Job Search and Hyperbolic Discounting:  
Structural Estimation and Policy Evaluation

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Abstract

This paper estimates the structural parameters of a job search model with hyperbolic discounting and endogenous search effort. It estimates quantitatively the degree of hyperbolic discounting, and assesses its implications for the impact of various policy interventions aimed at reducing unemployment. The model is estimated using data on unemployment spells and accepted wages from the National Longitudinal Survey of Youth (NLSY). The likelihood function explicitly incorporates all the restrictions implied by the optimal dynamic programming solution to the model. Both observed and unobserved heterogeneity are accounted for. The results point to a substantial degree of hyperbolic discounting, especially for low and medium wage workers. The structural estimates are also used to evaluate alternative policy interventions for the unemployed. Estimates based on a model with exponential discounting may lead to biased inference on the economic impact of policies.

JEL: C6, C73, D90, J64, J68.
Keywords: Job Search, Hyperbolic Discounting, Structural Estimation, Policy Evaluation.

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