

Conditional Choice Probability Estimation of Continuous-Time Job Search Models

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April 2019

Abstract

In this paper we propose a new method to estimate continuous-time job search models. Our approach is based on an adaptation of the conditional choice probability estimation methods to a continuous time job search environment. To do so, the proposed framework incorporates preference shocks into the search framework, resulting in a tight connection between value functions and conditional choice probabilities. A key advantage of the proposed approach relative to standard estimation methods for continuous-time job search models is computational. In particular, this makes it possible to estimate rich nonstationary job search models without having to solve any differential equation, and in some cases even avoiding any optimization. We apply our method to analyze the effect of unemployment benefit expiration on the duration of unemployment, using rich longitudinal data from Hungarian administrative records.

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