Paper proposed for PAA 2005:

Childhood Exposure to Disease and Old Age Mortality: Long-term Perspectives from the Nineteenth Century

George Alter, Indiana University
Michel Oris, University of Geneva

Recent studies have suggested that poor nutrition and exposure to unhealthy environments in early childhood may have long-term effects on adult and old age mortality. At the aggregate level it is difficult to determine whether correlations between childhood health and later adult mortality are due to long-run physiological consequences of poor conditions in childhood or the persistence of unobserved environmental differences. Longitudinal research designs hold more promise, but few data sources have the long time frames required. This paper uses data from historical sources that allow us to follow individuals over time. We make use of a natural experiment that results from urban to rural migration in the mid-nineteenth century. Mortality was much higher in urban than rural areas in the nineteenth century, especially in rapidly growing industrial areas. Migrants to cities usually came from healthier rural origins as young adults. By comparing the old-age mortality of individuals with urban and rural backgrounds living in the same urban areas we can look for long-run effects of childhood environments. Data for this study is available from 19th-century population registers from Eastern Belgium. We have data covering almost ninety years of experience in three quite different sites: a poor, relatively isolated rural area; a rapidly growing textile-manufacturing city; a small market town that became an industrial suburb. We can compare urban natives to rural-urban migrants in each urban environment as well as rural natives. Occupational data on subjects and their parents allows us to control for socio-economic status in both childhood and adulthood. In addition, a sub-sample of males has been linked to military conscription registers, which provide heights at age 20. Heights are strongly affected by diet in childhood, although childhood diseases may also impair nutrition. Height offers a summary measure of childhood conditions, which has been linked to old-age mortality differences in some studies. We will use event history methods to ask whether differences in childhood environment are reflected in mortality in later life.

Contact information:
George Alter
Population Institute
Indiana University
Email: alter@indiana.edu
Temporary address (until 15 July 2005):
52 Avenue du Général Leclerc
75014 Paris
France
Tel: 01 45 39 90 80
Office (until 15 July 2005):
INED
133, bd Davout
75980 Paris Cédex 20

Tel : 01 56 06 22 79

Michel Oris
Department of Economic History
School of Economic and Social Sciences
University of Geneva
40, Bd. Pont d'Arve
1211 Genève 4
SWITZERLAND
email: michel.oris@histec.unige.ch