

Sakari Saaritsa, Tuuli Hurme (Helsinki) & Joël Floris (Zürich)

‘The anthropometrics of war, famine and development: Helsinki schoolchildren, 1910-32’

This project is based on rare individual level health records of c. 18,000 Helsinki primary school students of both sexes in the years 1910-1932, fully digitized for the first time in 2020. The data will be used to analyze the effects of major historical shocks, in particular the Finnish Civil War of 1918 and the disruptions in food supply in 1917-1919, on the nutritional status and growth patterns of children. The school health cards of Helsinki are in many ways a unique source. The primary school data contain both sexes. Historical anthropometric data on females is still scarce (Steckel, 2009; Koepke et. al., 2018). School data have fewer selection issues than the classic sources of anthropometric data such as armies and prisons (A’Hearn, 2004). The covered period, 1910-1932, includes major crises, particularly 1917-1919, and the volume of observations is large enough for analysing trends and social decomposition with adequate statistical power. In addition it is unique that the individual records have survived: the few studies analysing anthropometric measures of children in the context of World War I have had to rely on summary statistics (Harris, 1993; Cox, 2015). Using measurement of schoolchildren to assess nutritional status and health has several advantages (Cox, 2015): Children are more sensitive to changes in nutritional status; thus negative environmental impacts are more immediately seen in children’s stature and growth than in adult measurements; deficit during deprivation can be masked in later years through catch-up growth; and finally, negative impact in childhood increases risk of disease and likelihood of mortality in adulthood. Thus a number of approaches for developing metrics of health status on the basis of the data are possible. External references like the new universal WHO growth standard designed for contemporary developing countries, providing highly precise benchmarks on height and weight for boys and girls of different ages (WHO 2007) or the Finnish national scale (detailed data in PI’s possession), can be applied to determine the extent of harmful stunting by modern standards. As an application to the crisis of 1918, the following analyses are attainable: measurement of BMI and weight changes during the crisis itself in order to understand the severity and incidence of the immediate nutrition shock among children already at school; comparison of effects on stunting and estimation of compensatory growth among cohorts that were hit by the crisis at different ages; and comparison of cohorts born during and right after the crisis. All of the above can be done with conditional distributions using school catchment areas as proxy for SES variation, as well as by sex. While 1918 has mainly been depicted as a political event and as a tragedy of violence, its human development implications have been neglected, particularly considering the severity of the shock. This project will work towards measures of the cost of the conflict in damaged human capital.