



Böheim:

## The association between reported and calculated reservation wages

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# The association between reported and calculated reservation wages \*

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## Abstract

Do reported reservation wages correspond to the concept of reservation wages that economists have? Using panel data on British unemployed I calculate reservation wages from a search model and compare these with reported reservation wages. It is shown that men's reported reservation wages are greater than what the model predicts, and that for women there is hardly a relation between the two variables.

*Keywords:* Reservation wage, search model, BHPS.

*JEL classification:* J64.

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# 1 Reported reservation wages and search theory

The reservation wage of economists' search models is not observed. Economists in the past, e.g. [Dolton and van der Klaauw \(1995\)](#); [Jones \(1988\)](#); [Lancaster \(1985\)](#); [Lancaster and Chesher \(1983\)](#), have used responses to questions such as "What is the lowest wage you would be willing to accept?" to describe the search behaviour of the unemployed.

Do reported reservation wages correspond to the concept of reservation wages that economists have? <sup>1</sup> For example, [Dawes \(1993\)](#), in a study of long-term British unemployed, stated that "the concept of the reservation wage is misleading" (p.31–2). He concluded that, for the long-term unemployed, responses to questions like those above indicate subsistence requirements rather than self perceived labour market value. He also concluded that reservation wages appear to have no predictive value in terms of indicating the likelihood of accepting an offer or the wages actually received. His sample consisted of unemployed claimants who had been claiming benefits for at least six months, i.e. a selected subgroup of the population, and it is not clear whether this conclusion is true for the whole population.

Analyses of reservation wages and comparisons with benefits received (e.g. [Shaw et al. \(1996\)](#)), wage expectations (e.g. [Dawes \(1993\)](#), or the threshold level of benefit eligibility (e.g. [Marsh and McKay \(1993\)](#)) regularly focus on subgroups, such as lone parents, the long-term unemployed, or benefit claimants. There has been no study using British data that attempts to compare reported reservation wages with reservation wages which are derived from a job search model for the whole working-age population.

To my knowledge, Schmidt's and Winkelmann's (1993) study is the only one that relates reported reservation wages to the reservation wages that are implied by search theory, the distribution of accepted wages and completed unemployment durations. They used data for 1977 about German job seekers and found that reported reservation wages were "largely compatible" with those derived from the search model. By this they meant that reported reservation wages and the reservation wages calculated from their model were on average the same. A regression of calculated reservation wages on reported reservation wages yielded an intercept of zero and a slope of one.

I use reservation wage and unemployment duration data from the British Household Panel Survey (BHPS) covering the years 1991–7. At interest rates below 5% per annum the estimated relationship between men's reported and calculated reservation wages is compatible with the simple search model, i.e.

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<sup>1</sup>[Kasper \(1967\)](#) provides one of the first attempts at analysing this question.

I cannot reject the null hypothesis. For women, however, the hypothesised relationship is not borne out by the data.

## 2 The theoretical framework

To analyse the relationship between the theoretical concept of a reservation wage and reported values I use Schmidt's and Winkelmann's (1993) empirical model. In this model it is assumed that the wage offer distribution is constant over time. By assumption, one job offer is received each month. In the following, I denote the reported reservation wage for a person  $i$  at date  $t$  by  $\xi_{it}^r$  and the calculated reservation wage by  $\xi_{it}^c$ .

Figure 1 on page 21 illustrates the timing of events. At the interview in year  $t$  I observe whether individual  $i$  is unemployed or not. For each unemployed person I observe his or her reported reservation wage  $\xi_{it}^r$ . At a later date  $t + 1$  the same individuals are interviewed again. For those unemployed persons who accepted a job between  $t$  and  $t + 1$  the starting wage  $w_{i,t+s}$  is obtained, where  $s$  is the length of time between  $t$  and the acceptance of the job, with  $0 < s \leq 1$ . Combining the information from two adjacent interviews provides me with the reported reservation wage  $\xi_{it}^r$ , the completed unemployment duration, and the starting wage of the previously unemployed who accepted a job offer  $w_{i,t+s}$ .

The central part of the analysis is the calculation of reservation wages,  $\xi_{it}^c$ , using the theoretical restrictions of the search model. The calculated reservation wages are then compared to reported reservation wages, to investigate the association between the two. If the calculated reservation wage is the same in expectation than the reported reservation wage, a regression of reported reservation wages on calculated reservation wages should yield a zero intercept and a unit slope. Departures from these values may arise from either a misspecification of the theoretical model or a genuine difference between the theoretical concept of a reservation wage and reported values.

The theoretical model that describes the relationship between reservation wages and wages assumes that wages,  $w_{it}$ , and reservation wages,  $\xi_{it}$ , are each lognormally distributed (Schmidt and Winkelmann, 1993). Wages and reservation wages are represented by the following reduced form equations (ignoring individual subscripts  $i$  and time subscripts  $t$ ):

$$w = x_1\beta_1 + x_2\beta_2 + \epsilon_1 \quad \epsilon_1 \sim N(0, \sigma_w^2) \quad (1)$$

$$\xi^c = z_1\gamma_1 + z_2\gamma_2 + z_3\gamma_3 + \epsilon_2 \quad \epsilon_2 \sim N(0, \sigma_\xi^2), \quad \text{cov}(\epsilon_1, \epsilon_2) = \sigma_{w\xi}, \quad (2)$$

where the errors are normally distributed with mean zero, variances  $\sigma_w^2$  and  $\sigma_\xi^2 = 1$ , and with covariance  $\sigma_{w\xi}$ . The explanatory variables are contained in vectors  $x_1, x_2, z_1, z_2$  and  $z_3$ . The explanatory variables in the reservation wage equation are variables which affect offers alone,  $z_1$ , variables which affect both offers and search costs,  $z_2$ , and variables which affect search costs only,  $z_3$ . Similarly, the wage offer is a function of variables which affect offers alone,  $x_1 \equiv z_1$ , and variables which affect both wage offers and search costs,  $x_2 \equiv z_2$ . The explanatory variables of the reservation wage,  $z$ , differ from  $x$  by the variables which affect search costs alone,  $z_3$ . Under the null hypothesis that equation (2) is the correct model,  $\xi^c \equiv \xi^r$ .

At any point in time, neither  $w$  nor  $\xi^c$  are observed for each person. The distribution of reservation wages is truncated because only reservation wages greater than wage offers will be observed:

$$\begin{aligned} \xi^c - w &= z_1\gamma_1 + z_2\gamma_2 + z_3\gamma_3 + \epsilon_2 - x_1\beta_1 - x_2\beta_2 - \epsilon_1 > 0 & (3) \\ &= z\gamma - x\beta - \varepsilon \\ \text{where } &\quad \varepsilon = \epsilon_1 - \epsilon_2 \\ &\quad \varepsilon \sim N(0, \sigma^2), \quad \sigma^2 = \sigma_w^2 + \sigma_\xi^2 - 2\sigma_{w\xi}. \end{aligned}$$

A formula for the expected reservation wage can be obtained by using results on incidental truncation in a bivariate normal distribution ([Johnson and Kotz, 1972](#)). The function for the expected reservation wage, conditional on the reported reservation wage being greater than the offered wage, is then given by:

$$\begin{aligned} E[\xi^c | \xi^c > w] &= z\gamma + \rho\sigma_\xi\lambda_\xi & (4) \\ \text{where } &\quad \rho = (\sigma_w^2 - \sigma_{w\xi})/(\sigma_w\sigma), \\ \text{and } &\quad \lambda_\xi = \phi(x\beta/\sigma_w)/\Phi(x\beta/\sigma_w). \end{aligned}$$

The cumulative distribution function of the Normal distribution is denoted by  $\Phi$  and the Normal density function by  $\phi$ . The term  $\lambda_\xi$  in equation (4) can be interpreted as a selection correction term. The estimation of such a selection-corrected reservation wage yields consistent estimates ([Heckman, 1979](#)). The selection correction term can be obtained by estimating the probability of being unemployed, which can be written as

$$P[\text{unemployed} | x, z] = P\left[\frac{\epsilon_2 - \epsilon_1}{\sigma} > \frac{x\beta - z\gamma}{\sigma}\right]. \quad (5)$$

Equation (5) can be estimated using a Probit specification if the error terms are assumed to be normally distributed.

If equation (4) is estimated in such a way, it is implicitly assumed that reported reservation wages are the equivalent to the reservation wages which would be obtained were the model correct. However, equation (4) can be constructed from the data without the use of reported reservation wages by using structural restrictions from the search model. The unknown elements in equation (4) are the coefficients  $\gamma$ , the correlation between the errors in the wage and the reservation wage equations  $\rho$ , and the selection correction term  $\lambda_\xi$ . The estimation strategy is sketched in Figure 2.

The top right hand box of Figure 2 denotes the regression of reported reservation wages  $\xi^r$  on calculated reservation wages  $\xi^c$ . In order to calculate the regression of  $\xi^r$  on  $\xi^c$  I need a consistent estimate of  $\xi^c$ . This is denoted by the arrow. Following the arrow backwards leads to the box which gives the formula for  $\xi^c$ . The calculated reservation wage  $\xi^c$  is assumed to be a function of explanatory variables  $z$ , the coefficients  $\gamma$ , the correlation between the error terms of equation (1)  $\rho$ , and a selection correction term  $\lambda_\xi$ .

To obtain consistent estimates of  $\gamma$  I require estimates of  $\beta$  and exogenous information on the mean completed unemployment duration and a discount rate. These relationships are also denoted by the arrows. Similar, for consistent estimates of  $\beta$  I need to calculate a selection corrected wage regression.

## 2.1 Deriving consistent values for $\gamma$

Reservation wages and offered wages are linked: a shift of either reservation wages or offered wages will lead to adjustment of the other. Changes of search costs will shift both the wage and the reservation wage distribution. The coefficients in the reservation wage equation (2),  $\gamma_1, \gamma_2$ , and  $\gamma_3$ , can be expressed in terms of changes of the mean wage offer and of search costs (substituting  $x_1$  for  $z_1$  and  $x_2$  for  $z_2$ ):

$$\gamma_1 = \frac{\partial \xi}{\partial x_1} = \frac{\partial \xi}{\partial(x\beta)} \beta_1, \quad (6)$$

$$\gamma_2 = \frac{\partial \xi}{\partial x_2} = \frac{\partial \xi}{\partial(x\beta)} \beta_2 + c_1, \quad (7)$$

$$\gamma_3 = \frac{\partial \xi}{\partial z_3} = c_2, \quad (8)$$

where  $\partial \xi / \partial(x\beta)$  denotes the change of the reservation wage caused by a shift of the mean wage offer. Changes in the reservation wage caused by changes

of the search costs are captured by the search cost parameters  $c_1$  and  $c_2$ . In the following I use  $m$  to denote  $\partial\xi/\partial(x\beta)$ .

Reconsider equation (4). Reservation wages are only observed if they are greater than offered wages. I rewrite this condition by substituting the derived expressions for the  $\gamma$ :

$$(\xi - w)/\sigma = (z\gamma - x\beta)/\sigma > (\epsilon_1 - \epsilon_2)/\sigma \quad (9)$$

$$[x_1m\beta_1 + x_2(m\beta_2 + c_1) + z_3c_2 - x_1\beta_1 - x_2\beta_2]/\sigma > (\epsilon_1 - \epsilon_2)/\sigma$$

$$[x_1\beta_1(m-1) + x_2\beta_2(m-1) + x_2c_1 + z_3c_2]/\sigma > (\epsilon_1 - \epsilon_2)/\sigma$$

$$[(x_1\beta_1 + x_2\beta_2)(m-1) + x_2c_1 + z_3c_2]/\sigma > (\epsilon_1 - \epsilon_2)/\sigma \quad (10)$$

Consistent values for  $\gamma$  require consistent  $\beta$ . To obtain consistent  $\beta$  it is necessary to observe that the distribution of wage offers is, similar to the distribution of reservation wage offers, truncated. The function for the expected wage offer, conditional on the observed wage being greater than the reservation wage, is given by:

$$E[w | w > \xi] = x\beta + \rho\sigma_w\lambda_w, \quad (11)$$

where  $\lambda_w = \phi(z\gamma/\sigma_\xi)/\Phi(z\gamma/\sigma_\xi)$ . This term  $\lambda_w$  can be thought of as a selection correction term and can be obtained by estimating the probability of being in employment:

$$P[\text{employed} | x, z] = P\left[\frac{\epsilon_1 - \epsilon_2}{\sigma} > \frac{z\gamma - x\beta}{\sigma}\right]. \quad (12)$$

Equation (12) can be estimated using a Probit specification if the error terms are assumed to be normally distributed. The calculated  $\hat{\lambda}_w$  are then used in the conditional mean offer equation (11) to provide consistent estimators for  $\beta_1$  and  $\beta_2$ .

Now the unknown wage offer,  $x_1\beta_1 + x_2\beta_2$ , in equation (10) can be replaced by its predicted value,  $x_1\hat{\beta}_1 + x_2\hat{\beta}_2$ , from the selection-corrected wage regression:

$$\begin{aligned} \frac{\xi - w}{\sigma} &= x\hat{\beta}\frac{(1-m)}{\sigma} - x_2c_1/\sigma - z_3c_2/\sigma < (\epsilon_2 - \epsilon_1)/\sigma \\ &= x\hat{\beta}\delta_1 + x_2\delta_2 + z_3\delta_3 < (\epsilon_2 - \epsilon_1)/\sigma, \end{aligned} \quad (13)$$

where  $\delta_1 = \frac{(1-m)}{\sigma}$ ,  $\delta_2 = \frac{-c_1}{\sigma}$ ,  $\delta_3 = \frac{-c_2}{\sigma}$ .

Equation (13) is another formulation of the probability of being unemployed. However, equation (13) is not identified. It is formulated in four unknowns,

$m, \sigma, c_1, c_2$ , and three coefficients which are to be estimated,  $\delta_1, \delta_2, \delta_3$ . The term  $m$  can be identified using additional information on completed unemployment durations and a discount rate. If an expression for  $m$  can be obtained, than equation (13) can be estimated which would provide values for  $\delta_1, \delta_2$ , and  $\delta_3$ . These in turn can be used to construct consistent  $\gamma$  by evaluating equations (6), (7), and (8).

### 2.1.1 Calculating the mean wage offer

Schmidt and Winkelmann (1993) obtain a value for  $m$  by observing that  $m$ , the change of the reservation wage distribution in reaction to a change of the mean of the wage offer distribution, is implicitly determined by the optimality condition of the reservation wage:

$$(\xi - b)r = (E[w | w > \xi] - \xi)[1 - F(\xi)]\kappa, \quad (14)$$

where  $b$  denotes income while unemployed,  $r$  the discount rate and  $\kappa \equiv 1$  the probability that one offer is received per period.

The optimality condition can be rearranged to yield an implicit function:

$$(\xi - b)r = \int_{\xi}^{\infty} wdF(w) - \xi \int_{\xi}^{\infty} dF(w) \quad (15)$$

$$(\xi - b)r = \int_0^{\infty} wdF(w) - \int_0^{\xi} -\xi - \xi F(\xi) \quad (16)$$

$$\xi(1 + r) = br + E[w] + \int_0^{\xi} F(w)dw. \quad (17)$$

A change of the mean wage offer corresponds to a shift of the distribution function  $F(w)$ . Schmidt and Winkelmann (1993) yield an expression for  $m$  which can be expressed in terms of the mean completed duration and a discount rate by differentiating equation (17):

$$m = \frac{\partial \xi}{\partial (x\beta)} = \frac{1 - F(\xi)}{r + (1 - F(\xi))}, \quad (18)$$

where  $1 - F(\xi)$  denotes the probability that an offer is accepted. Because it is assumed that one offer is received per time period,  $1/(1 - F(\xi))$  denotes the expected completed unemployment duration. The expected completed unemployment duration can be calculated by using information on completed spells from the data. In these data the mean completed unemployment duration is 46 weeks for men and 27 weeks for women. The discount rate  $r$  is

given by assumption. Schmidt and Winkelmann (1993) use 6% and 10% per annum. Here I use 10%, but also experiment with a range of interest rates. Equation (13) is identified with the help of external information. Estimation of equation (13) provides consistent estimators for  $c_1, c_2$  and  $\sigma$ . These can be used to generate consistent estimates of  $\gamma_1, \gamma_2$  and  $\gamma_3$ . The values for  $\gamma$  can be used to predict  $\xi_i^c$  in equation (2).

## 2.2 Calculation of the selection-correction term $\lambda_\xi$

Because those who provide reported reservation wages are a selected sample of the population, I need to correct the mean reservation wage with a selection term,  $\lambda_\xi$ . The selection correction term,  $\lambda_\xi$ , can be obtained from estimating the probability of being unemployed, equation (13):

$$\lambda_\xi = \phi(x\beta/\sigma_w)/\Phi(x\beta/\sigma_w). \quad (19)$$

## 2.3 Calculating the correlation between $\epsilon_w$ and $\epsilon_\xi$ , $\rho$

For the calculation of  $\rho$  it remains to obtain an expression for  $\sigma_{w\xi}$ . Recall that the correlation between the errors of the wage and reservation wage equations, equation (1), is given by  $\rho = (\sigma_w^2 - \sigma_{w\xi})/(\sigma\sigma_w)$ . Rearranging the expression for  $\rho$  yields an expression for  $\sigma_{w\xi}$ :

$$\begin{aligned} \rho\sigma_w &= (\sigma_w^2 - \sigma_{w\xi})/\sigma = \beta_{\lambda_w} \\ \sigma_{w\xi} &= \sigma_w^2 - \sigma\beta_{\lambda_w}, \end{aligned} \quad (20)$$

which can be used to calculate  $\rho$ , with  $\sigma_w$  obtained from estimating equation (11) and  $\sigma$  from equation (13).

## 2.4 Summary

Now all components for the calculation of the reservation wage are to hand. As a first step in the empirical implementation, I estimate the offered wage equation and the selection condition, equations (1) and (12), jointly by maximum likelihood (using Stata 6). The predicted mean wage from this estimation and  $m$ , which is obtained from outside information, are then used to estimate equation (13).

In a second step, I derive  $\lambda_\xi$  from equation (19) and  $\rho$  from equation (20). These two parameters, together with the  $\hat{\gamma}$  from equation (13), are then used to calculate reservation wages,  $\xi_i^c$ , for all individuals who were unemployed at interview  $t$ .

In a final step, I compare the reported reservation wages,  $\xi^r$ , with the calculated reservation wages,  $\xi^c$ . For this, I use a prediction of reported reservation wages. These are obtained from regressing reported reservation wages on the set of regressors  $z_1$ ,  $z_2$ ,  $z_3$  and the constructed  $\lambda_\xi$ . The predicted reported reservation wages are then regressed onto the calculated reservation wages.

### 3 Data description and empirical issues

The data are pooled from the first seven waves of the British Household Panel Survey (BHPS).<sup>2</sup> The first wave of the BHPS was a nationally representative sample of about 5,500 households recruited in 1991, containing approximately 10,000 persons. The same individuals have been interviewed each successive year, and if they split off from their original households to form a new household, all adult members of the new households have also been interviewed. Similarly, children in original households have been interviewed when they reached the age of 16. Thus, the sample remained broadly representative of the private household population of Britain.

I select a sample of men aged between 16 and 65 and women between 16 and 60, and who were unemployed at the time of the interview. Unemployment is defined here as (i) not in paid work during the last week, (ii) looking for a job during the last four weeks, (iii) stated that they would like a paid job and (iv) classify themselves as unemployed. They data are pooled, which implies that a person may be observed more than once if he or she is fulfilling the selection criteria at different interviews.<sup>3</sup>

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<sup>2</sup>The BHPS is collected by the Institute for Social and Economic Research ([Institute for Social and Economic Research, 1999](#)) and distributed through The Data Archive. Both are at the University of Essex. Documentation is available online at <http://www.iser.essex.ac.uk/bhps/doc/index.htm> and printed documentation is given in [Taylor et al. \(1998\)](#).

<sup>3</sup>The definition used by the International Labor Organization (ILO) defines a person as unemployed if he or she is not in paid work, actively searching for employment, and

Respondents who stated at the interview that they were unemployed were asked a series of questions concerning their willingness and ability to find work.<sup>4</sup> These questions included (a) “What weekly take-home pay would you expect to get (for that)?” and (b) “What is the lowest weekly take-home pay you would consider accepting for a job?” (Taylor et al., 1998). Here I follow Lancaster and Chesher (1983) and treat a respondent’s answer to question (b) as providing information on his/her reservation wage,  $\xi$ , and answers to question (a) as the expected wage conditional of taking up the job,  $E[w | w > \xi]$ . All income variables are in pounds per week.<sup>5</sup>

I obtain observations for unemployed job seekers (at date  $t$ ). For each person I also obtain information from the next year’s interview on whether they found a job or not (i.e. at date  $t + 1$ ). If they found a job I match information on completed unemployment duration and accepted wage to their characteristics.

Summary statistics for the sample used are given in Table 1. The sample consists of 778 men and 343 women who were unemployed at the date of the interview. Of these, 59% of men and 69% of women were in employment at the date of the next interview.

The average post-unemployment net wage was £222 per week for men and £133 per week for women.<sup>6</sup> The weekly reported reservation wage for men available to start a job within a fortnight. A question on availability to start a new job within a fortnight has been included in the BHPS from wave 6 onwards only. The definition used here is thus different from the ILO definition.

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<sup>4</sup>As only unemployed people are asked these questions, I cannot look at the search behaviour of employed persons (on-the-job search).

<sup>5</sup>The hourly reservation wage for 1997 has a mean of £3.68 and a median of £3.00 (in January 1998 prices). The national minimum wage, introduced from April 1999, specifies a minimum wage of £3.60 (£3.71 in January 1998 prices) for adults over 21, and £3.0 (£3.1) for 18-21 year olds. Using these thresholds, about 34% of wave 7 respondents have a reservation wage below the minimum wage. Heath and Swann (1999) report that a quarter of young Australian job seekers have reservation wages below the minimum wage.

<sup>6</sup>The variable provided in the BHPS is the usual monthly wage or salary payment after tax and other deductions in current main job for employees. If the last net payment was the usual, then this is used. If last net pay was missing, but gross pay was present, and this was usual, then net pay is estimated from gross pay, on the basis of information

was £153 and £154 for women. Men and women in this sample were on average 35 years old. About 9% of men in this sample had a university degree, about 31% completed at least one A-level, 21% had O-levels, 11% had some formal qualification below O-levels, and 29% had no formal qualification. Amongst women, 8% had a degree, 30% had A-levels, 22% had O-levels, 14% had some formal qualification, and 27% had no formal qualification.

About the same percentage of men and women were from European background, 92% of men and 91% of women. Sample sizes for other ethnic backgrounds are small. A higher fraction of women defined themselves as of Other ethnic origin than men. Amongst men half a per cent were of Other ethnic origin, whereas amongst women this fraction was 4%.

The average household size of unemployed women was 2.8 persons. Unemployed men lived in households with an average size of 3.2 persons. Some 73% of unemployed women lived in households where no child was present. In contrast, 68% of unemployed men lived in childless households. Almost 8% of unemployed men lived in households with three or more children, whereas only about 2.6% of women lived in such households. Similarly, only 34% of female unemployed were married, but amongst men this fraction was 44%.

The job seeker's labour market experience at the interview at date  $t$  is captured by two variables which cover the period between the interviews at  $t - 1$  and  $t$ . These variables are the number of weeks employed and the number of different employers in the reference year. The reference year covers the 12 months up to September 1st of the year of the interview. On average, men spent 21 weeks and women about 25 weeks in employment in the year leading up to the interview. I expect that those who were employed longer have a higher chance of finding work and, conditional on working, receive a higher wage offer. The regional unemployment rate according to the ILO definition, as published in [Office of National Statistics \(1998\)](#), was 9% on average.

A greater number of different employers may indicate a stronger attachment to the labour market than fewer employers. It is well known that many jobs are found through informal channels (e.g. [Osberg \(1993\)](#), [Hannan \(1999\)](#), or [Gregg and Wadsworth \(1996\)](#)). I therefore include this variable in the selection equation as I assume it influences the selection into work through the offer arrival rate (but not the wage offer).

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about marital status, partner's activity, and pension scheme membership. See [Taylor et al. \(1998\)](#) for details.

## 4 Results

The estimations use a sample of unemployed men and women who were interviewed at date  $t$  and who are followed up on at a later interview at  $t+1$ . Variables describing the behaviour of job seekers are obtained at date  $t$ . Some of these variables describe the labour market status for the year leading up to the interview, i.e. the period between the interviews at  $t-1$  and  $t$ . The wage information for successful job seekers is obtained at  $t+1$ . As a baseline case I use an annual discount rate of 10%. This provides a comparison with the results from [Schmidt and Winkelmann \(1993\)](#). Later I will discuss the sensitivity of the results with respect to the assumed discount rate.

### *Men*

Consider first the results from the selection corrected wage regression which are tabulated in Table 2. The dependent variable is the log of starting wage,  $w_{i,t+s}$ , in £/week. What influences the chances of finding a job? The estimated model confirms that education has an important rôle for the prospects of finding a job. See Column 1 in Table 2. The estimated coefficients for the education dummy variables are large and demonstrate an increased probability of finding a job for all levels of education, relative to no formal education. There is also evidence that older age is negatively related with finding a job. The coefficients for the dummy variables describing the ethnic background demonstrate differences between ethnic groups. Indians and Other (mainly Chinese) are more likely to find work. Pakistani and Bangladeshi have a reduced risk of obtaining a job than all other ethnic groups, although this variable is not statistically different from zero at conventional error levels.<sup>7</sup>

The estimated coefficient for the number of employers in the reference year is according to expectations. Those who had more employers between  $t-1$  and  $t$  are estimated to have a higher chance of obtaining work. Those who were employed longer are estimated to have a higher chance of finding work, too, and to receive higher wages. However, the latter two coefficients, although precisely estimated, are relatively small.

Second, household characteristics are important, too. Married men had a higher chance of starting a job than men in other marital statuses. Those who lived with a working spouse had higher chances of taking up a job than those whose spouse was not working. After controlling for marital status and the number of children in the household, the presence of other household

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<sup>7</sup>See [Berthoud \(1998\)](#) for a detailed comparison of how men from ethnic minorities fare in the British labour market.

members is associated with a reduced chance of finding a job. The largest negative impact on finding a job is related to the presence of a pre-school aged child in the household.

Turning to labour market conditions, I estimate that a higher regional unemployment rate is associated with a lower chance of obtaining a job. After controlling for regional unemployment rates there are still differences between the regions (although not statistically significant). It seems to be more difficult to find an acceptable job outside London than in the capital.

The estimated coefficients of the associated log wage equation are tabulated in Column 2 of Table 2. The estimates suggest that wages increased with age until about 43 years of age and decline thereafter. More education is clearly associated with higher earnings: all education dummy variables have large positive (and statistically significant) coefficients. The coefficients for the ethnic background variables suggest that Indian men earned less than Europeans, but that Pakistani and Bangladeshi, as well as men from Other ethnic backgrounds, earned more. However, these coefficient are not precisely estimated. There is little evidence that household characteristics influence the level of the wage.

I use this model to predict a wage offer which is then used in a probit to estimate the propensity of being unemployed at the interview at  $t$ . The results for men are tabulated in Column 1 of Table 4. The most important result is that a higher mean wage offer is associated with a stark reduction in the likelihood of refusing an offer. Conditional on the predicted wage, more education was associated with a higher probability of being (remaining) unemployed. In other words, higher educated men were more selective. Further, men from Pakistani and Bangladeshi are more likely to be unemployed than Europeans. In contrast, Indian men are more likely to be employed than Europeans. The other estimated coefficients mirror the results from the selection regression (Table 2, Column 1).

Using the coefficients of this estimation I calculate a selection correction term,  $\lambda_\xi$ . The reservation wage, equation (4), is calculated with the parameters obtained from estimating the equations presented in Tables 2 and 4.

I now proceed to compare  $\xi_{it}^c$  with a prediction of reservation wages,  $\xi_{it}^r$ , obtained from a regression of reported reservation wages on the explanatory variables contained in  $z$  and the selection correction  $\lambda_\xi$ . The results from this OLS regression are tabulated in Table 5. These results show that older men had higher reservation wages than younger men. Reservation wages were generally higher in London and more education was associated with higher reservation wages. Men who lived in larger households, conditional on the

number of children, have lower reservation wages than those who lived with fewer persons.

Regressing the predicted reservation wage  $\xi_{it}^r$  on the predicted reservation wage obtained from the conditions of the search model yields the following relation

$$\begin{aligned}\xi_i^r &= 0.436 + 1.152 \xi_i^c \\ &\quad (0.088) \quad (0.128),\end{aligned}$$

with  $R^2 = 0.103$  and  $N=1,213$ . Standard errors are in parentheses. A scatterplot of reported and calculated reservation wages, together with the regression line and its confidence interval, is plotted in Figure 3.

The intercept of this regression is greater than zero and the slope is greater than unity. The confidence interval for the slope ranges from 0.9 to 1.4. Thus the null hypothesis that reported and calculated reservation wages are the same has to be rejected. The result suggests that job seekers are too optimistic relative to the model when reporting their reservation wage to an interviewer.

#### *Women*

The results for women are, by and large, similar to those obtained for men. The specification of the regressions differ as I had to take account of the rather small sample of 434 women.

The estimated selection equation shows some differences to the results obtained for men. Firstly, women seem to have found acceptable jobs easier outside than in London. Secondly, women from ethnic minority backgrounds did not find work. Further, household characteristics have do not affect women's labour market status differently to men. Married women had a reduced chance of finding work than those in other marital statuses, but the estimated coefficient is not statistically significant. That the presence of children reduces the chances of finding a job for women is only evident if the youngest child is of pre-school age. Women whose partner is employed have a higher probability of being employed than women whose partner is without employment. Those who lived in larger households had a greater probability of obtaining work than those who lived with fewer persons. The local unemployment rate does not show a strong association with the chances of finding an acceptable offer for women.

The results from estimating the wage equation are similar to those for men. Wages increased till about 42 years of age and declined after that age. Accepted wages outside London appear to have been lower than in London.

Education shows a positive association with wages where more education commands a higher wage than less education.

The estimated relationship between the  $\xi_i^r$  and the  $\xi_i^c$  for women can be summarised as follows (for an annual interest rate of 10%)

$$\xi_i^r = 1.028 + 0.121 \xi_i^c \\ (0.079) \quad (0.115),$$

with  $R^2 = 0.003$  and  $N=434$ . Standard errors in parentheses. The estimation clearly suffers from either a small sample size or misspecification of the model: the  $R^2$ , of only 0.3%, is low. The corresponding scatterplot is given in Figure 4.

## 4.1 Specification checks

**Interest rates** Of course, the obtained results depend on the assumed discount rate and the specifications of the equations. To illustrate the sensitivity to the discount rate, I tabulate in Table 6 the estimated parameters when other discount rates are chosen. Lower discount rates imply that future income is valued more highly at present. Therefore, unemployed job seekers will not want to search longer for a job offer as the value of search is reduced, i.e. their reservation wage is also lower. This effect can be seen in Table 6 where lower discount rates correspond to smaller intercepts. A discount rate of 2 per cent results in a predicted reservation wage that corresponds closely to reported reservation wages:

$$\xi_i^r = 0.090 + 0.878 \xi_i^c \\ (0.096) \quad (0.074).$$

For men, interest rates in the range of 1 to 3 per cent per annum relate to estimated parameters which correspond to the hypothesis the model. However, this is not true for the sample of women where the estimations suffer from a poor fit. Varying the interest rate does not change the obtained results to a similar degree than for men.

**Mean completed unemployment duration** The calculated reservation wage also depends on the mean completed unemployment duration. A greater mean completed unemployment duration results in a smaller change of the reservation wage distribution in reaction to a change of the mean of the wage offer distribution,  $m$ . I have re-estimated the system of equations for

various values of the mean completed unemployment duration. For example, doubling of the mean completed unemployment duration yields estimated parameters for men of

$$\xi_i^r = 0.192 + 1.001 \xi_i^c  
(0.094) (0.091),$$

at an interest rate of 10 per cent per annum. The results for other interest rates are tabulated in Table 7. The obtained model fit is lower than if the mean completed unemployment duration of the sample is used. Note that the results for women are hardly affected by a changed mean completed unemployment duration.

I have tabulated the results for shorter mean completed unemployment durations in Table 8, using a halved mean completed unemployment duration as an example. For men, the estimated relationship between reported and calculated reservation wages is

$$\xi_i^r = 0.192 + 1.001 \xi_i^c  
(0.094) (0.091).$$

In general, the hypothesised relationship holds also for interest rates up to about 10 per cent per annum. Again, the results for women do not change greatly from the ones obtained above.

**Gross wage** The estimation above use weekly usual net wage to model the wage offer distribution. I have re-estimated the structural equations using the weekly usual gross wage. The underlying structural equations change little, the mean gross wage for men is 223£/week and it is 133£/week for women. The log-likelihood for the maximum likelihood estimation of the selection-corrected wage regression for men is with -910 smaller than the -868 obtained when the net wage is used. Similarly, the log-likelihood for women is also smaller, -402 vs -378. The association of the predicted wage and the probability of being unemployed is larger when net wages are used, the estimated coefficients for men on predicted gross wage is -3.8 (S.E. 0.7) and it is -3.1 (S.E. 1.4) for women.

The relationship between the calculated and the reported reservation wages, using an interest rate of 10 per cent per annum, is estimated for men as

$$\xi_i^r = 0.629 + 0.675 \xi_i^c  
(0.086) (0.099).$$

Estimated intercept and slope parameters for other interest rates are tabulated in Table 9. In general, the estimated intercepts are greater and the estimated slopes are smaller than when net wages are used. Since the underlying equations have already a poorer fit with gross wages than with net wages it is not surprising that the  $R^2$  are also smaller for these regressions.

The estimated relationship between the  $\xi_i^r$  and the  $\xi_i^c$  for women can be summarised as follows (for an annual interest rate of 10%)

$$\begin{aligned}\xi_i^r &= 0.857 + 0.230 \xi_i^c \\ &\quad (0.101) \quad (0.091),\end{aligned}$$

with  $R^2 = 0.024$  and  $N=434$ . Standard errors in parentheses.

**Identifying restrictions** The identification of the estimations presented in Tables 2 and 3 is ensured via the exclusion restrictions. These are the variables which are assumed to influence the reservation wage but not the job offer rate. I have estimated the equations with various combinations of labour market attachment variables (jobs or employer of the previous year), children in the household, and labour market status of the spouse. In general, the estimated coefficients are stable with respect to the choice of exclusion restrictions. The predicted wages differ, taking into account that the equations have different explanatory powers; these, however, do not vary greatly. The substantive results do not change: calculated reservation wages for men correspond to reported reservation wages at small interest rates and there is no correspondence between women's reported and calculated reservation wages.

## 5 Summary and conclusion

In this chapter I have related reported reservation wages to reservation wages obtained from a search model. The calculated reservation wages used information on accepted wages in jobs following unemployment, completed unemployment durations and exogenous discount rates.

For men, at moderate interest rates, I find positive evidence for this simple search model. Generally, at interest rates below 5 per cent per annum the hypothesised relationship is supported by the data. This result corresponds to the findings by Schmidt and Winkelmann (1993) who report that an interest rate of 6 per cent per annum results in a close match of the reported

and calculated reservation wages. The results also indicate that men use the expected net wage as a reference point, rather than the expected gross wage. The difference between reported and calculated reservation wages at higher interest rates could point to the decline of reservation wages over time. This corresponds well with the results of e.g. [Shaw et al. \(1996\)](#) who found that some people will work for less wages than previously stated.

These results have important conclusions for the results from earlier chapters. If reported reservation wages do not correspond to the economists' concept of an reservation wage, then calculation of, for example, elasticities of the reservation wage to benefit income, are misleading. In that light, I conclude that men's reported reservation wages are an indicator of their "true" reservation wage.

For women, it is not so clear what to make of the results. The results for women reject the null hypothesis that reported reservation wages and calculated reservation wages are the same for all used interest rates. It has to be noted that the number of women in the sample is low and this may influence the results. The search model serves as a structure to analyse job search behaviour. As such it necessarily abstracts from the real world in several important aspects. For example, there is no decline of reservation wages over time, no search on the job, time-to-exhaustion effects, or withdrawal from the labour market.

An obvious way for extending the model is to formulate a relationship between the reservation wage and the elapsed unemployment duration. However, to estimate such a model one would need more observation on reservation wages over a shorter period. In the BHPS the interviews are conducted approximately every 12 months.

A further extension of the basic model could relate reported reservation wages more closely to the financial situation of job seekers. For example, [Shaw et al. \(1996\)](#) concluded in their analysis of persons who received Income Support that few based their reservation wage solely on work-related factors and that most of their respondents fixed their reservation wages on an assessment of their needs. In a similar vein, [Dawes \(1993\)](#) concluded that the majority of the long-term unemployed individuals in his study set the reservation wage in relation to their household outgoings.

Whether these extensions result in a correspondence of women's reported reservation wages and those constructed from the structural equations is left to further research. In the meantime, I caution the interpretation of women's reservation wages as they are commonly understood by economists.

The introduction of the National Minimum Wage from April 1999 also sets a further research agenda. Before that date, work contracts were basically freely negotiable. It would be worthwhile to investigate whether the National Minimum Wage changed people's search behaviour and reduced the gap between reported reservation wages and, ultimately, accepted wages.

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## 6 Figures and tables

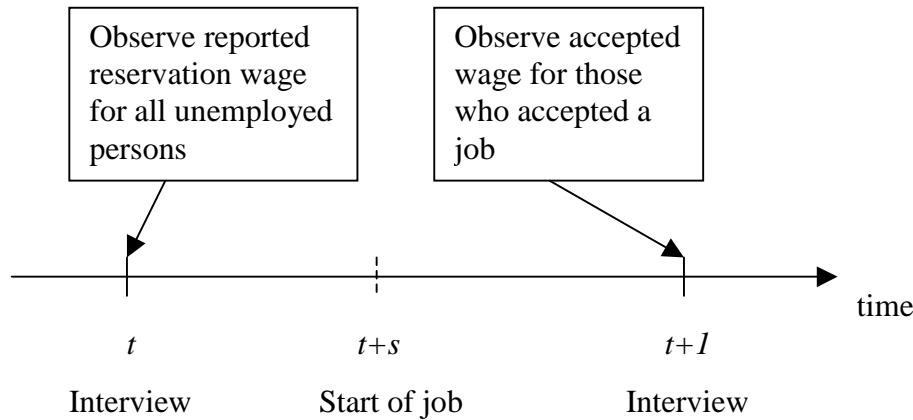


Figure 1: Timing of events.

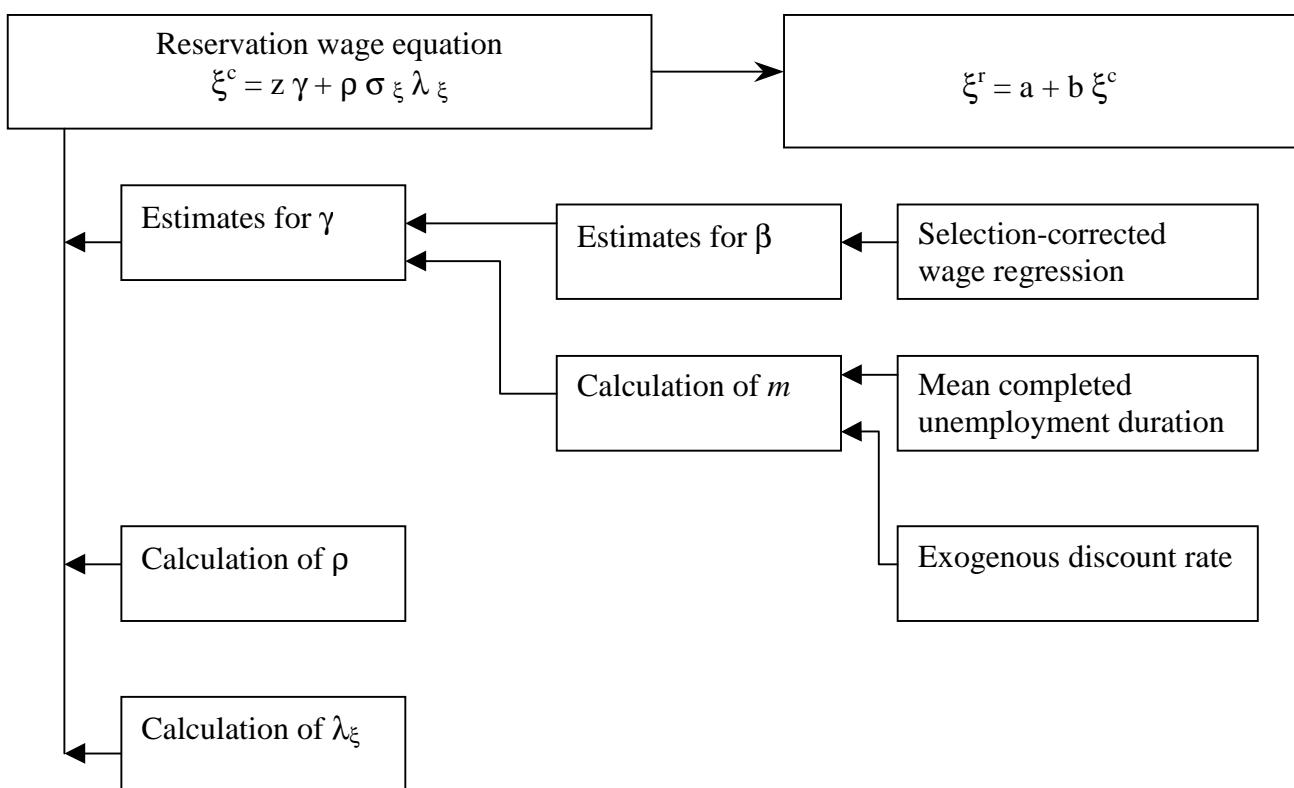


Figure 2: Estimation strategy.

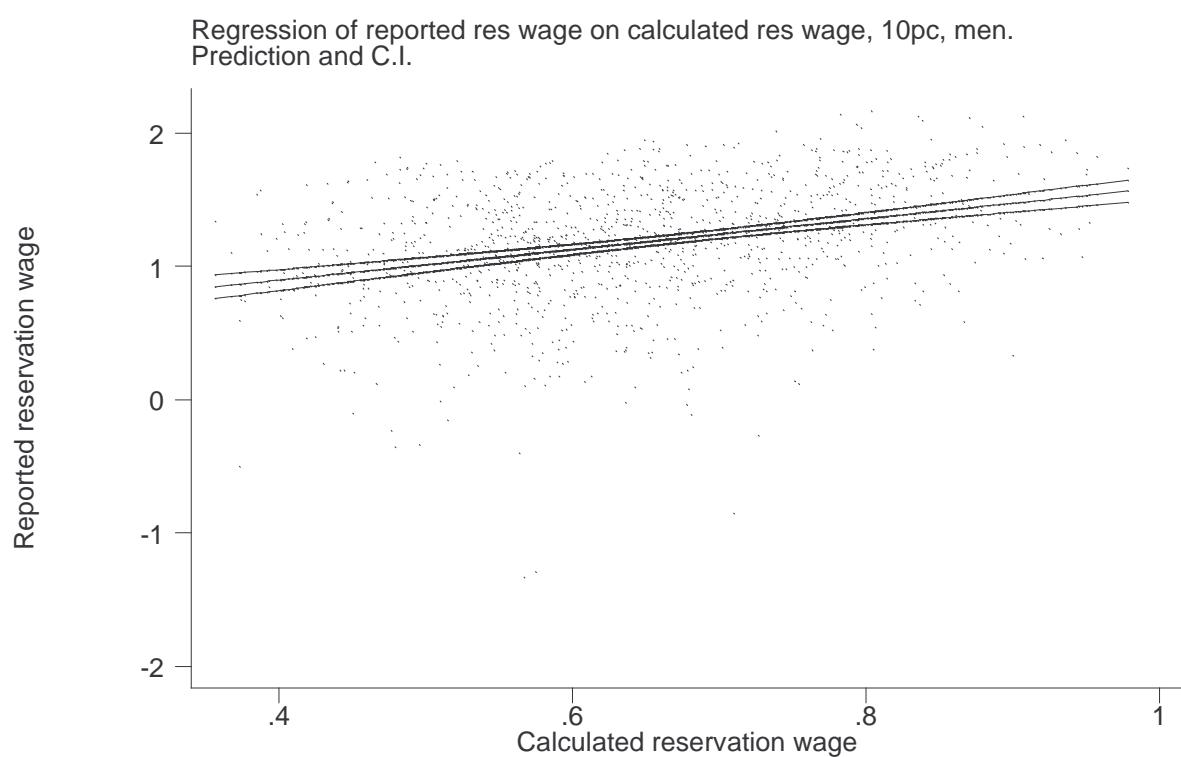


Figure 3: Reported and calculated reservation wages, 10% p.a., men.

Regression of reported res wage on predicted res wage, 10pc, women.  
Prediction and C.I.

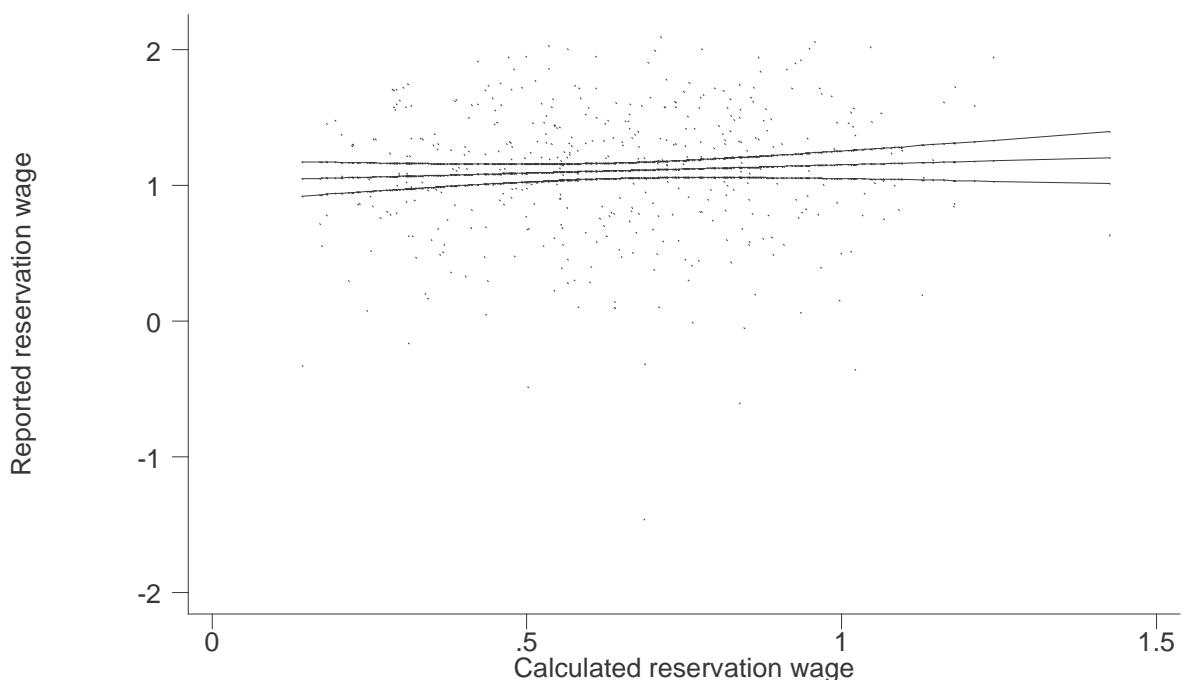


Figure 4: Reported and calculated reservation wages, 10% p.a., women.

**Table 1: Summary statistics.**

Variable	Men		Women	
	Mean	(S.D.)	Mean	(S.D.)
Wage <sup>a</sup> (£/week)	177.8	(89.8)	109.0	(58.3)
Reservation wage <sup>b</sup> (£/week)	153.2	(84.0)	154.0	(77.7)
Predicted wage <sup>c</sup> (£/week)	181.4	(44.8)	143.4	(42.6)
<i>Personal characteristics</i>				
Age (years)	35.1	(13.2)	34.7	(12.7)
<i>Education (%)</i>				
Degree	9.5		8.1	
A-levels	30.6		29.6	
O-levels	20.7		22.3	
Formal qualification below O-levels	10.9		14.4	
No formal qualification	28.9		26.6	
<i>Ethnic background (%)</i>				
European	90.6		90.8	
Black	2.9		2.5	
Indian	2.2		2.5	
Pakistani, Bangladeshi	2.1		0.2	
Other	0.6		4.0	
<i>Household characteristics (%)</i>				
Married	44.5		34.4	
Cohabiting	12.8		11.8	
Other	42.7		53.8	
Spouse has a job	26.8		33.0	
No child	67.7		72.6	
1 child	11.0		16.7	
2 children	13.1		8.1	
3 or more children	8.1		2.6	
Youngest child between 0 and 5 years	19.8		14.9	
Household size (persons)	3.2	(1.4)	2.8	(1.3)
<i>Labour market characteristics</i>				
Weeks in job between t-1 and t	21.0	(19.8)	25.0	(21.2)
Number of employers, t-1 and t	0.8	(0.7)	0.8	(0.7)
Regional unemployment rate	9.1	(2.3)	8.7	(2.3)
<i>Region (%)</i>				
London	15.1		18.7	
Southeast	16.8		19.6	
Southwest	7.5		10.7	
Eastmidlands	22.3		21.5	
North	26.7		17.2	
Wales	4.0		4.9	
Scotland	7.5		7.4	
N	739		333	

*Note:* Sample is weighted with cross-sectional weights. Excludes those who fail the consistency conditions as derived from the stationary job search model, see text for details.

<sup>a</sup> Sample size (unweighted): 342 men, 211 women. <sup>b</sup> Sample size: 261 men, 87 women. <sup>c</sup> Predicted from estimating equation (11), the results for men are tabulated in Table 2 and for women in Table 3.

**Table 2: Results of a selection-corrected wage regression for British men.**

	Selection regression Coefficient	(S.E.)	Wage regression Coefficient	(S.E.)
<i>Personal characteristics</i>				
Age	-0.069	(0.025)	0.066	(0.011)
Age <sup>2</sup> /100	0.055	(0.032)	-0.076	(0.014)
<i>Education</i>				
Degree	0.698	(0.172)	0.420	(0.096)
A-levels	0.544	(0.111)	0.201	(0.062)
O-levels	0.593	(0.127)	0.093	(0.067)
Formal qualification below O-levels	0.226	(0.137)	0.211	(0.089)
<i>Ethnic background</i>				
Black	0.176	(0.314)	0.000	(0.092)
Indian	0.805	(0.398)	-0.131	(0.095)
Pakistani, Bangladeshi	-0.319	(0.348)	0.162	(0.378)
Other	0.838	(0.553)	0.118	(0.197)
<i>Household characteristics</i>				
Married	0.089	(0.119)	-0.020	(0.058)
Spouse has a job	0.230	(0.107)	—	—
No child	0.099	(0.159)	0.040	(0.058)
2 children	0.130	(0.164)	-0.016	(0.095)
3 or more children	0.072	(0.180)	0.021	(0.093)
Youngest child between 0 and 5 years	-0.316	(0.134)	—	—
Household size	-0.054	(0.041)	—	—
<i>Labour market characteristics</i>				
Weeks in job between $t - 1$ and $t$	0.011	(0.003)	0.003	(0.001)
Number of employers, $t - 1$ and $t$	0.139	(0.079)	—	—
Regional unemployment rate	-0.119	(0.027)	0.009	(0.013)
<i>Region</i>				
Southeast	-0.218	(0.218)	0.063	(0.097)
Southwest	-0.163	(0.233)	-0.164	(0.105)
Eastmidlands	0.050	(0.176)	-0.147	(0.083)
North	-0.007	(0.159)	-0.182	(0.074)
Wales	-0.026	(0.247)	-0.221	(0.105)
Scotland	-0.001	(0.203)	-0.136	(0.082)
Constant	1.788	(0.632)	0.007	(0.257)
<i>Estimated parameters</i>				
$\rho$	0.005	(0.226)		
$\sigma_w$	0.390	(0.021)		
$\lambda_w$	0.002	(0.088)		
N	1213			
Log-likelihood	-868.1			

*Note:* Dependent variables are whether the person is employed (selection equation) and the wage (in log £/week). Standard errors in parentheses. All variables are measured at time  $t$ , except wage which is measured at time  $t + 1$ . Omitted categories are: No formal qualification, European, other marital statuses, one dependent child, London.

**Table 3: Results of a selection-corrected wage regression for British women.**

	Selection regression Coefficient	(S.E.)	Wage regression Coefficient	(S.E.)
<i>Personal characteristics</i>				
Age	-0.059	(0.047)	0.035	(0.020)
Age <sup>2</sup> /100	0.055	(0.063)	-0.042	(0.027)
<i>Education</i>				
Degree	0.659	(0.359)	0.674	(0.116)
A-levels	0.268	(0.203)	0.349	(0.085)
O-levels	0.061	(0.209)	0.276	(0.087)
Formal qualification below O-levels	-0.007	(0.235)	0.153	(0.115)
<i>Ethnic background</i>				
Black	-0.270	(0.624)	-0.322	(0.178)
Indian	-0.371	(0.461)	-0.367	(0.090)
Pakistani, Bangladeshi	-6.566	(0.285)	—	
Other	-0.939	(0.377)	0.325	(0.203)
<i>Household characteristics</i>				
Married	-0.079	(0.208)	0.036	(0.065)
Spouse has a job	0.449	(0.211)	—	
No child	-0.109	(0.224)	-0.029	(0.092)
2 children	0.376	(0.290)	0.150	(0.118)
3 or more children	0.751	(0.729)	0.248	(0.216)
Youngest child between 0 and 5 years	-0.360	(0.269)	—	
Household size	0.133	(0.062)	—	
<i>Labour market characteristics</i>				
Weeks in job between $t - 1$ and $t$	0.011	(0.004)	0.003	(0.001)
Number of employers, $t - 1$ and $t$	0.004	(0.128)	—	
Regional unemployment rate	-0.067	(0.047)	0.006	(0.020)
Region				
Southeast	0.600	(0.392)	-0.044	(0.159)
Southwest	0.084	(0.396)	-0.273	(0.167)
Eastmidlands	-0.024	(0.317)	-0.223	(0.136)
North	0.243	(0.305)	-0.076	(0.132)
Wales	0.227	(0.394)	-0.419	(0.183)
Scotland	-0.002	(0.352)	-0.310	(0.204)
Constant	1.109	(1.133)	0.381	(0.406)
<i>Estimated parameters</i>				
$\rho$	0.118	(0.126)		
$\sigma_w$	0.422	(0.041)		
$\lambda_w$	0.050	(0.052)		
N	434			
Log-likelihood	-377.7			

*Note:* Dependent variables are whether the person is employed (selection equation) and the wage (in log £/week). Standard errors in parentheses. All variables are measured at time  $t$ , except wage which is measured at time  $t + 1$ . Omitted categories are: No formal qualification, European, other marital statuses, one dependent child, London. The dummy variable for Pakistani/Bangladeshi women had to be dropped in the wage equation due to collinearity.

**Table 4: Results of a probit estimation of being unemployed, by sex.**

	Men		Women	
	Coefficient	(S.E.)	Coefficient	(S.E.)
Predicted log wage (£/week)	-5.540	(1.106)	-3.836	(1.727)
<i>Personal characteristics</i>				
Age	0.355	(0.079)	0.141	(0.081)
Age <sup>2</sup> /100	-0.379	(0.092)	-0.151	(0.102)
<i>Education</i>				
Degree	1.808	(0.500)	1.850	(1.174)
A-levels	0.561	(0.245)	0.944	(0.661)
O-levels	0.087	(0.163)	1.165	(0.517)
Formal education below O-levels	1.132	(0.277)	0.627	(0.362)
<i>Ethnic background</i>				
Black	0.095	(0.307)	-1.167	(0.868)
Indian	-0.964	(0.385)	-1.890	(0.831)
Pakistani, Bangladeshi	1.058	(0.358)	0.326	(0.265)
Other	-0.514	(0.619)	1.674	(0.570)
<i>Household characteristics</i>				
Married	-0.033	(0.119)	-0.002	(0.223)
Spouse has a job	-0.309	(0.107)	-0.342	(0.223)
No child	0.005	(0.162)	-0.076	(0.227)
2 children	-0.080	(0.154)	0.265	(0.409)
3 or more children	0.278	(0.175)	0.858	(0.806)
Youngest child between 0 and 5 years	0.252	(0.128)	0.589	(0.265)
Household size	-0.028	(0.043)	-0.205	(0.070)
<i>Labour market characteristics</i>				
Number of employers, $t - 1$ and $t$	-0.208	(0.084)	-0.072	(0.131)
Regional unemployment rate	0.123	(0.029)	0.130	(0.051)
Region				
Southeast	0.280	(0.242)	-0.199	(0.431)
Southwest	-1.105	(0.299)	-1.047	(0.660)
Eastmidlands	-0.710	(0.231)	-0.505	(0.537)
North	-0.898	(0.248)	-0.144	(0.355)
Wales	-1.019	(0.343)	-1.490	(0.838)
Scotland	-0.717	(0.240)	-0.993	(0.674)
Constant	0.085	(0.626)	-0.578	(1.344)
N	1213		434	
Log-likelihood	-674.7		-228.9	
Pseudo-R <sup>2</sup>	0.197		0.185	

*Note:* Standard errors in parentheses. The predicted log wage is obtained from the estimation tabulated in Table 2 for men, and Table 3 for women. Omitted categories are: No formal education, European, other marital statuses, one dependent child, London.

**Table 5: Results of a reservation wage regression, by sex.**

	Men Coefficient	(S.E.)	Women Coefficient	(S.E.)
<i>Personal characteristics</i>				
Age	0.037	(0.012)	0.059	(0.020)
Age <sup>2</sup> /100	-0.044	(0.017)	-0.058	(0.023)
<i>Education</i>				
Degree	0.491	(0.118)	-0.093	(0.574)
A-levels	0.272	(0.124)	0.135	(0.252)
O-levels	0.151	(0.089)	0.357	(0.113)
Formal education below O-levels	0.044	(0.061)	0.241	(0.096)
<i>Ethnic background</i>				
Black	-0.032	(0.086)	0.373	(0.159)
Indian	0.286	(0.152)	-0.561	(0.392)
Pakistani, Bangladeshi	0.029	(0.079)	0.148	(0.138)
Other	0.230	(0.291)	-0.091	(0.309)
<i>Household characteristics</i>				
Married	0.122	(0.052)	-0.089	(0.137)
Spouse has a job	0.019	(0.078)	-0.117	(0.197)
No child	-0.113	(0.080)	0.046	(0.111)
2 children	0.090	(0.058)	-0.308	(0.196)
3 or more children	0.328	(0.077)	0.079	(0.217)
Youngest child between 0 and 5 years	0.121	(0.070)	0.585	(0.303)
Household size	-0.311	(0.020)	-0.452	(0.112)
<i>Labour market characteristics</i>				
Number of weeks employed, $t - 1$ and $t$	0.006	(0.004)	-0.008	(0.007)
Number of employers, $t - 1$ and $t$	-0.058	(0.055)	-0.018	(0.087)
Regional unemployment rate	0.007	(0.017)	0.026	(0.049)
Region				
Southeast	-0.032	(0.093)	-0.484	(0.206)
Southwest	-0.067	(0.105)	-0.496	(0.220)
Eastmidlands	-0.055	(0.076)	-0.133	(0.196)
North	-0.157	(0.071)	-0.101	(0.178)
Wales	-0.193	(0.103)	-0.087	(0.153)
Scotland	-0.132	(0.080)	-0.035	(0.177)
$\lambda_\xi$	-0.274	(0.352)	0.899	(0.879)
Constant	1.513	(0.438)	0.073	(1.248)
N	516		124	
R <sup>2</sup>	0.643		0.693	

*Note:* Dependent variable is the reservation wage in log £/week. Standard errors in parentheses. Omitted categories are: No formal education, European, other marital statuses, one dependent child, London.

**Table 6: Relationship between predicted and calculated reservation wages at different interest rates.**

Interest rate per annum (%)	Intercept (S.E.)	Slope (S.E.)	R <sup>2</sup>
<i>Men, N=1213</i>			
1	0.062 (0.096)	0.834 (0.069)	0.171
2	0.090 (0.96))	0.878 (0.074)	0.166
5	0.192 (0.093)	1.006 (0.091)	0.146
10	0.436 (0.088)	1.152 (0.128)	0.103
15	0.772 (0.075)	1.042 (0.175)	0.049
<i>Women, N=434</i>			
1	0.914 (0.091)	0.208 (0.096)	0.017
2	0.927 (0.090)	0.203 (0.098)	0.015
5	0.965 (0.086)	0.180 (0.105)	0.010
10	1.028 (0.079)	0.121 (0.115)	0.003
15	1.089 (0.071)	0.033 (0.125)	0.000

*Note:* Standard errors in parentheses. Regression of predicted reservation wages on calculated reservation wages. See text for details.

**Table 7: Relationship between predicted and calculated reservation wages at different interest rates, for a doubled mean completed unemployment duration.**

Interest rate per annum (%)	Intercept (S.E.)	Slope (S.E.)	R <sup>2</sup>
<i>Men, N=1213</i>			
1	0.090 (0.096)	0.878 (0.074)	0.166
2	0.155 (0.095)	0.965 (0.085)	0.153
5	0.436 (0.088)	1.152 (0.128)	0.103
10	1.092 (0.048)	0.455 (0.217)	0.006
15	1.053 (0.027)	-1.293 (0.243)	0.045
<i>Women, N=434</i>			
1	0.927 (0.090)	0.203 (0.098)	0.015
2	0.952 (0.088)	0.189 (0.102)	0.012
5	1.028 (0.078)	0.121 (0.115)	0.003
10	1.139 (0.063)	-0.081 (0.134)	0.001
15	1.196 (0.048)	-0.358 (0.150)	0.015

*Note:* Standard errors in parentheses. Regression of predicted reservation wages on calculated reservation wages. See text for details.

**Table 8: Relationship between predicted and calculated reservation wages at different interest rates, for a halved mean completed unemployment duration.**

Interest rate per annum (%)	Intercept (S.E.)	Slope (S.E.)	R <sup>2</sup>
<i>Men, N=1213</i>			
1	0.049 (0.096)	0.812 (0.067)	0.174
2	0.062 (0.096)	0.834 (0.069)	0.171
5	0.105 (0.095)	0.900 (0.077)	0.163
10	0.192 (0.094)	1.006 (0.091)	0.146
15	0.302 (0.092)	1.097 (0.108)	0.126
<i>Women, N=434</i>			
1	0.908 (0.092)	0.210 (0.095)	0.018
2	0.914 (0.091)	0.208 (0.096)	0.017
5	0.933 (0.089)	0.200 (0.099)	0.014
10	0.965 (0.086)	0.180 (0.105)	0.010
15	0.997 (0.082)	0.154 (0.110)	0.006

*Note:* Standard errors in parentheses. Regression of predicted reservation wages on calculated reservation wages. See text for details.

**Table 9: Relationship between predicted and calculated reservation wages at different interest rates, gross wage.**

Interest rate per annum (%)	Intercept (S.E.)	Slope (S.E.)	R <sup>2</sup>
<i>Men, N=1213</i>			
1	0.093 (0.102)	0.653 (0.058)	0.145
2	0.142 (0.100)	0.673 (0.062)	0.136
5	0.307 (0.097)	0.712 (0.075)	0.110
10	0.629 (0.086)	0.675 (0.099)	0.062
15	0.947 (0.067)	0.459 (0.121)	0.020
<i>Women, N=434</i>			
1	0.842 (0.102)	0.233 (0.089)	0.026
2	0.857 (0.101)	0.230 (0.091)	0.024
5	0.903 (0.096)	0.213 (0.098)	0.017
10	0.981 (0.086)	0.164 (0.108)	0.008
15	1.054 (0.077)	0.085 (0.117)	0.002

*Note:* Standard errors in parentheses. Regression of predicted reservation wages on calculated reservation wages.