Education Subsidy as Insurance for Fertility Choices*

Kanato Nakakuni†

October 2024

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Abstract

A regression using cross-country panel data shows that government spending on tertiary education—the major fraction of which is allocated to college education—is positively associated with fertility rates. This paper highlights the key roles of fertility margins in assessing 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 fertility margins amplify the effects of subsidies on inequality reduction, welfare improvement, and increasing income levels in the long run through the general-equilibrium effects and intergenerational linkages. The key driving force behind the fertility responses is an insurance effect of the subsidy: because fertility choices are irreversible (i.e., one cannot "reduce" the number of children), having a new child today makes future bad income shocks more likely to induce a shortfall in funding children's education or a significantly low lifetime consumption to support their children's education, resulting in greater utility losses. The subsidies, especially income-tested ones, provide partial insurance against such 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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*I am deeply indebted to my advisors, Makoto Nirei and Sagiri Kitao, for their continuous guidance and support. I am also grateful to Minsu Chang, James Graham, Jeremy Greenwood, Fergal Hanks, Chihiro Inoue, Akira Ishide, Yusuke Ishihata, Ryo Jinnai, Akihisa Kato, Tomoaki Kotera, Minjoon Lee, Kazushige Matsuda, Colin McKenzie, Toshihiko Mukoyama, Tomoyuki Nakajima, Yena Park, Ponpoje Porapakkarm, Xavier Ragot, Yuta Takahashi, Satoshi Tanaka, Kazuhiro Teramoto, Makoto Watanabe, Tomoaki Yamada, Shintaro Yamaguchi, Minchul Yum, and seminar participants at the Annual Macro Conference at Osaka University, Hitotsubashi University, OzMac workshop at Monash University, Waseda University, 2024 Spring Meeting of Japanese Economic Association, Meeting of the Society of Economics of the Household, 30th CEF Conference, and the Summer Workshop on Economic Theory for their many helpful comments. This study is financially supported by the Japan Society for the Promotion of Science (23KJ0374).

†University of Tokyo, Japan. Email address: nakakunik@gmail.com.