

# Insuring the Risks of Fertility Choices: The Macroeconomic Roles of Education Subsidy\*

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## Abstract

I investigate the macroeconomic roles of college education subsidies by constructing a heterogeneous-agent general-equilibrium (GE) overlapping-generations model with fertility and college enrollment choices. My calibrated and validated model demonstrates that an income-tested college subsidy offers partial insurance against the risks associated with fertility choices under income uncertainty; because fertility choices are irreversible, having (more) children can lead to significantly lower consumption per household member—or inability to finance children’s education—in the event of a negative income shock, resulting in substantial welfare costs. More educated parents benefit more from this insurance; they are more willing to spend on their children’s education, expecting high returns from college due to the intergenerational persistence of abilities and tastes. The resulting fertility responses induced by this insurance amplify the policy’s effects on inequality reduction, welfare improvement, and raising educational attainment and average income in the long run, operating through the GE effects and intergenerational linkages.

Keywords: Fertility, education, overlapping-generations, college subsidy

JEL codes: C68, I28, J13, J24

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