wealth. At the mean values of the explanatory variables, a 10 percent increase in wealth reduces the number of contacts made by 1.1 percent for heads and 1.4 percent for wives. The sensitivity of search intensity to wealth is smallest for individuals who are unemployed or on unemployment insurance.

The point estimates indicate that increases in UI benefit levels decrease the number of employers contacted by heads, and increase the number of employers contacted by wives, although the effect is statistically significant only for wives. Column (5) of Table X presents the elasticity of search intensity with respect to the level of unemployment insurance benefit. We find that a 10 percent increase in UI benefits decreases the number of contacts made by heads by 0.9 percent and increases the number of contacts made by wives by 5 percent.

Finally, column (7) of Table X presents the elasticity of search effort with respect to the number of required contacts. Our estimates indicate that higher UI search requirements in fact increase the number of employers contacted by UI recipients, although the effect is

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[42] To test the assumption that the errors from the search effort equation are in fact uncorrelated with the errors from the other three equation, we ran single equation models of the reservation wage, search effort, and wealth equations and verified that the errors were in fact uncorrelated.

insignificant for heads. Increasing the number of required contacts by 1 per week [43] increases the number of employers contacted each month by about 2 for wives on UI and by about 1.4 for heads on UI

IV.2.3. The Job Offer Equation:

Although it is interesting to investigate the affects of outside resources and search requirements on search intensity, ultimately we are interested in how the influence of search intensity on the probability of receiving a job offer and on the probability of transition. We assume the probability of receiving a job offer in the 16 months following the wave 5 interview follows a probit model.[44] The identifying variables in the job offer equation include the maximum level of state employer UI taxes, the state unemployment rate, and a dummy variable that takes the value of 1 if an OLF individual reports that he is "very likely" or "likely" to search for a job in the near future.[45] Other explanatory variable in the job offer equation include education, a quadratic in experience, a quadratic in the number of weeks since the individual was last employed, the number of direct employer contacts the individual made during the last month, a dummy variable that indicates if the individual is searching for a specific type of job, and dummy variables indicating if an individual is living in a city, is male, is married or is black. The estimates of the parameters in the job offer equation (the vector γ in equation 8) are presented in column (2) of Tables VII to IX.

The most significant predictors of the probability that an individual receives a job offer are

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[43] This translates to an increase of approximately 60 percent.

[44] As a sensitivity analysis, we estimated our model using data on transitions to a job within four months following the wave 5 interview. Our main findings are unaltered by this change.

[45] We assume that the state unemployment rate does not affect the reservation wage or search intensity. This is consistent with our finding that the state unemployment rate is not statistically significant when included in either the reservation wage or the search intensity equation.

whether the individual is looking for a specific job (a proxy for directed search), the number of employer contacts made in the past month, the state unemployment rate, whether an OLF individual indicates that he is likely to search for a job in the near future, and the time elapsed since the last job. The maximum level of state employer UI taxes is also a significant predictor of the probability of receiving a job offer for the subsample of wives.

Our results indicate that contacting more employers increases the probability of receiving a job offer. Consistent with previous studies[46], we find that the probability of a job offer decreases as the duration of the current unemployment spell increases. Each additional week of spell duration decreases the probability of receiving a job offer by 0.6 percentage points for the average household head and 0.3 percentage points for the average wife.[47] This effect may be related to skill deterioration or to employers' beliefs that individuals who have been out of work for long periods of time are lower quality employees that those with short unemployment duration.[48]

We find that, when state unemployment rates are high, individuals are less likely to receive job offers - a one percentage point increase in the state unemployment rate reduces the probability of a job offer by about 2.5 percentage points. High levels of state unemployment taxes on employers reduce the probability of a job offer[49], although this affect is only

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[46] Such as Bloemen and Stancanelli (2001), Katz and Meyer (1990) and Barron and Mellow (1981).

[47] To verify that including this variable does not drive our results, we estimated the model excluding the duration variables. The results were not significantly different from those reported in the paper. We also estimated models including the number of past long term unemployment spells in the offer equation to correct for unobserved heterogeneity. The coefficient on the number of past spells had the expected negative sign, but it was small in magnitude and statistically insignificant.

[48] Our findings are consistent with the environment in Blanchard and Diamond (1994) where employers rank job candidates by their unemployment duration and those with longer durations are the last to receive job offers.

[49] These effects are consistent with the findings of Millard and Mortensen(1997).

statistically significant for the subsample of wives. Individuals who search for a specific type of job are about 14 percentage points more likely to receive job offers, suggesting that directed search is more effective than random search.

Table XI reports the elasticities of the probability of receiving a job offer within 16 months with respect to wealth, unemployment benefits and the number of required contacts for UI eligibility. In all cases we find that the elasticities are approximately zero since the probability of receiving a job offer within 16 months is close to one, especially for UI recipients. To determine if the results are by our definition of transitions, we re-estimate the model defining transitions as finding a job within a 4 month time period. This lowers the estimated probability of individuals receiving a job offer: the full sample estimates are that 76 percent of UI recipients and 42 percent of all job seekers will receive an offer within 4 months. However, the elasticity of the probability of an offer with respect to wealth, UI benefit levels, and UI search requirements remains small. For example, in the full sample 4 month model, the elasticity of the probability of an offer with respect to wealth is only -0.016 and the elasticity with respect to UI benefits is only 0.016.[50] This suggests that, if wealth and unemployment insurance affect the probability of making a transition into employment, the primary effect does not come from significantly reducing the number of job offers.

IV.2.4. The Reservation Wage Equation:

The simultaneous equations estimates of the reservation wage equation are given in column (1) of Tables VII to IX. We assume that state consumer price index (CPI), the log of the state average wage, the minimum state unemployment benefit and the amount of

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[50] For heads the the elasticity with respect to wealth is -0.024, while for wives the elasticity with respect to wealth is -0.066. The elasticity of the job offer with respect to UI benefits is -0.024 for heads and is approximately zero for wives.

income from Food Stamps and AFDC affect the individual's reservation wage but do not directly impact wealth, search intensity or the probability of transitioning to employment.[51]

Other independent variables include wealth, wealth squared, unemployment insurance income, other family income, a quadratic in experience, a quadratic in the number of weeks since the individual was last employed interacted with the unemployment dummy, a dummy variable indicating if the individual has any children interacted with gender, and dummy variables indicating if an individual is unemployed, is looking for a specific type of job, is looking for a part time job, is male, is a household head, is married, and is black. Wealth is measured in $10,000; monthly levels of unemployment insurance income, income from AFDC and Food Stamps, and other family income are measured in $1,000.

Wealth: Consistent with the findings of Bloemen and Stancanelli(2002), we find that the reservation wage increases with wealth for all but the most wealthy in our sample.[52] . The positive effect of wealth on the reservation wage is consistent across demographic groups and remarkably robust across specifications. Increasing total net worth from zero to $10,000 increases the reservation wage by about 3.4 percent. Table XII, column (3), reports the elasticity of the reservation wage with respect to wealth at the mean of the explanatory variables. According to our estimates the elasticity of reservation wages with respect to net worth is approximately 0.13 for the full sample, household heads and wives.[53]

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[51] The theoretical literature suggests that these variables may also affect search intensity. To test our identifying assumptions, we estimated alternate specifications of the model and found that none of these variables were statistically significant predictors of the number of contacts made.

[52] We find that for over 95 percent of individuals in our sample, reservation wages increase with total net worth.

[53] Although one might worry that these results could solely be due to unobserved heterogeneity, our results in Alexopoulos and Gladden(2003) suggest that this is not the case. In particular, we find that the estimated effect of wealth on reservation wages is similar when we instrument for wealth.

Although wealth increases the reservation wage for nearly all individuals in our sample, we find significant differences between heads and wives in the magnitude of the effect. At low levels of wealth, heads are more sensitive than wives to changes in wealth. For example, increasing net worth from $0 to $10,000 increases the reservation wage by about 2.7 percent for a typical wife and 5.3 percent for a typical head. However, the elasticities reported in Table XII, column (3) suggest that, at the mean of the explanatory variables, the elasticity of the reservation wage with respect to wealth is virtually identical for heads and wives (0.133 vs. 0.130).

Income from Unemployment Insurance, Food Stamps, and AFDC: As expected, unemployment insurance income, amount of aid received and other family income increase the reservation wage. However, once again we find significant differences between heads and wives. An increase of $1000 in other family income increases the reservation wage by about 2.9 percent for heads and 2.1 percent for wives, although the effect is insignificant for the heads. Female heads are more sensitive to changes in income from AFDC and Food Stamps. An increase of $100 in monthly income from aid increases the reservation wage by about 2.5 percent for female heads but has no significant affect on the reservation wages of men or married women. Heads are more sensitive to increases in monthly UI benefits. Table XII, column (5) reports the elasticity of the reservation wage with respect to UI benefit levels. We find an elasticity of 0.18 for heads on UI and an elasticity of 0.028 for wives on UI, which suggests that a $50 per month increase in UI benefits would increase the reservation wage by about 1.8 percent for heads on UI and by about 0.3 percent for wives on UI

Other Explanatory Variables: Inter-state variation in price, wage, and benefit levels effect the reservation wage in the expected way. Reservation wages increase with the state

CPI and increase with the log state average wage. Higher minimum levels of unemployment benefits (which may proxy for higher levels of future insurance) decrease reservation wages. Increasing the average minimum weekly UI benefit by $3.15, or by about 10 percent, decreases the reservation wage by approximately 0.47 percent on average, suggesting that extra insurance against future wage loss due to layoff makes workers more likely to accept lower paying jobs today.

For unemployed workers, reservation wages fall as spell duration increases: an increase in duration from 0 to 4 weeks decreases the reservation wage by about 2 percent for these workers. For OLF individuals, the effect of duration on the reservation wage is smaller (approximately 0.3 percent) and statistically insignificant.

IV.2.5. The Probability of Acceptance:

The probability of acceptance depends on the offer drawn from the wage distribution and the individual's reservation wage. As a result, the finding that reservation wages increase with wealth indicates that wealthier individuals are more likely to turn down a job offer, all else equal. Table XIII, column (3) reports the magnitude of the wealth affect. For the typical member of our sample, a 10 percent increase in wealth reduces the probability of accepting a job offer by about 1.5 percent.

Similarly, the finding that reservation wages increase with increased UI benefits indicates that, all else equal, higher benefit levels will decrease the probability that an individual will accept a job offer. Table XIII, columns (5), reports the elasticity of the acceptance probability with respect to UI benefits. Our estimates imply that a 10 percent increase in the benefit level reduces the probability of accepting a job offer by 1.8 percent for the typical head on UI, and by 0.3 percent for the typical wife on UI

IV.2.6. The Probability of a Job Transition:

According to the model presented in Section 3, the probability of transition depends on the probability that the individual receives a job offer and the probability that the offer is accepted. Our results suggest that financial resources - wealth, UI income, and other family income - affect this probability in two ways. First, individuals with more resources may search with less intensity, reducing their probability of receiving a job. Second, increased resources increase the reservation wage, reducing the probability that a job offer is accepted. Table XIV reports the aggregate affect on the probability of a transition for different groups, while Table XV illustrates which of the two channels has the larger impact on the probability of transition.[54]

Wealth: We expect that, since wealth increases the reservation wage and decreases search intensity, increased wealth should decrease the probability of transitioning to a job. Table XIV, column (3), presents estimates of the affect of wealth on the probability of transitioning to a job within 16 months. Our results indicate that a 10 percent increase in wealth reduces the probability of transitioning to a job by about 1.6 percent. Table XV demonstrates that the vast majority of this decrease in the transition probability is due to the fact that increases in wealth significantly increase the reservation wages of workers, which, in turn, increases the probability that a job offer is rejected: increased reservation wages account for over 87 percent of the affect of wealth on transition in the 16 month model and over 71 percent of the overall affect in the 4 month model.[55]

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[54] To demonstrate that our findings are not very sensitive to our choice of a 16 month period, we also report the results from the model using a 4 month period in Table XV.

[55] These findings are not significantly altered if we use the elasticity of effort with respect to wealth implied by our instrumental variable estimates or our instrumented tobit estimates.

Unemployment Income: Since UI benefits increase the reservation wage and decrease search intensity, we expect higher benefit levels to decrease the probability of transitioning to a job. Table XIV, column (5), reports the affect on the transition probability of changes in UI benefits. A 10 percent increase in the benefit decreases the probability of transitioning to a job within 4 months by about 2 percent for heads and by about 0.6 percent for wives. The bottom panel of Table XV decomposes this effect into the portion due to higher reservation wages and the portion due to lower search intensity. We find that the primary affect (over 88 percent) of an increase in UI benefits on the probability of transition is through the increase in the reservation wage and the corresponding decrease in the probability of accepting a job offer.

Search Requirements: Search requirements associated with UI eligibility may increase the probability of transitioning to a job since they increase search intensity, and therefore increase the probability of a job offer. Table XIV, column (7), reports the affect on the transition probability of search requirements associated with eligibility for UI benefits. Table X demonstrates that stricter search requirements do increase employer contacts among UI recipients. However, as Tables XIV and XV show, the elasticity of the probability of transition within 16 months with respect to an increase in the required number of contacts is approximately zero. There is some evidence that stricter search requirements increase the probability that heads will transition to a job within 4 months. A 10 percent increase in the number of required contacts increases the probability of transitioning to a job within 4 months by 0.38 percent in the full sample and by 0.2 percent for heads, while a similar increase in the required number of contacts for wives has virtually no effect on the probability of transition.

According to our estimates, for the full sample, increasing UI benefits by 10 percent would decrease the probability of a transition by about 1.6 percent. However, increasing the number of required contacts for UI recipients by one contact a week would increase the probability of transition in 4 months by about 2 percent. For heads, our estimates suggest that the negative affects of a 10 percent increase in UI benefits can be offset by increasing the number of required contacts by 2 contacts per week. As a result, if a state wants to increase the generosity of its benefits without decreasing the probability of making a transition in the short run, they can increase the search requirements for benefit recipients.

V. Conclusions

In this paper, we estimate a simultaneous equations model of search intensity, reservation wages, labor market transitions and wealth using a sample from the 1984 Survey of Income and Program Participation. This allows us to explore the affect of changes in wealth and unemployment benefits on search intensity and the probability of a job offer, on reservation wages and the probability of accepting a job offer, and on the probability that an unemployed worker will transition to a job. Consistent with labor market search models that assume that workers are risk averse and unable to perfectly insure themselves, we find that higher levels of wealth increase the reservation wage and decrease search intensity. However, these effects differ greatly in the magnitude of their influence on non-employment spell duration. Our simultaneous model allows us to decompose the effect of an increase in wealth or UI benefits on the probability that the worker transitions to employment into the portion due to decreased search intensity and the corresponding decrease in the probability of a job offer and the portion due to the increase in the reservation wage and the corresponding decrease

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in the probability of accepting a job offer.

Our estimates indicate that a 10 percent increase in wealth reduces the number of contacts made by 1.1 percent for heads and 1.4 percent for wives, and increases the reservation wage by about 1.3 percent for both heads and wives. While both of these affects work to increase the duration of non-employment, the vast majority of the effect of wealth on the probability of making a job transition is caused by the impact of wealth on reservation wages. Over 71 percent of the effect of wealth on the probability of making a transition in 4 months, and over 87 percent of the effect of wealth on the probability of transition in 16 months is due to the increase in the reservation wage and the corresponding decrease in the probability of accepting a job offer.

We find a similar pattern when we examine the affect of changes in UI benefits on the probability of making a transition into employment. Increases in benefit levels do not significantly reduce search effort, and therefore do not significantly reduce the probability of an offer. However, higher benefit levels increase the reservation wage and therefore decrease the probability that an offer is accepted. For example, the estimates for the full sample imply that a 10 percent increase in the benefit level increases the reservation wage by 1.4 percent and decreases the probability that an offer is accepted by 1.4 percent. Together, these results suggest that increases in unemployment benefits increase the duration of non-employment, but this occurs primarily because increased reservation wages cause workers to reject more job offers.

We also examine the relationship between search requirements for UI recipients and the number of contacts made. We find that in states with stricter job search requirements for UI eligibility, UI recipients contact more employers each month. In states where unemployment

offices have the flexibility to vary requirements, heads who receive UI contact fewer employers than in other states. This suggests that if states wish to increase the generosity of their UI benefits without increasing spell duration, they should increase both their job search requirements and the level of enforcement.

Our findings generally support the relationships predicted by models where individuals are risk averse and unable to perfectly insure themselves against income risk: increases in wealth increase the reservation wage and decrease search intensity. As a result, wealthier individuals will experience longer unemployment duration. Given that wealth significantly affects transition probabilities, our results suggest that researchers may want to move towards building more search models that assume that markets are incomplete and individuals are risk averse. Finally, given that search intensity is not significantly affected by changes in wealth or unemployment insurance, it is relatively more important for models to allow reservation wages, as opposed to search intensity, to respond to changes in wealth or benefit levels.

References

Alexopoulos, Michelle and Tricia Gladden. "Wealth, Reservation Wages, and Labor Market Transitions in the U.S.: Evidence from the Survey of Income and Program Participation," University of Missouri Working Paper no. 03-05, 2003.

Algan, Yann, Arnaud Chéron, Jean-Olivier Hairault, and François Langot, . "Wealth Effect on Labor Market Conditions," *Review of Economic Dynamics,* VI (2003), 156-178.

Barron, John M. and Otis W. Gilley. "The Effect of Unemployment Insurance on the Search Process," *Industrial Relations Review,* XXXII (1979) 363-66.

Barron, John M. and Wesley Mellow. "Changes in Labor Force Status among the Unemployed," *Journal of Human Resources,* XVI (1981), 427-441.

Bloemen, Hans G. " The Relations between Wealth and Labour Market Transitions: An Empirical Study for the Netherlands." *Journal of Applied Econometrics*, XVII (2002), 249-68.

Bloemen, Hans G. and Elena G. F. Stancanelli. "Individual Wealth, Reservation Wages and Transitions into Employment," *Journal of Labor Economics,* XIX (2001), 400-439.

Blanchard, Olivier Jean and Peter Diamond. "Ranking, Unemployment Duration, and Wages," *The Review of Economic Studies*, LXI (1994), 417-434.

Browning, Martin, Thomas F. Crossley and Eric Smith (2002). "Asset Accumulation and Short Term Employment," McMaster University Working Paper no. 2002-14, 2002.

Burdett, Kenneth and Dale Mortensen. "Labor Supply under Uncertainty," in Ronald G. Ehrenberg, ed. *Research in Labor Economics*, II. (Greenwich: JAI Press, 1978), 109-57.

Corson, Walter, Stuart Kerachsky and Ellen Eliason Kisker. "Work Search Among Unemployment Insurance Claimants: An Investigation of Some Effects of State Rules and Enforcement." Unemployment Insurance Service, Occasional Paper 88-1, 1988.

Costain, Jim. "Unemployment Insurance with Endogenous Seach Intensity and Precautionary Savings." Manuscript, Universitat Pompeu Fabra, Nov. 1999.

Curtin, Richard T., F. Thomas Juster, and James N. Morgan, . "Survey Estimates of Wealth: An Assessment of Quality," in Robert E. Lipsey and Helen Stone Tice , eds. *The Measurement of Savings, Investment and Wealth* (Chicago: University of Chicago Press, 1989), 473-548.

Danforth, J. P. "On the role of Consumption and Decreasing Absolute Risk Aversion in the Theory of Job Search," in S. A. Lippman and J. J. McCall, eds. *Studies in the Economics of Search*, (Amsterdam: North-Holland, 1979), 109-31.

Devine, Theresa J. and Nicholas M. Kiefer. *Empirical Labor Economics: The Search Approach.* (Oxford: Oxford University Press, 1991).

Feldstein, Martin and James M. Poterba. "Unemployment Insurance and Reservation Wages," *Journal of Public Economics*, XXIII (1984), 141-167.

Fredriksson, Paul and Bertil Holmlund."Optimal Unemployment Insurance in Search Equilibrium," *Journal of Labor Economics*, XIX (2001), 370-399.

Holzer, Harry J., "Reservation Wages and Their Labor Market Effects for Black and White Male Youth," *Journal of Human Resources* XXI (1986), 157-177.

Katz, Lawrence F. and Bruce D. Meyer. "Unemployment Insurance, Recall Expectations, and Unemployment Outcomes," *The Quarterly Journal of Economics*, CV (1990), 973-1002.

Keeley, Michael C and Philip K. Robins. "Government Programs, Job Search Requirements and the Duration of Unemployment," *Journal of Labor Economics,* III (1985), 337-62.

Lancaster, Tony and Andrew Chesher. "An Econometric Analysis of Reservation Wages," *Econometrica,* LI (1983), 1661-76.

Lentz, Rasmus and Torben Tranaes. "Job Search and Savings: Wealth Effects and Duration Dependence," *Forthcoming in Journal of Labor Economics* (2004).

Ljungqvist, Lars and Thomas J. Sargent. "The European Unemployment Dilemma," *Journal of Political Economy*, CVI (1998), 514-50.

McNeil, John M. and Enrique J. Lamas. "Year-Apart Estimates of Household Net Worth form the Survey of Income and Program Participation," in Robert E. Lipsey and Helen Stone Tice, eds. *The Measurement of Savings, Investment and Wealth*, (Chicago: University of Chicago Press, 1989) 431-471.

Meyer, Bruce D. "Unemployment Insurance and Unemployment Spells," *Econometrica*, LVIII (1990), 757-782.

Meyer, Bruce D. "Lessons from the U.S. Unemployment Insurance Experiments," *Journal of Economic Literature*, XXXIII (1995), 91-131.

Millard, Stephen P. and Dale T. Mortensen. "The Unemployment and Welfare Effects of Labour Market Policy: A Comparison of the USA and the UK," in Dennis Snower and Guillermo de la Dehesa, eds. *Unemployment Policy: Government Options for the Labour Market.* (Cambridge: Cambridge University Press, 1997), 545-72.

Mortensen, Dale T.. "Job Search and Labor Market Analysis," in Orley C. Ashenfelter and Richard Layard, eds. *Handbook of Labor Economics*, II. (Amsterdam: North-Holland, 1986), 849-919. .

Mortensen, Dale T. and Christopher A. Pissarides. "New Developments in Models of Search in the Labor Market," in Orley C. Ashenfelter and Richard Layard, eds. *Handbook of Labor Economics* IIIB (Amsterdam: North-Holland, 1999), 2567-2627.

Newey, Whitney "Simultaneous estimation of limited dependent variable models with endogenous explanatory variables." *Journal of Econometrics*, XXXVI (1987), 231-250.

Rendon, Silvio. "Job Search and Asset Accumulation under Borrowing Constraints," Manuscript. University of Western Ontario, Feb. 2004.

Ryscavage, Paul. "An Evaluation and Analysis of Reservation Wage Data from the SIPP," U.S. Department of Commerce, Bureau of the Census Working Paper #221, 1988.

Shimer, Robert and Ivan Werning. "Optimal Unemployment Insurance with Sequential Search," University of Chicago Manuscript, July 2003.

Stancanelli, Elena G. F. "Do the Rich Stay Unemployed Longer? An Empirical Study for the UK," *Oxford Bulletin of Economics and Statistics,* LXI (1999), 295-314.

Tranaes, Torben. "Raiding Opportunities and Unemployment," *Journal of Labor Economics*, XIX (2001), 773-798.

I Technical Appendix (Not For Publication)

1 Computing the log-likelihood function:

This appendix derives the likelihood for estimating a four equation simultaneous system for the endogenous variables search effort, wealth, reservation wages, and labor market transitions. As in the paper, assume that the reservation wage equation is given by:

$$R_{it} = f(W_{it}) + X_{it}'\beta + \varepsilon_{it}, \text{ where } \varepsilon \sim N(0, \sigma_\varepsilon^2)$$

where R_{it} is the log of the individual's self-reported reservation wage, X_{it} contains the individual's characteristics, and $f(W_{it})$ is a quadratic function of wealth. The search effort equation can be written as:

$$E_{it} = \xi'z + \tau_{it}, \text{ where } \tau \sim N(0, \sigma_\tau^2)$$

Assume that the wage offer distribution is lognormal and is described by the equation:

$$\ln(w_{it}) = k_{it}'m + e_{it}, \text{ where } \sim N(0, \sigma_e^2)$$

where i indexes individual i in the population of job searchers, and k_{it} are the individual's characteristics at date t. The wealth accumulation equation is specified as:

$$W_{it} = Q_{it}'\mu + v_{it-1}, \text{ where } v \sim N(0, \sigma_v^2)$$

where Q_{it}' includes the individual's characteristics as of period t-1.

The probability of receiving a job offer in any period is assumed to be:

$$Pr(job\ offer) = \lambda_{it} = 1 - exp(-\eta_{it})$$

where η_{it} is a positive parameter that depends on the individual's characteristics, Z_{it} in the follow way:

$$\eta_{it} = exp(Z'_{it}\gamma)$$

where γ is a vector of parameters and Z_{it} includes characteristics such as the elapsed unemployment duration and measures of the individual's search effort.

Assume that the error terms are jointly distributed normally, that the errors from the effort equation are uncorrelated with the other errors, and that the errors and the regressors are orthogonal (except for the covariance between the endogenous variables and the error):

$$\begin{bmatrix} e \\ \varepsilon \\ v \\ \tau \end{bmatrix} \sim N \left(\begin{bmatrix} 0 \\ 0 \\ 0 \\ 0 \end{bmatrix}, \begin{bmatrix} \sigma_e^2 & \sigma_{e\varepsilon} & \sigma_{ev} & 0 \\ \sigma_{e\varepsilon} & \sigma_\varepsilon^2 & \sigma_{\varepsilon v} & 0 \\ \sigma_{ev} & \sigma_{\varepsilon v} & \sigma_v^2 & 0 \\ 0 & 0 & 0 & \sigma_\tau^2 \end{bmatrix} \right)$$

Let T_i be the variable that denotes whether the ith individual has made a transition from unemployment to work ($T_i = 1$ if there was a transition and $T_i = 0$ otherwise). We can then write the likelihood function as:

$$L = \prod_{i=1}^{N} f(R_i, W_i, T_i, E_i) = \prod_{i=1}^{N} f(T_i \mid R_i, W_i, E_i) f(R_i \mid E_i, W_i) f(E_i \mid W_i) f(W_i)$$

Given the definition of T_i, we can express the probability that an individual job seeker

makes the transition to employment as

$$\text{Prob}(\mathrm{T}_i = 1) = (1 - \exp(-\exp(Z'_{it}\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k'_{it}m - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v.\tau}}\right)\right)$$

where $\Phi(\cdot)$ is the cdf of the Normal(0,1) distribution

$$\sigma_{e|\varepsilon,v,\tau} = \left\{\sigma_e^2 - \begin{bmatrix} \sigma_{e\varepsilon} & \sigma_{ev} & 0 \end{bmatrix}\begin{bmatrix} \sigma_\varepsilon^2 & \sigma_{\varepsilon v} & 0 \\ \sigma_{\varepsilon v} & \sigma_v^2 & 0 \\ 0 & 0 & \sigma_\tau^2 \end{bmatrix}^{-1}\begin{bmatrix} \sigma_{e\varepsilon} \\ \sigma_{ev} \\ 0 \end{bmatrix}\right\}^{\frac{1}{2}}$$

$$\psi_{e|\varepsilon,v,\tau} = \begin{bmatrix} \sigma_{e\varepsilon} & \sigma_{ev} & 0 \end{bmatrix}\begin{bmatrix} \sigma_\varepsilon^2 & \sigma_{\varepsilon v} & 0 \\ \sigma_{\varepsilon v} & \sigma_v^2 & 0 \\ 0 & 0 & \sigma_\tau^2 \end{bmatrix}^{-1}\begin{bmatrix} \varepsilon \\ v \\ \tau \end{bmatrix}$$

where $\sigma_{e|\varepsilon,v,\tau}$ and $\psi_{e|\varepsilon,v,\tau}$ are derived using the fact that $e \mid \varepsilon, v, \tau$ is distributed normally with

mean $\psi_{e|\varepsilon,v,\tau}$ and variance $\sigma^2_{e|\varepsilon,v,\tau}$.[56] . We do not need to worry about the fact that τ appears

because under the assumption that τ is uncorrelated with the other errors the coefficient on

τ is zero.

This implies that:

$$\prod_{i=1}^N f(T_i \mid R_i, E_i, W_i) = \prod_{T_i=1}(1 - \exp(-\exp(Z'_{it}\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k'_{it}m - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v,\tau}}\right)\right) \times$$

$$\prod_{T_i=0}\left[1 - (1 - \exp(-\exp(Z'_{it}\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k'_{it}m - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v,\tau}}\right)\right)\right]$$

$$= \prod_{i=1}^N\left[(1 - \exp(-\exp(Z'_{it}\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k'_{it}m - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v,\tau}}\right)\right)\right]^{T_i} \times$$

$$\left[1 - (1 - \exp(-\exp(Z'_{it}\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k'_{it}m - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v,\tau}}\right)\right)\right]^{1-T_i}$$

---

[56] See Green, 2nd edition, page 76 for the formula

Given that

$$R \quad | \quad E, W \sim N(\mu_{R|E,W}, \sigma_{R|E,W})$$

$$where \ \mu_{R|E,W} \ = \ (X'\beta) + \begin{bmatrix} \sigma_{\varepsilon v} & 0 \end{bmatrix} \begin{bmatrix} \sigma_v^2 & 0 \\ 0 & \sigma_\tau^2 \end{bmatrix}^{-1} \begin{bmatrix} v \\ \tau \end{bmatrix},$$

$$and \sigma_{R|E,W} \ = \ \sigma_\varepsilon^2 - \begin{bmatrix} \sigma_{\varepsilon v} & 0 \end{bmatrix} \begin{bmatrix} \sigma_v^2 & 0 \\ 0 & \sigma_\tau^2 \end{bmatrix}^{-1} \begin{bmatrix} \sigma_{\varepsilon v} \\ 0 \end{bmatrix}.$$

and that $E \mid W \sim N(\xi'z, \sigma_\tau^2)$ and $W \sim N\left((Q'\mu), \sigma_v^2\right)$, we can write:

$$\prod_{i=1}^N f(R_i \mid E_i, W_i) = (2\pi\sigma_{R|E,W})^{\frac{-N}{2}} \exp\left\{-\frac{1}{2}\frac{\left[(\varepsilon + av + b\tau)'\,(\varepsilon + av + b\tau)\right]}{\sigma_{R|E,W}}\right\}$$

where $a = \frac{\sigma_\tau^2 \sigma_{\varepsilon v} - \sigma_{\varepsilon \tau}\sigma_{v\tau}}{\sigma_v^2 \sigma_\tau^2 - \sigma_{v\tau}^2}$ and $b = 0$. When we have censoring we need to break apart the sample

into the part that is censored and the part that is not...i.e., the group that is searching and

the part that is not...

$$\prod_{i=1}^N f(E_i \mid W_i)f(W_i) = \frac{(2\pi)^{\frac{-N}{2}}}{\left(\sqrt{\sigma_\tau^2}\right)^N} \exp\left\{-\frac{1}{2}\frac{\left[\tau'\tau + \left(\frac{\sigma_{\tau v}}{\sigma_v^2}\right)^2 v'v - 2\tau'v\left(\frac{\sigma_{\tau v}}{\sigma_v^2}\right)\right]}{\sigma_\tau^2 - \left(\frac{\sigma_{\tau v}}{\sigma_v}\right)^2}\right\} \frac{(2\pi)^{\frac{-N}{2}}}{\left(\sqrt{\sigma_v^2}\right)^N} \exp\left\{-\frac{1}{2}\frac{v'v}{\sigma_v^2}\right\}$$

$$= \frac{(2\pi)^{-N}}{\left(\sqrt{\sigma_\tau^2\sigma_v^2 - \sigma_{\tau v}^2}\right)^N} \exp\left\{-\frac{1}{2}\frac{\left[\tau'\tau + \left[\left(\frac{\sigma_{\tau v}}{\sigma_v}\right)^2 + \sigma_\tau^2 - \left(\frac{\sigma_{\tau v}}{\sigma_v}\right)^2\right]\frac{v'v}{\sigma_v^2} - 2\tau'v\left(\frac{\sigma_{\tau v}}{\sigma_v^2}\right)\right]}{\sigma_\tau^2 - \left(\frac{\sigma_{\tau v}}{\sigma_v}\right)^2}\right\}$$

$$= \frac{(2\pi)^{-N}}{\left(\sqrt{\sigma_\tau^2\sigma_v^2\Lambda}\right)^N} \exp\left\{-\frac{1}{2}\frac{\left[\tau'\tau + [\sigma_\tau^2]\frac{v'v}{\sigma_v^2} - 2\tau'v\left(\frac{\sigma_{\tau v}}{\sigma_v^2}\right)\right]}{\sigma_\tau^2\Lambda}\right\}$$

$$= \frac{(2\pi)^{-N}}{\left(\sigma_\tau\sigma_v\Lambda^{\frac{1}{2}}\right)^N} \exp\left\{-\frac{1}{2}\frac{\left[\frac{\tau'\tau}{\sigma_\tau^2} + \frac{v'v}{\sigma_v^2} - 2\frac{\tau'v}{\sigma_\tau\sigma_v}\rho_{\tau v}\right]}{\Lambda}\right\}$$

where $\Lambda \ = \ (1 - \rho_{\tau v}^2) = \frac{\sigma_\tau^2\sigma_v^2 - \sigma_{\tau v}^2}{\sigma_\tau^2\sigma_v^2}$ and $\rho_{\tau v} = \frac{\sigma_{\tau v}}{\sigma_\tau\sigma_v}$

Therefore the log of the likelihood function becomes:

$$
\begin{aligned}
\ln L \;=\; & \left\{ -\frac{3N}{2}\ln(2\pi) - N\left[\ln(\sigma_v) + \ln(\sigma_\tau) + \frac{1}{2}\ln(\Lambda)\right] - \frac{N}{2}\ln(\sigma_{R|E,W}) \right\} \\
& - \frac{\left[(\varepsilon + av + b\tau)'\,(\varepsilon + av + b\tau)\right]}{2\sigma_{R|E,W}} - \frac{\left[\frac{\tau'\tau}{\sigma_\tau^2} + \frac{v'v}{\sigma_v^2} - 2\frac{\tau'v}{\sigma_\tau\sigma_v}\rho_{\tau v}\right]}{2\Lambda} \\
& + \sum_{i=1}^{n}\left\{ (1 - T_i)\ln\left\{\left[1 - (1 - \exp(-\exp(Z_{it}'\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k_{it}'m - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v,\tau}}\right)\right)\right]\right\}\right\} \\
& + \sum_{i=1}^{n}\left\{ (T_i)\ln\left\{\left[(1 - \exp(-\exp(Z_{it}'\gamma)))\left(1 - \Phi\left(\frac{R_{it} - k_{it}'m - \psi_{e|\varepsilon,v,\tau}}{\sigma_{e|\varepsilon,v,\tau}}\right)\right)\right]\right\}\right\}
\end{aligned}
$$

Using maximum likelihood estimation, we then obtain estimates for $\beta, \xi, \mu, \gamma, \sigma_e^2, \sigma_\varepsilon^2, \sigma_v^2, \sigma_\tau^2$

and the correlations between the error terms.

TABLE I: Wealth, Non-Work Income, and Reservation Wages
Unemployed and Out of the Labor Force Job Seekers, 1984 SIPP

Out of the Labor Force

	Full Sample (N=755)		Heads (N=273)		Wives (N=482)	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
Household Net Worth	$42,594.08	$74,957	$33,171	$80,818	$47,930	$70,957
Reservation Wage	$4.62	$2.81	$5.11	$3.90	$4.34	$1.90
Receive Unemployment Insurance	2.12%		0.0256		0.0187	
Monthly U.I. Payment[i]	$408.00	$68.34	$529.57	$90.90	$313.44	$51.26
Receive AFDC	14.04%		0.348		0.0228	
Monthly AFDC Payment[ii]	$363.58	$185.98	$361.92	$187.84	$377.91	$176.78
Receive Food Stamps	20.93%		0.5018		0.0436	
Monthly Food Stamp Amount[iii]	$162.53	$85.52	$162.68	$86.99	$161.57	$77.22
Spouse's Monthly Earnings[iv]	$1,261.28	$1,791.78	$132.50	$470.02	$1,900.61	$1,942.93
Monthly Family Income	$1,741.94	$1,909.99	$859.34	$1,134.17	$2,241.83	$2,073.31
Held Job in Last 16 Months	40.93%		0.4103		0.4087	
Wage at Previous Job	$5.42	$4.28	$6.01	$4.39	$5.07	$4.19
Hours per Week at Previous Job	31.73	12.73	33.67	13.28	30.59	12.29
Age	36.62	12.25	38.73	13.61	35.43	11.24
Male	11.66%		32.23%			
Married	71.39%		20.88%			
Black	12.32%		27.84%		3.53%	

Unemployed

	Full Sample (N=657)		Heads (N=415)		Wives (N=242)	
	Mean	St. Dev.	Mean	St. Dev.	Mean	St. Dev.
Household Net Worth	$32,477	$75,533	$23,856	$46,460	$47,261	$107,118
Reservation Wage	$5.37	$3.50	$5.85	$4.00	$4.54	$2.17
# of Direct Employer Contacts	7.114	7.587	8.13	8.268	5.372	5.869
# of Search Methods	1.046	0.261	1.058	0.297	1.025	0.18
Receive Unemployment Insurance	28.61%		30.60%		0.25	
Monthly U.I. Amount[v]	$483.17	$259.83	$545.45	$293.39	$353.51	$179.05
Receive AFDC	11.57%		16.14%		3.72%	
Monthly AFDC Payment[vi]	$347.74	$166.21	$344.49	$165.83	$371.89	$177.14
Receive Food Stamps	20.70%		28.19%		7.85%	
Monthly Food Stamp Amount[vii]	$151.10	$70.68	$147.92	$71.03	$170.63	$66.99
Spouse's Monthly Earnings[viii]	$678.47	$1,077.06	$279.98	$677.19	$1,361.84	$1,275.73
Monthly Family Income	$1,244.09	$1,200.93	$926.00	$1,004.56	$1,789.59	$1,311.17
Held Job in Last 16 Months	73.97%		74.94%		72.31%	
Wage at Previous Job	$6.91	$5.02	$7.64	$5.66	$5.59	$3.19
Hours per Week at Previous Job	35.16	12.38	37.76	11.62	30.46	12.35
Age	36.46	12.09	37.20	12.31	35.20	11.61
Male	39.42%		62.41%			
Married	64.99%		44.58%			
Black	14.76%		17.11%		10.74%	

[i] Among individuals receiving U.I. payments.
[ii] Among individuals receiving AFDC payments.
[iii] Among individuals receiving Food Stamps.
[iv] Among married individuals.
[v] Among individuals receiving U.I. payments.
[vi] Among individuals receiving AFDC payments.
[vii] Among individuals receiving Food Stamps.
[viii] Among married individuals.

TABLE II: Distribution of Wealth in 1984 Dollars
Representative Panel and Reservation Wage Sample, 1984 SIPP

1984 SIPP Representative Panel

Percentile of Net Worth[i]	Full Sample	Heads	Wives
	(N=21108)	(N = 12597)	(N=8511)
10%	$0.00	$0.00	$576.80
25%	$5,358.00	$3,350.00	$10,469.00
50%	$34,773.50	$28,000.00	$44,526.00
75%	$86,552.00	$78,197.50	$99,314.00
90%	$173,069.50	$158,440.00	$190,448.60

Reservation Wage Sample

Percentile of Net Worth	Full Sample	Heads	Wives
	(N=1412)	(N=759)	(N=653)
10%	-$332.40	-$750.00	$0.00
25%	$200.00	$0.00	$2,209.50
50%	$9,542.50	$2,610.00	$21,350.00
75%	$48,382.50	$32,603.00	$62,251.50
90%	$107,417.30	$92,075.00	$133,325.40

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[i] Net worth is defined as total wealth minus total unsecured debt, where total wealth includes the household's home equity, net equity in vehicles, business equity, interest earning assets held in banking and other institutions, equity in stocks and mutual fund shares, equity in other real estate, total of mortgages held, money owed from sale of business, bonds, IRA and Keogh accounts.

TABLE III: Search Methods

Unemployed Job Seekers, 1984 SIPP

	Full Sample N=657	Male Heads N=259	Female Heads N=156	Wives N=242
Search Methods:				
Contacting Employers	90.87%	90.35%	91.67%	90.91%
# of Employers Contacted Last Month	7.11	9.09	6.53	5.37
Methods Other Than Direct Contact[i]	9.13%	9.13%	8.33%	9.09%
Unemployment Office	3.81%	3.09%	5.13%	3.72%
Private Agency	0.61%	0.39%	0.00%	1.24%
Friends and Relatives	3.50%	3.86%	3.85%	2.89%
Other Methods	5.78%	7.72%	5.77%	3.72%

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[i] The percent of individuals who report searching using at least one method other than direct employer contact.

TABLE IV: Comparison of Hourly Wages and Reservation Wages
by Demographic Group and Reservation Wage Level

	Full Sample	Heads	Wives	Unemployed	Out of Labor Force
	N=1412	N=688	N=724	N=755	N=657
	(1)	(2)	(3)	(4)	(5)
Reservation Wage	$4.97	$5.55	$4.41	$5.37	$4.57
% Previous Wage Observed[i]	52.41%	58.28%	46.82%	70.78%	36.42%
Previous Wage	$6.35	$7.22	$5.32	$6.91	$5.42
Previous Wage – Reservation Wage[ii]	$0.97	$1.21	$0.69	$1.16	$0.66
% Previous Wage ≥ Reservation Wage	57.03%	57.61%	56.34%	59.57%	52.73%
% Accepted Wages Observed	45.82%	46.51%	45.17%	57.38%	35.76%
Accepted Wage	$7.18	$8.14	$6.24	$8.11	$5.87
Accepted Wage – Reservation Wage[iii]	$2.01	$2.30	$1.73	$2.59	$1.20
% Accepted Wage ≥ Reservation Wage	72.22%	71.65%	72.78%	73.28%	70.74%

	Level of the Reservation Wage				
	< $3.35	= $3.35[iv]	= $3.36-$4.00	= $4.01-$5.00	> $5.00
	N=90	N=438	N=288	N=245	N=351
	(6)	(7)	(8)	(9)	(10)
Reservation Wage	$2.39	$3.35	$3.79	$4.85	$8.68
% Previous Wage Observed	50.00%	42.69%	51.74%	50.20%	67.24%
Previous Wage	$3.90	$4.46	$4.54	$6.24	$9.52
Previous Wage – Reservation Wage[v]	$1.32	$1.11	$0.73	$1.43	$0.71
% Previous Wage ≥ Reservation Wage	77.78%	63.64%	59.00%	47.90%	51.20%
% Accepted Wages Observed	44.44%	39.95%	45.14%	47.35%	52.99%
Accepted Wage	$5.59	$5.31	$5.42	$7.64	$10.21
Accepted Wage – Reservation Wage[vi]	$3.19	$1.96	$1.63	$2.84	$1.55
% Accepted Wage ≥ Reservation Wage	97.50%	81.14%	73.85%	71.55%	57.75%

[i] The previous wage is the wage the individual received at his most recent job.
[ii] Calculated for individuals for whom the previous wage was observed.
[iii] Calculated for individuals for whom a wage after the non-employment spell was observed.
[iv] $3.35 was the minimum wage in 1984.
[v] Calculated for individuals for whom the previous wage was observed.
[vi] Calculated for individuals for whom a wage after the non-employment spell was observed.

Table V: Requirements for Unemployment Insurance Eligibility
By Type of Search Requirement
Workers on U.I. and Other Unemployed Workers

	# Obs.	# Employers Contacted	# Contacts Required For U.I. Eligibility[i]	Weeks Not Employed Last Month	% with Fewer Contacts than Required[i]
	(1)	(2)	(3)	(4)	(5)
Individuals Receiving Unemployment Insurance					
Full Sample	204	8.7402	6.3775	3.8529	35.29%
Contacts Required by Law[ii], No Variance in Requirements[iii]	49	9.9184	8.9592	4.0204	51.02%
Contacts Not Required by Law, No Variance in Requirements	24	7.0417	0	3.4167	0.00%
Contacts Required by Law, Variance in Requirements	68	7.75	5.1618	3.7941	30.88%
Contacts Not Required by Law, Variance in Requirements	63	9.5397	8.1111	3.9524	41.27%
Unemployed Individuals Not Receiving Unemployment Insurance					
Full Sample	469	6.1642	6.6119	3.7505	49.96%
Contacts Required by Law, No Variance in Requirements	79	6.5063	8.4937	3.9367	43.76%
Contacts Not Required by Law, No Variance in Requirements	39	4.9744	0	3.7692	0.00%
Contacts Required by Law, Variance in Requirements	163	6.0123	5.5583	3.6748	50.15%
Contacts Not Required by Law, Variance in Requirements	188	6.3989	8.1064	3.734	49.49%

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[i] For individuals not receiving benefits the number of contacts required is based on requirements if they were receiving benefits. The % with fewer contacts than required is also based on eligibility requirements if they were receiving benefits.

[ii] Takes the value of one if state law specifies that U.I. recipients must contact employers to maintain eligibility.

[iii] A state has variance in requirements if the state U.I. office had the discretion to alter the number of required contacts for individual U.I. recipients.

TABLE VI: Single Equation Tobit Estimates of the Search Intensity Equation
Dependent Variable: Number of Employers Contacted[i]
(Standard Errors in Parenthesis)[ii]

	Full Sample		Heads		Wives	
	Coef.	*S.E.*	*Coef.*	*S.E.*	*Coef..*	*S.E*
Wealth[iii]	-0.1114	(0.0696)	-0.2113	(0.1405)	-0.0644	(0.0731)
Wealth^2	0.0016***	(0.0006)	0.0015	(0.0026)	0.0012**	(0.0005)
U.I. Income[iv]	1.3387	(3.1169)	-1.8607	(3.6320)	11.1090*	(6.0668)
Other Family Income	-1.0126***	(0.3594)	-1.4794***	(0.5854)	-0.5989	(0.3689)
Looking for Part Time Work	-8.1781***	(0.8729)	-8.1913***	(1.3868)	-6.9846***	(1.0410)
Weeks Not Worked in Last Month	-0.0189	(0.3856)	0.9637*	(0.5240)	-1.2922***	(0.5422)
# Contacts Required in Past Month[v]	0.3787**	(0.2053)	0.1184	(1.8511)	0.4566**	(1.5667)
Head × # Required in Past Month	-0.2112	(2.3357)				
Variation in Required Contacts[vi]	0.5865	(0.3848)	-0.8023*	(0.4657)	0.7627**	(0.3871)
Head × Var. in Required Contacts	-1.1316*	(0.1694)				
Contacts Not Specified by Law[vii]	-4.4886***	(1.6933)	2.5441	(0.1718)	-4.1864***	(0.1843)
Head × Not Specified by Law	7.0037***	(0.5088)				
Expecting Recall from Layoff	-2.9235**	(1.1729)	-2.3228	(1.4570)	-4.0710**	(1.7992)
Get U.I.	1.0782	(2.1279)	3.9416	(2.8800)	-3.4850	(2.9530)
Receiving Aid[viii]	2.9611*	(1.5771)	2.5021	(1.6759)	2.3719	(1.4787)
Female × Receiving Aid	-2.1972	(1.8607)	-3.8244*	(2.2045)		
Weeks Since Last Worked	-0.2673***	(0.0820)	-0.2791**	(0.1178)	-0.1911*	(0.1045)
Weeks Since Last Worked^2	0.0023**	(0.0010)	0.0024	(0.0015)	0.0017	(0.0013)
Get U.I. × Weeks Since Last Worked	0.4298***	(0.1412)	0.3707*	(0.1947)	0.4846**	(0.2315)
Get U.I. × Weeks Since Last Worked^2	-0.0052**	(0.0021)	-0.0039	(0.0028)	-0.0080*	(0.0043)
Weeks Since Last Worked Censored	-2.2290**	(1.1151)	-2.0449	(1.7382)	-2.2132*	(1.2670)
Experience	0.1063	(0.0951)	0.0106	(0.1325)	0.2289*	(0.1257)
Experience^2	-0.0027	(0.0021)	-0.0001	(0.0028)	-0.0063**	(0.0028)
Highest Grade Competed	0.6921***	(0.1538)	0.8537***	(0.2202)	0.4829**	(0.1970)
Metropolitan Area	1.3901**	(0.6435)	1.8517*	(0.9662)	0.9681	(0.7826)
Constant	0.3330	(2.1400)	-3.1054	(2.4385)	6.4330***	(2.2442)
Selection Parameter	9.1332	-0.283	9.7076	-0.376	7.4931	-0.39
Number of Observations	1412		688		724	
Log Likelihood	-2512		-1564		-924	
Pseudo R2	0.107		0.0751		0.131	

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[i] The regressions also include indicators for head, married, male, children interacted with male, and black.

[ii] Standard errors are corrected for heteroskedasticity.

[iii] Wealth is measured in $10,000.

[iv] U.I income and Other Family Income are measured in $1000 per month.

[v] The number of contacts required per week for U.I. recipients multiplied by the number of weeks the individuals has received U.I. in the past month.

[vi] An indicator which takes the value of one if the state indicated that there was some variation in whether workers were in fact required to contact employers, multiplied by the number of weeks the individual received U.I. in the past month.

[vii] An indicator which takes the value of one if the state requires U.I. recipients to contact employers.

[viii] An indicator which is equal to one if the individual is currently receiving AFDC or Food Stamps.

*** indicates statistical significance at the 1% level, ** at the 5% level and * at the 10% levels respectively.

TABLE VII: Simultaneous Equation Estimation: Full Sample
(Standard Errors in Parenthesis)[i]

Dependent Variable:	Reservation Wage[ii]		Job Offer		Search Effort		Wealth	
	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.	Coef.	S.E.
Wealth[iii]	0.0339**	(0.0132)			-0.1114	(0.0697)		
Wealth^2	-0.0001	(0.0001)			0.0016***	(0.0006)		
U.I. Income	0.2924***	(0.0618)			1.3387	(3.0925)		
Other Family Income	0.0230***	(0.0075)			-1.0126***	(0.3592)		
Income from Aid[iv]	-0.0629	(0.0877)						
Female × Income from Aid	0.2493**	(0.1047)						
Log State Average Wage	0.2599	(0.1792)						
Min. State U.I. Benefit	-0.0015**	(0.0007)						
Cost of Living Index	0.0078***	(0.0026)						
Unemployed	0.0748	(0.0477)						
Looking for Specific Job	0.1198***	(0.0181)	0.6734***	(0.1632)				
Looking for Part Time work	-0.1021***	(0.0228)	-0.0596	(0.1771)	-8.1781***	(0.8729)		
Good Chance of Searching			0.6825***	(0.1797)				
Number of Direct Contacts			0.1714***	(0.0458)				
Max. State U.I. Employer Tax			-0.0491	(0.0426)				
State Unemployment Rate			-0.1031**	(0.0466)				
Weeks not Worked last Month					-0.0189	(0.2025)		
# of Required Contacts[v]					0.3787**	(0.1675)		
Head × # of Required Contacts					-0.2112	(0.2055)		
Variation in Required Contacts[vi]					0.5865	(0.3845)		
Head × Var. in Req, Contacts					-1.1316**	(0.5072)		
Contacts Not Specified by Law[vii]					-4.4886***	(1.6931)		
Head × Not Specified by Law					7.0037***	(2.3335)		
Expect to be Recalled					-2.9235**	(1.1723)		
Lagged Other Family Income							1.2200*	(0.7436)
Getting U.I.					1.0782	(2.1153)		
Getting Aid					2.9611*	(1.5764)		
Female × Getting Aid					-2.1972	(1.8607)		
Lagged Own Earnings							0.8823***	(0.2203)
Unemployed in Wave 4							-0.7559**	(0.3690)
Weeks Since Last Worked	-0.0018	(0.0029)	-0.0667***	(0.0143)	-0.2673***	(0.0743)		
Weeks Since Last Worked^2	0.0000	(0.0000)	0.0006***	(0.0002)	0.0023**	(0.0009)		
Unemp. × Weeks Since Worked	-0.0049	(0.0032)						
Unemp. × Weeks Since Worked^2	0.0000	(0.0000)						
Get U.I. × Weeks Since Worked					0.4298***	(0.1409)		
Get U.I. × Weeks Since					-0.0052**	(0.0021)		
Constant	-0.2195	(0.2332)	2.1753	(0.6578)	0.3330	(1.9091)	-3.0754	(1.4620)
Standard Deviation of Errors	0.6279***	(0.0698)			2.5531***	(0.1358)	3.0221***	(0.0594)
Correlation of errors with e	0.4641***	(0.0698)			0.0231	(0.0473)		
Correlation between ε and υ	-0.4622***	(0.1679)						

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[i] Standard errors are corrected for heteroskedasticity.

[ii] The reservation wage, job offer, and search effort equations also include experience, experience squared, an indicator for metropolitan area, highest grade completed, head and black. The wealth equation also includes age, age squared, , an indicator for metropolitan area, highest grade completed, and black.

[iii] Wealth is measured in $10,000. Other family income, U.I. benefits, and income from aid are measured in $1000.

[iv] Income from Food Stamps or AFDC.

[v] The number of employers U.I. regulations required the individual to make last month. Is equal to zero for individuals not on U.I..

[vi] An indicator which takes the value of one if the there is variation in state U.I. search requirements, interacted with the number of weeks the individual received U.I. payments.

[vii] An indicator which takes the value of one if state U.I. search requirements are not specified by law.

*** indicates statistical significance at the 1% level, ** at the 5% level and * at the 10% levels respectively.

TABLE VIII: Simultaneous Equation Estimation: Heads

(Standard Errors in Parenthesis) [i]

Dependent Variable:	Reservation Wage[ii]		Job Offer		Search Effort		Wealth	
	Coef.	*S.E.*	*Coef.*	*S.E.*	*Coef.*	*S.E.*	*Coef.*	*S.E.*
Wealth[iii]	0.0509**	(0.0229)			-0.2113	(0.1412)		
Wealth^2	-0.0004***	(0.0001)			0.0015	(0.0026)		
U.I. Income	0.3304***	(0.0707)			-1.8607	(3.6478)		
Other Family Income	0.0251	(0.0197)			-1.4794***	(0.5850)		
Income from Aid[iv]	-0.0530	(0.0893)						
Female × Income from Aid	0.2164*	(0.1208)						
Log State Average Wage	0.0385	(0.2708)						
Minimum State U.I. Benefit	-0.001	(0.0010)						
Cost of Living Index	0.0107***	(0.0037)						
Unemployed	0.1272*	(0.0702)						
Looking for Specific Job	0.1984***	(0.0267)	1.1297***	(0.3094)				
Looking for Part Time work	-0.031	(0.0434)	0.306	(0.4655)	-8.1913***	(1.3891)		
Good Chance of Searching			0.762**	(0.3829)				
Number of Direct Contacts			0.2388***	(0.0827)				
Max. State U.I. Employer Tax			0.0925	(0.0710)				
State Unemployment Rate			-0.212**	(0.0874)				
Weeks not Worked last Month					0.9637*	(0.5248)		
# of Required Contacts[v]					0.1184	(0.1717)		
Variation in Required Contacts[vi]					-0.8023*	(0.4654)		
Contacts Not Specified by Law[vii]					2.5441	(1.8499)		
Expect to be Recalled					-2.3228*	(1.4564)		
Getting U.I.					3.9416	(2.9094)		
Getting Aid					2.5021	(1.6797)		
Female × Getting Aid					-3.8244*	(2.2038)		
Lagged Other Family Income							1.014	(0.8292)
Lagged Own Earnings							0.6385***	(0.2280)
Unemployed in Wave 4							-0.655*	(0.4123)
Weeks Since Last Worked	0.0023	(0.0046)	-0.075***	(0.0232)	-0.2791**	(0.1179)		
Weeks Since Last Worked^2	0.0000	(0.0001)	0.0008***	(0.0003)	0.0024	(0.0015)		
Unemp. × Weeks Since Worked	-0.012***	(0.0048)						
Unemp. × Weeks Since Worked^2	0.0002**	(0.0001)						
Get U.I. × Weeks Since Worked					0.3707**	(0.1951)		
Get U.I. × Weeks Since Worked^2					-0.0039	(0.0028)		
Constant	-0.269	(0.3537)	2.0519*	(1.1763)	-3.1054	(2.6741)	-0.227	(1.7397)
Standard Deviation of Errors	0.6383***	(0.0423)			2.2902***	(0.1744)	3.1157***	(0.0677)
Correlation of errors with e	0.5464***	(0.0848)			-0.036	(0.0728)		
Correlation between ε and υ	-0.4452***	(0.2385)						

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[i] Standard errors are corrected for heteroskedasticity.
[ii] The reservation wage, job offer, and search effort equations also include experience, experience squared, an indicator for metropolitan area, highest grade completed, head and black. The wealth equation also includes age, age squared, , an indicator for metropolitan area, highest grade completed, and black.
[iii] Wealth is measured in $10,000. Other family income, U.I. benefits, and income from aid are measured in $1000.
[iv] Income from Food Stamps or AFDC.
[v] The number of employers U.I. regulations required the individual to make last month. Is equal to zero for individuals not on U.I..
[vi] An indicator which takes the value of one if the there is variation in state U.I. search requirements, interacted with the number of weeks the individual received U.I. payments.
[vii] An indicator which takes the value of one if state U.I. search requirements are not specified by law.
*** indicates statistical significance at the 1% level, ** at the 5% level and * at the 10% levels respectively.

TABLE IX: Simultaneous Equation Estimation: Wives

(Standard Errors in Parenthesis) [i]

Dependent Variable:	Reservation Wage[ii]		Job Offer		Search Effort		Wealth	
	Coef.	*S.E.*	*Coef.*	*S.E.*	*Coef.*	*S.E.*	*Coef.*	*S.E.*
Wealth[iii]	0.0273 **	(0.0122)			-0.0644	(0.0730)		
Wealth^2	0.0000	(0.0000)			0.0012 **	(0.0005)		
U.I. Income	0.0781	(0.1055)			11.1090 *	(6.0616)		
Other Family Income	0.0208 ***	(0.0071)			-0.5989	(0.3688)		
Income from Aid[iv]	0.1073	(0.1117)						
Log State Average Wage	0.3926 *	(0.2289)						
Min. State U.I. Benefit	-0.0011	(0.0009)						
Cost of Living Index	0.0044	(0.0034)						
Unemployed	0.0510	(0.0614)						
Looking for Specific Job	0.0319	(0.0228)	0.3631	(0.3630)				
Looking for Part Time work	-0.1242 ***	(0.0269)	0.2219	(0.4384)	-6.9846 ***	(1.0403)		
Good Chance of Searching			1.3237***	(0.4598)				
Number of Direct Contacts			4.6805***	(1.3886)				
Max. State U.I. Employer Tax			-0.2367**	(0.1068)				
State Unemployment Rate			-0.0183	(0.0847)				
Weeks not Worked last Month					-1.2922 **	(0.5419)		
# of Required Contacts[v]					0.4566 **	(0.1842)		
Variation in Required Contacts[vi]					0.7627 **	(0.3868)		
Contacts Not Specified by Law[vii]					-4.1864 ***	(1.5657)		
Expect to be Recalled					-4.0710 **	(1.7980)		
Getting U.I.					-3.4850	(2.9516)		
Getting Aid					2.3719	(1.4777)		
Unemp. in Wave 4							-0.6252	(0.6043)
Lagged HH Income							1.9837 **	(0.7610)
Lagged Own Earnings							0.9503 ***	(0.2795)
Weeks Since Last Worked	-0.0020	(0.0036)	-0.0518	(0.0380)	-0.1911 *	(0.1045)		
Weeks Since Last Worked^2	0.0000	(0.0000)	0.0004	(0.0004)	0.0017	(0.0013)		
Unemp. × Weeks Since Worked	0.0015	(0.0043)						
Unemp. × Weeks Since Worked^2	-0.0001	(0.0001)						
Get U.I. × Weeks Since Worked					0.4846 **	(0.2315)		
Get U.I. × Weeks Since					-0.0080 *	(0.0043)		
Constant	-0.1318	(0.3010)	4.1762**	(1.9137)	6.4330 ***	(2.2428)	-4.9705 *	(2.6334)
Standard Deviation of Errors	0.605 ***	(0.0399)			2.7313 ***	(0.1912)	2.7374 ***	(0.1062)
Correlation of errors with e	0.3831 ***	(0.0986)			0.081	(0.0601)		
Correlation between ε and υ	-0.5105 ***	(0.1846)						

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[i] Standard errors are corrected for heteroskedasticity.

[ii] The reservation wage, job offer, and search effort equations also include experience, experience squared, an indicator for metropolitan area, highest grade completed, head and black. The wealth equation also includes age, age squared, , an indicator for metropolitan area, highest grade completed, and black.

[iii] Wealth is measured in $10,000. Other family income, U.I. benefits, and income from aid are measured in $1000.

[iv] Income from Food Stamps or AFDC.

[v] The number of employers U.I. regulations required the individual to make last month. Is equal to zero for individuals not on U.I..

[vi] An indicator which takes the value of one if the there is variation in state U.I. search requirements, interacted with the number of weeks the individual received U.I. payments.

[vii] An indicator which takes the value of one if state U.I. search requirements are not specified by law.

*** indicates statistical significance at the 1% level, ** at the 5% level and * at the 10% levels respectively.

TABLE X: The Elasticity of Number of Employer Contacts
With Respect to Wealth, U.I. Benefit Level and Required Contacts

	# of Employers Contacted Last Month (1)	Wealth (2)	$\dfrac{\%\Delta\#\,of\,Contacts}{\%\Delta Wealth}$ [i] (3)	U. I. Benefit Level (4)	$\dfrac{\%\Delta\#\,of\,Contacts}{\%\Delta Benefit\,Level}$ (5)	# Required[ii] Contacts (6)	$\dfrac{\%\Delta\#\,of\,Contacts}{\%\Delta Re\,quired\,Contacts}$ (7)
Full Sample:							
All Individuals	3.31	$37,886.84	-0.113				
Unemployed	7.11	$32,477.46	-0.041				
Receiving U.I.	8.74	$32,391.89	-0.03	$477.27	0.064	1.672	0.151
Heads:							
All Individuals	4.90	$27,552.80	-0.114				
Unemployed	8.13	$23,856.59	-0.055				
Receiving U.I.	10.06	$30,538.31	-0.045	$544.62	-0.089	1.692	0.068
Wives:							
All Individuals	1.80	$47,707.03	-0.141				
Unemployed	5.37	$47,261.17	-0.042				
Receiving U.I..	6.21	$35,940.17	-0.029	$348.36	0.534	1.578	0.377

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[i] The elasticities are calculated at the mean of the independent variables.
[ii] The number of employers individuals on U.I. are required to contact each week to maintain eligibility.

TABLE XI: The Elasticity of the Probability of a Job Offer With Respect to
Wealth, the U.I. Benefit Level, and the Required Number of Contacts

		Probability of Offer (1)	Wealth (2)	$\frac{\%\Delta P(Offer)}{\%\Delta Wealth}$ [i] (3)	U. I. Benefit Level (4)	$\frac{\%\Delta P(Offer)}{\%\Delta Benefit\ Level}$ (5)	# Required[ii] Contacts (6)	$\frac{\%\Delta P(Offer)}{\%\Delta Required\ Contacts}$ (7)
Full Sample								
All Individuals	16-month	87.19%	$37,886.84	-0.019				
	4-month	42.33%		-0.016				
Unemployed	16-month	99.05%	$32,477.46	-0.003				
	4-month	61.00%		-0.011				
Receiving U.I.	16-month	99.98%	$32,391.89	0.000	$477.27	0.0002	1.672	0
	4-month	76.74%		-0.008		0.0162		0.038
Heads								
All Individuals	16-month	96.49%	$27,552.80	-0.016				
	4-month	44.98%		-0.024				
Unemployed	16-month	99.99%	$23,856.59	0.000				
	4-month	62.79%		-0.017				
Receiving U.I.	16-month	100.00%	$30,538.31	0.000	$544.62	0.000	1.692	0
	4-month	80.17%		-0.013		-0.024		0.019
Wives								
All Individuals	16-month	100.00%	$47,707.03	0.000				
	4-month	63.18%		-0.066				
Unemployed	16-month	100.00%	$47,261.17	0.000				
	4-month	99.89%		-0.001				
Receiving U.I..	16-month	100.00%	$35,940.17	0.000	$348.36	0.000	1.578	0
	4-month	100.00%		0.000		0.000		0

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[i] The elasticities are calculated at the mean of the independent variables.
[ii] The number of employers individuals on U.I. are required to contact each week to maintain eligibility.

TABLE XII: The Elasticity of the Reservation Wage

With Respect to Wealth and U.I. Benefits

	Reservation Wage	Net Worth	$\dfrac{\%\Delta \mathrm{Re}\,servation\,Wage}{\%\Delta Wealth}$ [i]	U. I. Benefit Level	$\dfrac{\%\Delta \mathrm{Re}\,servation\,Wage}{\%\Delta Benefit\,\text{Levels}}$
	(1)	(2)	(3)	(4)	(5)
Full Sample:					
All Individuals	$4.97	$37,886.84	0.126		
Unemployed	$5.34	$32,477.46	0.107		
Receiving U.I.	$6.05	$32,391.89	0.099	$477.27	0.143
Heads					
All Individuals	$5.55	$27,552.80	0.133		
Unemployed	$5.84	$23,856.59	0.117		
Receiving U.I.	$6.84	$30,538.31	0.123	$544.62	0.182
Wives					
All Individuals	$4.41	$47,707.03	0.130		
Unemployed	$4.47	$47,261.17	0.126		
Receiving U.I..	$4.45	$35,940.17	0.107	$348.36	0.028

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[i] The elasticities are calculated at the mean of the independent variables.

TABLE XIII: The Elasticity of the Probability of Job Acceptance

With Respect to Wealth, U.I. Benefit Level, and the Required Number of Contacts

		Probability of Acceptance (1)	Wealth (2)	$\frac{\%P(Acceptance)}{\%\Delta Wealth}$ [i] (3)	U. I. Benefit Level (4)	$\frac{\%P(Acceptance)}{\%\Delta Benefit\ Levels}$ (5)
Full Sample						
All Individuals	16-month	62.76%	$37,886	-0.137		
Unemployed	16-month	65.64%	$32,477	-0.109		
Receiving U.I.	16-month	65.89%	$32,391	-0.100	$477.27	-0.144
Heads						
All Individuals	16-month	59.96%	$27,552	-0.164		
Unemployed	16-month	65.48%	$23,856	-0.125		
Receiving U.I.	16-month	67.67%	$30,538	-0.124	$544.62	-0.184
Wives						
All Individuals	16-month	56.41%	$47,707	-0.161		
Unemployed	16-month	58.61%	$47,261	-0.148		
Receiving U.I..	16-month	61.12%	$35,940	-0.119	$348.36	-0.031

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[i] The elasticities are calculated at the mean of the independent variables.

TABLE XIV: The Elasticity of the Probability of Transition to Employment

With Respect to Wealth, U.I. Benefit Level, and the Required Number of Contacts

		Probability of Transition (1)	Wealth (2)	$\dfrac{\%\Delta P(Transition)}{\%\Delta Wealth}$ [i] (3)	U. I. Benefit Level (4)	$\dfrac{\%\Delta P(Transition)}{\%\Delta U.I.Benefit}$ (5)	Required Contacts[ii] (6)	$\dfrac{\%\Delta P(Transition)}{\%\Delta RequiredContacts}$ (7)
Full Sample								
All Individuals	16-month	0.547	$37,886	-0.157				
Unemployed	16-month	0.65	$32,477	-0.111				
Receiving U.I.	16-month	0.659	$32,391	-0.1	$477.27	-0.144	1.672	0
Heads								
All Individuals	16-month	0.579	$27,552	-0.18				
Unemployed	16-month	0.655	$23,856	-0.125				
Receiving U.I.	16-month	0.677	$30,538	-0.124	$544.62	-0.184	1.692	0
Wives								
All Individuals	16-month	0.564	$47,707	-0.161				
Unemployed	16-month	0.586	$47,261	-0.148				
Receiving U.I..	16-month	0.611	$35,940	-0.119	$348.36	-0.031	1.578	0

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[i] The elasticities are calculated at the mean of the independent variables.
[ii] The number of employers individuals on U.I. are required to contact each week to maintain eligibility.
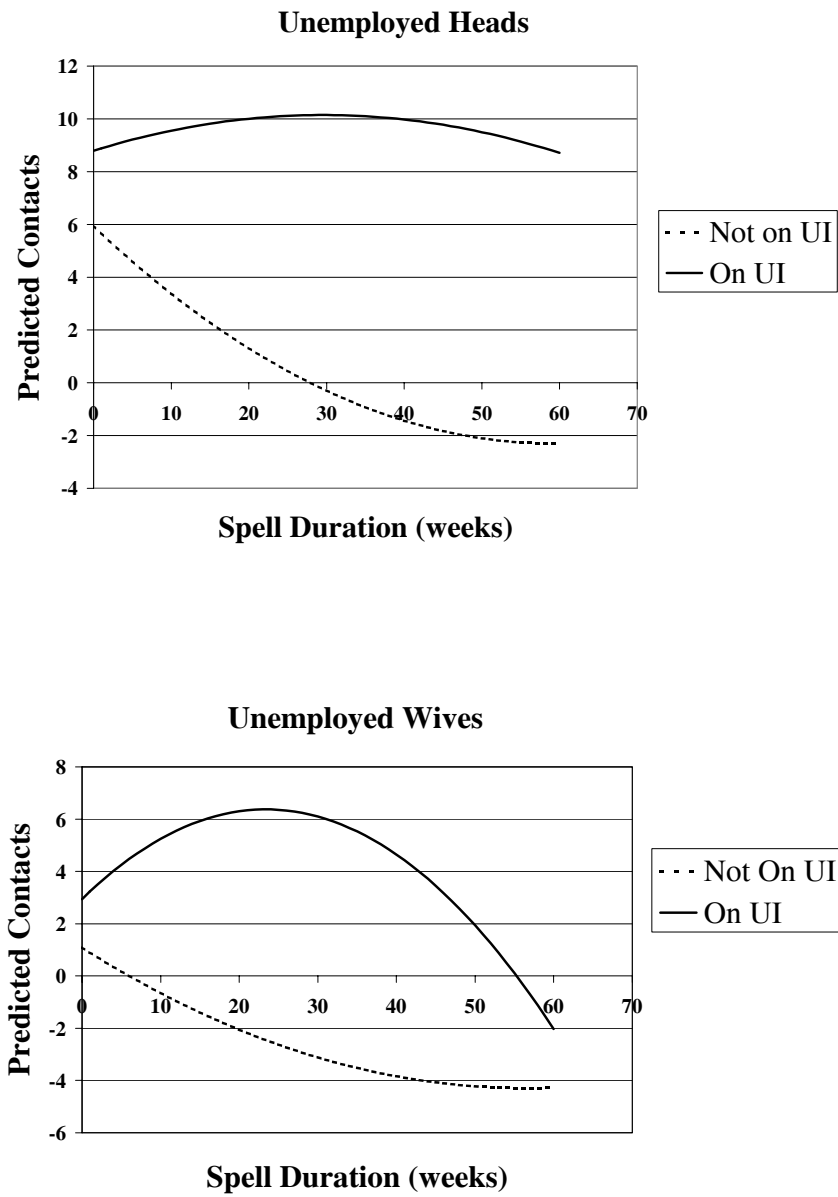
TABLE XV: Decomposition of the Elasticity of the Probability of Transition

With Respect to Wealth and the U.I. Benefit Level (Percent of Effect in Parenthesis)

Decomposition of the Elasticity of the Probability of Transition with respect to Wealth

	Full Sample			Heads			Wives		
	$\frac{\%\Delta P(Accept)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Offer)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Trans)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Accept)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Offer)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Trans)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Accept)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Offer)}{\%\Delta Wealth}$	$\frac{\%\Delta P(Trans)}{\%\Delta Wealth}$
	(1)	(2)	(3)=(1)+(2)	(4)	(5)	(6)=(4)+(5)	(7)	(8)	(9)=(7)+(8)
All Individuals									
16 Month	-0.137	-0.019	-0.157	-0.164	-0.016	-0.180	-0.161	0.000	
	(87.6%)	(12.4%)	(100.0%)	(90.9%)	(9.1%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)
4 Month	-0.133	-0.016	-0.149	-0.160	-0.024	-0.184	-0.161	-0.066	-0.227
	(89.4%)	(10.6%)	(100.0%)	(86.8%)	(13.2%)	(100.0%)	(71.0%)	(29.0%)	(100.0%)
Unemployed									
16 Month	-0.109	-0.003	-0.111	-0.125	0.000	-0.125	-0.148	0.000	-0.148
	(97.4%)	(2.6%)	(100.0%)	(99.9%)	(0.1%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)
4 Month	-0.106	-0.011	-0.117	-0.123	-0.017	-0.140	-0.150	-0.001	-0.151
	(90.5%)	(9.5%)	(100.0%)	(87.7%)	(12.3%)	(100.0%)	(99.3%)	(0.7%)	(100.0%)
Unemployed on U.I.									
16 Month	-0.100	0.000	-0.100	-0.124	0.000	-0.124	-0.119	0.000	-0.119
	(99.9%)	(0.1%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)
4 Month	-0.098	-0.008	-0.106	-0.124	-0.013	-0.137	-0.122	0.000	-0.122
	(92.5%)	(7.5%)	(100.0%)	(90.4%)	(9.6%)	(100.0%)	(100.0%)	(0.0%)	(100.0%)

Decomposition of the Elasticity of the Probability of Transition with Respect to Unemployment Insurance Benefit Levels

	Full Sample			Heads			Wives		
	$\frac{\%\Delta P(Accept)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Offer)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Trans)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Accept)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Offer)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Trans)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Accept)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Offer)}{\%\Delta U.I.}$	$\frac{\%\Delta P(Trans)}{\%\Delta U.I.}$
	(1)	(2)	(3)=(1)+(2)	(4)	(5)	(6)=(4)+(5)	(7)	(8)	(9)=(7)+(8)
Unemployed on U.I.									
. 16 Month	-0.144	0.000	-0.144	-0.184	0.000	-0.184	-0.031	0.000	-0.031
	(100.1%)	-(0.1%)	(100.0%)	(100.0%)	(00.0%)	(100.0%)	(100.0%)	(00.0%)	(100.0%)
4 Month	-0.154	0.016	-0.138	-0.194	-0.024	-0.218	-0.062	0.000	-0.062
	(111.7%)	-(11.7%)	(100.0%)	(88.9%)	(11.1%)	(100.0%)	(100.0%)	(00.0%)	(100.0%)

Appendix A
Table A: Wage Offer Distribution and the Selection Equation
Dependent Variable: Log Wage

Heads and Wives

Wage Equation	Full Sample		Wives		Heads	
	Coef.	*S.E.*	*Coef.*	*S.E.*	*Coef.*	*S.E.*
Highest Grade	0.0891	0.0020	0.0934	0.0042	0.0896	0.0022
Experience	0.0380	0.0020	0.0174	0.0024	0.0377	0.0020
Experience^2	-0.0006	0.0000	-0.0003	0.0001	-0.0006	0.0000
Female×Experience	-0.0217	0.0027			-0.0208	0.0038
Female×Experience^2	0.0003	0.0001			0.0003	0.0001
Black	-0.1015	0.0160	0.0089	0.0331	-0.1319	0.0186
Male	-0.4793	0.1303			-0.2329	0.2188
Head	0.1174	0.0229				
Married	0.0868	0.0156			0.0845	0.0157
Part-Time	-0.2287	0.0356	-0.1486	0.0443	-0.3177	0.0611
Hours	0.0287	0.0049	0.0044	0.0048	0.0235	0.0056
Hours^2	-0.0003	0.0000	0.0000	0.0001	-0.0003	0.0001
Female×Hours	-0.0246	0.0059			-0.0114	0.0109
Female×Hours^2	0.0003	0.0001			0.0001	0.0001
Inverse Mills Ratio	-0.0785	0.0790	0.2184	0.1091	-0.1457	0.1145
Intercept	1.1147	0.1073	1.0036	0.1219	1.1342	0.2497

Selection Equation	Full Sample		Wives		Heads	
	Coef.	*S.E.*	*Coef.*	*S.E.*	*Coef.*	*S.E.*
Highest Grade	0.0400	0.0042	0.0810	0.0068	0.0157	0.0054
Experience	0.0090	0.0049	0.0365	0.0049	0.0104	0.0050
Experience^2	-0.0007	0.0001	-0.0012	0.0001	-0.0008	0.0001
Female×Experience	0.0290	0.0064			0.0444	0.0095
Female×Experience^2	-0.0006	0.0001			-0.0010	0.0002
Black	0.1315	0.0360	0.3667	0.0617	0.0120	0.0439
Male	0.2243	0.0715			0.2006	0.0962
Head	0.4271	0.0514				
Married	0.0312	0.0418			0.0019	0.0424
Any Children	0.0044	0.0417	-0.2423	0.0450	-0.0186	0.0423
Any Children <6	-0.0733	0.0446	-0.1771	0.0391	-0.0551	0.0458
Female×Any Children	-0.4207	0.0536			-0.7781	0.0818
Female×Any Children <6	0.0006	0.0550			0.2990	0.0914
Spouses Earnings	0.0002	0.0000	0.0001	0.0000	0.0002	0.0000
Other Family Income	-0.0002	0.0000	-0.0002	0.0000	-0.0002	0.0000
Unemployed	-2.7808	0.1167	-2.2821	0.1895	-2.9899	0.1396
Intercept	0.1706	0.0642	-0.0372	0.0619	0.7570	0.0859
Log Likelihood	20898.41		-8290.81		-12498.41	
N	21255		8570		12685	
Censored	8083		4294		3789	
Uncensored	13172		4276		8896	

Figure I: Predicted Employer Contacts by Unemployed Individuals[i]

Unemployed Heads

Predicted Contacts (y-axis)

Spell Duration (weeks) (x-axis)

Legend:
- · · · Not on UI
- —— On UI

Unemployed Wives

Predicted Contacts (y-axis)

Spell Duration (weeks) (x-axis)

Legend:
- · · · Not On UI
- —— On UI

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[i] The predicted number of contacts is calculated for each unemployed individual at the actual value of all variables except duration. The mean of these predicted values for the relevant group is graphed for various values of spell duration.