Toward an anthropometric history of provincial France, 1780–1920

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Abstract

A sample of 237,782 individual observations was obtained in four areas of France: rural Alsace, urban Alsace, Limousin, and Brie (Ile-de-France). Trends in the biological standard of living of conscripts born in these regions between 1780 and 1920 fit well with the recently estimated trends for other parts of Europe. While heights were relatively low, they did not decline much preceding the Revolution in 1789. During the first half of the 19th Century heights varied considerably both spatially and longitudinally, indicating the contrasting effects of modernization among the four areas. Conscripts from the least productive agricultural area, Limousin, were the shortest. Heights in Alsace remained essentially unchanged during the first half of the 19th Century, but those in Brie increased after 1820 and those in Limousin after 1840. The positive trend became more general after 1870, though Brie alone showed the considerable negative impact of the agricultural depression of the last quarter of the 19th Century. Heights diverged until 1850 and converged thereafter. In Limousin, the annual height of conscripts is positively correlated with the weight of cattle. By the early decades of the 20th Century, a marked, long-term increase in anthropometric growth had occurred in these four regions, as elsewhere in Europe. The regional estimates correspond well to the national trends estimated by Komlos and Weir except that they show the great local variation in height until the turn of the 20th Century.

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French scholars were among the first to study the socio-economic aspects of the height of a population. Tenon carried out the first anthropometric investigations on the population of a village at Massy, near Paris, around 1783 (Villermé, 1833), and in 1829, Villermé recognized
that average stature was influenced by socio-economic factors (Villermé, 1829). In 1882, Carret wrote a controversial book demonstrating that the average height of the population in Savoy had increased considerably during the 19th Century as a result of the region’s economic development (Carret, 1882). He was also the first to demonstrate that illiterate conscripts were shorter than literate ones (Carret, 1882, p. 84). Emmanuel Le Roy Ladurie’s seminal work, following the research of the anthropologist Chamla, contributed considerably to the renewal of anthropometric historical investigations (Chamla, 1964; Chamla et al., 1977; Bernageau et al., 1969; Bernageau and Le Roy Ladurie, 1971; Aron et al., 1972; Demonet et al., 1976; Le Roy Ladurie and Zysberg, 1979; Demonet and Le Roy Ladurie, 1980; Van Meerten, 1990; Weir, 1993, 1997; Baten, 1999a; Komlos, 1994, 2003a,b; Heyberger, 2003a,b, 2005). Continuing in the 1990s Van Meerten and Weir analyzed aggregate French conscript data in the 19th and early-20th Centuries while John Komlos published estimates of the height of the French male population in the 17th and 18th centuries based on military conscript records. The height of students at the École Polytechnique has also been analyzed (1994), but the regional aspects of 19th Century French anthropometric history has not been explored to any extent. The current study extends the work of these scholars in order to ascertain the trends in the biological standard of living in four regions of France from the 1780s to the early 20th Century.

1. Sources and regions

Data were collected for the period 1798–1940. Universal conscription was introduced into France in 1798.2 The age of conscription varied often during the revolutionary and the Napoleonic periods between the ages of 18 and 21 (Table 1). From thereafter until 1940, all conscripts were measured at the age of 20.5 except during the Franco-Prussian war and World War I. Hence, we standardize all observations on the average age at examination of 20.5 years by adding or subtracting an appropriate height increment to account for the growth until (or past) 20.5 as reported in Table 1.

The height data were collected from the conscription registers in the departmental and municipal archives to reconstruct the trends in four areas with very different socio-economic profiles (Table 2).3 The first area is made up of four counties of the rural district of Sélestat in Alsace,4 south of Strasbourg (Fig. 1); the second area sampled is the town of Mulhouse which was the most industrialized town in 19th Century-Alsace. In addition, two more rural areas are considered, seven counties in Limousin (not contiguous, but considered as one area), and six

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2 The Jourdan-Delbrel Law of 19 fructidor, Year VI (September 5, 1798).
3 The registers were known as “conscription tables” (tableaux de la conscription) during the First Republic (1798–1804) and the First Empire (1804–1814). During the Restoration (1816–1830) and the early period of the July Monarchy (1831–1843), contingent lists (listes du contingent) were used; during the period from Louis-Philippe to the beginning of the Third Republic (1843–1872), draw lists (listes de tirage au sort) were used. During the Third Republic, recruitment and draw lists (listes de tirage au sort et de recrutement) and then census tables (tableau de recensement) where used for Brie, Limousin (1872–1940) and Alsace (1920–1940). During the German period in Alsace (recruitment year 1871–1918), alphabetical lists (Alphabetische Listen, in the Sélestat Kreis or district) and recruitment registers (Rekrutterungsstammrollen, in the city of Mulhouse) were used.
4 Barr, Marckolsheim, Sélestat and Villé counties that are equivalent to the whole Sélestat Kreis (German district) during the German era (1871–1918).