The Heckman Equation





Nurse-Family Partnership:

Parental education and early health result in better child outcomes.

James J. Heckman is the Henry Schultz Distinguished Service Professor of Economics and Director of the Center for the Economics of Human Development at the University of Chicago, a Nobel Laureate in economics and an expert in the economics of human development.

Professor Heckman's latest research, An Analysis of the Memphis Nurse-Family Partnership Program, puts a widely-known voluntary home visiting program through its most rigorous analysis to date and finds important short- and long-term impacts for mothers and their children. Heckman and co-authors Maria Rosales, Rodrigo Pinto, Margaret Holland and Kevin Makino¹ find that the Nurse-Family Partnership Program improved maternal mental health and parenting skills, which resulted in better outcomes for their children.

Nurse-Family Partnership: A parental education and family health model

NFP is one of many voluntary "home visiting" programs in the United States and around the world. Most home visiting programs have a trained specialist work with families during and after pregnancy, providing medical, parenting and family education with the goal of helping parents provide their children with a strong start in life.

This study evaluates a randomized controlled trial of the NFP program conducted in Memphis, Tennessee in 1990. NFP aims to improve the long-term success of at-risk children by promoting healthy maternal behaviors and fostering strong parenting skills. It offers voluntary prenatal, parenting and early childhood supports to low-income, first-time mothers. The program consists of home visits starting during pregnancy and lasting until two years after birth. NFP home visitors are registered professional nurses with at least a Bachelor of Science in Nursing degree. They have formal training and follow a detailed curriculum of activities specific to the different stages of pregnancy and child development.

Rigorous research shows significant benefits

Previous evaluations of NFP examine its effects across a range of areas, including maternal and child health,

child development, parenting and family self-sufficiency. The authors of this study sought to build upon a large body of home visiting research by using a particularly rigorous analysis of a randomized control trial (RCT) that also analyzed the ways in which the programs generated treatment effects and looked at the differences in effects by gender. The authors of this extremely rigorous analysis found that NFP had significant beneficial effects on mothers and children.

Significant short-term effects

Researchers found that the home visiting program improved birth weights for infant boys, who tend to be more vulnerable during pregnancy. Low birth weights are associated with developmental problems early in life that can persist if left untreated. By the time children reached age two, researchers found the home visiting program had created healthier home environments, more positive parenting attitudes and better maternal mental health. At age six—four years after the program ended—the home visiting program led to improved cognitive skills for both boys and girls, and better socio-emotional skills for girls. Researchers found the positive effects at age six were largely attributable to the program's impact on maternal health and early-life investments.

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Maternal investment and early health matter

This study of NFP shows that parenting early in life very much matters, and that voluntary programs that work closely with parents to strengthen parenting skills and provide early health can make a difference. Participation in the program led to improvements in maternal mental health, specifically reductions in anxiety and improvement on mastery/self-control, as well as improvements in parenting skills. These key outcomes lead to a home environment that better supports the healthy development of young children.

Enduring effects for boys

NFP, which ends when children reach age two, continued to have impacts on boys' educational achievement when they were last assessed at age 12. Researchers found that a large part of the impact was due to the cognitive benefits that were seen at age six. One potential explanation for this is the health effects of the home visiting program on birth weight. The short- and long-term beneficial effects on birth weight in boys and the corresponding increase in cognition by age six and achievement by age 12 suggests that interventions that start before birth have the potential to affect cognitive skill formation during the sensitive periods in utero and in the early years of life.

Policy and program implications

This new study on the Memphis NFP program contributes to research on a variety of home visiting programs that have shown positive effects on improving parenting practices, home environments and child outcomes. Overall, they show that these programs warrant continued and increased investment. Specifically, the NFP findings on pre- and post-natal health and parenting education—and their corresponding beneficial effects on children—point to the wisdom of funding early and continued access to health care for low-income families in addition to voluntary parental education resources.

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