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# Two-step on-the-job search—Evidence from Taiwan

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## Abstract

This study decomposes on-the-job search into two-step procedures. The first step is concerned with the dissatisfaction with the current job, and is very sensitive to the wage gap and other observed factors. The second step is concerned with initiating an on-the-job search, and is insensitive to the wage gap and most other observed factors. It is likely that the one-step approach overstates these observed factors, while it understates the unobserved factors that give rise to the subjective probability of finding a better job in the behavior of on-the-job search.
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## 1. Introduction

Research on on-the-job search has been conducted over a period of more than three decades. Empirical studies have usually embarked on determining who are the on-the-job searchers. These studies are usually concerned with whether a worker is searching for a new job as an on-the-job searcher. Regression techniques are then used to analyze which factors are important. This would appear to constitute an appropriate approach to understanding the problem of on-the-job search. However, on-the-job search involves a two-step procedure. It seems that most empirical studies have inappropriately reduced the two-step procedure into a one-step procedure. The first step of the two-step procedure consists of dissatisfaction with the current job, and the second step the actual activity involved in searching for a job. A worker must first be dissatisfied with his/her current job, or else believe that he/she deserves a better job, and if he/she considers that searching

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for a job is an advantageous choice, he/she will then become an on-the-job searcher. Neglecting either of these two steps might lead to an incomplete conclusion.

The first step of this two-step procedure, the dissatisfaction with the current job, is usually a response to the gap between the current wage and the average wage of all workers' with similar traits. The gap can be interpreted as the predicted gross gain from changing jobs. The second step in the on-the-job search procedure, that is, initiating a search for a job, is likely to be more dependent on one's subjective probability of finding a better job, and hence more insensitive to the predicted gross gain, than the first step in the on-the-job search. While a person may not be satisfied with his/her current job, searching for a new job does not mean that he/she will definitely find a better job. The subjective probability of finding a better job varies across individuals. In other words, individuals are heterogeneous in terms of their subjective probability of finding a better job. This heterogeneity might be due to the degrees of optimism and of motivation, or, in sum, due to some unobserved characteristics. Consequently, the sensitivity of the predicted gross gain of changing jobs in the second step of on-the-job search is much lower than that in the first step of on-the-job search. Furthermore, the implementation of the search for a job is not costless. In the case of the first step, the cost of searching for a job and changing jobs is not a concern since the job search has not yet been implemented. By contrast, the cost of searching for a job and changing jobs will become a concern if an individual starts with an on-the-job search.

Studies that reduce the two-step on-the-job search procedure to a one-step procedure might not be able to disentangle these two-step procedures, and not only will they not be able to explore the insights of the behavioral characteristics of on-the-job search, but might also arrive at a misleading conclusion. For instance, if the argument in the last paragraph is true, that is, the first step is sensitive but the second step is insensitive to the predicted gross gain from changing jobs, then using only the first-step as a substitute for the behavioral characteristics of on-the-job searchers will probably overestimate the significance of the predicted gross gain. It seems that ignoring the first-step response and directly using the second-step search behavior will be a better methodology. However, this is not a proper substitute either, and it will be discussed in the next section.

The remainder of this study is organized as follows. Section 2 points out the invalidation of the one-step model. Section 3 introduces the data used in the present study. Section 4 establishes two econometric models: the bivariate censored probit model and the ordered probit model. Section 5 discusses the results of these two models, and also applies the data set to three probit models that comprise. In Section 6, the results of all these models demonstrate the incomplete conclusions regarding the behavior of job searchers that arise through the use of a traditional probit or logit model in terms of either the first-step response, or the second-step search procedure. Section 7 concludes.

## 2. The invalidation of the one-step model

Fig. 1 can be used to illustrate the invalidation of either of the one-step procedures that is used to investigate the on-the-job search behavior. In Fig. 1, a complete two-step procedure of on-the-job search is presented at the top. In the complete two-step procedure, it is assumed that both observed and unobserved characteristics determine who wants to change jobs as well as who is searching for a new job. Empirical models are usually being set up using a one-step model, as Reduced models 1 and 2. The predicted gross gain from changing jobs is one of the observed characteristics, while personality is one of the unobserved characteristics. At the outset, we assume that the predicted gross gain is crucial in determining which individuals among all of the