

# R&D subsidy and public education in an OLG economy with an occupational choice

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## Abstract

This paper constructs an overlapping-generations model including entrepreneurial innovation and an occupational choice between an entrepreneur and a worker. Taking such occupational choice into account, even a policy intended to encourage the innovation may have a negative effect on economic growth. We consider a R&D subsidy and public education. The R&D subsidy distorts an allocation of work force. For this distortion, it has a negative effect on the growth as well as a positive one. Altogether the effect of the subsidy becomes inverted U-shaped and there exists a growth-maximizing R&D subsidy rate. In contrast to the subsidy, the public education does not distort the allocation and always promotes the growth. We also show that the R&D subsidy reduces intra-generational inequality whereas the public education does not affect it.

**Keywords:** Occupational choice, Entrepreneurship, R&D subsidy, Public education

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