Education Subsidy as Insurance for Fertility Choices*

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Abstract

A cross-country panel regression indicates that government spending on college education is positively associated with fertility rates. This paper highlights the key roles of fertility margins in understanding the macroeconomic implications of college education subsidies by calibrating a lifecycle Aiyagari model that features intergenerational linkages, college enrollment choices, and fertility choices. Policy experiments using the model demonstrate that the effects of subsidies—on inequality reduction, welfare improvement, and increasing income levels—are amplified through fertility margins in the long run, with the general equilibrium effects and intergenerational linkages playing key roles in this amplification. The key driving force behind the fertility responses is an insurance effect of the subsidy: income uncertainty leads to lower fertility, with a logic similar to consumption adjustments due to precautionary motives but different in that having a child is akin to making a consumption commitment, which makes a negative income shock more costly. The subsidies, especially income-tested ones, provide partial insurance against costly states associated with having children under income uncertainty.

Keywords: Fertility, education, overlapping-generations, college subsidy
JEL codes: C68, I28, J13, J24

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