# POPULATION HISTORY: RECENT CHANGES AND CURRENT PROSPECTS

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The period since the end of the Second World War has seen striking changes in the scope and methodology of population history, and especially in relation to the period before the regular taking of censuses. Anglican parish registers provided a moderately full coverage of vital events, though recording baptisms rather than births and burials rather than deaths, so that totals of events could be estimated, but until the post-war period birth and death *rates* could be calculated only with very wide margins of error for lack of periodic counts of the population at risk. Thus it was possible to study short-term changes but not secular trends. It was possible to show, for example, that deaths might double in the wake of a severely deficient harvest, but it was not feasible to discover whether expectation of life was higher at the end of the seventeenth century than at its beginning. Two advances in demographic method overcame this problem and produced a rich harvest.

In Paris in the 1950s and 1960s Louis Henry developed the technique of family reconstitution. Family reconstitution, as the name implies, uses record linkage to knit together from individual records of birth (baptism), marriage, and death (burial) the life histories of all the members of a family. Family reconstitution, using the entries in parish registers for various purposes was, of course, practised widely long before Henry took an interest in it. It had been used for the study of historical demography in Scandinavia half a century before his work. But Henry gave the technique a new clarity and precision. He solved the problem of ensuring that information drawn from the reconstituted families was free from bias by specifying for how long each individual was in observation for a given risk; for how many years, for example, a child born in a given family could be treated as in observation in relation to the risk of dying. Avoiding bias in such calculations meant overcoming some taxing logical problems. But the reward was commensurate. Knowing the years at risk and the frequency with which a birth or death occurred meant that accurate demographic *rates* could now be calculated. Detailed and accurate estimates of a wide range of measures of fertility and mortality can be produced, and the fascinating history of changing age at marriage is revealed.

Twenty years later in Cambridge the technique of inverse projection was developed. Whereas family reconstitution depended on nominal record linkage, inverse projection, developed principally by Jim Oeppen, made use of simple totals of births and deaths to produce measures of fertility and mortality. Inverse projection paralleled family reconstitution, however, in that it produces vital *rates* for pre-census periods even though there is no source

available providing independent evidence of the size of the populations at risk. Family reconstitution is possible only when a parish register consistently includes sufficient detail to allow record linkage to be carried out with confidence. Inverse projection relies on counting events rather than linking them and can therefore be based on parish registers which record events with minimum detail. Since inverse projection also generates estimates of total populations, its use has made it possible to produce estimates of the population of England from the mid-sixteenth century onwards.

As a result of these two advances in method the population history of England from the mid-sixteenth to the mid-nineteenth century can now be described in comparable detail to that which is possible for the period after the taking of censuses became routine and a national system of registering births, deaths, and marriages was instituted.

In more recent decades technical advances of a different kind have produced equally notable changes, chiefly because of what might be termed the electronic revolution. Computerising family reconstitution, for example, has massively reduced the number of person-hours needed to transform individual entries in a parish register into a demographic history of the community in question. Where once it was necessary to consult registers in parish vestries, now much is available on line. Census enumerators' books were always in principle available once 100 years had elapsed and were therefore accessible for research purposes, but where once this was a paper and pencil exercise now the entire set of such books can be consulted on line for some censuses and it is probable that all will be so available in the foreseeable future. Of equal importance are the various facilities which can be employed to organise and analyse data in electronic form. Spreadsheets and databases make it possible to achieve in hours what would in the past have taken weeks or months of work. And geographical information systems (GIS) enable information to be shown in a form which may bring to light features which were very hard to detect in conventional tables.

The impact of this revolution in population history on history more generally, and perhaps particularly on early modern history, has been profound. To describe it is beyond the scope of this short note, but it is visible in many branches and all levels of historical literature, not excluding school textbooks. It is symbolised in the founding and subsequent development of *LPS*. The contribution of local historians to population history in England has been notable and remains probably without parallel anywhere else. Peter Laslett claimed (and it is poetically just whether or not the words were actually spoken) that Louis Henry referred to the work of local historians in English population history as 'le *secret weapon* anglais'. I have no doubt that Henry was right.