Abstract
The smallpox vaccination method was the paramount medical innovation of the late 18th and early 19th centuries. We exploit the introduction of the smallpox vaccine in Sweden to identify the causal effect of early-life mortality on fertility. Our analysis shows that parishes in counties with higher levels of smallpox mortality prior to the introduction of vaccination experienced greater declines in infant mortality afterwards. Exploiting this finding in an instrumental-variable approach reveals that the decline in infant mortality had a negative effect on the number of children born, whereas we find a small insignificant effect on the number of surviving children and natural population growth. (JEL: J10; J13; I15; N33)