





Heather Royer, PhD

Assistant Professor of
Economics

Weatherhead School of
Management

Case Western Reserve
University

The Effect of Female Education on Fertility and Infant Health: Evidence from School Entry Policies Using Exact Date of Birth

Dr. Heather Royer is interested in understanding the factors that determine infant health. Her recent work using school entry cut-off dates to understand the impact of age at school entry on female education, fertility and birth outcomes adds knowledge to this important debate regarding school entry policies. Her research interests lie at the intersection of health, labor economics, public finance and applied econometrics. Through her work, Dr. Royer has developed new statistical methods to estimate the effects of mother's age, education and prenatal care on infant health.

STUDY DESIGN

Dr. Royer and her colleague, Justin McCrary, were interested in understanding the effect of female education on fertility and infant health. For the study, they compared fertility and infant health outcomes for mothers born just before and just after the school entry cut-off date.

Birth certificate data for California and Texas were acquired from the Department of Health of each state. The sample included data from 1989-2001 from Texas and from 1989-2002 from California. Data were restricted to include only the mothers born in the state in which they gave birth, who were first time mothers and, for the infant health analysis, who were 23 years old or younger at the time of birth. School entry policies were used to obtain the kindergarten entry cut-off date for each state.

STUDY RESULTS

Drs. Royer and McCrary found that the school entry policies had an effect on a woman's education and on the characteristics of her mate, but had a small and statistically insignificant effect on fertility choices and infant health.

The study showed that among young mothers, school entry policies affected educational attainment at first birth. Almost one-fourth of Texas mothers born after the school entry date had a year less education than they otherwise would, had they been born before the entry date. In California, 15% of mothers born after the school entry date had a year less education than those born before it. Furthermore, the authors found that school entry policies affected not only the number of years of high school a woman had completed by the time of her first birth, but also the number of years of college.

It is important to note, however, that not all women's education at motherhood will be affected by school entry dates. Those women most

likely to be affected are those who are at risk of dropping out of school and those who are likely to quit school at the youngest age allowable by law. This is demonstrated by the finding that school entry policies exert the greatest impact on the education of those women who give birth at young ages. The authors found that the impact tended to be on women who had generally achieved low levels of education, with a

IMPLICATIONS FOR POLICY AND PRACTICE