## Retirement behavior with health production

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## Abstract

In view of enhancing the elderly's labor force participation, disability insurance (DI) can have a negative impact, even without requirement that those who receive DI cannot work. The mechanism behind this is incentives to improve health by working or not working, which has not been considered in the literature on estimation of life cycle models with social insurance settings. If retirement worsens health and bad health is related to DI eligibility, generous DI reduces the value of continuing working. In this paper, I develop and estimate a life cycle model of consumption and labor supply of the elderly taking into account the design of the Japanese DI and retirement system. Because the short-term effect of retirement on health is estimated to be negative, when the coverage rate of DI for those with bad health is increased, the labor force participation rates are reduced through the channel of enhanced value of future benefit, decreased savings, and less incentive to keep good health. According to the estimates, 62.5% of the effect of the policy reform on reduction in employment rates is explained by the decreased incentive for health production.