Three Essays on Child Health and Skill Formation

Sumanta Mukherjee¹

May 2011

Doctoral Dissertation

Principal Supervisor: Prof. Donna K. Ginther²

¹ Department of Economics, University of Kansas, 318 Snow Hall, 1460 Jayhawk Blvd., Lawrence, KS 66045 (email: mukherjee@ku.edu).

² Department of Economics, University of Kansas, 333 Snow Hall, 1460 Jayhawk Blvd., Lawrence, KS 66045 (email: dginther@ku.edu).
Abstract

This dissertation attempts to add to the scholarly literature on parental investments in children. In particular, these essays study a number of ways in which children use their time, and the potential influence of such use of time on the development of cognitive and non-cognitive skills in school-age children in the U.S. and in India. The particular uses of time that this dissertation addresses include participation in lessons and sports, spending time with mothers, and spending time away from school to support family members. The key difficulty in identifying a causal impact of these choices arises from the possibility that a child’s human capital acquisition decisions are made jointly with a variety of other decisions. To deal with potential endogeneity in these analyses, I employ a number of empirical techniques: individual fixed effects, sibling fixed effects, and instrumental variables. The first essay examines the impact of parental choices regarding extra-curricular activities on the health and skill acquisition outcomes of school-age children in the US. Using longitudinal time use data from the Child Development Supplement (CDS) of the PSID, I find reduced behavioral problems and enhanced positive development for children that engage in structured activity. Participation in lessons also significantly increases positive behavior and mathematics test scores. In the second essay, data on a panel of children aged five through eighteen from the NLSY-Child (1979) are analyzed to explore the effect of maternal employment on a child’s mental health outcomes. Using fixed effects estimates, we find that mothers who spend more time at home have children with fewer emotional problems: they score lower on the behavioral problems index; they are also less likely to be frequently unhappy or depressed. In the final essay, cross-section data drawn from the 50th Round of the National Sample Survey (NSS) from rural India are analyzed to explore the relationship between fertility and child labor. Our results indicate the possibility of a sibling subsidization effect: all
else equal, a new child in the family results in increasing the probability of sending an oldest child in the age group 5-14 out to work by over 5%.