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# Search frictions and (in)efficient vocational training over the life-cycle

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## Abstract

Since Becker [1964] it is well known that, in a context of competitive markets, human capital investments are in general efficient. On the opposite, search frictions on the labor market give rise to some inefficiency issues, so that there is a room for an optimal policy to promote vocational training investments. More particularly, Acemoglu [1997] and Acemoglu & Pischke [1999a] highlighted the impact of a poaching externality: as general human capital investments can benefit, with some probability, to some future employers, the current firm's private return of training investment is lower than its social return. Therefore, some subsidies can be required to reach a higher level of training expenditures. Recently, Belan-Chéron [2014] also argued that due to a higher job finding rate of workers with a higher general human capital, vocational training of workers accounts for an additional unemployment externality: the social return of training indeed embodies the fact that unemployed worker with higher human capital will switch faster from home production to market production. In this paper, we examine how search frictions and externalities related to training investments in general human capital can interact each other over the life cycle. We emphasize that related externalities are age-dependent, and this can require an hump-shaped subsidy rate of training costs to restore social efficiency. These results are illustrated using a calibration on the french economy.

**Keywords:** both

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