The More Expecting to Have a Job, the More Having It

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Abstract:

Using a sample from the National Longitudinal Survey of Youth, we document that expectation of having a job in the future is strongly associated with future employment status. Particularly, individuals who have a higher expectation of having a job one year later, face a higher probability to have one. Furthermore, we modify a standard search model of employment to account for this result, thereby providing an explanation for this observation. These findings suggest that an analysis of employment and unemployment should also take expectations of individuals into account.

Keywords: Expectations; job search; employment status.

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1 Introduction

Along with the current great recession, unemployment has again settled on the agenda of both policy makers and the public. In January of 2010, unemployment rate in the United States was reported to be 10.6%, the highest unemployment rate since 1983. (Bureau of Labor Statistics, 2010). Likewise, the unemployment rate in the Euro area was 10% in June, 2010 (Eurostat, 2010). There is a large amount of evidence indicating that unemployment has detrimental effects on individuals' health (see, McKee Ryan, Song, Wanberg and Kinicki, 2005), therefore in order to improve our understanding of unemployment and employment, further research is very much needed.

Meta-analytic findings provided evidence that the negative effects of job loss and unemployment on physical and psychological health can be cured when unemployed become reemployed (Paul and Moser, 2009). Therefore, it is crucial for those who are unemployed to find a job as quickly as possible. To address this issue, both economists and psychologists investigated predictors of job search and employment, however, these research streams developed independent from each other. On one side, economists mostly investigated roles of economic variables in predicting job search, such as reservation wage (Parsons, 1991; Stephenson, 1976), unemployment duration (Oberholzer-Gee, 2008; Vishwanath, 1989), unemployment insurance (Mortensen, 1977), unemployment rate (Haurin and Sridhar, 2003), and labor market conditions (Lynch, 1989). On the other side, psychologists examined roles of individual differences such as conscientiousness, optimism, self-esteem, job search self-efficacy, and job search intensity in the job search process (Kanfer, Wanberg, and Kantrowitz, 2001; Saks, 2005; Wanberg, Kammeyer-Mueller, and Shi, 2000). Although, scholars repeatedly made calls for research incorporating psychological and economic models in order to better understand the job search behavior (e.g., Feather, 1992; McFadyen and Thomas,1997), not much has been done up to date. In one of few studies addressing this call, Wanberg, Hough and Song (2002) developed a multidisciplinary model of reemployment including predictors from the fields of economics, sociology and psychology. More recently, McGee (2010) and Mohanty (2010) investigated the roles of psychological variables in job search, nevertheless,

there is still a significant room for improvement of current research.

To address this gap, by incorporating a psychological variable, expectations, into an economic model of employment both theoretically and empirically, we contribute to the literature in two distinct ways: First, using a sample from the National Longitudinal Survey of Youth (NLSY), we document that expectation of having a job in the future is strongly associated with future employment status. Particularly, individuals who have a higher expectation of having a job one year later, face a higher probability to have one. Second, we modify a standard search model of employment to account for this result, thereby providing an explanation for this observation.

The rest of the article is organized as follows: In the next two subsections we review the literature on the expectancy-value theory of job search and list the differences of our study, respectively. Then, we empirically document that expectations have a significant effect on employment status. In section 3, we present an economic model to understand how expectations affect employment status theoretically. In section 4, we run simulations using our model to show how the model accounts for our empirical observation. Finally, we conclude.

1.1   Expectancy-value theory of job search

Feather (1992) applied expectancy-value theory, a cognitive-motivational theory explaining human behavior, to job search behavior. Briefly, according to the expectancy-value theory, behavior is determined both by an individual's expectation regarding the outcome of the behavior and by the value that the individual attributes to this outcome (Feather, 1982). While expectation refers to an individual's belief that performing the behavior will lead to the desired outcome, value refers to the perceived attractiveness of the outcome. On one side, expectations are formed by an individual's perception on her ability to achieve desired outcome, as well as her past performance. On the other side, value is formed by the needs or philosophy of life of the individual. Note that, in the psychology literature, expectancy-value theory has been used to account for various behaviors such as social loafing (Shepperd and

Tayler, 1999), alcohol consumption (Hays, 2006), consumer behavior (Cohen, Fishbein, and Ahtola, 1972), achievement performance (Wigfield, 1994) and health behavior (Van der Pligt and De Vries, 1998).

Applying expectancy-value theory to job search behavior, one can argue that, the more an individual expects to find a job and the more she values having one, the more she searches for it. Moreover, Feather (1992) links expectancy and value to future employment status, hypothesizing that people who intensely look for a job, will very likely find one. Consistent with this hypothesis, in a sample of unemployed individuals, Lynd-Stevenson (1999) found that job expectancy and job importance predicted future employment status.

Several other researchers used expectancy-value theory to investigate whether expectations and value predicted job search behavior. Findings with respect to the value were consistent, all pointing that individuals who place a higher value on having a job display more intense job search behavior than those who place lower value (e.g., Feather and O'Brien, 1987; Vansteenkiste, Lens, De Witte, and Feather, 2005). However, findings regarding the effects of expectations were mixed. Some of the previous studies reported a significant positive relationship between job expectation and intensity of job search (e.g., Feather and Davenport, 1981), some found a negative relationship (e.g., Vansteenkiste, et al., 2005), and some others found no relationship at all (e.g., Feather and O'Brien, 1987). Moreover, recently, meta-analytic findings demonstrated diverse relationships between optimism, a form of expectancy, and job search outcomes (Kanfer, et al., 2001). Accordingly, optimism predicted employment status, but not the job search behavior. These inconsistent findings led researchers to review their hypotheses about the relationship between job expectancy and job search. In their previous papers, Feather and his colleagues (Feather and Davenport, 1981; Feather and O'Brien, 1987) proposed that frequency of job search behavior is positively correlated with the job seeker's expectation of finding a job. However, inconsistent findings regarding the relationship between expectations and job search led researchers to discuss alternative relationships. For example, it is proposed that higher expectations might affect job search behavior negatively (Feather, 1992). Specifically, individuals with higher

expectations of finding a job might reduce their job search intensity. In other words, they might overestimate their capability, at the same time underestimate external reality. It may also be the case that job seekers who target high status jobs might fail finding one, even if they search intensely. All these alternative explanations indicate that the direction of the relationship between job expectancy and job search is an open question.

1.2 The Present Study

There is an increasing interest in investigating the effects of psychological variables on labor market outcomes. However, this interest is mostly focused on earnings. Researchers examined how individual differences such as self-esteem and personality affect earnings (Nyhus and Pons, 2005; Goldsmith, Veum, Darity, 1997; Mohanty, 2009). However, research on incorporating psychological variables into economic models of job search is scarce. In one of the few studies, Mohanty (2010) examined the roles of positive attitudes and optimism on employment. He found that these psychological variables have a significant impact on employment status, above and beyond the effects of other economic variables. In another econometric study, McGee (2010) investigated the role of locus of control on job search intensity and found that internal job seekers (who believe that outcomes are under their control) searched more intensely than external ones (who believe that outcomes are out of their control). Although, Mohanty (2010) and McGee (2010) focused on expectation-related variables such as optimism and locus of control, they used them as proxies for general expectations. Our study extends the current literature, since we directly consider employment expectations.

Additionally, in the economic behavior literature, researchers examined the effects of expectations on economic behaviors, investment behavior (Anderson and Goldsmith, 1997), commodity purchases (Swenson ,1997) and saving behavior (Van Raaij, 1989). However, to the best of our knowledge, there is no study which investigated the effect of employment expectation on employment status. In this regard, our paper contributes to the literature in several ways: First, using data from a representative sample in the United States, we

empirically document that expectancy is one of the crucial factors determining future employment status. As might be expected, the findings of this study will help us to improve our understanding of the relationship between expectancy and employment. Second, we show that this observation is consistent with a modified version of a search model of employment. This modification allows us to examine the theoretical causes of the relationship established in the empirical analysis. Third, we compare our model's performance against the data and outline some policy recommendations.

2   Empirical Analysis

2.1   Data

We use data from the National Longitudinal Survey of Youth 1997 (NLSY97). The NLSY97 is directed by the Bureau of Labor Statistics, U.S. Department of Labor and aims to investigate young individuals' transition from school to work. The NLSY97 consists of a nationally representative sample and continues on annual basis. In the first round, conducted in 1997, 8,984 individuals whose ages ranged from 12 to 18 were interviewed. The NLSY97 provides information on labor market and educational experiences of its participants. Moreover, it collects information on other topics such as relationships with parents, expectations and criminal behavior.

2.2   Sample

Since our sample consists of individuals who provided responses to all of our study variables, the number of participants reduces to 5,472. The mean age of our sample is 17.9 years (SD=1.43). Fifty percent of the participants are female, and 62.7% of them are White. Moreover, 54.8% of our sample is employed. Twenty-eight percent of the participants completed 12th grade. Ninety-two percent of the participants are not married, neither are they living with a partner. The mean of the cumulative worked hours from age 14 through age 19 is 1,730 hours (SD=1948). Seventy-four percent of our sample lives in an urban area. Finally,

in terms of parental education, 47% of the participants' mother and 47.3% of participant's father have a high school diploma.

2.3 Measures

Independent variable: In the NLSY97, employment expectations were measured in years 1997 and 2000. Because the participants were quite young in 1997, we report results using the data from 2000. In the survey, employment expectations were measured with the following item: "If you are not in school a year from now, what is the percent chance that you will be working for pay more than 20 hours per week?" Responses to this question were given in a range from 0 to 100.

Dependent variable: Employment status one year later is obtained from 2001 data (0=not employed, 1=employed).

Control variables: With the data from the year 2000, we controlled several variables which might affect future employment status. Along with age, gender (1=male, 2=female) and race (1=White, 2=Black, 3=Indian, 4=Asian, 5=other), we also controlled for education. Education was measured with the following question: "What is the highest grade you have ever completed as of today?". Furthermore, we obtained work experience of the respondents from the data on cumulative hours worked at an employee-type job from age 14 through age 19. Moreover, participants were asked whether they are living with a partner (or are married) (0=not married, 1=married/living with partner) and whether they live in an urban or rural area (0=rural, 1=urban). Finally, we also controlled for parental education, by simply adding years of education received by the respondent's father and mother[1] and for the unemployment rate of the area in which the respondent lived in 2001.[2]

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[1] In the results we report, to avoid collinearity, we did not include father's and mother's education separately as these two variables are highly correlated with each other with a correlation of 0.60. However, results of regressions we obtained by adding mother's and father's education separately do not significantly differ from those which are reported. Moreover, we should state that none of the other two variables have a correlation higher than 0.25.

[2] NLSY divides the country in four main areas: South, West, Midwest and Northeast. Unemployment rates of these areas are obtained from BLS.

2.4   Estimation Results

We intend to estimate a relationship linking probability of being employed in the future to expectations and various other control variables. One such possibility could be estimating the following equation:

$$Emp_i = \beta_0 + \beta_1 exp_i + \sum_{k=2}^{n} \beta_k X_{k_i} + \epsilon_i, \tag{1}$$

where Emp_i is a binary variable indicating whether the individual is employed or not. Moreover, exp_i stands for the respondent's expectation (formed in year 2000) of the probability of finding a job next year and $X_{k_{i,t}}$ are the other explanatory variables used in the regression. As it is well known, due to the binary nature of the dependent variable, estimating this linear relationship in equation 1 creates certain problems. Therefore, a more appropriate procedure is using a logit or probit analysis.

Note that the binary nature of the dependent variable allows us to express it in probability terms. Specifically, let

$$Emp_i = \begin{cases} 1, & \text{if i is employed in 2001} \\ 0 & \text{if is unemployed in 2001.} \end{cases}$$

Then the appropriate econometric model is given by

$$E[emp_i|x_i] = F(x_i'\beta)$$

$$Pr(emp_i = 1|x_i) = F(x_i'\beta)$$

$$Pr(emp_i = 0|x_i) = 1 - Pr(y_i = 1|x_i) = 1 - F(x_i'\beta).$$

Table 1 reports the coefficient estimates obtained using the logit approach with F being

the logistic distribution where we assume

$$F(x_i^{'}\beta) = \frac{exp(x_i^{'}\beta)}{1 + exp(x_i^{'}\beta)}.$$

Moreover we calculate the marginal effects using

$$\frac{\partial Pr(y_i = 1|x_i)}{\partial x_{ij}} = \frac{\partial F(x_i^{'}\beta)}{\partial x_{ij}} = f(x_i^{'}\beta)\beta_j$$

where $f(.)$ is the density function corresponding to the cumulation distribution $F(.)$.

Since our sample size is quite large, as expected probit and logit regression results are not significantly different from each other. Therefore, we report only the results of the latter here. [3]

Table 1 about here

In Table 1 we report results of three different estimations. First, we include all the control variables along with expectations and report the results in column 2. As hypothesized, the coefficient of expectations is positive and highly significant, even at 1% level of significance. Next, in column 3 of Table 1, we report the marginal effect of each variable evaluated at the mean of this variable in the whole sample.

Once the marginal effects are calculated, Figure 1 draws the probability of being employed in 2001 against expectations, using the estimated coefficients and x_i's evaluated at their mean levels. The shape of the figure and the effect of expectations on future employment status are striking. An individual who certainly (with a 100 % expectation) expects to find a job one year later has almost 15% higher chance of being actually employed compared to an individual who certainly expects not to find a job (with a 0 % expectation).

Figure 1 about here

Next, we also estimate a regression without including expectations among the explanatory variables. This is reported in column 4. Moreover, to check the robustness of our results,

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[3]Probit regression results are available upon request from the authors.

we also run a regression without including the non-significant independent variables. This is reported in column 5.

We also stratify our sample into various sub-samples. Specifically, we run regressions separately for females, males, whites, blacks, singles, those who live with partners (or are married) and finally for those who were employed in 2000 and were unemployed in 2000.

Table 2 about here

Regression results for these sub-samples are reported in Table 2 and Table 3. For all of the sub-samples, higher expectations are associated with a higher chance of being employed in the subsequent year. As one can observe from the columns reporting the marginal effects, estimates range from 5% for those who were employed in 2000 to 30 % for blacks.

Table 3 about here

The short summary we conclude from this section is that expectations formed for being employed over a year significantly affect employment status one year later. Specifically, individuals who have a higher expectation of being employed over the next year end up with a higher probability of having a job. This result is robust to different econometric specifications, stratifications of the sample and inclusion of various control variables.

3   Economic Model

As we have documented in the previous section, our sample indicated that expectations for having a job in the future strongly increase the actual probability of having one. In this section, our purpose is to examine whether such a relationship can be supported by a modified job search model of employment. Such an analysis possesses the potential of identifying theoretical causes of this relationship between expectations and employment status.[4]

To illustrate and test how expectations might affect employment in a job search model, we borrow from the basic model a la McCall (1970). We assume that the representative

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[4]In order to simplify the readability of this section, we decided to relegate most of the technical language and details to the appendix.

agent only cares about the wage, w_t she is receiving and therefore has the following expected discounted lifetime utility:

$$E \sum_0^\infty \beta^t U(w_t)$$

where $U(.)$ is the instantaneous utility function, t is the time subscript and β is the subjective discount factor of the worker. [5]

Given this specification, now we can consider the problem faced by an agent having an offer w in period t:

If this agent accepts the offer with w, her life time utility can be represented with the following value function:

$$U(w) + \beta \{\hat{\gamma} v(w) + (1 - \hat{\gamma})[U(0) + \beta \int_0^{E\bar{w}} v(w')f(w')dw']\}$$

In this specification, once the offer is accepted, the worker enjoys an instantaneous utility $U(w)$. Next, in the following period, once the utility is discounted by the discount factor β she faces two possibilities: Keeping the job or losing it. We assume that she **expects** to keep the job with subjective probability $\hat{\gamma}$. Similarly, $1 - \hat{\gamma}$ is the subjective probability of expecting of being fired (or losing the job) in the next period. In this case, the agent does not get any wage for one period and therefore receives $U(0)$, and then expects to receive an offer w' from the wage offer distribution with probability density $f(w')$ and range between 0 and $E\bar{w}$. Notice that wage offers are arising from a compact support of $[0, E\bar{w}]$. The key assumption here is that $\bar{w}$ might take two values: $\bar{w}_h$ or $\bar{w}_l$ with subjective probabilities of α and $1 - \alpha$, respectively. We denote the expected value of highest possible job offer by $E\bar{w} = \alpha\bar{w}_h + (1 - \alpha)\bar{w}_l$. We should also notice here that $\hat{\gamma}$ is not necessarily equal to the actual probability of continuing the job next period. We denote the latter by γ and allow for γ and $\hat{\gamma}$ to be different from each other.

On the other hand, if the worker does not accept working at the offered wage of w, she

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[5]Moreover, we assume that U is strictly increasing and strictly concave in w. In technical terms we assume that $\frac{dU}{dw} > 0$ and $\frac{d^2U}{dw^2} < 0$.

has the following life-time utility:

$$U(0) + \beta \int_0^{E\bar{w}} v(w')f(w')dw'$$

The interpretation of the above equation is quite similar to the previous one. Since the worker does not work in this period, she does not enjoy any utility from a wage, that is why we have the $U(0)$ term. Moreover, next period she expects to receive another job offer within $[0, E\bar{w}]$ with an offer density of $f(w')$.

Therefore, the problem faced by an agent in the current period is the following:

$$v(w) = max\left\{U(w) + \beta\{\hat{\gamma}v(w) + (1 - \hat{\gamma})(v(0))\}, U(0) + \beta \int_0^{E\bar{w}} v(w')f(w')dw'\right\}$$

Under suitable assumptions[6] we can prove that the optimal decision making of the worker is of the reservation wage form, i.e. the worker accepts a wage offer w, if and only if it is larger than a certain level of reservation wage, denoted by w^* and rejects it otherwise.[7]

Moreover, we can also prove the following results on the behavior of the reservation wage:

Proposition 1 *The reservation wage decreases as the subjective probability of losing the job next period, $\hat{\gamma}$, or the expected value of highest possible job offer next period, $E\bar{w}$, decreases.*

The first result in the above proposition asserts that the reservation wage of the worker is a decreasing function of her expectation of being fired from the job next period, conditional on accepting the job this period. In this sense, a worker who accepts a job offer today has a lower reservation wage, if she expects that chances to be fired from the job are higher.

Moreover, the second result shows that the worker reduces her reservation wage if she expects to receive a lower job offer next period.

Notice that our ultimate purpose is to link the probability of being employed or unemployed to expectations for the future. One interpretation of the first result in Proposition 1

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[6]See the appendix for a rigorous discussion of the theoretical results presented in this section.
[7]All the proofs in this section are relegated to the appendix.

is that the less a worker **expects** to continue working in the job she intends to accept, the lower is her reservation wage. Similarly for the second result, if a worker **expects** to receive lower job offers in the future, the lower is her reservation wage. These two propositions in a way show that expectations for the future have repercussions on today's decisions.

Now, we need to link the results on the reservation wage of the worker to the probability of being employed or unemployed. To do this, we proceed as follows:

Since the worker only accepts offers when they are above the reservation wage w^*, we denote the probability that a job offer w is accepted by the agent by $\phi = Prob(w \geq w^*)$.

Given the probability ϕ and denoting the probability of being unemployed in the current period t, u_t, we can define the probability of being unemployed in the next period $t+1$, u_{t+1} as follows:

$$u_{t+1} = u_t(1 - \phi) + (1 - u_t)(1 - \gamma)(1 - \phi).$$

As the above equation shows, probability of being unemployed tomorrow consists of two components: First term, $u_t(1-\phi)$, refers to the case of being unemployed today in t and not accepting the job offer. The second term, $(1 - u_t)(1 - \gamma)(1 - \phi)$, refers to the case of being employed today in t, however the worker might be fired tomorrow with an actual probability of $(1 - \gamma)$ and then not accept a job with a probability of $(1 - \phi)$.

We can easily show that this difference equation converges to a steady state probability of being unemployed, $u_t = u_{t+1} = u^*$ which is equal to:

$$u^* = \frac{(1 - \gamma)(1 - \phi)}{\phi + (1 - \phi)(1 - \gamma)}.$$

Given this definition u^* we can prove the following result:

Proposition 2 *Probability of being employed in the steady state equilibrium, (1-u*), is increasing in ϕ.*

This quite intuitive result above will provide us the link between expectations for the future and probability of being employed. Any parameter of the model related to future

expectations which would increase ϕ, would immediately reduce u^*.

4 Model Simulations

In this section, we will simulate the model presented in the previous section. The main purpose of this section is to get numerical results from the economic model which are consistent with the empirical observations we documented in the second section of the paper.

Remembering the form of the question on expectations from the NLSY survey, we can use two parameters of the model as proxies for expectations. One of them is the $\hat{\gamma}$ and the other one is α. As we have proved in the previous section, reducing $\hat{\gamma}$, decreases the reservation wage and therefore increases ϕ and $1 - u^*$, the probability of being employed in the steady state equilibrium.

Another possible parameter we can use is α. As we proved in the previous section, reducing α decreases the reservation wage.[8] The intuition was that if a worker expects to receive lower job offers in the future, she reduces her reservation wage. This immediately increases ϕ and $1 - u^*$.

What we are after in this section is to find a numerical relationship between the probability of being employed in the steady state equilibrium $1 - u^*$ and expected probability of accepting a job offer ϕ and then compare this relationship against their data counterparts, namely estimated probability of finding a job and expectations.

4.1 Simulation Procedure

To perform the simulation exercise we need to make certain assumptions on the values of some parameters and on functional forms. To do this, we follow Fitzgerald (1998) and assume that $f(.)$ follows uniform density with $f(w) = \frac{1}{w}$. Moreover, similar to Fitzgerald (1998) for the discount rate β we use a value of 0.95 consistent with a 5% annual yearly interest rate. We also set values of the two highest possible job offers to $\bar{w}_l = 1$ and $\bar{w}_h = 2$.

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[8]See the proof of Proposition 1 for this.

Finally, as the utility function we use $U(w) = log(1 + w)$.

We calibrate the value of $\hat{\gamma}$ to match the average level of expectations in our data set. This value turns out to be 0.17. And finally the actual firing rate γ is also calibrated, this time to match the average level of probability of finding a job estimated from the data. The calibrated value of γ is 0.26. This value is not a lot different from the one used by Fitzgerald (1998) where the author uses a firing rate of 0.5% per-week which corresponds to $\gamma = 29.6\%$ in a yearly time horizon.

Given these assumptions and calibrations together with any value of α, we use the equation $B.1$ in the proof of Proposition 1 to calculate the value of w^*, and then given w^* we obtain the value of ϕ.

4.2 Model vs. Data

The parameter we allow to vary is α. Specifically, we reduce α from 1 to 0 and for each value of α our model generates a value for $1 - u^*$ and for ϕ.

Following this, Figure 2 draws the model generated $1 - u^*$ vs. model generated ϕ and compares it against their data counterparts from Figure 1. As the Figure 2 clearly illustrates, the model is well capable of generating a positive relationship between expectations for future job offers and probability of being employed.

Figure 2 about here

4.3 Interpreting Simulation Outcome

The simulation exercise we performed in this section helps us to identify one factor, a change in the expected future wage offer, as a possible cause for the established relationship between expectations and probability of employment. Due to the types of questions asked in the NLSY97 survey, we were not able to deduct this factor from the empirical analysis. However, the theory and the simulations conducted using the simple search model we can name at least one factor, namely α. Nevertheless, this does not mean that it is the only factor which might cause the positive relationship between expectations and probability of

employment. As we have mentioned above, another possibility was changing $\hat{\gamma}$, subjective probability of losing (or being fired from) the job once accepting the offer. A similar simulation exercise might be performed by varying $\hat{\gamma}$. In a richer model with more ingredients, some other variables could also be identified as factors behind the expectations-employment relationship.

5   Discussion and Conclusion

The main purpose of this study was to investigate the role of expectations in determining future employment status. Using data from the NLSY97, we showed that individuals who place a higher probability on being employed in the following year are more likely to be employed. In sum, our results demonstrated the importance of expectations in predicting future employment status.

This study contributes to the literature in several ways: First, although past researchers examined the roles of optimism and locus of control in job search behavior, respectively, they used them as proxies for general expectations. While Mohanty (2010) measured optimism as "being hopeful about the future", McGee (2010) used Rotter's scale which measures general locus of control. To the best of our knowledge, this study is the first one which directly investigated the effect of employment expectations on future employment status.

Second, since our sample is large and representative, the findings might help to improve our understanding of the relationship between expectations and employment. Our results demonstrated that expectations increase the probability of employment. Previously, it was proposed that expectations might lower employment probability by leading the job seeker to overvalue her qualifications and to reduce her job search intensity (Feather, 1992). However, our findings indicated that this proposition is not the case.

Third, we showed that the effect of expectations on future employment status can be accounted for by a modified search model of employment. This might be interpreted as a response to calls for incorporating psychological and economic approaches to job search. Although there is a growing body of research which investigates the effects of psychological

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variables on economic behaviors, research on job search in this sense is scarce. In our model simulations, we demonstrated how expectations-employment relationship is established. An individual who expects a lower job offer in the future reduces her reservation wage. This, in turn, increases the probability of accepting a job offer next period and reduces the probability of being unemployed. Surely, we do not argue that this is the only mechanism linking expectations to future employment status. Our explanation is one among possible other mechanisms. Moreover, this area deserves further research efforts. For example, future research might incorporate other psychological variables such as positive affectivity and psychological well-being into an economic model of employment. Additionally, in this study we used expectation dimension of expectancy-value theory. However, other theories might also help to improve our understanding of the job search mechanism. For example, Bryant (1990) applied prospect theory to a study of job search.

In terms of practical implications, our findings provide some information for job seekers and career counselors. Career counselors should increase the awareness of job seekers regarding the role of expectations in the job search process. Labor market policies and interventions should encourage job seekers to keep their expectations high.

To conclude, Feather (1992, p. 315) noted that "comprehensive approach to questions about unemployment will involve contributions from different disciplines". Since unemployment is one of the major economic problems of today's world, scholars coming from different disciplines such as economics, sociology and psychology should incorporate different models and approaches in order to find solutions to this global issue.

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Appendix

A Reservation Wage

In this subsection we show that the optimal decision making of the worker is of the reservation wage form.[9] Now once we define $U(0) + \beta \int_0^{E\bar{w}} v(w)f(w)dw = C$, since it is invariant in w, in technical terms, we can state this result as follows:

Corollary 1

$$v(w) = \begin{cases} C, & w \in [0, w^*] \\ \frac{u(w) + \beta(1-\hat{\gamma})C}{1 - \beta\hat{\gamma}} & w \in [w^*, \bar{w}] \end{cases}$$

Proof. The proof of the above corollary follows from $v(0) = C$, $v(\bar{w}) > C$ and the facts that $U(w)$ is strictly and $v(w)$ is weakly increasing in w. Along with the continuity of U and v there must exist a $w^* \in [0, \bar{w}]$ which satisfies the stated equation in the corollary. ■

B Proofs of Proposition 1 and 2

Proof of Proposition 1:

Proof. To see the comparative static result stated in proposition 1, we use the result in corollary 1 to rewrite C as follows:

$$C = \beta C F(w^*) + \frac{\beta^2(1-\hat{\gamma})C(1 - F(w^*))}{1 - \beta(\hat{\gamma})} + \beta \int_{w^*}^{E\bar{w}} \frac{U(w)}{1 - \beta(\hat{\gamma})} f(w')dw'$$

Combining this with $C = u(w^* + \beta(\hat{\gamma}v(w^*) + (1-\hat{\gamma})C)$ we obtain the crucial equation which allows us to perform comparative static exercises:

$$U(w^*)(\frac{1}{\beta} - \hat{\gamma}) = \beta \int_{w^*}^{E\bar{w}} (U(w') - U(w^*))f(w')dw' \tag{B.1}$$

---

[9]We will quickly skim over the proofs here. For more details one can look at any textbook of dynamic macroeconomics which includes search theory.

Since U is assumed to be a strictly increasing function in w, from here it is straightforward to see that w^* is increasing in $\hat{\gamma}$ and $E\bar{w}$. Since $E\bar{w}$ is increasing in α, so is w^*, too.

■

Proof of Proposition 2:

Proof. Taking the derivative of u^* with respect to ϕ gives

$$\frac{\partial u^*}{\partial \phi} = \frac{(\hat{\gamma} - 1)\phi}{(\phi + (1 - \phi)(1 - \hat{\gamma}))^2}$$

.

The fact that $\hat{\gamma} - 1$ is negative immediately yields the desired result.

■

C   Tables and Figures

Table 1: Employment Status and Expectations: Whole Sample

Dep. Var.: Future Emp. Stat.

	Coeff.	ME	Coeff.	Coeff.
Currently Employed	1.32***	0.31	1.36***	1.34***
	(19.75)		(20.25)	(20.23)
Age	-0.06	-0.01	-0.06	
	(-0.70)		(-0.82)	
Experience	0.0002***	0.00005	0.0002***	0.0002***
	(8.65)		(8.87)	(10.82)
Parental Ed.	0.004	0.001	0.005	
	(0.27)		(0.29)	
Gender	0.12*	0.03	0.11*	0.14**
	(1.74)		(1.69)	(2.26)
Education	0.10	0.02	0.11	
	(0.92)		(1.08)	
Marital Status	0.06	0.01	0.04	
	(0.39)		(0.24)	
Race	-0.03	-0.007	-0.03	
	(-1.27)		(-1.27)	
Regional Unemployment	-0.05	-0.01	-0.05	
	(-0.51)		(-0.48)	
Urban-Rural	-0.007	-0.001	-0.01	
	(-0.09)		(-0.14)	
Expectations	0.006***	0.001		0.007***
	(4.32)			(4.43)
McFadden R-squared	0.15		0.14	0.14
Observations	5472		5472	5472
LR Statistic	1070.02		1048.92	1055.70
log likelihood	-3124.35		-3134.89	-3131.50

Robust z-statistics are in parentheses. ***, **, * denote 1, 5 and 10% confidence levels, respectively. In all regressions a constant is also included but not reported.

Table 2: Employment Status and Expectations: Different Sub-Samples

Dependent Variable: Future Employment Status

	Females		Males		White		Black	
	Coeff.	ME	Coeff.	ME	Coeff.	ME	Coeff.	ME
Currently Employed	1.25***	0.26	1.39***	0.32	1.35***	0.29	1.10***	0.27
	(13.25)		(14.66)		(15.85)		8.08	
Age	-0.08	-0.02	-0.04	-0.008	-0.12**	-0.03	0.12**	0.03
	(-0.60)		(-0.74)		(-2.34)		(2.17)	
Experience	0.0003***	0.00006	0.0002***	0.00004	0.0002***	0.00005	0.0002***	0.00004
	(6.39)		(5.81)		(7.42)		(3.06)	
Parental Ed.	0.02	0.005	-0.02	-0.004	-0.01	-0.003	0.05*	0.01
	(0.98)		(-0.94)		(-0.90)		(1.67)	
Gender					0.15*	0.03	0.09	0.02
					(1.77)		(0.72)	
Education	0.05	0.01	0.15***	0.03	0.15***	0.03	0.02	0.004
	(0.29)		(3.12)		(3.06)		(0.40)	
Marital Status	0.10	0.02	-0.05	-0.01	-0.004	-0.0008	0.16	0.04
	(0.51)		(-0.24)		(-0.02)		(0.54)	
Race	-0.02	-0.005	-0.05	-0.01				
	(-0.67)		(-1.36)					
Regional Unemployment	-0.19	-0.04	0.11	0.02	-0.13	-0.03	0.06	0.01
	(-1.34)		(0.80)		(-1.07)		(0.18)	
Urban-Rural	-0.02	-0.005	0.004	0.0009	-0.09	-0.02	0.37**	0.09
	(-0.24)		(0.04)		(-0.97)		(2.39)	
Expectations	0.005**	0.001	0.007***	0.002	0.004**	0.001	0.01***	0.003
	(2.55)		(3.66)		(2.42)		(3.80)	
McFadden R-squared	0.14		0.16		0.15		0.12	
Observations	2756		2716		3431		1267	
LR Statistic	503.87		579.09		645.62		219.08	
log likelihood	-1581.00		-1536.14		-1885.39		-768.59	

Robust z-statistics are in parentheses. ***, **, * denote 1, 5 and 10% confidence levels, respectively. In all regressions a constant is also included but not reported.

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Table 3: Employment Status and Expectations: Different Sub-Samples (continued)

Dependent Variable: Future Employment Status

	Married		Single		Employed		Unemployed	
	Coeff.	ME	Coeff.	ME	Coeff.	ME	Coeff.	ME
Currently Employed	1.28***	0.22	1.33***	0.31		0.02		-0.05
	(4.61)		(19.22)					
Age	0.03	0.004	-0.06	-0.01	0.08*	0.02	-0.19***	-0.05
	(0.19)		(-0.63)		(1.69)		(-3.86)	
Experience	0.0002***	0.00004	0.0002***	0.00005	0.0002***	0.00004	0.0002***	0.00005
	(3.45)		(7.80)		(6.82)		(5.13)	
Parental Ed.	0.02	0.002	0.003	0.0008	0.05**	0.009	-0.03*	-0.007
	(0.29)		(0.19)		(2.52)		(-1.91)	
Gender	0.32	0.06	0.11	0.03	0.07	0.01	0.15*	0.04
	(1.19)		(1.54)		(0.79)		(1.72)	
Education	0.10	0.02	0.10	0.02	0.01	0.002	0.21***	0.05
	(1.05)		(0.80)		(0.31)		(4.38)	
Marital Status					-0.002	-0.0005	0.18	0.04
					(-0.01)		(0.94)	
Race	-0.004	-0.0007	-0.03	-0.008	-0.002	-0.0004	-0.06*	-0.02
	(-0.05)		(-1.29)		(-0.06)		(-1.85)	
Regional Unemployment	-0.25	-0.04	-0.04	-0.008	-0.10	-0.02	-0.04	-0.009
	(-0.64)		(-0.34)		(-0.75)		(-0.27)	
Urban-Rural	0.16	0.03	0.004	-0.004	-0.08	-0.02	0.05	0.01
	(0.60)		(0.04)		(-0.76)		(0.55)	
Expectations	0.009**	0.002	0.006***	0.001	0.003*	0.0005	0.008***	0.002
	(2.08)		(3.96)		(1.70)		(4.31)	
McFadden R-squared	0.20		0.14		0.04		0.03	
Observations	433		5039		2998		2474	
LR Statistic	104.87		948.22		124.59		108.77	
log likelihood	-209.57		-2913.68		-1500.00		-1609.18	

Robust z-statistics are in parentheses. ***, **, * denote 1, 5 and 10% confidence levels, respectively. In all regressions a constant is also included but not reported.

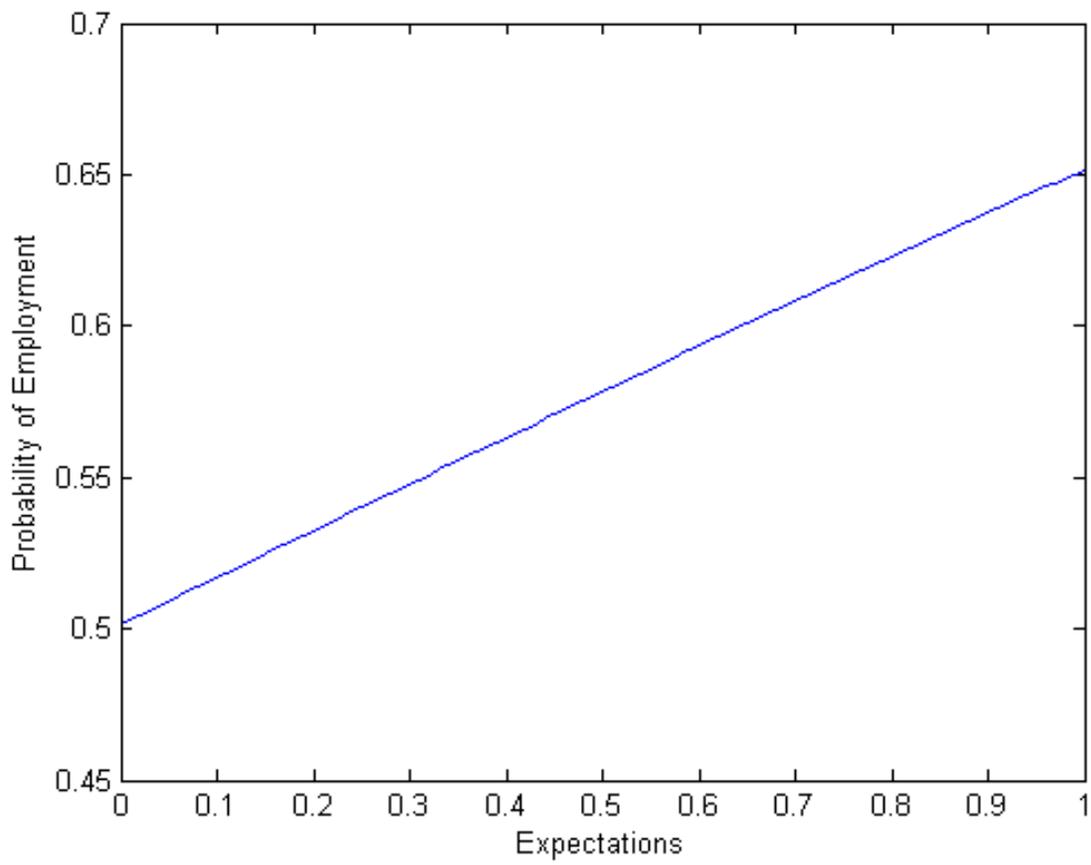Figure 1: Expectations and Probability of Employment

Figure 2: Expectations and Probability of Employment: Data vs. Model