

The human capital investment model based on the stochastic control problem

Yu Yang*

Research Institute of Statistical Sciences The National Bureau of Statistics of
China, Beijing, China, yuy@gj.stats.cn

The present study on the human capital investment is not considered some stochastic risk, so this paper considers the time of dynamic and uncertainty of cost in the process of human capital investment, and puts the problem of optimal stochastic control into the human capital investment model for the first time. It develops the applications of the stochastic control theory, as well as enriches the study of human capital investment decision. This paper summarizes the human capital and human capital investment in research and development, then introduces the related singular stochastic control model and some research methods, and finally it focuses on the human capital investment decision model based on a class of singular stochastic control problem with stopping time.

Key words: singular stochastic control, stopping time, optimal strategy