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The subject matter of the first of the three articles in this issue will be familiar to those who attended the annual conference in April 2004 on the theme of ‘War and Demography in Twentieth-century Britain’. Daniel Coetzee’s presentation at that conference has now been written up for *Local Population Studies* and appears as our lead article, ‘Measures of enthusiasm: new avenues in quantifying variations in voluntary enlistment in Scotland, August 1914 – December 1915’. Both the conference presentation and the article arise from Dan’s research for his Cambridge PhD, on the award of which in 2004 we offer our congratulations. Starting from the premise that most (though not all) previous writing on enlistment in World War One has relied largely on qualitative sources, Dan offers a new quantitative window upon enlistment in Scotland, providing a broad statistical base employing a variety of sources. Here there was clearly greater enthusiasm for voluntary enlistment than in England, Wales or Ireland, but of the 33 Scottish counties he identifies a cluster that exhibit particularly high proportions of men of military age enlisting. In general, the north and western ‘Highland’ region performed well, while the southern and eastern ‘Lowland’ regions recruited lower percentages, with the exception of the counties surrounding Edinburgh where recruitment stood above average. High recruiting areas show considerable congruence with those regions that experienced high levels of out-migration, late marriage and low marital fertility, these demographic features themselves reflecting variations in economic development and divergent agrarian economies. The negative relationship between fatherhood and enlistment suggests that the greatest inhibiting factor upon enlistment was the fear of leaving one’s family poorly provided for. Correlation coefficients for these and a range of other variables (55 in total) were calculated, and multiple regression was employed to try to circumvent the problem that a number of variables were clearly inter-related. From this statistical exercise it proved possible to conclude that the percentage of a county’s males in naval or military service, the percentage of single men between the ages of 20 and 24, and the level of infrastructural investment made in a county together account for about a third of the variation between counties in the percentage of their men of military age that enlisted. Rejecting both wholly materialist and determinist interpretations and explanations that focus only on psychology, Dan shows how recruitment decisions can be situated within their socio-economic and demographic environment, while avoiding mechanistic explanations and recognising the complexity that lies behind thousands of individual choices.

Our second offering, ‘The Vaccination Registers: what are they and what can we learn from them?’, comes from Michael Drake, and provides a
valuable introduction to a source that is as yet largely unexploited. Compulsory vaccination was introduced in 1853, but it was only made effective in 1872. All children had to be vaccinated before they were three months old or at the next public vaccination after they had reached that age, and details were entered by a Vaccination Officer into a Vaccination Register; penalties for non-compliance were severe. Vaccination was very much the flagship policy of the medical department of the Local Government Board: great effort was devoted to carrying it out and much space was allocated to it in the annual reports. As a result we have, for each Registration District, the number of births, successful vaccinations, deaths before vaccination, cases of insusceptibility, of smallpox, of postponement, together with certificates of conscientious objection (from 1897), and numbers not falling into any of the above categories. Although only about 5 per cent of the Vaccination Registers have survived, and 1 per cent of the Infant Death Registers, they were analysed annually by the Local Government Board, and this produced a vast amount of published documentation for the 600 or so Registration Districts for the years 1872–1904. This provided the numbers of births, of vaccinations, and of deaths before vaccination, and insight into the changing attitudes towards the state’s first major health initiative. The Vaccination Registers themselves provide estimates of infant mortality not just for sub-registration districts, but also for areas within them and by social class, providing the local population historian with a means of addressing aspects of infant mortality at a micro-level.

Our third article, ‘Regulation and the health of child workers in the mid-Victorian silk industry’, is by Tom McCunnie, and again arises from a PhD thesis, this time awarded by the University of Manchester. Large number of children continued to be employed in the British silk industry because it remained unregulated, and silk manufacturers argued that the industry had much healthier working environments than other branches of textiles, and therefore regulation was unnecessary. This argument is evaluated through an examination of the qualitative evidence that survives for the first half of the nineteenth century in the form of the reports of select committees and factory inspectors, and for the second half of the century from quantitative data available from mortality statistics in the Registrar Generals’ reports and industry-specific investigations by the Chief Medical Officer of the Privy Council. The focus is upon the county of Cheshire, which exhibited the largest concentration of silk mills and silk workers in England, with particular reference to Macclesfield and Leek. In both these towns the incidence of deaths from pulmonary disease among females was notably high, and there was a considerable gender discrepancy. In neither town is there any evidence of particularly crowded or unhealthy housing conditions. Comparative analysis of the mortality data from the Registrar Generals’ reports by age and sex again reveals extremely high mortality amongst children and young adults from tuberculosis in silk manufacturing districts compared other textile areas, and it is concluded that the atmospheres of silk mills contributed in large part to these
extremely high mortality rates. The problem was exacerbated by the long hours for which silk workers, in the absence of regulation, had to endure these conditions. In the silk industry in Coventry, however, where production was carried out in spacious modern factories with more efficient ventilation systems, there was less overcrowding and a lower incidence of tuberculosis, demonstrating that it was possible to manufacture silk without incurring the high child tuberculosis mortality found in Macclesfield and Leek.

Two research notes are published in this issue. The first is by Chris Galley who, in response to Roger Bellingham’s discussion of the Dade Registers in *LPS* 73, conducts ‘An exercise in Dade parish register demography’ for the parish of St Olave, York, for the years 1771–1785. Chris finds that the quality of registration in this parish improved greatly after 1775, even though the register’s appearance remained unaltered. He also calculated infant mortality rates, both overall and illegitimate, and found that the latter measure suggested that some illegitimate deaths must have escaped registration. Furthermore, the distribution of infant burials indicates that some neonatal infant deaths are also missing from the register. Chris concludes that some unbaptised infants who died close to birth were buried as though they were stillborn, did not receive a formal ceremony and consequently do not appear in the register. So although Dade registers contain valuable additional details, as Roger Bellingham has shown, historical demographers should not be lulled into believing that their coverage of the population is much better than ordinary parish registers in the same period. The second research note comes from Richard Wall and Matthew Woollard, and provides a revised version of the introduction to *Census schedules and listings, 1801—1831: an introduction and guide*, an out of print working paper published in September 2004 by the History Department at the University of Essex, which included 791 listings from this period. The genesis, contents and geographical distribution of the listings are described, and Richard and Matthew also provide a discussion of the listings held by the Cambridge Group for the History of Population and Social Structure.

News from the universities this year is provided by Chris Dyer and Andy Gritt, on the activities of Leicester University and the University of Central Lancashire respectively. Chris Galley has again elicited a good clutch of book reviews. Anyone wishing to join our list of potential reviewers should contact Chris Galley at the address given on p.2, or by e-mail at c.galley@barnsley.ac.uk.

**The Local Population Studies Society and Local Population Studies**

2005 is a momentous year in the history of the Local Population Studies Society and its journal *Local Population Studies*. When I joined the Editorial Board of *LPS* in 1997, one of the first items for discussion was the relationship between the Society and the journal. I recall Roger Schofield
asking the two ‘new boys’, myself and Martin Ecclestone, if we fully understood the distinction between the two. Neither of us were entirely clear, and our clouds of unknowing were only partially dispersed by the attempts of established board members to make matters transparent for us. In 1997 discussion of the relationship between the two charities, and the possibility of merging the two, already had a considerable pedigree, and with every successive Editorial Board meeting since that pedigree has become deeper and richer. It thus gives me great pleasure to report that future board meetings will be substantially shorter and far more interesting, as one of the more tedious agenda items that we have had to endure for so long is now redundant. In 2005 I can announce that the excessively long flirtation, putative affair, and short engagement between the Local Population Studies Society and Local Population Studies has finally achieved consummation, and we stand on the threshold of many years of marital bliss. Charles and Camilla—eat your hearts out.

The LPS Editorial Board

With the reconstitution of LPSS and LPS, and the adoption of a new constitution, it has been necessary to dissolve the previous Editorial Board. I would like to extend my gratitude to all who have served on the board in recent years for all of their hard work. I would like to record particular appreciation of the work of Martin Ecclestone, who joined the board in 1997 and has announced his intention to retire this year. Martin has made an excellent contribution to our activities in a number of ways: as a contributor to the journal, as an expert medieval referee, as a mathematician with a clear eye for statistical fallacies, and as our Treasurer for the past six years—a role that he has conducted with exemplary efficiency and good humour. On behalf of myself and the out-going board, I would like to extend the very best wishes to Martin in all his future endeavours. A new Editorial Board is in the process of formation.

The Local Population Studies Society Annual Conference

The annual conference was held on Saturday 16th April at the Law Faculty of the University of Hertfordshire in St Albans, on the theme of ‘Ageing and the Aged in Pre-modern and Modern Britain’, where a large audience were treated to an excellent array of papers in what was a most enjoyable day. A full report appears immediately following this editorial. The date of the 6th annual conference has been provisionally set for Saturday 8th April, and the theme, which is also provisional, is ‘Death and Disease in Britain c.1700–1939: Urban and Rural Perspectives’. Offers of full length keynote papers (c. 50 minutes), or shorter panel presentations (c. 25 minutes) are welcome, and should be directed to Nigel Goose on n.goose@herts.ac.uk.

Debates in local population history

A new item will appear in the next issue of LPS entitled ‘Debates in local population history’. Its content is self-explanatory, though the form of the
debates published will no doubt vary, and could include extended critical book reviews, comments on articles published in LPS or elsewhere (in each case with a response from the author) or free-standing debates designed to throw light upon a particular aspect of local population history. Contributions to this new item are welcomed.

Editorial matters

I would like to thank Ken and Margaret Smith for typesetting this issue of LPS.

Nigel Goose
April 2005.
AGEING AND THE AGED IN PRE-MODERN AND MODERN BRITAIN

The fifth Local Population Studies/Local Population Studies Society conference was held at the Law Faculty of the University of Hertfordshire in St Albans on Saturday 16th April last, and was very well attended with almost 70 delegates.

Following a welcome from the conference convenor, Richard Smith opened proceedings with the first of two keynote lectures, speaking on the subject of ‘Communities, institutions and the family in the care of the elderly: was there a medieval-early modern transition?’. Richard first introduced the historiographical notion of ‘structured dependency’, according to which the situation of the aged is determined by the development of industrial capitalism, which supplants family and kinship care by state provision and leaves the elderly in a marginal position. Is this notion applicable, he asked, to the development of rural capitalism across the medieval/early modern transition? Evidence for the residential arrangements of the elderly is sparse, for very few early modern parish listings give breakdowns by age. The handful that do suggest the great majority of those aged 65 or over lived with kin, particularly when one allows for the fact that c. 20–30 per cent of this age group would have no surviving kin to live with, although the proportion was substantially lower in urban than in rural communities. For the medieval period there is very little evidence at all, although it does seem clear from poll tax returns and manorial court rolls that the elderly did cede headship to the young in a manner that would have been wholly alien to the inhabitants of 14th century Tuscany, where the elderly retained their authority and status in the household until very late in life. Before the Black Death of 1348–9 there is considerable evidence of maintenance contracts being made with children; after the Black Death many more non-relatives were similarly called upon, cash arrangements tending to replace kind, and there was increased monitoring of these arrangements by manorial authorities. After 1400, with a demographic regime unfavourable to reliance upon children and an increase in migration, one finds a greater reliance upon community support emerging, which is reflected in charitable bequests and almshouse construction. But there were fewer such institutions after the Reformation, while population grew once again, and hence the regular pension emerged, which may have been received by 15–30 per cent of those over 60. There was a clear regional pattern, however, with much more substantial provision in the south and east, the very areas that saw the earliest development of agrarian capitalism, suggesting that the structured dependency thesis does have some relevance to medieval/early modern England. Nevertheless, the example of south and east Asia, where far higher proportions of the elderly continue to live with kin despite the development of industrial capitalism, shows
how cultural norms can override economic change, whilst a clear regional contrast continues to exist in the 1990s between southern and northern European nations, the south exhibiting far greater reliance upon family than the north.

The medieval and early modern panel session began with a discussion by Mark Page of ‘Old-age peasants on the Bishop of Winchester’s estate, 1260–1350’. His theme was the chronological distribution of maintenance contracts for the elderly as revealed by the Winchester Pipe Rolls, which show heavy concentrations in two periods: 1292–1301 and 1336–45. A purely administrative explanation—a change in the information recorded in the rolls—is ruled out on the grounds that the number recorded rises, falls and rises again. There is no clear evidence that delayed devolution of land was taking over from the use of maintenance contracts, and nor is it likely that the young were simply, temporarily, unwilling to provide for the elderly—a particularly unlikely scenario in the economic climate of early fourteenth-century England. The most likely explanation is that the fall in the number of agreements was the product of seigneurial intervention during the episcopacy of Bishop Woodlock, to prevent the subdivision of customary tenements that these arrangements often encouraged, allied to the pursuit of a building programme that may have created additional alternative accommodation. The lack of maintenance contracts during this period may help explain the parallel growth in the number of abandonments, while the rise in the number of contracts after 1336 coincides with the start of a new episcopacy.

Judith Spicksley provided a fascinating insight into the business dealings, living arrangements, community status and eventual decline of Joyce Jeffreys in her talk ‘The diary of Joyce Jeffreys, 1638–49: an elderly spinster in context’. The diary, which is really a set of accounts, begins when Joyce was probably about 60 years old, so cover the years spanning old age to decrepitude, according to contemporary wisdom. Her business dealings reveal considerable financial independence, with activity in landowning and direct farming dwarfed by her moneylending exploits, with over £4,500 out on loan in 1639–40, equivalent to c. £475,000 today, her financial position improving steadily to 1643 when the Civil War intervened. She retained residential independence too, living with a young companion in a pleasant residential suburb of Hereford, and retaining a substantial retinue of paid employees. She kept in touch, however, with her extended family, and as many as 13 godchildren are mentioned in the accounts. Her role as godparent was also related to her social standing in the community, for not all her godchildren were related to her, while she also stood at the centre of a vibrant social network—making numerous social visits, attending the assizes, frequenting local fairs, attending civic and customary functions, dealing with many of the (male) civic elite and other tradesmen, utilising the courts of law and supporting her local church. Her patterns of consumption similarly reflected her social standing in the community, while her cultural interests extended to history and astrology. Her use of tobacco, recommended by contemporaries for a range of ailments, may reflect her decline, and there is further evidence that she struggled with her weight, her eyesight and her memory. Hygiasticon or the right course of preserving life and health into old age was amongst her library, and would doubtless continue to find a market today. But
Joyce, unlike her less fortunate female contemporaries, had the option of retirement, and there are signs that she increasingly withdrew from the world of business after 1643, negotiating a contract by which she lived out her declining years with her family until her death in 1650.

Richard Wall completed the morning panel with a talk entitled ‘Household patterns of elderly widows in England 1600–1900’. Richard reiterated the problem of the paucity of parish listings which record age already mentioned by Richard Smith, but found a solution in the use of the micro-simulations developed at the Cambridge Group for the History of Population and Social Structure by Jim Oeppen: by applying levels of fertility, nuptiality and marriage found from extant family reconstitutions, with a further allowance for remarriage, estimates of widowhood can be made. The age distribution of widows shows remarkable constancy over time (roughly half aged over 50 and two-thirds aged over 60), which means that the age profile of widowhood can also be established where ages are not given. A total of 161 parish listings have been subjected to this analysis across the years 1650–1837, and they reveal a constant decline in the proportion of households headed by both women and widows, from a ratio of 5:1 married couples to widows down to 8:1, the proportions of all widows who headed a household falling from 72.5 per cent in the late-seventeenth century to 55 per cent in the early nineteenth. There is no evidence of any compositional change in the population of widows, no evidence of a change in their age profile and no evidence of a significant shift in social values, which suggests that economic changes—particularly declining employment opportunities for women and an increasing tendency to favour male inheritance—provides the explanation. In terms of relations within the household, extant late-seventeenth-century lists for Clayworth, Swindon and Harefield indicate under 20 per cent lived alone, between 6 and 26 per cent lived with non-relatives only, and c. 60 per cent lived with ever-married or unmarried children. Returns for Corfe Castle, Binfield and Rotherne from the late-eighteenth and early-nineteenth centuries show a pattern which is not dissimilar. By the late-nineteenth century, the national census reveals that the proportion living with children, married or ever-married, stood a little higher. But all of these figures stand below the proportion suggested by the micro-simulations already discussed, and hence it is clear that at all periods additional care must have been provided from outside of the household, and hence the elderly received both family and community support.

The afternoon session moved on to the modern period and our second keynote speaker, Professor Pat Thane (University of London), discussed, ‘Older people, households and community in modern Britain’. Pat began by charting how changing patterns of mortality and fertility led to increasing numbers of older people within the population. Consequently, as expectation of life at birth more than doubled from around 40 in the Victorian period to over 80 today, the proportion of over 65s increased from 5 per cent in 1881 to 18 per cent in 2001. Notions of when old age began also changed in this period. Originally based on physical phenomena such as the ability to work, old age boundaries became more fixed once pensions were introduced. In 1908 the state pension was paid at 70, but this was reduced to 65 in 1925 and 60 (for women) in 1940,
although it was not until 1948 that these benefits were paid to everyone. While a number of scholars have argued that the payment of universal pensions led to a loss of status amongst the elderly, Pat said that this was not necessarily the case since, previously when many older people had worked, the main jobs open to them were low status ones—typically road mending or toilet cleaning. However, throughout the twentieth century British pension payments have remained amongst the lowest in Western Europe. It has been calculated that the first pensions were 2s. less than what was required to live on and, while these payments had increased in real terms by 1948, most pensioners still needed a supplementary income in order to survive, although this was often provided by government.

There is a sense that as older people began to live longer they may have become more marginalised within society. However, the question of whether older people receive the necessary levels of support has been difficult to answer in a satisfactory manner. While many older people now live alone, this is also true of the population as a whole. Around 60 per cent of older people live less than one hour away from a relative and with the rise of information and other new technologies it is now much easier to remain in contact with elderly relatives. Fewer elderly people now reside in institutions and inter-generational flows of support are often complex. Thus, Pat ended her talk by challenging the notion that older people are now more isolated; she highlighted how the experience of ageing in contemporary Britain varies, and reassured us that for many old age can be a rewarding period of life.

The second panel session consisted of three papers arranged chronologically. The first speaker, Christine Jones (University of Essex), posed the question, ‘Did the experience of old age in nineteenth-century England differ according to marital status?’ Her answer was based on a statistical analysis of two large data sets held at the University of Essex’s data archive—a 2 per cent sample of the 1851 census and a 5 per cent sample of the 1881 census (both these sources are available via www.data-archive.ac.uk). Christine focussed her discussion on the age groups 60–79 (‘mature old age’) and 80+ (‘extreme old age’) and we were presented with a large number of tables which examined the proportion of the over 60s by gender, marital status, period of life, household relationships, occupation and the support they received. Christine’s work highlighted a complex and changing set of issues which must have had a profound impact on the lives of elderly people and she concluded that the experience of old age differed markedly according to marital status.

David Thorpe, University College London, was next to speak and his paper entitled, ‘Old age and the household in Buckinghamshire, 1851–1891—a statistical analysis’ examined similar themes to those of Christine, albeit at a lower level of aggregation. David’s analysis was also based on the census and he focused on the over 65s. He began by showing us a series of typical images of the elderly—from an old woman lace maker outside a rose covered thatched cottage, to a group of inmates from the workhouse. These aptly illustrated David’s main point, that there was considerable variation in both an individual’s and a community’s experience of old age. David told us that there
were between 30 and 40 per cent more elderly people in Buckingham than in the country as a whole and that there were greater concentrations in the north of the county. The proportion of elderly people in Buckinghamshire was deeply affected by the migration of other age groups to London, and while many elderly men were recorded as agricultural labourers, they were also affected by the declining lace industry. David also argued that the extent of local variation in the proportion of elderly people was sufficient to cast doubt on the representativeness of earlier single parish listings in recording this variable. Above all, David’s talk highlighted the potential for local historians to carry out similar types of analyses on other nineteenth-century censuses.

Our final speaker was Mark Freeman (University of Hull), who brought us into the second half of the twentieth century with his paper, ‘Family, community and the elderly in post World War II York’. Using evidence from the 1947–1949 survey carried out by the Joseph Rowntree village trust, Mark chose to examine the role of the wider community in the lives of the elderly (see Mark’s book, The Joseph Rowntree Charitable Trust: A Study in Quaker Philanthropy and Adult Education 1904–1954 (Sessions, 2004)). Over 10,000 interviews were initially carried out with older people in York and nearby Flaxton and more than 6,000 detailed follow-up interviews were undertaken on those considered poor or infirm. A large amount of information was collected on a wide range of topics such as diet and living arrangements, although the lack of data processing techniques at the time ensured that much of this material has remained little used. Mark chose to concentrate on what this survey could tell us about the importance of non-family contacts. He showed that in a significant number of cases informal contacts were important in the lives of the elderly. For instance, over 28 per cent of the sample belonged to a social club and in the week prior to the survey 24 per cent had been visited by a friend. Mark likewise emphasised the varied experiences of the elderly and he concluded that while informal contacts were far from universal they helped many to lead rich, fulfilling lives.

Local Population Studies and the Local Population Studies Society would like to thank the University of Hertfordshire for the excellent facilities provided, and Barbara Bennett and her staff for the quality refreshments that have become one of the hallmarks of the annual conference. Peter Franklin and Terry Shaw again brought along a full Local Population History bookstall, and Vanessa Chambers ensured the day proceeded smoothly in her capacity as administrator and receptionist. Our thanks also go to the Economic History Society for providing funding to support the conference.

Next year’s conference is provisionally scheduled for Saturday 8th April. The theme, which is also provisional, is ‘Death and Disease in Britain c.1700–1939: Urban and Rural Perspectives’. If anyone would like to offer a paper on a relevant topic, please contact the editor via the General Office address on p. 2, or e-mail to n.goose@herts.ac.uk.

Chris Galley (Barnsley College)
Nigel Goose (University of Hertfordshire)
MEASURES OF ENTHUSIASM: NEW AVENUES IN QUANTIFYING VARIATIONS IN VOLUNTARY ENLISTMENT IN SCOTLAND, AUGUST 1914 – DECEMBER 1915

Daniel Coetzee

The author holds a Ph.D. in History from Cambridge University, where he attended Pembroke College (2000–2004) and was supervised by Professor Richard Smith. His Ph.D. thesis, Variations in voluntary enlistment in Scotland during the First World War, concerned economic, demographic and cultural factors that brought about variations between Scottish counties in the percentage of men that enlisted voluntarily during the First World War, and it is from here that this article arises.

Introduction

In 1914, when Britain entered the First World War it had no mass conscript army to mobilise. The initial policy was of voluntary enlistment of troops, and an estimated 2,466,719 men, or 49.7 per cent of the total British armed forces during World War One enlisted voluntarily between 4 August 1914 and 31 December 1915. Many researchers have investigated why men volunteered in the (initial) absence of official compulsion. This article investigates new, quantitative avenues towards studying the response towards recruiting in 1914 and 1915. One problem of historiography is ‘the methodological divide between the literary and quantitative approach to the history of the war.’ Most past writing has been descriptive and qualitative. The interest of this piece of research rests with a statistical means of investigating war enthusiasm. The current paper seeks to avoid what Winter calls ‘the vagueness of many impressionistic studies’ and to draw causal links between demography, economics and war-time behaviour. Superficially, the public responded positively to the call to arms, and the British Left’s anti-militarism bowed before patriotic acquiescence in 1914 (although it reasserted itself later). However, three decades of scholarly work has undermined the retrospective ‘myth of war enthusiasm’ as the overwhelming response to hostilities Europe. Strachan describes war enthusiasm as the ‘surface element only’, and describes the common denominator as ‘passive acceptance’. Whatever enthusiasm did exist was ‘composed of a wide range of differing responses’ of which in the British case, mass volunteering formed only one aspect.

Past research in quantifying voluntary enlistment

Since so many British men chose to fight, volunteering has long been used as evidence for broad-based war enthusiasm. Past research identified ignorance among many Europeans as to the realities of modern warfare. However, a
notion that the queues formed because of public ignorance of the kind of war that awaited the colliding mass armies, and then receded as people learned what was happening, ignores the many people that did not voluntarily enlist. It also begs the question as to why Britons kept volunteering, even when casualty figures became public.

Little research has been done on explaining enlistment patterns, beyond narrating the general decline in volunteers over time. This is surprising since the three examples from the quantitative school, that of Becker, Dewey and Winter were completed up to three decades ago. Becker’s work on French attitudes to the war qualified the notion of a union sacrée. His method relied on notes compiled during the war by French schoolteachers, who listed quotes from inhabitants in their district concerning the events which unfolded. This allowed Becker to produce graphs depicting changes in morale among the French. However, his statistics focused on those few places where reasonably complete records were kept. This paper seeks a broader statistical basis and a greater variety of sources.

Dewey provided another seminal quantitative article in 1984. He suggested that military recruiting varied in its impact on different industries. He also questioned the importance of ‘generalised’ factors such as ‘patriotism’ in affecting recruitment, and added ‘more specific ones – economic, demographic, medical and institutional.’ His method of subjecting wartime Board of Trade statistics to simple statistical methods provides inspiration and detailed facts to the current research, which, like Dewey’s, looks at the influence of population trends on the way Britain conducted its war.

A third quantitative influence is Winter, who looked at ‘the effects of war on … population trends’. Winter mentioned that British military enlistment was ‘uneven in its regional incidence’, a point also raised by Simkins and, briefly, by Dewey, but all three focused on enlistment variations between men from different sectors of the British economy, rather than areas. Winter concluded that ‘enlistment in British forces had a definite social structure.’ Beckett also noted a ‘national basis for recruiting’ but did not pursue it.

The reasons supplied for enlistment are legion, but much of the existing evidence comes from newspapers, diaries and memoirs, and thus privileges the literate classes. D. Winter, for example, speaks about ‘traditional responses within the (ruling class)’, and concepts of ‘duty, honour and sacrifice’ in the minds of wealthy volunteers. Ferguson refers to successful recruiting techniques, female pressure, peer-group pressure, economic motives and impulse as causing men to volunteer. He concludes that institutional indoctrination and the use of culture and history as nationalist propaganda tools played a significant part in motivating the middle-class volunteer. However, some of these factors, he admits, could have caused a man to desist, and recruiting methods were initially primitive. Paris identifies fears about German imperialism and the quality of imperial defence, invasion scares, and jingoistic but often sanitised juvenile literature, paramilitary youth movements and ignorance of the conditions of warfare as factors preparing the young
British male for voluntary enlistment.22 But the level to which these causes penetrated working class thought is open to debate.

Dewey’s major suggestion was that ‘patriotism had to work within certain constraints’ such as the average age of industries’ male workforce, and the level of protection from military service that their workers received. His explanation accounted only for variations in the percentage of men that voluntarily enlisted from different industries, and he admitted that he was unable to resolve the complexities that he found.23

New means of measuring of war enthusiasm

This paper delves into Dewey’s answers using alternative sources and methods. Most past research has described British enlistment variations over time, since such statistics, processed by the War Office, are readily available and give considerable detail; for example the weekly figures given in Figure 1.24 Generally there was a near universal enlistment pattern in the British Empire of a ‘First Rush’ (August–September 1914) of very high recruiting figures, a ‘Recruiting Rally’ (September 1914 to July 1915) of lower enlistment
with minor peaks and troughs brought about by events such as major battles or seasonal labour demands, and a final pre-conscription phase of low enlistment. The statistics for the comparative contributions of geographical areas are more difficult to find. However, intriguing geographical variations in enlistment appear. England, which recruited 24 per cent, Scotland (23.7 per cent) and Wales (21.5 per cent) were the top performers. New Zealand recruited 19.4 per cent, Canada and Australia 13.4 per cent, and South Africa around 12 per cent of their ‘white male population’. Ireland produced around six per cent. These figures include both voluntary and conscripted soldiers. Finding the exact causes for variation is complex, since the contrasts between the British Isles and Dominions make comparison difficult. Wales, Scotland and England provide an easier basis for comparison, yet no definitive study is available to compare enlistment in the different geographical areas of Britain.

The task of compiling a British database for statistical analysis is massive. Lamm and Phillips discussed techniques for studying the several million World War One service records available, but up to now, only representative sampling exists. There is, however, another more accessible means of quantifying enlistment variations. As early as December 1914, the Parliamentary Recruiting Committee (PRC) noticed geographical differences in recruiting percentages within Britain that they could not fully interpret. This provided the impetus for the more scientific ‘Memorandum on Compulsory Service’ (MCS). The MCS was drawn up by the War Office in May 1915, utilising statistics from recruiting offices throughout Britain, as part of the debate about the introduction of conscription. The MCS included enlistment statistics for both branches of the military (Army and Navy) for each county in England, Wales, Scotland and Ireland, both in terms of the number of men raised, and more importantly, of the percentage of males of military age recruited in each county. The statistics reflected the place of enlistment, not the place of birth of the recruit, since a man could enlist anywhere in Britain. The MCS covered the period between 4 August 1914 and 30 April 1915, when the voluntary recruiting movement was at its strongest, and dealt with 118 counties. The document did not, however, analyse variations. The variations within the first category in the MCS, relating to numbers of men recruited in different counties, are simple: more populous counties usually recruited more men. But the second category, dealing with the percentage of men recruited, is less straightforward, given the range of 64 per cent. Looking at percentages of men recruited allows comparisons of the relative performance of counties whose populations were different in size. Even if the variations do not purely represent support for military action (pro-war individuals might have stayed in war-related industries, for example), these percentages suggest the impact of the war on every British county. Comparing counties improves our understanding of the voluntary enlistment phenomenon.

Figure 2 depicts the relative contribution to the war effort of different parts of Britain. The histograms show the frequency at which the counties of England,
Figure 2  Histograms of the percentage of males of military age enlisted in the counties of Scotland, England, Ireland and Wales between 4th August 1914 and 30th April 1915.
Wales, Scotland and Ireland recruited men of military age (about 17–41 years during the voluntary period) between August 1914 and April 1915, within ten per cent intervals between 0 and 69 per cent. England’s distribution of frequencies suggests that it made an average contribution, with almost all counties recruiting between 20 and 50 per cent of their available men. Wales enlisted less enthusiastically and Ireland did badly, although there are differences between Catholic and Protestant-dominated areas. Figure 3 shows how the range in the percentage of men of military age that enlisted in Scottish counties far outstripped the ranges found in England, Wales and Ireland. From this figure and Table 1, which shows the performance of Scottish counties, it is clear that a cluster of Scottish counties performed far above any other counties in Britain.34

In accounting for geographical variations, Scotland’s thirty-three counties provide a statistical sample small enough to allow detailed analysis, and large enough to suggest trends. The top eight counties in Britain, judged by percentages of men recruited, were all Scottish. As mentioned, Dewey recognised Scotland’s out-performance of the rest of Britain in terms of enlistment, although he limited his explanation to the uniqueness of the Scottish industrial structure.35 This paper can expand that explanation considerably. The first line of enquiry of this research is to correlate categories of the 1911 Censuses and other statistical documents with the county enlistment percentages in the MCS. These factors can then be

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**Figure 3** Range of percentage of county males of military age enlisted in England, Wales, Scotland and Ireland, between 4th August 1914 and 30th April 1915.

![Graph showing range of percentage of county males enlisted](source: PRO WO 162/27, Memorandum on Compulsory Service 1915, Appendix Table B.)

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Table 1  Scottish Counties, arranged within regions, in descending order of percentage of county males of military age recruited between 4 August 1914 and 30 April 1915.

<table>
<thead>
<tr>
<th>Region</th>
<th>% of men recruited</th>
<th>Region</th>
<th>% of men recruited</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Belt</td>
<td></td>
<td>West</td>
<td></td>
</tr>
<tr>
<td>1 Midlothian</td>
<td>51.8</td>
<td>1 Argyll</td>
<td>43.9</td>
</tr>
<tr>
<td>2 Clackmannan</td>
<td>41.3</td>
<td>2 Ayr</td>
<td>32.2</td>
</tr>
<tr>
<td>3 Fife</td>
<td>36.2</td>
<td>3 Bute</td>
<td>28.9</td>
</tr>
<tr>
<td>4 Lanark</td>
<td>35.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 Stirling</td>
<td>34.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 Dumbarton</td>
<td>29.5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 Renfrew</td>
<td>22.4</td>
<td>1 Perth</td>
<td>67.8</td>
</tr>
<tr>
<td>8 Kinross</td>
<td>22.1</td>
<td>2 Sutherland</td>
<td>65.8</td>
</tr>
<tr>
<td>9 Linlithgow</td>
<td>21.8</td>
<td>3 Inverness</td>
<td>60.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>4 Ross and Cromarty</td>
<td>56.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 Caithness</td>
<td>52.6</td>
</tr>
<tr>
<td></td>
<td></td>
<td>6 Argyll</td>
<td>43.9</td>
</tr>
<tr>
<td>South-east borders</td>
<td></td>
<td>North-East</td>
<td></td>
</tr>
<tr>
<td>1 Peebles</td>
<td>58.8</td>
<td>1 Elgin</td>
<td>56.2</td>
</tr>
<tr>
<td>2 Berwick</td>
<td>43.3</td>
<td>2 Aberdeen</td>
<td>39.7</td>
</tr>
<tr>
<td>3 Roxburgh</td>
<td>39.1</td>
<td>3 Forfar</td>
<td>34.6</td>
</tr>
<tr>
<td>4 Selkirk</td>
<td>38.6</td>
<td>4 Nairn</td>
<td>32.0</td>
</tr>
<tr>
<td>5 Haddington</td>
<td>35.3</td>
<td>5 Banff</td>
<td>27.6</td>
</tr>
<tr>
<td>6 Dumfries</td>
<td>33.8</td>
<td>6 Kincardine</td>
<td>26.0</td>
</tr>
<tr>
<td>South-west</td>
<td></td>
<td>Islands</td>
<td></td>
</tr>
<tr>
<td>1 Kirkcudbright</td>
<td>34.6</td>
<td>1 Orkney</td>
<td>32.7</td>
</tr>
<tr>
<td>2 Wigtown</td>
<td>21.7</td>
<td>2 Zetland</td>
<td>16.6</td>
</tr>
</tbody>
</table>

Source: PRO WO 162/27, Memorandum on Compulsory Service 1915, Appendix, Table B.

analysed using correlation and multiple regression (see Appendix).36 The strongest correlations found are 0.6 and -0.46, which is a reminder that the correlation coefficients for enlistment only indicate tendencies, and that there is much about enlistment that cannot be explained from the available data susceptible to statistical analysis. By using several correlation coefficients in a multiple regression, it is possible to create a model that accounts for a considerable amount of the variation in enlistment percentages. These methods complement Dewey’s use of tabulated percentages and correlation, but consider the statistical role of more variables.37 However, given the complexity of divining influences, and the limited sources, this current research can only suggest reasons for varying rates of enlistment.38
Problems with the sources

These statistical methods also suffer from problems with the sources. Vovelle argued for the ‘autonomy of the mental sphere and its irreducibility to the economic and social.’\(^{39}\) No materialist interpretation suffices to explain enlistment. This paper therefore only shows how certain factors made groups of men more likely to volunteer, while avoiding the pitfalls of determinism.\(^{40}\) It investigates how the socio-economic environment that surrounded men before and in the early months of the war affected the chances that they would enlist. This research is not negating personal initiative. The paper uses Phillips’s argument that ‘conditions’ are ‘the outcomes of the accumulated actions and decisions of other human agents.’\(^{41}\) It is therefore not depicting people as mere victims.

The argument of this paper relies on the 1911 census and related official surveys of the immediate pre-war period up to December 1915. Utilising pre-war sources has disadvantages: the 1911 census was out of date by 1914, but because it is the last pre-war instance in which certain statistics were gathered for all counties, researchers have to accept this inaccuracy when cross-referencing the census with the Memorandum on Compulsory Service. This paper’s key source, the MCS, relies on 1914 estimates of the male population of military age, based on the 1911 census, and on 1914–15 enlistment records from recruiting stations for the number of men that volunteered. There is therefore immediate inaccuracy involved. Another problem is the fact that the census counted people where they resided on census night. It does not account for temporary absence from home. As seen below, seasonal or temporary migration played a huge role in the economy of Highland counties in particular. In addition, the collapse of key industries such as fishing in August 1914 had a big effect on enlistment figures. The census summaries, however, provide only a snapshot of the distribution of male workers, in what was a highly complex annual migration cycle.\(^{42}\) Some counties therefore recorded having more men than actually resided there for most of the year, and others fewer men. Also, MCS totals for men of military age were probably derived from the 1911 Census. The MCS gives no indication that 1911 figures were corrected using known trends to estimate 1914 population numbers. If, at the outbreak of war, men therefore returned from their seasonal employment to their ‘home’ counties to enlist, some counties’ enlistment rates would have been elevated, because their resident males had been underestimated in 1911.\(^{43}\) In addition, a man could have joined the Army anywhere in Britain. Readers must accept distortion in the MCS, but the memorandum figures are essentially robust.\(^{44}\)

Underlying causes of enlistment variations

Dewey used Board of Trade figures of the percentage of male workers who had enlisted by July 1915 in ten sample industries, to show that Scotland had the highest enlistment rate of any British region. However, his investigation over-emphasised the impact of ‘industrial structure’. The regional contrasts he
revealed (a range with maximum 24 per cent and minimum 17 per cent) lacked nuance. His regional units were also badly designed for cross-referencing with other statistical data. The first step in refining Dewey is to put the MCS county statistics in their spatial context. In general, the north and western ‘Highland’ region performed well, while the southern and eastern ‘Lowland’ regions recruited lower percentages. An exception is the counties surrounding Edinburgh, which performed above average. Zetland performed worst, but otherwise the more remote counties enlisted the highest percentages. Scottish border counties performed at average levels, similar to the adjacent English counties. England and Wales recruited in a lukewarm fashion, although south-eastern English counties, those most vulnerable to raids, had slightly higher enlistment percentages. The range from the highest to the lowest level of recruitment at the county level in England and Wales was only 26 per cent compared to the Scottish range of 51.2 per cent, so the factors that caused variations in enlistment were probably stronger in Scotland than elsewhere in Britain.

This initial picture can be elaborated upon. Given the constraints of space in this article, it will follow one strong line of investigation to show how quantifiable reasons for enlistment variations may be. Migration, and its demographic and economic causes and consequences, had long affected the Scottish population on a similar scale to participation in the First World War. In the nineteenth and early twentieth centuries, Scottish rural depopulation became almost universal. Devine cites explanations as the consolidation of smallholdings; great population increase; pressure on surplus (non-labouring) family members of agricultural labourers living on farms; poor living conditions; periodic unemployment, and the short distances of most internal migrations that utilised the increasing quality of railway transport. Brock argues that regional factors were influential in producing a migration culture. A consideration of this mind-set is crucial in explaining the MCS variations.

Nearly all Scottish counties lost population through migration in the decade before the war. In terms of the MCS, nine out of the thirteen top performing counties experienced population decline by up to six percent between 1901 and 1911. The greater a Scottish county’s pre-war population gain, the more likely it was to enlist a low percentage. The English and Welsh trend is similar but weaker, which suggests that there was something distinctive about Scottish migration that affected enlistment. Out-migration, whether from one’s home country or county, and enlistment might simply have been two alternative strategies against severe economic pressures. Baines, Hatton and Williamson have defined typical emigrants or cross-border migrants of the nineteenth-century era of European mass migration as ‘young adults’, three-quarters of whom were between 15 and 40 and overwhelmingly male. They were people ‘most responsive to labour market conditions’ but were typically unskilled. Many emigrants were therefore ideal candidates for enlistment in 1914. However, among internal migrants, the correlations on population growth show that counties that received many in-migrants of both sexes did not obviously benefit from the influx of male internal migrants when it came to
enlistment. Rather, it seems as men who did not out-migrate or emigrate, and opted to remain behind in top performing counties were more likely to enlist. The next step is to correlate the options to enlist with life-stage decisions such as marriage. At present, the discussion will remain with individual correlations without reference to potential inter-correlations, which will be discussed later. Dewey’s insistence that gender ratio patterns are primarily a function of industrial employment, a result of his focus on employment data, made insufficient allowances for influences from Scottish nuptial and reproductive behaviour on recruitment patterns. Scottish counties had a gender ratio pattern distinctive within Britain: there was a deficit of men to women in 31 of the 33 counties in 1911. The gender ratio statistic supports the idea that Scottish men were more likely to emigrate than women, largely because employment opportunities for men were lacking in many areas. There is no correlation between the pre-war gender ratio of Scottish counties on Census night in 1911 and voluntary enlistment. However, correlating the percentage of men who were bachelors in 1911 in the nine Scottish counties with the best enlistment performance in 1914 and 1915, with their female/male ratio in 1911, produces a coefficient of -0.88. This means that there was a greater likelihood in these counties in 1911 for men over 15 to be bachelors, even though there were more women available for the men to choose from. This marital behaviour is a key demographic question for nineteenth- and early-twentieth century Scotland, addressed by, among others, Coale and Treadway for the Princeton Fertility Project. Of particular interest to demographers are four indicators: $I_f$ (overall fertility of all women regardless of marital status), $I_m$ (the proportion of potentially fertile women married), $I_g$ (the rate of childbearing by married women) and $I_h$ (the rate of childbearing by unmarried women). Each of these indexes lies between zero and one, with zero equal to no marriage or childbirth, and one equal to a situation where all the women between certain ages (usually 15–49, but sometimes 15–44, completed years) in a population were married or had children at a given time. Between 1861 and 1914, the period covered by the Princeton project, Scotland experienced higher out-migration, lower nuptiality and, in places, markedly higher marital fertility than England and Wales. Scottish nuptiality and fertility also showed greater regional heterogeneity than England. Of special interest are the trends of strong out-migration, late marriage and lower marital fertility in the counties designated ‘Highland’ and ‘Far North’ by Flinn et al., because they overlap sharply with the counties with high enlistment performances.

Nuptiality can be defined as ‘the proportion of all women between 15 and 50 who are currently married’. Early twentieth-century Scotland had zones of extremely low nuptiality, with less than a third of women of fertile age married in large parts of the north-west in 1911. By contrast, more than half of fertile women were married in the industrial Central Belt region. Anderson discussed the ‘depression in nuptiality’ in parts of Scotland in terms of ‘legal, cultural, economic and agrarian variations’ impacting on household economies. In rural Scotland, family-sized houses often came only with the more prestigious jobs. Poor relief in Scotland was also far more limited than in
England and Wales, making only small and transitory payments to able-bodied unemployed people (rather than the entitlement to parish support in England). Scots therefore faced a higher risk of destitution if they married without good financial prospects as a minimal insurance against unemployment. According to Anderson, the tendency of men and women to stay single crucially reflects lack of security in particular areas. Marriage and migration were integrally connected in counties such as Sutherland, Inverness and Argyll especially. In the south-western lowlands, small family-sized dairy enterprises provided jobs for both men and women. In the northeast, the focus on beef cattle meant that fewer women were needed, and unmarried workmen preferred. In the north and northwest, sheep-farming and pressure on crofters also offered opportunities and housing for single men, but few for married couples. So, if a man wanted to retain a job and housing in such an area, he had to remain single. The delay of marriage over decades meant that there was a greater proportion of single men available to volunteer in certain counties in 1914.

Waites claims that nationally, volunteers came disproportionately from among unmarried men. Many women probably discouraged their partners from risking their lives. Young men, with fewer responsibilities, would have been more willing to risk fighting than those with families. Younger men, with less training and experience, also had less to gain from staying in their jobs. And finally, peer pressure and the call of ‘adventure’ might have had bigger influence on unattached men. Stronger statistical tests confirm Waites’s hypothesis. Scottish nuptiality indicators (women married / women between their fifteenth and fiftieth birthdays) correlate with the MCS at -0.398 in 1901, and -0.449 in 1911. Higher incidences of marriage therefore considerably lowered enlistment. Similar results are produced using the correlation of nuptiality statistics for men from the 1911 Census. The variable ‘Percentage of county male population aged 20–24 years single in 1911’, correlates with the enlistment percentages at 0.599, the strongest positive correlations with the MCS. Those areas with a higher percentage of bachelors among males of military age therefore experienced a higher voluntary enlistment rate.

By extension, whatever socio-economic factors inclined men to remain single affected enlistment. The percentage of a Scottish county’s men being bachelors correlates significantly with higher unemployment (0.512), higher percentages of county males being military personnel (0.655), and the percentage of a county’s population being Gaelic-speaking in 1911 (0.822). The percentage of a county’s male population between the ages of 20–24 being single in 1911 correlates with percentage intercensal population increase at -0.620 – meaning a strong connection between not migrating and remaining single. Men tended to stay single until at least the age of 29 in areas where they were engaged in agriculture (0.564), and married earlier in areas with higher in-migration (- 0.635), and where higher percentages of the labour force worked in coal-mining (-0.566).

The man’s domestic responsibilities gained further weight when couples had their first child. Figures based upon the Scottish county Health and Sanitary
Medical Reports reveal a coefficient of -0.4 between county enlistment figures and the average county crude birth-rate (CBR) (number of births per year/mid-year population x 1000) between 1900–1912, meaning that better performing Scottish counties tended to have lower crude birth-rates. The accuracy of the CBR estimate from the medical reports can be tested using the 1911 Census, where enlistment correlates at -0.464 with 'Percentage of Scottish County Population (both sexes) < one year old in 1911'. The last figure is the strongest negative correlation found with the MCS. Coale and Treadway’s research provides an even more exact measure of the influence of the presence of children in a population upon enlistment: overall fertility, \( I_f \) (the rate of childbearing by all women, regardless of marital status). This correlates with the MCS at -0.329 for 1911. These statistics, inextricably linked yet from three independent sources, confirm that in counties where there were many young children, enlistment percentages dropped.

Marital fertility (number of births per year/mid year population of married women aged 15–44 x 1000) was another potential influence on enlistment. Although linked to CBR and \( I_f \), it reflects a different tendency in a population (the incidence of large families, as opposed to the presence of children within a population) that had independent influences on the likelihood of a man to enlist. In Scotland, the CBR could be low because of low nuptiality but many births per marriage, and marital fertility in agricultural areas could be high, even though people married less and later. A population that tended to produce fewer married couples, but larger families for those that did marry, would have a different enlistment profile than a population where men were far more likely to marry (even though they then only had one or two children). Marital fertility for Scottish counties in 1911 correlates with the MCS figures at only 0.033, but the figure improves to -0.4 if outliers, including most of the Highland counties, are removed. This marked change in the coefficient suggests a stronger negative link between enlistment and marital fertility in the Lowlands, than in most of the Highlands. Future research might reveal why the relationship between marital fertility and enlistment is so vastly different between the Highland and Lowland counties. In the Highlands, there seems to have been another, more influential factor than fertility behaviour increasing enlistment. The answer might lie in the cultural dimension: Scottish counties where above 5 per cent of the population spoke Gaelic in 1911 usually recruited well, and correlating MCS county enlistment statistics with the 1911 Census category 'Percentage of total county population speaking Gaelic in 1911' produces a coefficient of 0.54, second only to the percentage of males remaining single in its effect on enlistment. This might be because of a strong association between Gaelic communities and later marriages among men. In most of Scotland, however, the negative relationship between fatherhood and enlistment apparently increased with the birth of subsequent children. The greatest inhibiting factor upon enlistment was therefore the fear of leaving one’s family poorly provided for.

On a grander scale, the division between high- and low-enlistment counties closely follows the Highland Line, suggesting that peculiarities of the two
regions, or their relationship, helped cause enlistment variation. As mentioned before in the section discussing the source material, enlistment benefited from the manner in which many landless Highland Scots survived economically benefited enlistment. By 1914, there was a ‘marginalised seasonal labour reserve’ following annual ‘circuits of temporary mobility’ in Scotland, characterised by a ‘seasonal relocation of labour’.86 This ‘frequent, short-distance movement’ of labour followed regional wage and price differentials, and functioned particularly between the Highlands and Lowlands. During the nineteenth century, the Highlands had neglected to develop industries sufficient to employ its surplus population.87 Even the 1886 Crofter’s Act made the Northern and Western Highlands less capable of becoming commercially competitive by protecting farming on small plots. The shift towards large-scale dairy farming in the north-east during the nineteenth century drew in many Highland men.88 The fishing industry also became increasingly important between 1851 and 1914, when the war interrupted it.89 Many crofters participated seasonally in the fishing to augment their income and feed the growing population of the crofts. The percentage of county males engaged in 1911 in agriculture and fishing respectively, correlates with one another at 0.56 for all Scottish counties, 0.88 for the Highland counties and 0.84 for the Crofting Counties.90 Highland workers could work in fishing, on north-east coast farms and then in Lowland harvesting in one year, before wintering on the family croft. This migration cycle was precarious, but well before 1914 had been ‘the only way by which the croft could be maintained or the rent paid’.91 Many people moved directly from the fisheries to Lowland harvest work in August – the failure of one industry ‘brought undue hardship’ to the crofting parishes.92 Many of the crofts were subsidised by remittances from migrant family members. Also, the fall in world grain prices after 1880 caused Highland crofters to import grain and use the croft to grow animal feed.93 This made them less self-sufficient and more vulnerable to inflation of food prices. Crofters especially remained vulnerable to sudden rises in rent and lapses in income, and the concentration of arable land under larger landowners led to congestion on the remaining plots.94

The war indeed caused deterioration in economic opportunities for young men, particularly in the Highland, Gaelic-speaking counties. August 1914 saw a sharp rise in prices and taxes.95 Given the growing reliance of even Highland crofters on purchased food, these communities were also hit by the price increases.96 The peak of enlistment in Britain coincided with economic recession, mass unemployment and sharp price increases in Autumn 1914, when the Army was the one economic ‘growth sector’. Some unemployed saw no other choice but to enlist.97 The variety of financial strategies that Szreter describes as employed by working families for whom ‘the fight against income insecurity, poverty and the workhouse was the fundamental condition of existence’ illustrates the difficulty of predicting how a breadwinner would respond to recruiting in 1914.98 Men who had delayed marriage were, however, more likely to enlist in 1914 than those with working wives, or those who were single breadwinners with many children. The fate of many Highland men was sealed by the unravelling of the seasonal migration cycle in 1914. The
decline of the Scottish fishing industry, brought about by the loss of export markets and the German U-boat campaign, affected many crofting households by cutting off seasonal income. Fishing activity had to shift to the West coast, and the loss of employment was only partly compensated for by the Admiralty’s chartering of vessels and crews for coastal patrolling. The distillery industry was also hit by barley shortages. The economic shock was exacerbated by a simultaneous fall in demand for Harris Tweed. In some areas, unemployed fishermen or crofters became farm-workers or went to work in the revived kelp industry. Others could join the gathering of the Lowland harvest, but by 1914 Highland workers had difficulty finding such employment because of the distances involved and competition from Irish labour. Indications are therefore that a subsistence crisis took place in the core Crofting Counties’ of Inverness, Argyll, Ross and Cromarty and Sutherland in the early months of the war. Faced simultaneously with disrupted income and sudden rises in consumer prices, many crofters were pushed towards the Army to survive. In addition, promises to crofters of land rights in return for military service motivated many to join the Army in 1914 and 1915.

Explaining interrelationships

As indicated above, there are many possible correlations between MCS enlistment percentages and other variables. Correlations with different formulations of many variables derived from the 1911 census relating to age, marital status, language, occupation, fertility, etc., were tested. Only those most strongly correlated with enlistment are discussed here. However, many of these variables were also intercorrelated or associated with each other – for example, places with high proportions of single men were also the places where a large proportion of the population spoke Gaelic. To see which variables are the most important, it is possible to combine them in a multivariate analysis which shares out common variation between correlated variables. The resultant multiple regression model minimises intercorrelation while accounting for the greatest possible amount of variation in enlistment percentages. The model was composed from an original list of over 55 possible variables, but here comment will be restricted to those that ended up in the final explanation. Encouragingly, these prominent variables, arrived at through statistical means, correspond with evidence available from written or qualitative sources. For example, the variable ‘Per Cent County Males in Naval or Military Service in 1911’ fits particularly well with qualitative evidence, which suggests that cultural militarism, and the efficacy of Army recruiting apparatus in specific areas before 1914 improved war-time enlistment. Also, the presence of the variable ‘Per Cent Single men aged 20–24 in 1911’ in the final model is supported by it having the strongest positive correlation with the MCS, among the 55 variables tested. The third variable, the ‘Per Capita Value of County Infrastructural Investment in 1915 over Population 1911’, is supported by arguments about the ideology, economic strategy (and vulnerability) and typical nuptial and fertility behaviour of middle class men. The higher the per capita investment in infrastructure in an area, the
greater was the percentage of professional-commercial volunteers in its population. Szreter confirms that the liberal and professional-commercial occupations tended to marry late and limit fertility in the immediate pre-war period.\textsuperscript{107} These wealthier men provided greater relative financial security for their families, and had a greater ability to withstand rises in the cost of living than the poor. They were therefore not so pressured to adjust to the economic crisis of late 1914 by finding better employment. Commercial sectors did not experience the same boom and labour shortages that increased manual labour wages. Men who left commercial employ could more easily be replaced by women than could industrial workers, so these sectors did not have to compete so hard for new workers, and did not raise their wages generously.\textsuperscript{108} The incentive to remain in civilian employ, in the hope that one could increase one’s earnings, therefore did not typify clerical occupations, as it did manufacture. Many middle class men therefore more readily left their employment to fight, raising the percentage of volunteers in a county’s male population.

The model, shown in Table 2, can be summarised as follows: the percentage of men that enlisted in any given county between August 1914 and May 1915, tended to increase by 0.74 percentage points for each one per cent increase in the percentage of a county’s males in naval or military service (effective or retired) in 1911. It increased by 2.28 per cent for each percentage increase in the percentage of single men between the ages of 20 and 24 in 1911; and by 1.22 per cent for each one pound sterling per capita increase in the estimated value of infrastructural investment made in a county by 1915. These three factors account for about a third of the variation between counties in the percentage of their men of military age that enlisted. Because of the low correlations (taken as the absence of correlation coefficients exceeding -0.5 / 0.5) between the three principal independent variables shown in the model in Table 2 each variable makes a considerable contribution to the strength of the model. However, much of the extant variation in enlistment probably cannot be explained through available statistical data, and needs to be approached from a social or cultural history perspective.

<table>
<thead>
<tr>
<th>Variable Names</th>
<th>Coefficients</th>
<th>p-values</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-177.52</td>
<td>0.005</td>
</tr>
<tr>
<td>Per Cent of Male Population in Naval or Military Service, 1911</td>
<td>0.74</td>
<td>0.481</td>
</tr>
<tr>
<td>Per Cent of Males aged 20-24 who are single</td>
<td>2.28</td>
<td>0.001</td>
</tr>
<tr>
<td>Per Capita Value of County Infrastructural Investment in 1915 over County Population in 1911</td>
<td>1.22</td>
<td>0.183</td>
</tr>
</tbody>
</table>
Conclusion

The variety of factors involved in enlistment variations underscore both the weakness of wholly materialist and determinist interpretations, and the shortcomings of explanations that focus only on psychology. Clearly, there was a complex reaction to war. This paper identified some motivations behind enlistment, or the refusal to volunteer, and situated the potential recruits and their decisions regarding armed service in a socio-economic and demographic environment. Men looked at how they could best protect their families. The research avoids a mechanistic explanation, given the difficulty in establishing exact causes, but it is clear that men were inclined towards enlistment by conditions, opportunities and previous choices. The trends identified in this paper cannot eliminate enthusiasm or even accident from enlistment, and it is impossible to reconstruct enlistees’ thoughts. However, this paper shows that a statistical analysis of variations in First World War enlistment is fruitful. This analysis moves research further away from a conception of the ‘rush to the colours’ in terms of spontaneity, patriotism and even fatalism, and allows a sophisticated view that involves calculation by individuals in response to identifiable external influences. Conditions did not rob men of the ability to decide whether to enlist or not, but they did limit their options, weighed their minds, and perhaps, at the crucial moment of choice, changed their lives.

NOTES

2. I. Bet-El, Enscripts, (Phoenix Mill, 1999), 1–13; R. Adams and P. Poirier, The conscription controversy in Great Britain, (London, 1987), 1. The Military Service Bill (No.2), which introduced conscription, was read by Prime Minister Asquith in the Commons on 5 January 1916. It called for the compulsory enlistment of unmarried men between 18 and 41. The Bill was passed and received royal assent three weeks later, ending the voluntary period of recruiting in Britain.
10. Strachan, The First World War, 162.
13. Becker, The Great War and the French people, e.g. 94–7, 194. See also J. Becker, ‘That’s the death


27. Statistics of the military effort of the British Empire in the Great War (1922), 363.


32. PRO, WO 162/27, Memorandum on Compulsory Service 1915, Appendix Table B.

33. PRO, WO 162/27, Appendix Table B.

34. PRO, WO 162/27, Appendix Table B.


36. Microsoft Excel was employed for both correlation and multiple regression; statistical techniques measuring the linear association between two continuous variables, in this case the percentage of men enlisted (the dependent variable) and a second factor (the independent variable). Correlation measures the closeness of association between two variables while regression is used to calculate a straight line that best predicts the one variable from the values of the other. Possible variables and associations between them, measured by correlation coefficients, are discussed below. These coefficients will always be a number between +1 and -1, with +1 denoting a completely positive correlation (values of variables increase and decrease together) and -1 a completely negative correlation (one variable increases when the other decreases). A correlation coefficient close to 0 indicates that the variables are weakly related or unrelated. M. Campbell, and D. Machin, Medical statistics (Edinburgh, 1993), Chapter 9; B. Kirkwood, Essentials of medical statistics (Oxford, 1988), Chapter 7.


38. See Becker, ‘Death knell’, 18.


41. See discussion by Phillips in Constantine et al., The First World War in British history, 106.

42. Personal communication by Dr E. Garrett in January 2005. The Scottish census enumeration books did actually note how many individuals were absent from their normal place of residence on census night, but these were not tabulated in any meaningful way.

43. Personal communication by Dr E. Garrett in November 2002.

44. Three major issues also argue against trying to ‘correct’ county totals for male residents. First, we do not know the number or origin of men of military age migrating seasonally within pre-war
Scotland. Second, the census only locates individuals on one night per decade. Third, there are no statistics to show where potential military recruits would have been in August 1914 or on any other date until April 1915, when the Memorandum on Compulsory Service ends.

45. Dewey, ‘Military recruiting’, 216–17. Based on Board of Trade, Report on the state of employment … July 1915, 7–4. Dewey found that Scotland performed higher on average than other regions, at 24 per cent to an average of 20 per cent.

46. The use of the term ‘region’ is taken to mean ‘geographically contiguous collections of counties’, but allows for the inclusion of islands with adjacent ‘mainland’ areas.

47. PRO, WO 162/27, Appendix Table B; J. Bartholomew, Philips’ handy atlas of the counties of Scotland (1902), 1.

48. PRO, WO 162/27, Appendix Table B; W. Taylor, The junior geography and atlas (London, 1912), 16; Simkins, Kitchener’s army, 59, 125.

49. J. Brock, The mobile Scot (Edinburgh, 1999), 38, 178–205. Brock defines migration as ‘movement outside the immediate area of birth, but within one’s own country’ and emigration as ‘leaving one’s country-of-birth.’ Brock includes the movement of Scots to England, Wales or Ireland under emigration. For the purposes of this article, the term ‘internal migration’ is synonymous to Brock’s ‘migration’ and includes movement inside one’s county of birth. ‘Out-migration’ refers to movement outside the county-of-birth.


53. PRO, WO 162/27, Appendix Table B; Census of Scotland, 1911, Report of the Twelfth Decennial Census of Scotland, [hereafter Census of Scotland, 1911] (Volume II, 1913), Table A9.

54. PRO, WO 162/27, Appendix Table B; Census of Scotland, 1911 (Volume II, 1913), Tables A6, XLV.

55. The same variable of intercensal population growth produces a coefficient of 0.2 in English and Welsh counties. Coefficient calculated using figures from: Census of England and Wales, 1911, Summary Tables (1915), Table 6; PRO, WO 162/27, Appendix Table B; Brock, The mobile Scot, 178–204.


58. Simkins, Kitchener’s army, 60, 104. On August 27 1914 the upper age limit for recruits was 35 for new recruits, 45 for ex-soldiers and 50 for ex-commissioned officers.

59. See D. Coetzee, ‘Factors accounting for variations in voluntary enlistment in Scotland, August 1914 – December 1915,’ unpublished Ph.D., Cambridge University, 2003, Appendix 1, for details. The coefficient was calculated using figures from: Census of Scotland, 1911, and County Reports, (1913), Tables A6, XLV, XIX; PRO, WO 162/27, Appendix Table B.


61. As used in the census, the number of women per 100 men. Census of Scotland, 1911, (1911), Table 3; PRO, WO 162/27, Appendix Table B. The figures in Scotland represent all males and females, regardless of age. Linlithgow had 90.8 women per 100 men, and Stirling 95.5.

62. Brock, The mobile Scot, 14, 37, 94–117. Like Dewey, Brock argues for variable gender ratios in industry by indicating how the economic profile of regions in Scotland attracted or shed male or female labour.

63. Census of Scotland, 1911, (1911), Table 3; PRO, WO 162/27, Appendix Table B. The coefficient is 0.07 (0.05).

64. Coefficient calculated using figures from: Census of Scotland, 1911, (1911), Table C12; PRO, WO 162/27, Appendix Table B. The counties are Perth, Sutherland, Inverness, Peebles, Ross and Cromarty, Elgin, Caithness, Midlothian and Argyll. Bachelors are defined in the census as unmarried men over 15 years of age, but excluding widowers.


Anderson and Morse, ‘High fertility, high emigration’, 6, 21.

M. Anderson, ‘Why was Scottish nuptiality so depressed for so long?’, in I. Devos and L. Kennedy eds, Marriage and rural economy (Brepols, 1999), 49–83.


B. Waite, A class society at war (New York, 1987), 188, argues that ‘nearly half the men aged 19–25 (83 per cent of whom were single) enlisted before the introduction of conscription’ and that ‘in December 1915 bachelors outnumbered married men in the army by more than two to one’, based on War Office Records PRO MUN 5/65 322/131 and WO 162/28. See Lamm, ‘British soldiers’ 55–98 and Phillips, ‘Army of giants, 141–6, for current attempts to statistically establish trends such as marital status in World War One British soldiers. Attestation forms held by the MOD/PRO and service records in the PRO suggest that recruits were more likely to be bachelors. Pilot studies in the World War 1 archives, by Dr E. Garrett, suggest that a 2:1 bachelor-married ratio is an underestimate.

Calculated from: Coale and Treadway, ‘Changing distribution’, 141–6; PRO, WO 162/27, Appendix Table B.

Coefficient calculated using figures from: Census of Scotland, 1911, County reports, Table XIX; PRO, WO 162/27, Appendix Table B.

See Coetzee, ‘Variations in voluntary enlistment’, Appendix 1, xvii–xviii. Coefficient calculated using figures from: Census of Scotland, 1911, Tables XXVII, A6, H2; PRO, WO 162/27, Appendix Table B.

See Coetzee, ‘Variations in voluntary enlistment’, Appendix 1, xvii. Coefficient calculated using figures from: Census of Scotland, 1911, Tables A6, A14, XXXVI; Census of Scotland, 1911, County reports, Table XIX; PRO, WO 162/27, Appendix Table B. Scottish Records Office, Edinburgh (hereafter SRO) , HH 62/19–44, Scottish Home Office, Annual report upon the health and sanitary condition of the county, 1900 to 1912.

Coefficient calculated using figures from: SRO, HH 62/19–44, Scottish Home Office, Annual report upon the health and sanitary condition of the county, 1900 to 1912; PRO, WO 162/27, Appendix Table B. Commander-in-Chief and War Office: Adjutant General’s Department – Papers, ‘Memorandum on compulsory Service’, 1915, Appendix Table B. These and other figures from the annual health reports are only broad aggregates for 1900 to 1913.

Coefficient calculated using figures from: PRO WO 162/27, Appendix Table B. Census of Scotland, 1911 (1913), County Reports, Table XXa.

Calculated from: Coale and Treadway, ‘Changing distribution’, 141–6; PRO, WO 162/27, Appendix Table B.


Calculated from: Coale and Treadway, ‘Changing distribution’, 141–6; PRO, WO 162/27, Appendix Table B.

Coefficient calculated using figures from: Census of Scotland, 1911 (1911), Table H2; PRO, WO 162/27, Appendix Table B. See Coetzee, ‘Variations in voluntary enlistment’, Appendix 1, xxi, xviii.

Census of Scotland, 1911 (1911), Table XXXVI and County Reports Table XIX; PRO, WO 162/27, Appendix Table B.

See C. Withers, Gaelic Scotland, (London, 1988), 1–3 for definitions. Withers draws the geographic ‘Highland Line’ to include the historical counties of Caithness, Sutherland, Ross and Cromarty, Inverness, Nairn, Bute, Argyll and all except the extreme south of Perthshire, plus the westernmost parts of Forfar, Aberdeen, Banff and Elgin within the Highlands. This is the geographic definition. The cultural division defines the Highlands ‘as the area within which the Gaelic language was spoken or the clan was the predominant social system’ but is far more difficult to pin down.


Withers, Gaelic Scotland, 310–14.

Withers, Gaelic Scotland, 310–14.


Withers, Urban Highlanders, 50–1, 233. Withers, Gaelic Scotland, 246–55. Coefficients calculated
using figures from: *Census of Scotland*, 1911, (Volume II, 1913), Tables XXXVI and A6. This paper uses Withers’ definition (cf. Withers, *Urban Highlanders*, 16–7) of Caithness, Sutherland, Ross and Cromarty, Inverness, Nairn, Bute, Argyll and Perth as the Highland counties, and Anderson’s definition of the Crofting Counties as Inverness, Argyll, Ross and Cromarty and Sutherland (cf. Anderson and Morse, ‘High fertility, high emigration, low nuptiality, 319–43.)

100. ‘Distillers’ stocks of barley’, in *The Highland Leader and Northern Weekly* (Dingwall and Inverness), 27 August 1914, 3.
102. Withers, *Urban Highlanders*, 78–9. Withers cites a decline in the circulation of Highland labour for Lowland harvest purposes by the late 1890s.
103. Anderson, ‘Scottish nuptiality’, 78; Glasgow Highlanders and the Wwr crisis’, *Highland Times*, 15 October 1914, 2; ‘Ross-shire Relief Fund – disbursement of money’ in *The Highland Leader and Northern Weekly* (Dingwall and Inverness), 3 September 1914, 2; ‘Highland societies and relief work’ in *The Highland Leader and Northern Weekly* (Dingwall and Inverness), 22 October 1914, 2; ‘The Highlands and the war – re-population of the Glens’, letter by J. Campbell in *The Highland Leader and Northern Weekly* (Dingwall and Inverness), 29 October 1914, 2.
104. PRO LAB 41/81, Memorandum on the increase in wage rates during the war 1914–1918, ‘The rise in the cost of living since the beginning of the war’.
106. See Coetzee, ‘Variations in voluntary enlistment’.
THE VACCINATION REGISTERS: WHAT ARE THEY AND WHAT CAN WE LEARN FROM THEM?

Michael Drake

Michael Drake has spent most of his career at the Open University where he worked on a number of courses for which students produced local studies, many in historical demography. He is currently working there with some research students on infant mortality in the late-nineteenth and early-twentieth centuries.

Introduction

During the 1870s close to 90 per cent of the infants of England and Wales were seen at least twice by a doctor. In many places the percentage was close to 100. The visits left a record, so that we know quite a lot about these children: their names, when and where they were born, how old they were when the doctor saw them, the name and occupation of their father if they were born within marriage or of their mother if not. Such a remarkable state of affairs came about because, in 1872, compulsory vaccination against smallpox, which had been introduced in 1853, was finally made effective. All children had to be vaccinated before they were three months old or at the next public vaccination after they had reached that age, the process being monitored by a Vaccination Officer. He entered all the above information, and more, into a Vaccination Register which was central to his work. Here I will first of all describe the Vaccination Registers and how they came into existence. I will then examine the extent of vaccination in different parts of the country, as recorded by the Vaccination Registers, from 1872 until 1904 when annual statistics based on the registers ceased. Finally I will show how the registers can be used by historical demographers, especially in the study of infant mortality.

The Vaccination Registers

Inoculation, an effective means of combating smallpox, was introduced into England in the eighteenth century. It was widely adopted, although smallpox remained endemic in much of the country. The problem was that inoculation, which involved taking some of the pus from a smallpox victim, usually with a needle, and injecting it into the arm of one not suffering from the disease, was effective only for the individual inoculated. That individual could, and sometimes did, infect others. Inoculation could, then, lead to more people catching smallpox than would have occurred if inoculation had never taken place. Edward Jenner’s breakthrough, which came about at the very end of the eighteenth century, was to inoculate with cow pox, which, whilst providing immunity against smallpox, did not cause its recipient to infect others.
Vaccination, which this new method of inoculation came to be called, spread with amazing speed around the world. Although some of the claims for the numbers involved must be taken with the usual pinch of salt, where they can be checked they were often substantial.

Vaccination was made compulsory at an early date in a number of countries: Bavaria in 1807, Denmark 1810, Norway 1811, Russia 1812 and Sweden 1816. In Norway, for example, the number of vaccinations per 1000 births was 15.6 in the decade before it was made compulsory. By 1831–1840 the figure was 58.1 and by 1851–1860 it was 81.5. The disease was, however, by no means eradicated, there being 4,499 cases in the years 1853–1860, of which 446 proved fatal, whilst from 1861–1870 there were 7,929 cases of which 560 ended in death, or 15 cases and 1 death per 1,000 births. No civil sanctions were imposed on those who refused vaccination, but the state church refused either to confirm or marry anyone not in possession of a vaccination certificate. Similar sanctions were introduced in other countries. Vaccination was made compulsory in England by an Act of 1853, but there were no Vaccination Officers to police it. These were introduced in 1867, but their appointment was not mandatory, the result being that out of a sample of 260 Poor Law Unions in 1871 only 121 had appointed them. However, with so much social legislation, several Acts were required before, as Sir John Simon put it, the Act of 1871 introduced ‘an arrangement…by which it became almost inevitable that defaulters under the law should be followed up closely and be caught’. The procedure was as follows.

On registering the birth of a child, whoever had custody – usually the father or mother – was presented with a form requiring that the child be vaccinated within three months of its birth, or at the next public vaccination after that, in the district where it resided. Vaccination could be carried out by a public vaccinator, in which case the procedure would be free, or by a medical practitioner acting in a private capacity who would charge a fee. The form gave the places and times of the public vaccinations. The form also stated that after vaccination had been performed, the child must return to the vaccinator one week to the day, so that he could determine whether or not vaccination had been successful. If successful, a certificate of vaccination was completed by the vaccinator who, if he were a public vaccinator, returned it to the vaccination officer. If vaccination had been carried out privately, a parent or guardian of the child was responsible for getting the form to the vaccination officer. If the child, after being examined, was deemed unfit to be vaccinated, a form to this effect was completed and passed to the vaccination officer. If vaccination was unsuccessful, yet another form was completed and passed on.

The over-riding duty of the vaccination officer was to see that the various procedures were complied with. To this end he received, from the local registrar of births, deaths and marriages at monthly intervals, lists of births and infant deaths for his district. This information he transferred to his vaccination register. As the various procedures described above took place, he completed the appropriate columns in the register (see Figure 1). If he was unable to do so, he was required to ‘chase up’ the offending party. Should a child be not
| Note: | Somewhat anomalously I have added the slight change to the form when the so-called 'conscience clause' was added in 1898. |
vaccinated without due cause, then the parent or guardian could be fined not just once but repeatedly. Unpaid fines could lead to the distraint of goods and even prison. The legislation and the apparatus set in place to ensure compliance was, then, quite draconian, although whether it can be called ‘health fascism’ is open to question.9

The government body responsible for overseeing the vaccination legislation was the Local Government Board, which worked through local Boards of Guardians. Because both bodies were in charge of the Poor Law and because that was seen as demeaning, many parents, particularly working class parents, were not happy to be associated with them.10 This fuelled opposition to the legislation—an Anti-Vaccination League had been formed in 1853 when vaccination was first made compulsory, although, as we have seen, not effectively so—and also led to many parents ‘going private’. Exactly who used private medical practitioners can be discovered from the individual entries in the Vaccination Registers, where the name of the doctor carrying out the vaccination was given. The names of the public vaccinators are given in The Medical Register, as well as in local sources. Of course a public vaccinator might also vaccinate privately, in which case there would be no way of knowing in which capacity the work was being done. A return from Sheffield shows that, as expected, the proportions using private medical practitioners varied somewhat, with the more working class districts, such as Park, having the greater percentage of vaccinations carried out by the public vaccinators. Still the percentage of private vaccinations, at one in five, was substantial even there (see Table 1).

<table>
<thead>
<tr>
<th>Sub-registration district</th>
<th>% public vaccinations</th>
<th>% private vaccinations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attercliffe</td>
<td>67.9</td>
<td>32.1</td>
</tr>
<tr>
<td>North</td>
<td>69.8</td>
<td>30.2</td>
</tr>
<tr>
<td>South</td>
<td>66.8</td>
<td>33.2</td>
</tr>
<tr>
<td>Brightside</td>
<td>58.9</td>
<td>41.1</td>
</tr>
<tr>
<td>Park</td>
<td>78.1</td>
<td>21.9</td>
</tr>
<tr>
<td>West</td>
<td>69.4</td>
<td>30.6</td>
</tr>
<tr>
<td>Eccleshall</td>
<td>49.9</td>
<td>50.1</td>
</tr>
<tr>
<td>Nether Hallam</td>
<td>68.6</td>
<td>31.4</td>
</tr>
<tr>
<td>Upper Hallam</td>
<td>58.3</td>
<td>41.6</td>
</tr>
</tbody>
</table>

Source: Local Government Board Report on an epidemic of small pox at Sheffield 1887–1888. Information provided by Valerie Dodgson, former research student of the Open University.
Vaccination against smallpox appears to have been the flagship policy of the medical department of the Local Government Board. In the annual reports of the medical officer to the Board, the working of the vaccination legislation always appeared first and it was acknowledged that it took up much of the time of the department. Also the report contained a lengthy annual breakdown of the effectiveness of the legislation, by registration district, until the department was stopped from doing so after 1904 on the recommendation of the Select Committee of the House of Commons on Parliamentary Publications.11 The Board also engaged in lengthy correspondence with local Guardians and sent inspectors to see that the legislation was being adhered to.12 For example, in 1878, inspectors from the department examined ‘in detail’ the ‘working arrangements for public vaccinations’ of 276 Unions.13 Given the prominence accorded to the vaccination process and the severe penalties associated with it, it is somewhat surprising to find that in 1919, Sir George Newman, Principal Medical Officer of the Local Government Board and Chief Medical officer of the newly created Department of Health, should describe the Board’s modus operandi over the past 60 years in the following way:

There have been at all times in its history friendly and other critics who have urged that the duties and efforts of the [Medical] Department [of the Local government Board] should be strictly scientific and unalloyed with social or moral considerations and influences. Disease, they have claimed, should always be promptly dealt with by the State, on the cold and lofty plane of scientific and logical finding. This drug cures this disease, therefore compel the use of this drug; that action will protect that community, therefore, enforce that. The method of the Department has been different. It has taken its kingdom with entreaty rather than with contention, and has built on the basis of assent and consent rather than compulsion.14

Vaccination in practice

As noted above, vaccination was very much the flagship policy of the medical department of the Local Government Board, as indicated by the amount of effort devoted to carrying it out and by the space allocated to it in the annual reports. As a result we have, for each registration district, the number of births, successful vaccinations, deaths before vaccination, cases of insusceptibility, of smallpox, of postponement, together with certificates of conscientious objection (from 1897), and numbers not falling into any of the above categories. The number of children who were not vaccinated because they had had smallpox was miniscule (86 in England and Wales as a whole in 1872, or 0.1 per cent of all births). The numbers not vaccinated because they were insusceptible was somewhat greater, at 942, whilst in 4,264 cases, vaccination was postponed. Table 2 shows for a sample of registration districts15 that, if one allows for the children who died before they were due to be vaccinated, the Act of 1871 was remarkably successful by 1873, its second year of operation.

The Local Government Board was naturally delighted at its success, a delight it made clear in several comments. For instance, in Table 2, the 41,330 in the
‘remaining’ column amounted to only 5 per cent of eligible births, which, given the extent of migration is a proportion almost too low to be believed. Furthermore, although many of these cases were described as ‘removed’, ‘not to be traced’ or otherwise unaccounted for, it later transpired that many were traced after the original return had appeared. Administrative deficiencies also

<table>
<thead>
<tr>
<th>Registration District</th>
<th>Births</th>
<th>(1)</th>
<th>(2)</th>
<th>(3)</th>
<th>(4)</th>
<th>(5)</th>
<th>(6)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampthill</td>
<td>616</td>
<td>539</td>
<td>875.0</td>
<td>68</td>
<td>110.4</td>
<td>9</td>
<td>14.6</td>
</tr>
<tr>
<td>Wallingford</td>
<td>446</td>
<td>407</td>
<td>912.6</td>
<td>30</td>
<td>67.3</td>
<td>9</td>
<td>20.2</td>
</tr>
<tr>
<td>Cambridge</td>
<td>1,002</td>
<td>877</td>
<td>875.2</td>
<td>91</td>
<td>90.8</td>
<td>34</td>
<td>33.9</td>
</tr>
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<td>452</td>
<td>402</td>
<td>889.4</td>
<td>42</td>
<td>92.9</td>
<td>8</td>
<td>17.7</td>
</tr>
<tr>
<td>Loughbor’gh</td>
<td>780</td>
<td>648</td>
<td>830.8</td>
<td>100</td>
<td>128.2</td>
<td>32</td>
<td>41.0</td>
</tr>
<tr>
<td>Norwich</td>
<td>2,668</td>
<td>2,318</td>
<td>868.8</td>
<td>286</td>
<td>107.2</td>
<td>64</td>
<td>24.0</td>
</tr>
<tr>
<td>Welvingbr’gh</td>
<td>1,266</td>
<td>1,035</td>
<td>817.5</td>
<td>162</td>
<td>128.0</td>
<td>69</td>
<td>54.5</td>
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<tr>
<td>Clun</td>
<td>333</td>
<td>272</td>
<td>816.8</td>
<td>26</td>
<td>78.1</td>
<td>35</td>
<td>105.1</td>
</tr>
<tr>
<td>Ipswich</td>
<td>1,529</td>
<td>1,353</td>
<td>884.9</td>
<td>139</td>
<td>90.9</td>
<td>37</td>
<td>24.2</td>
</tr>
<tr>
<td>York</td>
<td>2,102</td>
<td>1,817</td>
<td>864.4</td>
<td>185</td>
<td>88.0</td>
<td>100</td>
<td>47.6</td>
</tr>
<tr>
<td>Hemsworth</td>
<td>245</td>
<td>225</td>
<td>918.4</td>
<td>19</td>
<td>77.6</td>
<td>1</td>
<td>4.1</td>
</tr>
<tr>
<td>Woodbridge</td>
<td>637</td>
<td>579</td>
<td>908.9</td>
<td>51</td>
<td>80.1</td>
<td>7</td>
<td>11.0</td>
</tr>
<tr>
<td>Nuneaton</td>
<td>465</td>
<td>365</td>
<td>784.9</td>
<td>68</td>
<td>146.2</td>
<td>32</td>
<td>68.8</td>
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<tr>
<td>Bath</td>
<td>1,908</td>
<td>1,591</td>
<td>833.9</td>
<td>179</td>
<td>93.8</td>
<td>138</td>
<td>72.3</td>
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<td>Warwick</td>
<td>1,367</td>
<td>1,230</td>
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<td>115</td>
<td>84.1</td>
<td>22</td>
<td>16.1</td>
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<td>Dartford</td>
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<td>1,373</td>
<td>900.3</td>
<td>113</td>
<td>74.1</td>
<td>39</td>
<td>25.6</td>
</tr>
<tr>
<td>Wangford</td>
<td>446</td>
<td>385</td>
<td>863.2</td>
<td>45</td>
<td>100.9</td>
<td>16</td>
<td>35.9</td>
</tr>
<tr>
<td>Sheffield</td>
<td>7,431</td>
<td>5,876</td>
<td>790.7</td>
<td>923</td>
<td>124.2</td>
<td>632</td>
<td>85.0</td>
</tr>
<tr>
<td>Fulham</td>
<td>2,661</td>
<td>2,225</td>
<td>836.2</td>
<td>243</td>
<td>91.3</td>
<td>193</td>
<td>72.5</td>
</tr>
<tr>
<td>Carmarthen</td>
<td>1,061</td>
<td>949</td>
<td>894.4</td>
<td>89</td>
<td>83.9</td>
<td>23</td>
<td>21.7</td>
</tr>
<tr>
<td>Total</td>
<td>28,940</td>
<td>24,466</td>
<td>845.4</td>
<td>2,974</td>
<td>102.8</td>
<td>1,500</td>
<td>51.8</td>
</tr>
</tbody>
</table>

| England & Wales       | 826,508 | 704,666 | 852.6 | 80,512 | 97.4 | 41,330 | 50.0 |

**Note:**
- (1) = Successfully vaccinated
- (2) = Vaccination rate (C/B*1000)
- (3) = Died unvaccinated
- (4) = Died unvaccinated per 1,000 births (E/B*1000)
- (5) = Remaining
- (6) = Remaining per 1,000 births (G/B*1000)

I have excluded from this table the small number of infants who were insusceptible to vaccination or who had had smallpox before vaccination could take place.

**Source:** Report of the Medical Officer of the Local Government Board, British Parliamentary Papers 1876, xxxviii: 354–369.
accounted for some problems. For instance, in some places not enough vaccination officers had been appointed. In others, the vaccination officers for one reason or another did not do their job properly. In four unions – Banbury, Dewsbury, Keighley and Leek – the Guardians refused ‘to give effect to the compulsory provisions of the law’. In these places, the number of vaccinations per 1,000 births was, respectively, 715, 529, 468 and 768. It was also noted that the vaccination officers were sometimes unable to find a child because of ‘the birth itself having been registered (as is not uncommon in the case of illegitimate children) under a false name or a false address’. 16

In Keighley the flouting of the law led to several guardians being sent to York Debtors’ Prison for a month in 1875. This was counter to the wishes of many of the town’s inhabitants, some of whom unhitched the horses from the omnibus taking the prisoners to the station and dragged it through the streets. The event was recorded in verse:

At the pale little sheriff one couldn’t but smile
As dumbfounded he sat like a mouse all the while
Saying, I’ve heard tell of Keighley, but ne’er been before
And may I be hanged if I come any more. 19

The figures in Table 2 suggest that places such as Keighley were quite exceptional, a situation that continued throughout the 1870s. In 1881, the ‘fractional increase in the percentage of children whose vaccination had not been finally accounted for’ in England and Wales, was put down to the virtual absence of smallpox deaths, there being only 536 in 1879 as against an average of 2,336 in the previous six years. 20 From the Local Government’s point of view, the situation as regards vaccination continued to be satisfactory overall throughout most of the 1880s, although there was a gradual decline in compliance and certain areas, notably Leicester, showed a marked disregard for the law. 21 Several thousands a year continued to be fined or imprisoned for not having their children vaccinated. For example, a Parliamentary Return in 1880 gave the initials of 3,888 individuals who were fined in England and 87 who were imprisoned, 73 for 14 days or less. 22 Nobody was imprisoned in Wales. It is interesting that this quantitative assessment is somewhat at variance with the qualitative one of Durbach. She suggests that ‘anti-vaccinationists who could not afford the fines and had goods to distrain were routinely imprisoned for non-compliance...[and that] the sentence for anti-vaccination prisoners was generally a fortnight but at times more severe’. 23 An earlier Return, covering the years 1875–78, gave the full names of the offenders, together with where they were sentenced, thus offering the opportunity for record linkage to the 1881 census, with the possibility of knowing their age and social circumstances. 24

The turning point as regards compliance with the law nationally came about in 1889. In May of that year a Royal Commission was appointed to look into the ‘subject of vaccination, and [it was reported] since that date an increasing number of Boards of Guardians have more or less completely abstained from enforcing compliance with the law as to vaccination ‘pending the issue of the
In his 1897–1898 Report, the Medical Officer to the Local Government Board feared that the falling off in the number of vaccinations was opening the way for widespread epidemics of smallpox. The Royal Commission on Vaccination published its seventh and final report in 1897, a new vaccination Act following a year later. The Commission recognised the process had been a long one; in fact three of the original 13 commissioners died whilst it sat. In its defence, the Commission said that it had ‘wanted to give opponents of vaccination as much opportunity to provide evidence as those who supported it’. To that end the Commission sat on 136 occasions and examined 187 witnesses. Among the most important clauses of the 1898 Act (61 & 62 Vict. c.49), was an extension of the period by which a child had to be vaccinated from three to six months; a ‘conscientious objection’ clause which gave parents the right not to vaccinate their offspring if they believed that it would harm them (the first use of the term); vaccination in the home by the public vaccinator if requested; and the ending of repeat fines. The conscientious objection clause came into operation on 12 August 1898, but for the remainder of that year it was open to parents to apply for certificates of exemption for children born before the Act. No fewer than 203,413 certificates were issued, relating to 230,147 children. Only about 50,000 were issued on behalf of children whose births were registered in 1898.

Table 3 shows the experience of vaccination in 1873, when compliance with the legislation was at its height, compared with the low point in 1897. It so happens that the number of vaccinations per 1,000 births in England and Wales and in the sample of registration districts is very close at both dates. Nothing much, however, can be read into this, as the selection of districts was not at all random in the statistical sense. Of far greater interest is the wide variation in experience of the different districts. In 1873 virtually all the districts saw vaccination rates in the 800–900 per 1000 births range. By 1897 they ranged from 8 per 1000 in Wellingborough to 900 per 1000 in Wallingford. Durbach, in her recent study of working class resistance to vaccination, seems to be unaware of these variations. For instance, she notes that ‘while anti-vaccinationism was a national movement, it found its most fervent support in predominantly working class regions and neighbourhoods’. She picks out for special mention the East End of London and the ‘the cluster of industrial towns in Lancashire and Yorkshire in the square bounded by Blackpool, Leeds, Sheffield and Liverpool’. So far as the first of these areas is concerned (the East End), Mooney, using the quantitative evidence supplied by the Medical Officer of the Local Government Board’s Reports, suggests, in fact, that compliance was quite high in these areas. As for the second (the industrial areas of Lancashire and Yorkshire), there were great differences between towns only a few miles apart. For instance, in 1897, in Huddersfield there were 4,038 births and 3,556 successful vaccinations. Yet only an afternoon’s stroll away in Halifax, there were 4,490 births and only 199 successful vaccinations. Behind these spatial differences, and the temporal ones noted earlier, lie a host of factors waiting to be explored. Just why was there such a variation? Why should parents in some communities obey the law and in others flout it? What was the role of the local
authorities, of the medical practitioners, of the vaccination officers? Were the
different experiences of vaccination mirrored in other medical spheres?

A further set of differences emerged after the ‘conscientious objection’ clause
was introduced. In some areas large numbers of parents sought its protection.
This was especially the case where many had previously not had their children
vaccinated. However the situation was not a straightforward one. Local
community values seem to have played a part. Take the case of Loughborough.
Here in 1896 less than 5 per cent of infants were vaccinated and over 80 per
cent fell into a residual category of neither dying before vaccination nor being
excused for one reason or another. The Act of 1898 caused a large number of
parents to seek a certificate of conscientious objection (over 50 per cent).
From this date too, the number of vaccinations commenced a steady rise, so that
by 1904, almost 40 per cent of all children were being vaccinated. The residual
category dropped dramatically between 1896 and 1897 from over 80 per cent to

<table>
<thead>
<tr>
<th>Registration District</th>
<th>Vaccinated per 1000 births</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1873</td>
</tr>
<tr>
<td>Ampthill</td>
<td>875</td>
</tr>
<tr>
<td>Wallingford</td>
<td>913</td>
</tr>
<tr>
<td>Cambridge</td>
<td>875</td>
</tr>
<tr>
<td>Hollingbourn</td>
<td>889</td>
</tr>
<tr>
<td>Loughborough</td>
<td>831</td>
</tr>
<tr>
<td>Norwich</td>
<td>869</td>
</tr>
<tr>
<td>Wellingborough</td>
<td>818</td>
</tr>
<tr>
<td>Clun</td>
<td>817</td>
</tr>
<tr>
<td>Ipswich</td>
<td>885</td>
</tr>
<tr>
<td>York</td>
<td>864</td>
</tr>
<tr>
<td>Hemsworth</td>
<td>918</td>
</tr>
<tr>
<td>Woodbridge</td>
<td>909</td>
</tr>
<tr>
<td>Nuneaton</td>
<td>785</td>
</tr>
<tr>
<td>Bath</td>
<td>834</td>
</tr>
<tr>
<td>Warwick</td>
<td>900</td>
</tr>
<tr>
<td>Dartford</td>
<td>900</td>
</tr>
<tr>
<td>Wangford</td>
<td>863</td>
</tr>
<tr>
<td>Sheffield</td>
<td>791</td>
</tr>
<tr>
<td>Fulham</td>
<td>836</td>
</tr>
<tr>
<td>Carmarthen</td>
<td>894</td>
</tr>
<tr>
<td>Sample total</td>
<td>845</td>
</tr>
<tr>
<td>England &amp; Wales</td>
<td>853</td>
</tr>
</tbody>
</table>

Source: Reports of the Medical Officer of the Local Government Board for 1873 and 1897, British Parliamentay Papers 1876, xxxvii, 354–69; 1900, xxxiv, 27–44.
just over 20 per cent and after remaining at or about that level for a number of years fell to around 10 per cent by 1903–04. In Ipswich, on the other hand, relatively few parents had their children vaccinated and not many, certainly far fewer than in Loughborough, took refuge in the conscience clause. Table 4 shows the situation in all the sample districts. Again one asks: what was it that brought about these differences? Why should so many parents seek certificates in some areas and so few in others? And why should so many chose to have their children vaccinated when only a few years earlier so few had done so? The vaccination registers reveal a fascinatingly varied picture across the country as regards attitudes and actions on what the government, at least, regarded as a major health issue. Why this was so calls for further research at the local level.

The Vaccination Registers and infant mortality

At the beginning of this article I pointed out that in the 1870s and much of the 1880s, almost all infants were seen at least twice by a medical practitioner. No doubt some were seen more often, but we have no means of knowing how many. Nor do we know how many doctors were involved. That it ran into thousands is apparent from some occasional snippets of information. For instance, *The Times* noted in 1862 that from (possibly incomplete) returns, 332,165 infants had been vaccinated by 3,731 public vaccinators. This amounted to only 523 vaccinations per 1000 births. As, ten years later, double this number of children were being vaccinated, one might assume that double the number of medical practitioners were involved. Such a conclusion can only be tentative as the number of vaccinations carried out by each public vaccinator appears to have varied widely. A return of the number of vaccinations carried out by public vaccinators in London in 1860 showed very wide variations. Thus in Lewisham, the six public vaccinators carried out 92, 47, 83, 76, 648 and 81 vaccinations. In Hackney the 26 public vaccinators carried out from 12 to 206 procedures. In the Strand, two of the six public vaccinators had two cases a week, a further two had five, one had three and another, 11.

So far I have given figures for the vaccinations carried out by the public vaccinators. Many parents, however, as shown in Table 1 above, had their children vaccinated by private vaccinators, for which they had to pay. Again the numbers involved are elusive. Evidence from Sheffield does, however, give us some idea of what went on in one part of the country. There is, of course, no way of knowing how representative this was. In the year from April 1895 to March 1896, vaccinations in the Park sub-registration district of Sheffield were carried out by 44 medical practitioners. The number of infants vaccinated was 739. As many as 550 of these vaccinations were carried out by the two public vaccinators (74.4 per cent).

These figures would suggest that many doctors were involved in this first example of state medicine. The question is: did this have any wider effect on the welfare of English and Welsh babies? In particular, did it have any effect on the infant mortality rate?
The initial response to both these queries would seem to be, ‘not much’. The rapid secular decline in the infant mortality rate did not commence until around the turn of the century. However, it is interesting to note, in this context, the suggestion that the beginnings of that fall can be traced at least as far back as the 1870s, although it rose again in the 1890s, largely it is thought because in the 1890s there were a number of hot dry summers which led to

Table 4  Vaccinations, certificates of conscientious objection and those not fitting into any other category per 1,000 births in various registration districts and in England and Wales in 1897.

<table>
<thead>
<tr>
<th>Registration District</th>
<th>Births</th>
<th>Vaccinations</th>
<th>Died un-vaccinated</th>
<th>Certificates of conscientious objections</th>
<th>Children not finally accounted for</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ampthill</td>
<td>368</td>
<td>116.8</td>
<td>84.2</td>
<td>296.2</td>
<td>494.6</td>
</tr>
<tr>
<td>Wallingford</td>
<td>340</td>
<td>900.0</td>
<td>50.0</td>
<td>2.9</td>
<td>35.3</td>
</tr>
<tr>
<td>Cambridge</td>
<td>933</td>
<td>616.3</td>
<td>102.9</td>
<td>24.7</td>
<td>236.9</td>
</tr>
<tr>
<td>Hollingbourne</td>
<td>327</td>
<td>776.8</td>
<td>97.9</td>
<td>0.0</td>
<td>116.2</td>
</tr>
<tr>
<td>Loughborough</td>
<td>922</td>
<td>67.2</td>
<td>143.2</td>
<td>556.4</td>
<td>232.1</td>
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<tr>
<td>Norwich</td>
<td>3,370</td>
<td>67.1</td>
<td>191.1</td>
<td>466.5</td>
<td>273.9</td>
</tr>
<tr>
<td>Wellingborough</td>
<td>1,708</td>
<td>8.2</td>
<td>129.4</td>
<td>208.4</td>
<td>654.0</td>
</tr>
<tr>
<td>Clun</td>
<td>213</td>
<td>460.1</td>
<td>79.8</td>
<td>4.7</td>
<td>422.5</td>
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<tr>
<td>Ipswich</td>
<td>1,762</td>
<td>175.4</td>
<td>116.9</td>
<td>86.3</td>
<td>620.3</td>
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<td>York</td>
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<td>791.6</td>
<td>128.8</td>
<td>0.8</td>
<td>57.2</td>
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<td>777</td>
<td>711.7</td>
<td>131.3</td>
<td>3.9</td>
<td>128.7</td>
</tr>
<tr>
<td>Woodbridge</td>
<td>630</td>
<td>831.7</td>
<td>69.8</td>
<td>1.6</td>
<td>84.1</td>
</tr>
<tr>
<td>Nuneaton</td>
<td>872</td>
<td>65.4</td>
<td>177.8</td>
<td>50.5</td>
<td>706.4</td>
</tr>
<tr>
<td>Bath</td>
<td>1,742</td>
<td>567.7</td>
<td>99.9</td>
<td>3.4</td>
<td>252.0</td>
</tr>
<tr>
<td>Warwick</td>
<td>1,227</td>
<td>811.7</td>
<td>74.2</td>
<td>0.8</td>
<td>90.5</td>
</tr>
<tr>
<td>Dartford</td>
<td>2,333</td>
<td>789.1</td>
<td>114.0</td>
<td>3.9</td>
<td>79.3</td>
</tr>
<tr>
<td>Wangford</td>
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<td>868.1</td>
<td>100.3</td>
<td>0.0</td>
<td>21.1</td>
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<tr>
<td>Sheffield</td>
<td>7,935</td>
<td>757.2</td>
<td>137.0</td>
<td>2.5</td>
<td>87.1</td>
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<tr>
<td>Fulham</td>
<td>7,252</td>
<td>810.8</td>
<td>107.3</td>
<td>1.0</td>
<td>65.2</td>
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<tr>
<td>Carmarthen</td>
<td>871</td>
<td>886.3</td>
<td>95.3</td>
<td>0.0</td>
<td>9.2</td>
</tr>
<tr>
<td>Total</td>
<td>36,547</td>
<td>598.8</td>
<td>124.4</td>
<td>77.2</td>
<td>183.9</td>
</tr>
<tr>
<td>England &amp; Wales</td>
<td>927,518</td>
<td>623.9</td>
<td>112.1</td>
<td>34.2</td>
<td>211.5</td>
</tr>
</tbody>
</table>


Note: Not included in the table are a minuscule number of children who had had smallpox (1 in entire country!); were insusceptible to vaccination or had their vaccinations postponed. The final column is largely made up of children whose parents simply ignored the legislation together with a number (probably small) who had left the district and could not be traced.

The initial response to both these queries would seem to be, ‘not much’. The rapid secular decline in the infant mortality rate did not commence until around the turn of the century. However, it is interesting to note, in this context, the suggestion that the beginnings of that fall can be traced at least as far back as the 1870s, although it rose again in the 1890s, largely it is thought because in the 1890s there were a number of hot dry summers which led to
epidemics of diarrhoea that had a fatal effect on many infants. This movement paralleled that of the efficacy of the vaccination legislation: a high level of vaccinations in the 1870s and most of the 1880s, a dramatic falling away in the 1890s and a recovery in the 1900s. But correlation is not causation and, given the brief contact between doctor and infant in the vaccination procedure, a direct impact by the medical profession on infant health in this context is unlikely to have been very great.

More important, perhaps, is the effect of the contact on the general awakening of interest in the problem of infant mortality. Again we have to look to the early 1900s for any sustained campaign against infant mortality, but it has been suggested that we look to the 1870s, more especially to 1876, for the origins of that campaign. For, in that year the current definition of infant mortality (the number of infant deaths in any one year per 1000 births occurring in that same year) was placed before the world by the Registrar General. The high mortality amongst infants had, of course, been recognised before, but the creation of a specific measure which led to comparisons being drawn between one part of the country and another, especially between town and country, and between infants born in or outside marriage, helped focus minds on the issue.

The Vaccination Registers offer us a tantalising glimpse into infant mortality but it is only a partial one. For the registers, whilst providing us with much information on individual births, only tell us which of those children died before vaccination, not after it. So, although we can do a class and locational analysis of the mortality of infants up to three to four months of age with a high degree of certainty, we cannot do so for the later ages. At least we cannot do so unless we have the lists of all infant deaths that were provided by the superintendent registrars to the vaccination officers.

Fortunately a number of these have survived in various parts of the country and, like the Vaccination Registers, are held in county and municipal record offices. As the Vaccination Registers give all the births and the Infant Death Registers all the deaths, record linkage can be carried out and more complete infant mortality rates calculated.
Figure 3  Deaths under 1 year and before vaccination per 1000 births: Ipswich 1872-1904.

Source: Registrar General’s Quarterly Reports 1871-1911: Vaccination Returns in the Reports of the Medical Officer of the Local Government Board 1872-1904.
If an indication of the changes in the magnitude and direction of infant mortality are all that is required then the Vaccination Registers from many parts of the country in the 1890s can give a good approximation of infant mortality. This is because few vaccinations were carried out. This left far more infants in observation for longer and so many more infant deaths were recorded. However, in some parts of the country the system may have broken down to the extent that not all the events were recorded, although the Medical Officer of the Local Government Board never seems to have acknowledged this. A good example of this proxy infant mortality rate comes from Ipswich. Here we can calculate a rate of mortality based the vaccination registers which can be compared to the infant mortality rate that we can calculate from data provided by the Registrar General. The result appears in Figure 3.

It is clear that as fewer infants were vaccinated in the 1890s, more were in observation by the Vaccination Officer and for longer periods. This meant that he recorded more infant deaths, with the result that the mortality rate calculation from the Vaccination Registers came very close to that based on the Registrar General’s totals of births and infant deaths. Assuming that the Ipswich experience is a representative one, it would appear that we can use the Vaccination Registers to produce a proxy infant mortality rate not only for the sub-registration districts but also for entities within them, such as individual, or groups of, towns and villages.

The Vaccination Registers can also be used to produce an, in some ways, more precise measure of infant mortality and for periods shorter than one year. To understand this method it is necessary to understand the difference between the ‘period’ and the ‘cohort’ measure of infant mortality. The ‘period’ measure is the one favoured by the Registrar General. It takes the number of births occurring (or usually being registered) in a calendar year and relates them to the number of infant deaths in the same year. Thus if there were 2,000 births and 200 deaths registered in one and the same year, the infant mortality rate would be \( \frac{200}{2,000} \times 1,000 \) or 100. This is then expressed as 100 deaths per 1,000 births. The assumption here is that the 200 deaths were drawn from the 2,000 births. Many would be. But some of the deaths from those 2,000 births would not occur until the following year. Similarly, a proportion of the 200 deaths used in the above calculation would be drawn from births occurring in the year previous to that which produced the 2,000 births. Although this weakness in the measure is recognised, it is generally assumed that between one year and the next the numbers of births and deaths would not vary much, so the plusses and minuses noted above would roughly cancel out. A similar attitude is taken as regards discrepancies caused by migration, where some not born in the area died after migrating to it, whilst others who were born in the area migrated out and so their deaths were recorded elsewhere.

The ‘cohort’ measure of infant mortality overcomes the first of these problems although it can only be calculated when individual level data, such as that in the Vaccination and Infant Death Registers, is available. For what it does is to relate deaths directly to the group, or ‘cohort’, of births from which those deaths are drawn. It cannot, usually, overcome the second problem, as tracing
infants leaving an area is very difficult. This is a problem facing mortality rates based on family reconstitution, a technique that uses the ‘cohort’ method. So far as ‘cohort’ rates based on the Vaccination Registers is concerned, the major problem lies in their not recording deaths after vaccination. The problem is especially acute when vaccination was virtually universal and took place around the stipulated time of three to four months. This meant that the number of births “still in view” fell very sharply indeed, since almost all infants had been vaccinated. Although, then, very few deaths were recorded after the usual age for vaccination, those that were led to an elevated mortality by the end of the first year of life because so few births were, as we have put it, “still in view”. The example given in Table 5 suffers from this fault, the effect being that the annual rate based on the cohort method is far too high. However, if few children were vaccinated and the system of recording was maintained, the ‘cohort’ measure should be a good indicator of infant mortality.

A worked example is derived from the MPhil thesis of Wendy Baird. Tables 5 and 6 are based on Microsoft Excel software, with the latter showing the formulae used to create the former. Leamington was an area that did not see a great collapse in the rate of vaccination, for as late as 1896 there were as many

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<th>At risk</th>
<th>Life-table mortality</th>
<th>Survivors</th>
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Totals 53 511 134

Births 610
Deaths 53
Aggregate IMR (53/610)*1000 = 87
Individual-based IMR = 134

as 837 vaccinations per 1000 births (511/610*1,000). That means, as noted above, that the deaths of a number of children who died in late infancy would not be recorded in the Vaccination Register. This problem is, of course, overcome where the Infant Death Register, containing all deaths occurring in the first year of life, has survived.

Conclusion

The English government began to pay for vaccination against smallpox from 1840. Vaccination itself, however, was voluntary. Repeated epidemics led to a hardening of the government’s attitude, so that in 1853, vaccination was made obligatory. It was not until 1872, however, that as William Ogle, Farr’s successor at the General Register Office, put it, ‘the proper mechanism existed for enforcing that obligation’. The legislation generated an enormous amount of documentation at the local level. In addition to the Vaccination Registers used to monitor the system, local Registrars had to provide the Vaccination Officer with copies of the Civil Registers of Births and a partial copy of the Registers of Deaths. Probably only about 5 per cent of the Vaccination Registers have survived, and 1 per cent of the Infant Death Registers, although it is not unlikely that more will be discovered. The Registers themselves were analysed annually by the Local Government Board and this too produced a vast amount of documentation. For example, from 1872 until 1904, the experience of vaccination, each year, in over 600 Registration Districts was published.

Table 6  Excel formulae used in the creation of Table 5.

<table>
<thead>
<tr>
<th></th>
<th>A: Age in months</th>
<th>B: Deaths</th>
<th>C: Vaccinated</th>
<th>D: At risk</th>
<th>E: Life-table mortality</th>
<th>F: Survivors</th>
<th>G: Deaths</th>
<th>H: Cumulative deaths</th>
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not only provided the numbers of births, of vaccinations, and of deaths before vaccination (see Table 1) but, by doing so, also provided an insight into the changing attitudes towards the State’s first major health initiative. Much, it has been suggested, might be made of this. Finally, the Vaccination Registers themselves provide us with estimates of infant mortality not just for sub-registration districts, but also for areas within them and by social class. Such estimates are enhanced when other nominative sources, such as the Infant Death Registers (Figure 2) and Cemetery Records, which provide the ages and names of the deceased, can be drawn upon. These sources provide the local population historian with a means of addressing aspects of infant mortality at a micro-level, being analogous to the parish registers but much more detailed. They are unrivalled for this purpose and will continue to be so until the civil registers of births and deaths are made freely available.

NOTES

16. ‘Digest by Dr. Seaton of the Vaccination Officers’ returns with regard to children whose births were registered in 1875’, *Report of the Medical Officer of the Local Government Board*, BPP, 1876, xxxviii, 354.
17. Digest by Dr. Seaton, 362, 364, 367.
21. In 1883, The Times reported that the Leicester Guardians had decided not to ‘apply for distress warrants for unpaid fines’. The Times, 10 January 1883, p.9.col. f. See also The Times, 12 November 1880, p.7.col.f; and 19 February 1886, p.13. col. i.
22. Return of the number of persons who have been imprisoned or fined for non-compliance with the Act relating to the vaccination of children, BPP, 1880, lix, 449.
23. N. Durbach, ‘They might as well brand us’, 58.
32. Report of the Medical officer of the Local Government Board 1897, BPP, 1900, xxxiv, 42.
33. The Times, 19 September 1862, p.7 col. i.
34. ‘A return of the number of public vaccinations in the metropolis’, BPP, 1860, lviii, 989–96.
35. Evidence supplied by Valerie Dodgson, former research student of the Open University.
38. For a review of these holdings see Drake and Razzell, The decline of infant mortality, and Drake, ‘Infant mortality’, 107–12.
39. The measure was demonstrated to research students and their supervisors on the Wellcome Trust sponsored project at the Open University, under the auspices of the Open Studies in Family and Community History Research Group (OSFACH), by Eilidh Garrett and Jim Oeppen of the Cambridge Group for the History of Population and Social Structure.
42. See the articles cited in footnote 15 by Clark, Davies, James and Smith for illustrations of this.
REGULATION AND THE HEALTH OF CHILD WORKERS IN THE MID-VICTORIAN SILK INDUSTRY

Tom McCunnie

Dr Tom McCunnie completed his PhD dissertation at the University of Manchester between 1994 and 2002, during which time he also taught economic history and economics. He is currently employed as Widening Participation Officer in the Faculty of Humanities at the same university.

Introduction

The silk industry of nineteenth-century Britain failed to conform to the pattern of child employment in other branches of textiles, for child labour remained unregulated in the dynamic years of the industrial revolution, allowing the continued employment of comparatively large numbers of children. Two main arguments were persistently advanced by silk manufacturers for special treatment. First, as tariff protection was eroded through the nineteenth century it was imperative to keep labour costs low to combat foreign competition. Second, the silk industry had much healthier working environments than other branches of textiles, and therefore regulation was unnecessary.

This paper will evaluate the second of these arguments. In the first half of the nineteenth century the evidence is primarily from the reports of select committees and factory inspectors; in the second half, the poor conditions associated with factory work were investigated, producing independent evidence of health hazards and working conditions in the form of mortality statistics in the Registrar Generals’ reports and industry specific investigations by the Chief Medical Officer of the Privy Council. The data will be used to compare mortality rates in silk manufacturing districts with other textile areas. The primary focus will be on factory employment, since this is where discriminatory regulation occurred. However, it is important to note that in many cases the boundary between factory and domestic production was blurred, due to changes in legislation relating to definitions of a ‘factory’.

Orphans provided a substantial part of the labour force of early textile factories, and numbers increased in the second half of the eighteenth century. Supply was increasing for two reasons. First, improved standards in orphan care in institutions increased survival rates.1 Second, the larger numbers led to an increased financial burden on the state, which despatched children to textile mills to alleviate liability. On the demand side the number of textile mills was rapidly increasing. Changes in the labour market for orphans led to higher participation rates and younger starting ages compared to children with
The silk industry was the first section of the textile industry to develop factory production, and when the first effective child labour laws were passed in 1833 silk mills were the most extensive employers of children in the British textile industry, and also employed children at particularly young ages.2

Table 1 shows the proportion of young children employed in the silk industry before and after the 1833 Factory Act. The data highlights two key points: the relative high proportion of children employed prior to regulation, and how the exclusion of silk mills from the legislation increased the disparity.

The silk industry was prone to spectacular fluctuations in employment, output and investment, primarily due to violent fluctuations in the price of raw silk and trading relationships with France. But there were a host of other smaller factors which could also destabilise the industry, as a report on the Coventry ribbon trade demonstrates:

The silk ribbon trade was good in the first half of the year and then fell off somewhat – owing probably to a change in fashion, or the wet summer, or court mourning, or the practise of ladies at the seaside wearing caps without ribbons, or all combined.3

Table 2 shows the silk industry, unlike other branches of textiles, was not regionally based. The largest concentration was in Cheshire, which included Macclesfield, the centre of nineteenth-century silk manufacture.

The early debate

In the first half of the nineteenth century conventional wisdom suggested that children employed in the silk industry experienced relatively benign working conditions compared to their contemporaries.

If a poor man’s child has to work, it is impossible that there can be employment less objectionable than that of the silk trade.4

The occupation of children in the silk factories is more conducive to health than confinement in an ordinary school would be.5
These statements represent a body of medical opinion which supported silk manufacturers throughout the first half of the nineteenth century in their defence of child employment in silk mills. The argument was first presented in 1816 in order to persuade legislators to exclude silk from regulations applied to cotton manufacture. Indeed, in 1832 Samuel Courtauld, one of the largest silk manufacturers in nineteenth-century Britain, quoted these assertions when

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<td><strong>277</strong></td>
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**Note:** *This figure given by Jenkins as 1,832, is clearly an error. The 11,832 is figure is derived from the 1850 figure for Cheshire and the ratio of workers to mills.

responding to questions from a Board of Commissioners’ investigation. He suggested that evidence produced in 1816 proved it was not necessary to regulate child labour in silk mills.

The occupation was perfectly innoxious; the labour light and suitable for children; their health was not effected; nor their constitution impaired; they grew up as robust and vigorous as persons engaged in the normal avocation of life; and in consequence of such evidence the silk manufacturer was exempted from the operation of the bill.6

Courtauld stated that the working environment of silk manufacture was more benign than cotton due to the absence of ‘deleterious particles’ in the production process, informing the commission that silk is worked at moderate temperatures, and factories and mills were well ventilated.7

Courtauld’s view was supported from a number of other sources. In 1815 the Macclesfield Courier carried an advertisement for 100 men, women and children with experience of silk to work in a factory recently erected in Tottenham, London, described as ‘the pleasantest in England’.8 Thomas Ward, silk throwster of Bridgewater, claimed conditions were so favourable that ‘children frequently requested to be employed longer when we have extra work’.9 In the 1830s John Grout, one of the largest silk manufacturers in England, described the labour of children working in his mill as ‘extremely light’ and ‘gentle exercise’.10 John Wright, steward at a Macclesfield silk mill, who had worked in the silk industry for over 30 years, disagreed. He observed that the propensity of silk mills to take children at a much younger age than cotton factories, often at five or six, resulted in an alarming number of cripples in later life. In one small area of the town there were 63 cripples.11

As the following extracts from the Macclesfield Courier illustrate, the working environments of silk mills were not free from hazard:12

Last week another of those unfortunate circumstances too frequently attendant on silk machinery, occurred at a silk factory near the common in this town. A young boy…..whose clothes got entangled in the machinery, met his death by strangulation.

A little girl about seven years of age was caught by her clothes and drawn between an upright shaft in the engine room and a wall…..life was extinct.

Ralph Boothby, about five years of age, was unfortunately caught by one of the shafts or wheels…..Killed on the spot.

William Downs about eight years of age….The shaft caught the strings of his pinafore…..died immediately.

Dangerous working conditions were exacerbated by the harsh discipline imposed by stewards, who commonly beat children with straps. One such assault resulted in the death of 11 year-old Sarah Stubbs, who worked as a ‘piecer’ in a Macclesfield mill, the inquest revealing that she was repeatedly
beaten for not tying broken silk threads at the required rate. Evidence given by Daniel Fraser, a silk mill department manager, gives a highly negative account of the conditions children endured:

The children were taken at a very early age and they exhibited great fatigue daily. In the mornings they would fall asleep after breakfast... The young children were strapped frequently with leather thongs... There was no provision for sitting down... The hands principally comprised of females, who were considered more docile than males, but were less capable of enduring the conditions... Inadequate ventilation caused them to faint... The girls have hoarse, rough voices, as if they are not right within... The children had to work in silence... I have seen boys kicked.

Many of the recorded instances of the mistreatment of children were associated with wasting silk, 'one of the highest crimes in the throwing mill'. Fraser’s evidence was supported by James Turner, a Manchester cotton dresser, who testified that in Manchester children worked longer hours in silk mills compared to cotton, that child workers in silk started work at younger ages and that 'the children look more ghastly and pale than they ever did in cotton'. Turner went on to describe their working conditions. He said it was well known that the children were chastised severely if they were seen making waste. When asked if he thought the regulation of child labour was necessary in silk mills he replied:

I think there is more necessity for it in the silk-mills than in any other mills, which I am acquainted.

Turner highlighted a particularly distasteful procedure designed to increase production levels: prizes were awarded to the most productive children. He described the case of two young boys competing for 'three pounds of bacon and threescore of potatoes' over a two-week period. The boy who won complained that when he got home he could hardly get into bed due to the exertion of his labours. For girls, dolls were hung from the frames of machines to encourage greater effort. The performances of the winners of these competitions were then set as standards, and children falling short were punished. Similarly in Macclesfield, failure to achieve set standards often resulted in children being ridiculed by being made to wear a 'badge of idleness'.

By the 1840s the exclusion of silk mills from the 1833 Factory Act began to attract the factory inspectors’ attention.

Next stands the silk manufacture: we will not fill our pages with abundant evidence that may be found in the Minutes of the Committee and the reports of the inspectors. Suffice it here to say, that ten hours of labour, in each day, are assigned to children of tender years, of eight, of seven, and even of six – mostly girls – and so small, we learn from the inspectors, that they are not infrequently placed upon stools before they can reach their work.
However, as mid-century approached silk manufacturers still maintained regulation was unnecessary.

The lightness, cleanliness, and freedom from dust and minute particles, a cooler atmosphere required in silk throwing, all concur to point it out as a healthful occupation; a fact borne out by the general health of the silk mill hands of Derby. As regards the health and comfort of the children it has been found in coming to work after breakfast, at 8 o’clock in the morning, and leaving off at 7 o’clock in the evening, uniformly throughout the year, has been highly advantageous to the health and general comfort of all the persons employed, but especially of the children.....The silk-throwsters of Derby challenge the whole world to show a more healthful manufacturing population.22

At this time Chadwick was investigating the living standards of the ‘labouring classes.’ When visiting the silk weaving district of Spitalfields he commented:

The chances of life of the labouring classes of Spitalfields are amongst the lowest that I have met with, and there it is observed of weavers, though not originally a large race, that they have become still more diminutive under the noxious influences to which they are subject.....They are decayed in the bodies; the whole race of them is rapidly descending to the size of Lilliputians. You could not raise a grenadier company amongst them all. The old men have better complexions than the young.23

The work of Chadwick and other social reformers was instrumental in the formation of the General Board of Health in 1848. In 1854 responsibility for public health was passed to a newly formed Committee of the Privy Council that was headed by the Chief Medical Officer, John Simon.

Growing awareness

By 1850 there was enough evidence to suggest that factory work provided a nexus for debilitating and shortening the lives of operatives.24 Throughout the 1850s Simon campaigned for legislation to safeguard workers employed in occupations he believed were hazardous to health. In 1856 he secured the position of first Lectureship in Public Health in Britain for Dr Edward Greenhow, soon after which Greenhow set out to interpret statistics gathered by the Registrar General.

In 1860 Simon authorised Greenhow to report on districts with high mortality rates caused by lung disease. The investigation was primarily concerned with adult mortality, and sought to explain the higher death rates from lung disease found in manufacturing districts. In some cases these death rates differed by a factor of six.25 The most prominent contributor by far to ‘lung disease’ was tuberculosis. Consumption—phthisis, or pulmonary tuberculosis, as it was alternatively known—killed more people, especially in young adulthood, than any other disease in the nineteenth century.26 Overcrowding, diet and unsanitary conditions at home and at work were of ‘profound significance’ in
shaping the its mortality patterns. Cronjé singles out high male mortality in the nineteenth-century textile industry, suggesting that the general unhygienic working environment and specific factors such as silica dust, encouraged tuberculosis. However, dust was not a health-hazard in silk manufacturing as it was in other areas of nineteenth-century textiles.

Cronjé suggests the explanation for high tuberculosis mortality in the nineteenth century accords with modern studies of occupational mortality, which stress the role of excessive crowding in the workplace as an important way of spreading tuberculosis. She identifies a number of nineteenth-century occupations, such as tin-mining and earthenware production, which displayed ‘exceptionally high rates of tuberculosis mortality’. The link between overcrowding and tuberculosis was noted by Dr Baly, a physician researching the causes of tuberculosis in the first half of the nineteenth century from the medical records of a sample of the London prison population, which showed the mortality rate for tubercular disease here to be four times higher than that of the general population of the capital. Dr Baly concluded that this influence, along with poor diet, arose from deficient ventilation, sedentary occupations and a lack of active bodily exercise. Simon noted that the factors highlighted by Dr Baly were also prevalent in the lives of some textile factory populations, and that these conditions increased the probability of tubercular disease:

Where an industrial system is bad – bad, either in excessive length of daily work, or in the over-crowdedness and non-ventilation of workplaces, these evils may be vastly developed. Their maximum may be expected to prevail in places where an over-tasked population does its work in ill-ventilated factories and cottages.

It will be shown that not only was the silk industry an integral part of this ‘bad industrial system’ but the above conditions were exacerbated by the fact that younger children worked for longer hours relative to children employed in other areas of textile production.

The Medical Officer for the Privy Council set out to ascertain whether the high mortality rates from phthisis in certain manufacturing areas were an essential appendage of employment or whether they could be attributed to sanitary problems. Table 3 shows the incidence of pulmonary disease in each district he studied, the industry and the gender which was predominately employed.

The mortality statistics in Table 3 are for the district population, not just those actually employed: the contrasts would have been more striking if death rates had been calculated solely for the workforce of each industry. Nor is the data age specific. This said, the data provides a mid-century snapshot of Britain’s occupational disease blackspots, and shows Macclesfield had the highest incidence of deaths from pulmonary disease among females, with Leek displaying the fifth highest rate. The death rate for males was lower in both Macclesfield and Leek, eighth and thirteenth respectively of the 23 districts investigated.
When visiting Macclesfield and Leek, Greenhow began his report by outlining the demographic and occupational profile of the districts:

Silk is the staple article of manufacture of both Macclesfield and Leek. In 1851 the town of Macclesfield contained 39,048 and Leek 8,877. Each
Registration district comprises of several villages and hamlets, and a considerable rural population. When the census of 1851 was taken 31 per cent of the men and 26 per cent of the women of Macclesfield, above 20 years of age were employed in the silk manufacture. About 19 per cent of men were engaged in the cultivation of the soil, and a small proportion engaged in cotton manufacture and in mining. About 15 per cent of the men and 17 per cent of the women of Leek, above the age of 20 years, at the same date were employed in the manufacture of silk: 37 per cent, or more than one third, of the men were occupied by the cultivation of the soil, and 7 per cent in mining. A large, but uncertain proportion of young women, boys and girls, are also employed in silk manufacture in both places.

The town in both districts is the centre of the silk manufacture: but whilst in Leek this manufacture is confined to the town and its immediate precincts, it extends, throughout the registration district of Macclesfield. Neither Leek nor Macclesfield were densely built. The former contains some narrow streets, and courts, but the principal streets are wide and airy. The latter has for a town of its size an unusual number of open spaces. These districts differ in this respect: that while the manufactures of Macclesfield, with the exception of weaving, are chiefly carried on in factories, a large portion of the work in Leek is done at home, in workshops and in sheds, which can scarcely be called factories.32

Given that both towns were the centre of silk manufacture in each district, it is significant that Table 4 shows the highest mortality rates occurred in the towns.

Greenhow’s account of housing conditions of Macclesfield and Leek are crucial in determining the source of contagion: he found both towns to be ‘sometimes,
but by no means generally overcrowded. The worst cases of overcrowding were recorded in the lodgings of unmarried factory operatives in Leek, the smallest bedrooms of which offered 280–310 cubic feet of breathing space per person—above the minimum of 240 cubic feet required by the Common Lodgings Act of 1855. Greenhow concluded, ‘the dwellings of the labouring classes, in both towns are superior to those in many agricultural districts.’

The working environments of the children employed in silk manufacture in Macclesfield and Leek differed. In Macclesfield most child labour was employed in large silk mills, therefore subject to some regulation. In Leek the majority of young children were employed domestically, or in workshops, subject to no regulation. In Leek, Greenhow found many boys and girls aged 8–9 working for 10 hours per day where ‘ventilation was most imperfect.’ In one workshop he found 51 men, women and children crammed into a space which afforded them less 200 cubic feet per head—below the minimum requirement—and therefore these children were exposed to two of the major causal factors of tuberculosis, overcrowding and deficient ventilation.

Greenhow also calculated that boys employed in twisting sheds traversed ten miles per day on average. Three were ‘no more than nine years of age’ and were a ‘short stunted race.’ As far he could ascertain, they were not subject to any special ailments, but the medical officer responsible for determining physical condition of potential army recruits in the area remarked that he rarely found thread-twisters fit for service. Macclesfield and Leek death registers provided Greenhow with further evidence, recording high death rates for males over 20 years of age working in silk manufacture. Deaths among young girls employed in silk had been ‘very numerous’, but there was no data from which to compare their mortality rate with the rest of the population.

Three years prior to Greenhow’s investigation, a report on the sanitary conditions of Leek by its medical practitioners found that imperfect ventilation of the factories was a significant contributory factor to the high rates of mortality from pulmonary disorders. Greenhow carried out a detailed inspection of the ventilation systems of the mills of Macclesfield and Leek and found ‘The ventilation of most of the mills in both towns to be very imperfect.’ The ventilation systems consisted of casements designed such that drafts entered the workrooms at head height. The operatives found the working conditions so intolerable that they closed them during working hours. In many cases the systems were so stiff from misuse they could not be opened. The defective systems produced a stagnant atmosphere, exacerbated by general overcrowding in the workrooms, which were well below the minimum standards required. The situation was further aggravated by high working temperatures, which caused windows to be perpetually covered in steam.

Greenhow was not the first to draw the unhealthy working environments of silk mills to the attention of the legislature. In 1840 factory inspector Leonard Horner recorded:
Much has been said about the greater cleanliness of silk mills, and the greater lightness of the work, in order to prove that the employment is more healthy than that in other mills. If we visit the large and newly erected silk factories, we certainly find the rooms large and airy; but so are newly erected cotton, woollen and flax mills. If we visit the older silk mills, these constitute the majority, we find that the rooms are very frequently small, low in the roof and badly constructed. In all silk mills there is a greater vitiation of the air than in other mills because of the much larger company of persons collected together in the same place.\textsuperscript{42}

Inadequate ventilation, high temperatures and overcrowding were not the only health hazards: both weavers and piecers worked in constrained positions injurious to health. The posture of weavers, chest pressed against a wooden beam, compressed the stomach and the chest and caused many of them to become round-shouldered and narrow-chested. Piecers, who were principally young girls, worked standing and were constantly in motion, stooping forward to tie the broken threads. Many piecers worked in winding sheds which did not use steam-power, hence were not subject to factory regulations. Repetitive movement coupled by long working hours seriously impaired respiration. Greenhow reported that piecers contributed to an ‘undue proportion’ of the mortality from pulmonary diseases in Leek and Macclesfield, and medical practitioners confirmed that female operatives were ‘very liable’ to diseases of the chest.\textsuperscript{43} Foremen of several silk mills corroborated this evidence.

The following year Greenhow visited Coventry. He found 34 per cent of men and 44 per cent of women over 20 years or age employed in silk manufacturing. There were also many young people of both sexes employed in silk factories and many more women and children employed domestically. Silk manufacturing was by far the most prevalent occupation.\textsuperscript{44} Coventry was not densely built upon and contained many open spaces. The courts inhabited by the working classes were large, open and well ventilated. There were some back to back houses in the older part of the city that were small and poorly ventilated, but generally Greenhow found the majority of dwellings to be well ventilated.\textsuperscript{45}

The death rate per 100,000 from lung disease in Coventry 1848–54 was 661 for men and 573 for women. These figures were higher than the standard rates in Table 3, but lower than those of Macclesfield and Leek. Greenhow found the variation in female mortality remarkable given that they were employed in the same occupation. He believed these differences were attributable to the larger proportion of females employed in handloom weaving in Macclesfield compared to Coventry, the stooping position of piecers while at work and the unsanitary, ill ventilated, overcrowded workplaces of Leek.\textsuperscript{46}

There are other factors that may contribute to the variation in mortality rates. Coventry had modern factories which possessed a unique feature, the cottage factory, which were powered by steam and subject to factory regulation, unlike the small workshops of Macclesfield and Leek. At the time of Greenhow’s visit the Coventry silk industry was in a state of depression and many of the cottage
factories were idle, due to the Anglo-French Cobden-Chevalier treaty of 1860 which removed the protective tariffs on French silk goods similar to those produced in Coventry. The poor state of trade in Coventry prompted the cottage weaving factories, which were still producing silk goods, to retrogress by substituting the hand power of small boys for steam power.47

After completing his inspection of the workrooms of the Coventry factories, Greenhow found them to be ‘rarely overcrowded.’ However, there were exceptions where he found women and children working in rooms below minimum standards.48 Unlike Leek and Macclesfield, Coventry offered a variety of ventilation systems. The best systems had casements in each window which opened at a height to avoid air currents striking the heads of the operatives. Some factories had grates in the floor which allowed air to circulate. But in others the only means of ventilation were ill-positioned casements similar in type to those commonly found in Macclesfield and Leek, and there were a number of factories with ventilation arrangements which replicated those of Macclesfield and Leek in which the atmosphere was ‘ oppressively hot’. The cottage factories were not overcrowded, however, Greenhow estimating there was between 420–640 cubic feet per head. The reason for this was the height of the workshops, at least 13ft high to accommodate the Jacquard looms employed. Greenhow came across a silk factory in Foleshill where openings in the ceiling had been made to improve ventilation, not to ameliorate the working environment but to avoid damage caused by gas-heated air to pattern cards used in weaving with Jacquard looms.

The local authorities of Coventry were energetic in their pursuit of sanitary reform. Indeed, Greenhow commented that ‘there are few places where so much has been attempted for the improvement of the public health’. However, when he inspected a new factory built under the supervision of the local authorities he found it to be inadequately ventilated. The rooms were hot and close and the ventilation openings were positioned such that workers were exposed to drafts of cold air at head height. Greenhow concluded many of the ‘evils’ of Macclesfield and Leek were present in Coventry, but they were not as detrimental to the silk workers’ health as the mills were more spacious. Furthermore, Coventry silk workers were not subject to the ‘bad effects’ of stooping, common in Macclesfield, and their children were not exposed to factory work at very early ages, commonplace in the winding rooms of Leek.49

Similar to Leek and Macclesfield, local medical practitioners had already been aware of the high mortality from lung diseases in Coventry before Greenhow submitted his findings. One practitioner stated that he believed the high mortality rates were a direct consequence of the industrial labours of the people, especially those who worked in ill-ventilated over-heated workplaces.50

In 1864 Simon concluded his investigation into districts with excessively high mortality rates from lung diseases.
When many persons are employed together in an indoor industry, the ventilation of the workplace is likely to be so bad as to convert the employment, which perhaps in its own nature is not of hurtful tendency, into an employment seriously dangerous to health.\(^5\) He suggested bad ventilation in the workplace was responsible for the development of a 'large excess of phthises, and probably some excess of other fatal lung diseases' among workers. He maintained that in districts which had large indoor industries, the 'prevalence of workplace-induced lung disease was sufficient to colour the death return of the whole district with a marked excess of lung-disease'. Simon noted that the silk manufacturing districts of Leek, Macclesfield and Congleton had by far the highest mortality rates, emphasising the 'atrocious sanitary circumstances under which much of our silk industry is conducted', his reports making it quite clear that the working conditions in the nineteenth-century silk industry were far from healthy. The high mortality rates associated with silk production were not the product of an 'occupational disease', for the processes of silk production were not particularly harmful to health. The fact, therefore, that silk manufacturing districts displayed higher mortality rates from lung diseases than cotton manufacturing districts is of greater significance, given that cotton production was carried out in dust-filled atmospheres.

**The evidence of the mortality data**

Decennial reports of the Registrar General were used to plot the age-specific mortality rates from phthisis in silk manufacturing districts relative to other manufacturing areas. The data was recorded at uneven intervals. The mortality of children up to five years of age was recorded at yearly intervals, from five to twenty four years at five-year intervals and all subsequent age categories were recorded at ten-year periods. Children below five did not constitute part of the factory workforce and therefore this data was not used.

Mortality will be displayed as death rate per thousand, calculated from the Registrar General’s cumulative total of phthisis mortality per decade. This will facilitate comparisons of child mortality between textile districts. The first reliable decadal estimates emerged in the second half of the nineteenth century, fortuitously coinciding with the period 1850–70 when children employed in silk mills were subject to the discriminatory legislation of the 1844 Factory Act. This unique set of circumstances offers the opportunity to quantify the consequences of partial regulation on their health. Extending the analysis beyond these decades is hindered due to mortality statistics for the 1870s giving no gender distinction by age group. Furthermore, by this time the regulations applied to children working in silk mills had fallen into line with other sections of the textile industry.

It is important to note that the age-specific mortality pattern of phthisis was different from trends in general death rates. The normal pattern of mortality in the nineteenth century was high death rates during infancy and early childhood, followed by a steady fall through late childhood and adolescence.
Throughout young adulthood death rates, although gradually rising, remained low, followed by a sharp increase in mortality in the 35–44 age group with death rates finally peaking in higher age categories. By contrast, phthisis mortality rates, after initially conforming to the general trend, began to rise in the 10–14 age group, peaking in young adulthood and then steadily declining across the higher age categories.\textsuperscript{52}

In Figure 1 Coventry displays lower rates of female mortality in all age groups compared to Macclesfield and Leek, which have remarkably similar mortality patterns. What is interesting is that the highest variations occur in the 10–14 age group, where mortality amongst children in Leek (4.1) and Macclesfield (2.5) are five and three times respectively that of Coventry (0.8). Mortality in both Leek and Macclesfield peaks in the 14–19 age group, whereas in Coventry mortality peaks at age 35–44.

In Figure 2 mortality has declined in all three districts. The decrease corresponds to the general fall in phthisis mortality for both sexes, and all age categories, throughout England and Wales in the second half of the nineteenth century. As in Figure 1, Macclesfield and Leek display much higher mortality than Coventry, the greatest variation being at ages 10–14. One interesting feature is how the configuration of the curves have changed, with peak mortality now occurring in the 25–34 age group in each district. This shift was part of a general trend throughout the second half of the nineteenth century, which witnessed a move of peak mortality to progressively higher age categories, the explanation for which lies in adult tuberculosis resistance levels. Childhood conditions were crucial to an individual’s later ability to resist tuberculosis. A well established but contained infection could be reactivated in

\begin{figure}[h]
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\caption{Comparison of female phthisis mortality in silk districts, 1851–1860.}
\end{figure}

\textbf{Source:} Registrar General’s Decennial Reports 1851–1860.
adulthood. Therefore improved diet, working and living conditions in the second half of the nineteenth century contributed to increased resistance to tuberculosis in childhood years. This in turn led to a reduction in the number of tuberculosis fatalities in young adulthood and to relatively more, older adults having a greater susceptibility to tuberculosis because their childhood circumstances had been worse than those of succeeding generations.53

What was the contribution of housing, diet and working conditions to the high levels of phthisis mortality in Leek and Macclesfield compared with Coventry? Greenhow had found no significant difference in the quality and density of housing, nor excessive overcrowding in any of the towns in terms of cubic breathing space per head. Diet was dependent upon income levels. But the income levels of these local economies were linked in that they were vulnerable to the same external forces, while Macclesfield silk throwsters provided much of the silk yarn for Coventry silk weavers. Therefore it is unlikely that there were significant variations in changes in income level between these areas. The working conditions of Coventry, however, differed markedly from those of Leek and Macclesfield. Factories were relatively modern and generally equipped with superior ventilation systems and the use of cottage factories meant fewer cases of overcrowding. Child workers did not suffer the consequences of repetitive stooping associated with ‘piecing’ and started work at older ages. 54

Recent research by Woods and Shelton investigating the decline of phthisis mortality in Victorian England and Wales found no evidence that
improvement in housing and diet were significant factors in accounting for the reduction. They found many of the districts with highest levels of phthisis mortality were remote rural areas and concluded that mortality rates were high in these areas because ‘infection and reinfection rates were high. Housing may be both poor and overcrowded, but in general this does not provide support for interpretations that emphasise either change in nutritional status or the quality of housing or indeed some synergistic interaction between the two.’

They reject the hypothesis that persistent geographical differentiation in tuberculosis death rates should be mirrored by quality of life. The principal reason for a reduction in mortality was that the disease became less virulent.

From the perspective of this research, however, the issue is not what caused the decline in phthisis mortality, but why phthisis mortality was so high in silk manufacturing districts. The evidence presented so far suggests the key variable in explaining variations in phthisis mortality in silk manufacturing districts was their working environments, providing an ideal habitat for the disease to flourish.

What follows is a comparison of age-specific phthisis mortality in silk manufacturing districts with other sectors of the textile industry. The districts chosen to represent each textile sector were selected from those investigated by the Medical Officer of the Privy Council due to their high rates of phthisis mortality: silk (Macclesfield, Leek and Congleton), cotton (Preston and Blackburn) and wool (Bradford and Leeds).

Figure 3 shows that silk districts display higher rates of phthisis mortality in all age categories compared to wool, the largest differences occurring in the 10–24 age group.
age range. Compared to cotton, silk districts show higher mortality rates until a crossover point around the age of 40, again the largest differences occurring in the 10–24 age categories. Peak mortality in silk districts occurs earlier and is more salient than either cotton or wool, with a steep increase from 10–14 to 15–19, from which point there is a gradual decline throughout older age categories. Both cotton and wool districts display broad peaks ranging from 15–44, roughly corresponding to the general distribution of female phthisis mortality in nineteenth-century England and Wales.\footnote{56} Within this broad peak phthisis mortality was at its highest (4.6 per 1,000) in the 25–34 age group.\footnote{57}

Figure 4 compares female phthisis mortality in the following decade. In the 1860s there was a 10.3 per cent decline in female phthisis mortality in England and Wales.\footnote{58} In Figure. 4 the reduction is evident in both wool and cotton districts. In silk areas, not only is there a fall in mortality but the configuration of the mortality curve has changed, with silk districts displaying a ‘broad peak’ associated with the general pattern of female phthisis mortality in this period. Silk districts still show higher mortality in all age categories up to the final two age groups, but the large differences of the previous decade are no longer discernible.

Figures 5 and 6 compare male mortality. In Figure 5 all districts share a very broad plateau of peak mortality in the 15–64 age groups, more extended than the broad peak apparent in the general distribution of male phthisis mortality in England and Wales.\footnote{59} The extended plateau is attributable to the very high rates of pulmonary disease generally associated with textile production, which made them tuberculosis blackspots.\footnote{60} Within this peak age group phthisis mortality was at its highest (4.1 per 1,000) in the 20–24 age group.\footnote{61} The silk
districts display higher death rates at all ages up to and including the 25–34 category. Furthermore, in the 10–14 group mortality is twice that of other textile areas.

Figure 6 compares male phthisis mortality in the 1860s when there was a 3.7 per cent decline in male phthisis mortality across England and Wales—one third the reduction recorded for females in the same period. The excess male mortality of silk is no longer apparent. All three textile districts display similar mortality patterns, although each district peaks in a different age group. Unlike the previous decade, there are no significant variations in child mortality.

The influence of working conditions on phthisis mortality in silk districts is therefore demonstrated by its relative prevalence during the 1850s, and by its relative decline compared to that of textile districts by the 1860s. From 1860 the Anglo-French trade agreement produced a dramatic reduction in the number of people employed in the British silk industry, the total workforce falling from 118,320 to 82,963, male employment from 43,732 to 29,225 and female employment from 72,588 to 53,738. The reduction in numbers coincided with the decrease in phthisis mortality observed above.

Conclusion

It is clear that the working environments of silk manufacture were not as benign as proposed by manufacturers: working conditions associated with factory production in the silk industry were a major contributory factor to the high tuberculosis mortality recorded among children and young adults in these districts. Therefore one of the twin pillars on which silk manufacturers built their case for exemption from regulation was at best unstable.
For the first half of the nineteenth century there is ample qualitative evidence to suggest that the conditions experienced by children employed in silk factories were at least on a par with those in other textile factories. However, there were two factors which exacerbated their situation. First, the discriminatory factory legislation of the 1833 Factory Act left very young children unprotected. Second, the high value of silk relative to other textiles resulted in much harsher disciplining of children, particularly if children were responsible for ‘making waste.’

In the first half of the century the only grounds silk manufacturers had for maintaining that silk mills afforded healthier working environments than other textile mills was dust-free atmospheres. In the second half of the nineteenth century this tentative assertion was disproved. In fact it was the atmospheres of silk mills that contributed to the extremely high mortality rates in silk manufacturing districts. The most damning evidence comes from the mortality statistics of the Registrar General. Comparative analysis of the data reveals extremely high mortality amongst children and young adults from tuberculosis in silk manufacturing districts compared other textile areas. Furthermore, tuberculosis death rates in these age groups exceeded Victorian Britain’s mortality blackspots of Manchester and Liverpool.

The largest differences in mortality rates occurred in young girls. This is significant since silk mills had a much higher female/male ratio, particularly amongst children, compared to other sectors of the textile industry. In the 1850s tuberculosis mortality amongst girls aged 10–14 was three times that of cotton and wool districts. Discriminatory regulation played a crucial role in the high tuberculosis mortality for these children. The 1844 Factory Act allowed
11–13 year olds in silk mills to be employed full-time. Children in this age group working in other branches of the textile industry had their working hours reduced by the introduction of the half-time system. Therefore young silk workers were exposed to atrocious working environments for twice as many hours per working day.

The appalling working conditions in the silk factories of Macclesfield and Leek are underlined by the lower mortality rates in the silk manufacturing district of Coventry. In Coventry production was carried out in spacious modern factories with more efficient ventilation systems, which resulted in less overcrowding and a lower incidence of tuberculosis. This demonstrates that it was possible to manufacture silk without incurring the highest child tuberculosis mortality statistics of any of the manufacturing districts in nineteenth-century Britain, as was the case in Macclesfield, Leek and Congleton.

NOTES

3. BPP (hereafter BPP), 1889, XVIII, Reports of the factory inspectors, half year ending 31st October 1888, Irish University Press edn, Factories 21, 82.
4. BPP 1833, XXI, Second report of the central board of his majesty’s commissioners appointed to collect information in the manufacturing districts, as to the employment of children in factories, and as to the means of curtailing the hours of their labour, Irish University Press edn, Children’s employment 4, D2, 31.
5. BPP 1833, XXI, 30.
6. BPP 1834, XX, Second report of the central board of his majesty’s commissioners appointed to collect information in the manufacturing districts, as to the employment of children in factories, and as to the means of curtailing the hours of their labour, supplementary report, Factories Commission, children’s employment, Irish University Press edn, Children’s employment 5, B1, 125.
7. BPP, 1854, XX, B1, 126.
8. Macclesfield Courier, 8th July 1815.
9. BPP, 1833, XX, First report of the central board of His majesty’s commissioners appointed to collect information in the manufacturing districts, as to the employment of children in factories, and as to the means of curtailing the hours of their labour, Irish University Press edn, Children’s employment 3, B1, 71.
10. BPP, 1833, XX, E1, 11-12.
11. BPP, 1833, XXI, D2, 26.
12. Macclesfield Courier, 29th July 1815, 10th May 1823, 20th December 1823, 23rd October 1824.
15. BPP, 1831-32, XV, 410.
16. BPP, 1831-32, XV, 313.
17. BPP, 1831-32, XV, 313.
18. BPP, 1831-32, XV, 313.
19. BPP, 1831-32, XV, 313.
20. M. Cruickshank, Children and industry (Manchester, 1981), 44.
22. BPP, 1843, XXVII, Reports of the factory inspectors, half year ending 30th June 1843, Irish
25. BPP 1861, XVI, Third report of the medical officer of the Privy Council, 372.
30. BPP 1861, XVI, 373.
31. BPP 1861, XVI, 374.
32. BPP 1861, XVI, 494-5.
33. BPP 1861, XVI, 497.
34. BPP 1861, XVI, 497.
35. BPP 1861, XVI, 497-8.
36. BPP 1861, XVI, 497-8.
37. BPP 1861, XVI, 497-8.
38. BPP 1861, XVI, 497-8.
39. BPP 1861, XVI, 498.
40. BPP 1861, XVI, 499.
41. BPP 1861, XVI, 499.
42. BPP, 1839, XIX, Reports of the factory inspectors, half year ending 31st December, Irish University Press edn (6 Factories), 12.
43. BPP 1861, XVI, 501.
44. BPP 1862, XXII, Fourth report of the medical officer of the Privy Council, 631.
45. BPP 1862, XXII, 631.
46. BPP 1862, XXII, 632.
49. BPP 1862, XXII, 635-6.
50. BPP 1862, XXII, 637.
51. BPP 1864, XXVIII, Sixth report of the medical officer of the Privy Council, 23.
54. This type of work has been linked to pulmonary tuberculosis, Cruickshank, *Children and industry*, 70.
60. See Table 1 where over half the districts with the highest incidence of pulmonary disease were textile manufacturing areas.
63. In the 1850s silk manufacturing areas had much higher female phthisis mortality rates in the lower age categories than these towns. In the 10-14 and 15-19 age groups it was three times as high and twice as high in the 20-24 category. In the 1860s phthisis mortality was still much higher in the child/young adult categories in silk districts, twice as high in the 10-14 and 15-19 age groups, although the magnitude of the gap had decreased.
AN EXERCISE IN DADE PARISH REGISTER DEMOGRAPHY:
ST OLAVE, YORK, 1771–1785

Chris Galley

Introduction

Roger Bellingham’s article about Dade parish registers raises a number of interesting issues. Perhaps the most important is the implication that since so much care was taken with the additional details contained within each entry, this set of registers is likely to be more accurate than many others in this period. While anyone who has examined a Dade register will immediately acknowledge the quality of the information it contains, its overall usefulness for any form of demographic analysis is, as with all registers, dependent upon two conditions:

1. the register should contain an accurate list of every baptism, burial and marriage that occurred in the church;
2. the totals of baptisms, burials and marriages recorded by the register should provide approximate guides to the number of births, deaths and marriages that occurred within the parish.

Thus, before employing Dade registers to enhance our knowledge of the demography of England during the late eighteenth century, it is important to establish whether these documents were affected by significant levels of under-registration.

St Olave, York

An appropriate place to begin any investigation into Dade registers is the City of York where William Dade held office. Dade became curate of St Helen’s Stonegate and vicar of St Olave in the middle of 1770 and his system of registration was introduced into a number of other York parishes shortly afterwards. Of those parishes where Dade was responsible for the register, only St Olave’s has been printed and then only until 1785. Since the availability of a printed register facilitates demographic analysis, this register was chosen to carry out a series of simple exercises for the period 1771–85.
While the following does not claim to be comprehensive, and 15 years is a relatively short period to undertake any form of demographic analysis, it is still sufficient to provide an indication of the register’s accuracy and consequently the potential value of other Dade registers.

The format of the St Olave register is identical to that of St Helen’s Stonegate. The baptism register includes dates of birth and baptism, details of the father and mother together with their ancestry, the father’s occupation and some indication of place of residence, including whether the individual originated from the poorhouse. Illegitimate baptisms are also indicated. The burial register gives dates of death and burial, cause of death and similar levels of genealogical and residential detail to the baptism register. Linking entries between the two registers is therefore a relatively straightforward procedure.

Occasional entries such as the following two, taken from the baptism register, give exceptional insight into certain aspects of York society during the late eighteenth century:

(August 11 1782) John, born 15th July, son of Sarah Heels, wretched idiot both deaf and dumb; father some wicked unprincipled Villain in the poorhouse, whose name cannot be found out, for reason very obvious. In the poorhouse.

---

**Table 1a** Birth-baptism intervals, St Olave and St Michael le Belfrey, York.

<table>
<thead>
<tr>
<th>Parish</th>
<th>Period</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>90</th>
<th>Number of observations</th>
<th>Per cent incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Michael le Belfrey</td>
<td>1653–57</td>
<td>4</td>
<td>6</td>
<td>8</td>
<td>9</td>
<td>171</td>
<td>2</td>
</tr>
<tr>
<td>St Olave</td>
<td>1653–58</td>
<td>3</td>
<td>4</td>
<td>7</td>
<td>9</td>
<td>30</td>
<td>36</td>
</tr>
<tr>
<td>St Olave</td>
<td>1771–85</td>
<td>2</td>
<td>5</td>
<td>13</td>
<td>25</td>
<td>455</td>
<td>3</td>
</tr>
<tr>
<td>St Michael le Belfrey</td>
<td>1803–12</td>
<td>3</td>
<td>7</td>
<td>25</td>
<td>57</td>
<td>585</td>
<td>0</td>
</tr>
</tbody>
</table>


**Table 1b** Birth-baptism intervals for infant deaths, St Olave, York, 1771–85.

<table>
<thead>
<tr>
<th>Parish</th>
<th>Period</th>
<th>25</th>
<th>50</th>
<th>75</th>
<th>90</th>
<th>Number of observations</th>
<th>Per cent incomplete</th>
</tr>
</thead>
<tbody>
<tr>
<td>St Olave</td>
<td>1771–85</td>
<td>1</td>
<td>3</td>
<td>8</td>
<td>14</td>
<td>57</td>
<td>4</td>
</tr>
</tbody>
</table>

**Source:** Whitehead, ‘St Olave’.

While the following does not claim to be comprehensive, and 15 years is a relatively short period to undertake any form of demographic analysis, it is still sufficient to provide an indication of the register’s accuracy and consequently the potential value of other Dade registers.
(November 4 1785) Joseph and Thomas, born same day in the City Poorhouse, twin sons of Rebecca Mellon of the parish of St Michael le Belfrey, married to Joseph Burton [of whose parentage and profession nothing can be collected] who at that time had another wife who has since claimed her husband.5

Here, because we are seeking to investigate the register’s accuracy, we are concerned with the more mundane entries. A cursory examination of the register reveals no obvious breaks in registration, but systematic under-registration may have occurred if the interval between birth and baptism was sufficiently long to ensure that many infants died unbaptised. Such infants would clearly be missing from the baptism register, but if unbaptised infant burials were not recorded then the overall amount of under-registration will be impossible to determine.6 Table 1a shows birth/baptism intervals in St Olave together with comparable ones from St Michael le Belfrey, the best kept of York’s parish registers which also adopted elements of Dade format between 1779 and 1812. By the 1770s the gap between birth and baptism in St Olave had increased compared with a century earlier, although over 50 per cent of infants were still baptised within one week of their birth.7 Intervals were generally shorter than in St Michael le Belfrey (1803–12), but in about 10 per cent of all cases baptisms were delayed by at least one month. Reassuringly perhaps, Table 1b shows that for infants who died within one year of their birth intervals were much shorter, and this suggests that greater efforts may have been made to baptise weaker infants. Thus, even though the St Olave register gives every outward appearance of accuracy, the extent of the delay between birth and baptism raises the possibility that some may have escaped registration entirely. While there can be no definitive means of establishing a register’s accuracy, the demographic rate most susceptible to poor registration is the infant mortality rate (IMR) and an examination of this measure in St Olave may therefore shed more light on the register’s accuracy.

Infant mortality in St Olave, 1771–85

Before IMRs are calculated for St Olave it is important to note that much has already been established about infant mortality in York. IMRs in the city were in the region of 260 per 1,000 live births in 1700, with little variation between parishes, and by the 1840s rates had fallen to around 200.8 When attempts were made to determine IMRs during the intervening period using a sample of parish registers the results were disappointing. Rates fell steadily in all parishes throughout the eighteenth century to reach around 130 by the early nineteenth century. As this was about 70 lower than the rates calculated from 1840s civil registration data, it was therefore necessary to conclude that such trends were untenable and that York’s eighteenth-century registers suffered from increasing levels of under-registration. While patterns of infant mortality in York during the eighteenth century remain unknown, it would seem reasonable to expect that, unless something peculiar was happening, IMRs in this parish during the late eighteenth century should have stood between 180 and 260, with anything significantly beyond this range being highly unlikely. With these parameters set, the investigation of infant mortality can proceed.
IMRs can be calculated in two ways. Since age at death was recorded in this register annual period IMRs can be calculated using the standard formula, \((\text{infant deaths} / \text{baptisms}) \times 1,000\). Alternatively, cohort IMRs can be calculated by linking baptisms to appropriate infant burials, a straightforward procedure given the level of detail contained in this register. This method takes longer, but it has the advantage that unbaptised infant burials can be identified. IMRs are then calculated using the formula, \(((\text{baptisms} + \text{unbaptised infant deaths}) / (\text{infant deaths} + \text{unbaptised infant deaths})) \times 1,000\). The second method tends to yield more accurate estimates when age at burial is included, since it allows any infant whose age is not given or given incorrectly to be linked to their baptism and it also allows the number of births to be inflated by the number of unbaptised infant deaths. Tables 2a and 2b show annual IMRs in St Olave using both methods. First, it is apparent that both period and cohort rates are broadly similar with the more accurate cohort IMR being slightly lower. In both tables annual rates varied considerably and this is mainly due to the small number of events taking place in each year. More worryingly, after 1775 IMRs

<table>
<thead>
<tr>
<th>Year</th>
<th>Baptisms</th>
<th>Infant burials</th>
<th>Infant mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1771</td>
<td>38</td>
<td>2</td>
<td>53</td>
</tr>
<tr>
<td>1772</td>
<td>33</td>
<td>4</td>
<td>121</td>
</tr>
<tr>
<td>1773</td>
<td>30</td>
<td>4</td>
<td>133</td>
</tr>
<tr>
<td>1774</td>
<td>34</td>
<td>3</td>
<td>88</td>
</tr>
<tr>
<td>1775</td>
<td>28</td>
<td>2</td>
<td>71</td>
</tr>
<tr>
<td>1776</td>
<td>29</td>
<td>8</td>
<td>276</td>
</tr>
<tr>
<td>1777</td>
<td>33</td>
<td>5</td>
<td>152</td>
</tr>
<tr>
<td>1778</td>
<td>29</td>
<td>10</td>
<td>345</td>
</tr>
<tr>
<td>1779</td>
<td>25</td>
<td>8</td>
<td>320</td>
</tr>
<tr>
<td>1780</td>
<td>33</td>
<td>6</td>
<td>182</td>
</tr>
<tr>
<td>1781</td>
<td>30</td>
<td>8</td>
<td>267</td>
</tr>
<tr>
<td>1782</td>
<td>23</td>
<td>6</td>
<td>261</td>
</tr>
<tr>
<td>1783</td>
<td>24</td>
<td>7</td>
<td>292</td>
</tr>
<tr>
<td>1784</td>
<td>39</td>
<td>7</td>
<td>179</td>
</tr>
<tr>
<td>1785</td>
<td>27</td>
<td>5</td>
<td>185</td>
</tr>
<tr>
<td>1771–75</td>
<td>163</td>
<td>15</td>
<td>92</td>
</tr>
<tr>
<td>1776–85</td>
<td>292</td>
<td>70</td>
<td>240</td>
</tr>
<tr>
<td>1771–85</td>
<td>455</td>
<td>85</td>
<td>187</td>
</tr>
</tbody>
</table>

Source: Whitehead, ‘St Olave’.
doubled in both series. Inspection of the register reveals no obvious change in recording practices with the same level of detail appearing both before and after 1775. Table 2b does, however, show that much of this change was due to the appearance of greater numbers of unbaptised infant deaths in the burial register from 1776. These were not specifically identified, but they can be inferred since no link could be made to an appropriate baptism. It cannot be established if such burials were the result of nonconformity, recent immigration or simply that some parents did not bother to have their infants baptised. All three are distinct possibilities and whatever the truth may be it is clear that for IMRs to be considered reliable unbaptised infant deaths need to be recorded accurately.10

Tables 2a and 2b showed that both period and cohort IMRs for the period 1776–85 fall within the expected range, but further investigation reveals additional problems. The first concerns illegitimacy. Since illegitimates were reported in both baptism and burial registers illegitimacy ratios (the proportion of illegitimate baptisms) can be calculated, as shown in Table 3. The presence of a poorhouse in the parish greatly affects these ratios since a large proportion

<table>
<thead>
<tr>
<th>Year</th>
<th>Baptisms</th>
<th>Infant burials</th>
<th>Unbaptised infant deaths</th>
<th>Infant mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1771</td>
<td>38</td>
<td>2</td>
<td>0</td>
<td>53</td>
</tr>
<tr>
<td>1772</td>
<td>33</td>
<td>4</td>
<td>1</td>
<td>147</td>
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<td>1773</td>
<td>30</td>
<td>4</td>
<td>1</td>
<td>161</td>
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<td>1774</td>
<td>34</td>
<td>5</td>
<td>0</td>
<td>147</td>
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<td>1775</td>
<td>28</td>
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<td>0</td>
<td>71</td>
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<td>1776</td>
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<td>0</td>
<td>241</td>
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<td>1777</td>
<td>33</td>
<td>4</td>
<td>2</td>
<td>171</td>
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<td>1778</td>
<td>29</td>
<td>7</td>
<td>2</td>
<td>290</td>
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<td>1779</td>
<td>25</td>
<td>5</td>
<td>5</td>
<td>333</td>
</tr>
<tr>
<td>1780</td>
<td>33</td>
<td>2</td>
<td>3</td>
<td>139</td>
</tr>
<tr>
<td>1781</td>
<td>30</td>
<td>6</td>
<td>2</td>
<td>250</td>
</tr>
<tr>
<td>1782</td>
<td>23</td>
<td>2</td>
<td>5</td>
<td>250</td>
</tr>
<tr>
<td>1783</td>
<td>24</td>
<td>1</td>
<td>5</td>
<td>200</td>
</tr>
<tr>
<td>1784</td>
<td>39</td>
<td>4</td>
<td>2</td>
<td>146</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Baptisms</th>
<th>Infant burials</th>
<th>Unbaptised infant deaths</th>
<th>Infant mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1771-75</td>
<td>163</td>
<td>17</td>
<td>2</td>
<td>115</td>
</tr>
<tr>
<td>1776-84</td>
<td>265</td>
<td>38</td>
<td>26</td>
<td>220</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Baptisms</th>
<th>Infant burials</th>
<th>Unbaptised infant deaths</th>
<th>Infant mortality rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1771-84</td>
<td>428</td>
<td>55</td>
<td>28</td>
<td>182</td>
</tr>
</tbody>
</table>

Source: Whitehead, ‘St Olave’.
of illegitimate births and deaths came from this institution.\textsuperscript{11} In this period the national illegitimacy ratio was about 6 per cent, less than half the 16 per cent in St Olave.\textsuperscript{12} Much of this difference was due to illegitimate baptisms from the poorhouse, many of which probably originated from other parishes within the city. Table 3 also shows that illegitimacy ratios increased after 1775 and again there is no obvious reason for this. The presence of so many illegitimates in the parish is likely to be an important influence on the overall IMR. Table 4 shows illegitimate IMRs and once again it is important to stress the small population at risk. Differences pre- and post-1775 are again apparent, with the cause once more being the appearance of greater numbers of unbaptised infant burials after 1776. The overall illegitimate rate of 232 for 1771–85 is high, but similar to the IMR for the parish as a whole. While this may appear encouraging, when Wrigley \textit{et al.} attempted to factor illegitimacy into their parish reconstitution IMRs they assumed that the illegitimate IMR was double the legitimate rate.\textsuperscript{13} If this relationship is correct then it would suggest that there was substantial under-recording of illegitimate burials in St Olave. Certainly the poorhouse illegitimate IMR of 368 is high and conditions in this institution must have been poor: even the Master of the poorhouse recorded an infant death in this period.\textsuperscript{14} However, the reliability of this and the other rates in Table 4 must be open to question. It is likely that turnover rates in the poorhouse were high and this makes the calculation of IMRs unreliable since for rates to be accurate the infants’ families need to remain in view for at least one year following a birth. Furthermore, the IMR of those illegitimates born outside the workhouse was very low. It is therefore difficult to understand how the large number of illegitimate baptisms in St Olave affected its IMR. The presence of the

### Table 3  Illegitimate ratios, St Olave, 1771–85.

<table>
<thead>
<tr>
<th>Year</th>
<th>Baptisms</th>
<th>Illegitimate baptisms</th>
<th>Unbaptised illegitimate burials</th>
<th>Illegitimacy ratio</th>
<th>Illegitimate baptisms from Poorhouse</th>
<th>Unbaptised illegitimate burials from Poorhouse</th>
<th>Poorhouse illegitimacy ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>1771–75</td>
<td>163</td>
<td>19</td>
<td>0</td>
<td>0.117</td>
<td>9</td>
<td>0</td>
<td>0.055</td>
</tr>
<tr>
<td>1776–85</td>
<td>265</td>
<td>45</td>
<td>5</td>
<td>0.185</td>
<td>25</td>
<td>4</td>
<td>0.107</td>
</tr>
<tr>
<td>1771–85</td>
<td>428</td>
<td>64</td>
<td>5</td>
<td>0.159</td>
<td>34</td>
<td>4</td>
<td>0.088</td>
</tr>
</tbody>
</table>

**Source:** Whitehead, ‘St Olave’.

### Table 4  Illegitimate infant mortality rates, St Olave, 1771–85.

<table>
<thead>
<tr>
<th>Period</th>
<th>Overall</th>
<th>Poorhouse</th>
<th>Non-Poorhouse</th>
</tr>
</thead>
<tbody>
<tr>
<td>1771–75</td>
<td>53 (1)</td>
<td>111 (1)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>1776–85</td>
<td>300 (15)</td>
<td>448 (13)</td>
<td>95 (2)</td>
</tr>
<tr>
<td>1771–85</td>
<td>232 (16)</td>
<td>368 (14)</td>
<td>65 (2)</td>
</tr>
</tbody>
</table>

**Note:** Figures in brackets refer to number of infant deaths. **Source:** Whitehead, ‘St Olave’.
poorhouse will have tended to inflate the parish IMR, but since the overall illegitimate IMR was still comparatively low there must also have been some further under-registration of illegitimate infant burials.

Finally, it is possible to investigate the age distribution of infant burials. It is well-known that infants have a high mortality rate close to birth and that the risks they face lessen with age. Consequently, a large proportion of all infant deaths should occur within the neonatal period (0–28 days). Table 5 shows the age distribution of burials in St Olave together with comparable distributions from York. The distribution of infant burials in St Olave is virtually identical to that in St Michael le Belfrey, 1779–1837. In St Michael le Belfrey there was a substantial decline in the proportion of neonatal deaths between the sixteenth and nineteenth centuries. Thus, 46 per cent of deaths occurred within one week and 25 per cent on the first day in the sixteenth century, but by the early nineteenth century comparative figures were only 10 and 2 per cent respectively. This phenomenon in part reflects the decline in neonatal mortality that occurred throughout the country during the eighteenth century, although it also suggests under-registration since this register formed part of the sample used to determine IMRs in eighteenth-century York. This suspicion is confirmed when similar information is examined for the York registration district during the 1840s. In the York registration district 35 per cent of infant deaths occurred within the first month compared with only 24 per cent in St Michael le Belfrey, 1779–1837 and 27 per cent in St Olave. Given prevailing national trends, it would seem unlikely that neonatal IMRs in St Olave increased after 1785 and it is probable that the difference was due to a significant number of infants dying shortly after birth and escaping registration. If the proportion of neonatal deaths in St Olave is increased to that of York, the IMR in St Olave will be much closer to the York registration district for the 1840s.

Table 5     Distribution of infant burials in York.

<table>
<thead>
<tr>
<th>Age at burial</th>
<th>St Olave 1771–85</th>
<th>St Michael le Belfrey 1571–86</th>
<th>St Michael le Belfrey 1779–1837</th>
<th>York 1845–46</th>
</tr>
</thead>
<tbody>
<tr>
<td>Days</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>3</td>
<td>4</td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td>1–6</td>
<td>7</td>
<td>8</td>
<td>27</td>
<td>21</td>
</tr>
<tr>
<td>Weeks</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>10</td>
<td>12</td>
<td>60</td>
<td>46</td>
</tr>
<tr>
<td>1–3</td>
<td>13</td>
<td>15</td>
<td>19</td>
<td>15</td>
</tr>
<tr>
<td>Months</td>
<td>No.</td>
<td>%</td>
<td>No.</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>23</td>
<td>27</td>
<td>79</td>
<td>61</td>
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<td>1</td>
<td>13</td>
<td>15</td>
<td>8</td>
<td>6</td>
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<tr>
<td>2</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>3</td>
</tr>
<tr>
<td>3–5</td>
<td>18</td>
<td>21</td>
<td>21</td>
<td>16</td>
</tr>
<tr>
<td>6–11</td>
<td>26</td>
<td>31</td>
<td>16</td>
<td>12</td>
</tr>
<tr>
<td>Total</td>
<td>85</td>
<td>100</td>
<td>135</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Galley et al., ‘Detection without correction’, 165, 172; Whitehead, ‘St Olave’.
in the registration district, then this would raise the cohort IMR, 1776–84, to about 240 and imply that most of the decline in York’s infant mortality occurred after 1785. However, such a conclusion must remain at best supposition.

Conclusion

Given the above provisos about small sample size some tentative conclusions can now be made. There are three reasons why doubt must be cast on the accuracy of the St Olave’s register:

1. the quality of registration in St Olave improved considerably after 1775 even though there is no outward change in the register’s appearance;
2. the low overall illegitimate IMR implies that some illegitimate infant deaths escaped registration;
3. the distribution of infant burials suggests that some neonatal infant deaths are also missing from the register.

In all three cases these problems cannot be detected from a simple examination of the register. The relatively high IMR calculated in St Olave may appear to confirm the register’s accuracy, but this has been shown not to be the case and while under-registration in St Olave may not have been severe it was still sufficient to affect the accuracy of demographic measures such as the IMR. 17

To sum up, of the two preconditions needed to ensure a register’s accuracy it is probable that St Olave’s meets 1), but it fails 2), the reason being that some unbaptised infants who died close to birth were buried as though they were stillborn; they did not receive a formal ceremony and consequently do not appear in the register. A few infants who died close to birth are included, but not sufficient to ensure that the distribution of infant deaths was consistent with that prevailing in the mid-nineteenth century. 18 Such a conclusion is not necessarily surprising and, as Bellingham showed in the following extract taken the parish register of Alne, the purpose of Dade’s reforms were to ensure that the register could be used to identify individuals in legal

As great complaints have arisen of the registers of Marriages, Births and Burials belonging to several parishes being inaccurately kept and drawn out so as not to identify the persons etc whereby they have not their due weight in point of evidence: It is required that for the future the following form be pursued and adhered to. 19

Thus, there was little reason for infants who died shortly after birth to be recorded in the register since such entries would not be needed for legal purposes at some later date. In order to be confident that all burials appear in a register it would be useful to have one that lists stillbirths, but this practice was very rare during this period.

The value of Dade registers lies in the wonderful additional details they contain, but historical demographers should not be lulled into believing that
their coverage of the population is much better than ordinary parish registers in the same period. The examination of other registers in this format has the potential to yield a rich vein of information about demographic patterns in the late eighteenth century but, as with all parish registers, some consideration needs to be given to these registers’ accuracy prior to analysis.

Acknowledgements

I wish to thank Andrew Hinde who made comments on an earlier draft of this article.

NOTES

4. Sheils, ‘Mobility and registration’, 41–2. As soon as Dade took office a new register was purchased and detailed entries began to appear: see Whitehead, ‘St Olave’, 201, 236.
5. Whitehead, ‘St Olave’, 226, 234. Sarah Heels had previously given birth to a son, also called John, on 10 December 1779, who subsequently died on 30 October 1780. Her second son appears to have survived.
7. These intervals are low by comparison with other examples in the period, but they are by no means the lowest: see B.M. Berry and R.S. Schofield, ‘Age at baptism in pre-industrial England’, Population Studies 25 (1971), 453–63. By contrast, death/burial intervals in St Olave were very short, with almost every burial taking place within 72 hours of death.
8. Galley, The demography of early modern towns: York in the sixteenth and seventeenth centuries (Liverpool, 1998), 91–100; 182–3. The IMR in St Olave between 1601 and 1640 was 256.
9. In registers where age at death is not given, this is often not the case. Note: a cohort IMR for 1785 could not be calculated since some infants born in 1785 would have died in 1786 and burials from this year were not available for analysis.
10. In registers that do not include age at death such burials would not be identified. They would therefore be excluded from the analysis and the IMR would be under-recorded.
11. There were at least another five poorhouses operating in the city: see P.M. Tillot ed., A history of the County of Yorkshire: the City of York (Oxford, 1961), 227.
12. E.A. Wrigley, R.S. Davies, J.E. Oeppen and R.S. Schofield, English population history from family reconstitution (Cambridge, 1997), 219 gives a national figure of 5.93 per cent for the period 1775–99.
13. Wrigley et al., English population history, 221–2. This assumption was based on nineteenth and early twentieth-century civil registration data.
15. Comparing ages at death with those calculated by subtracting birth date from death date revealed that the stated ages were all accurate.
19. Quoted in Bellingham, ‘Dade registers’, 135. The need to provide accurate information about births, deaths and marriages in legal cases was a major factor in the replacement of the parochial registration system by a civil one, see E. Higgy, Life, death and statistics (Hatfield, 2004), 7–17.
In September 2004 the History Department at the University of Essex published a working paper entitled: Census schedules and listings, 1801—1831: an introduction and guide, by the authors of this research note and Beatrice Moring. The guide gives brief details of the various surviving census listings from the censuses of 1801, 1811, 1821 and 1831. Copies of this guide, which runs to 149 pages, have been sent to all relevant archival repositories in England to confirm their details and to elicit further information. Unfortunately we have already exhausted virtually all of our initial print run, so we can not supply any further paper copies. However, a copy is available on the world wide web at: www.histpop.org.uk/pre41/ which anyone is welcome to download.

The guide was designed to augment the account of listings known to the Cambridge Group for the History of Population and Social Structure published in Local Population Studies in issues 24 to 38 between 1980 and 1986, and the catalogues of pre-1841 censuses and listings published by Colin Chapman and Jeremy Gibson. What follows is a slightly revised version of the introduction to the guide.

For the 1801, 1811, 1821 and 1831 censuses there are, generally speaking, three types of records to be found in archives. The first are complete listings, which contain individual-level (and often nominal) information about all the residents of a parish or township at the relevant census date; the second are ‘household’ listings which contain information about each household within the parish. These often have nominal information about the head of the household, but this is not always the case; and third, copies of tabulations which were sent to the census office in London, and are essentially only the ‘statistical’ information which relates to that particular parish for that census. The guide generally covers only the first two of these three forms of return.

These returns have value to local historians as well as to genealogists. The latter have, to date, been the most frequent users of these records because the listings include nominal information. They have value to the local historian for the same reason, but also because they sometimes contain information about household and occupational structure and are extant for a period in which few other sources provide this information. However, they have not been systematically analysed for these purposes. The intention of the authors was initially to draw up a complete list of extant listings using the guides published...
by Gibson and Chapman, and to annotate it specifying the type of information provided for both individuals and households. It soon became clear that this was not possible given the large number of these listings which survive, but it also seemed unwarranted to simply produce a guide to those listings which were in the Cambridge Group Library. Hence, we produced a hybrid working document, which attempts to catalogue all such listings, and also provides a detailed guide to those which are available from the Cambridge Group. We hope that within a couple of years, perhaps with the assistance of others, we will be able to produce a fully annotated guide to all of the extant listings for England and Wales, and perhaps an introduction to listings elsewhere in the British Isles.

History

The first census in Great Britain was taken in 1801, and its history has been well documented in Higgs’ two introductory guides to the census returns. The first census Act (41 Geo. III, c.15), entitled ‘An Act for taking an Account of the Population of Great Britain, and the increase or diminution thereof’, was not simply the legislation to count the numbers of persons, families and houses in the country, but also an attempt to discover whether the population was increasing or decreasing by requiring counts of the numbers of baptisms and burials for every tenth year between 1700 and 1780, and then annually through to 1800. Annual totals of marriages were to be provided beginning in 1754. The Act contained a schedule containing six questions, the first three of which were posed to the ‘overseers of the poor’ or ‘other substantial householders’, and the other three to the parish clergy. The first three questions (reproduced below) related to the current population, while the latter three related to the numbers of baptisms, burials and marriages recorded in the parish registers.

1. How many Inhabited Houses are there in your Parish, Township or Place; by how many Families are they occupied; and, how many Houses therein are Uninhabited?

2. How many Persons (including Children of whatever Age) are there actually found within the Limits of your Parish, Township, or Place, at the Time of taking this Account, distinguishing Males and Females, and exclusive of Men actually serving in His Majesty’s Regular Forces or Militia, and exclusive of Seamen either in His Majesty’s Service or belonging to Registered Vessels?

3. What Number of Persons in your Parish, Township, or Place are chiefly employed in Agriculture; how many in Trade, Manufactures, or Handicraft; and how many are not occupied in any of the preceding Classes?

A pro forma answer form (or schedule) for these questions for overseers and ‘other substantial householders’ to complete was pre-circulated to Clerks of the Peace and Town Clerks who were to send them to Justices of the Peace and to High Constables or other proper Officers so that these could be received by the Overseers of the Poor and substantial householders. Forms for the clergy also
followed this route. The schedule, once completed, was to be attested to or affirmed in front of a Justice of the Peace and then endorsed by the High Constables or other proper officers before being returned to the Principal Secretary of State for the Home Department. These forms were later abstracted under the guidance of John Rickman.

The schedules demonstrate how the overseers or other substantial households were to remit their returns to the census office. In order to complete the form satisfactorily it would have helped the overseer or enumerator to make a list of the houses and the characteristics of each household, and then add them up to complete the form. This list would have been most useful if all households were listed indicating the numbers of persons within them in the respective categories (such as males and females, and the number of persons employed in agriculture, trade or other employments). Making a list with details of all the people in the parish would not have been so useful for this purpose, but a number of individual-level listings do survive for 1801. Thus the lists which survive for 1801 (and the subsequent years) are essentially notes, and are not official documents comparable with the enumerators’ books for the period 1841 and onwards.

In 1811 similar questions to 1801 were posed. Changes included the number of houses being built as distinguished from those simply uninhabited and the number of families (rather than persons) chiefly ‘employed or maintained by’ the three economic groupings from 1801. Again, in order to provide this information, overseers would almost certainly have had to create a list of householders and tabulate the information themselves.

At the following census some basic information relating to the age structure of the parish was asked for, if it could be collected ‘in a manner satisfactory to yourself, and not inconvenient to the parties’. Where this information was collected there would have been a greater chance for the production of an individual-level listing as it would have facilitated the rapid production of figures for the census authorities. However, many of the enumerators were content to provide counts, for each household, of the numbers of persons in different age groups.

For the final pre-enumerator census, in 1831, there were considerable changes in the occupational questions. Details of these alterations can be found in Higgs’ books and the questions are reproduced in Gatley’s recent description of this census. Again the answers to the questions would have been more easily calculated from individual (or household) lists, but the known surviving lists are less numerous than for 1811.

What is also of interest is that a number of these listings contain information which was not pertinent to the census. Higgs gives a number of examples, such as bastardy cases in Smalley in Derbyshire in 1801, religion in Marnhull and Shaftsbury St James, both in Dorset, and Warburton, Cheshire in 1821. In the 1821 listing for Hendon, the rent and numbers of both windows and dogs were enumerated for each household.
The guide lists a total of 791 listings—a far cry from the 27 known to the Cambridge Group in 1969. What is indisputable is that the guide is incomplete. New lists have been continuously drawn to the attention of the authors of the guide during its production, and it is clear that many more of these listings remain undiscovered. Within two weeks of the booklet being circulated, we received confirmation of at least eight catalogued listings.

Table 1, which tabulates the type of known surviving listings by census year, shows two interesting features. First, the distribution of surviving lists over time; the number surviving for 1831 shows a marked decrease on the two preceding years. Second, the number of lists (and in particular the number of individual lists) for 1821 is greater than for all other years. The increase in known individual lists can be accounted for by the asking of the question on age, but the reason for the overall number is unclear.

The geographical distribution (Table 2) of the known surviving listings shows that there are at least two listings surviving for each county in England with the exception of Rutland. Almost 10 per cent of known surviving listings are from Yorkshire, and a further 18 per cent are from the three East Anglian counties of Norfolk, Suffolk and Essex. Lancashire would seem to be under-represented with only 2 per cent of the total listings and around 10 per cent of the population in 1831, but otherwise the distribution of known surviving lists seems unremarkable. It must of course be remembered that these are only the listings known to the authors, and there are likely to be others, and that some of these may not in fact be related to the census.

In summary, the origin of many lists lies with the format of the questions posed by the census authorities. The fact that some of the questions were being addressed specifically to the overseers of the poor or the clergy has meant that the majority of the lists which survive are to be found with other parish records. These listings are of interest to historians of all persuasions because of the nature of the information they provide on individuals and households. Members of the Cambridge Group, in particular Peter Laslett and Richard Wall, have used these listings to study household composition during this period.

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Note: The dating of seven lists is uncertain; 3 were probably taken in 1801, two in 1811 and one each in 1821 and 1831.
Table 2  Geographical distribution of known surviving pre-1841 census listings.

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<th>County</th>
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<td><strong>271</strong></td>
<td><strong>161</strong></td>
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</tbody>
</table>
The listings collection of the Cambridge Group

Over the course of several decades the Cambridge Group has collected photocopies of many of the lists of inhabitants of parishes and townships in England and Wales between 1523 (the earliest located) and 1841 (after which enumerations books survive for successive decennial censuses). These lists were compiled for a variety of purposes, for example the collection of taxes, surveys of the poor, examination of religious practice and after 1801 as part of the national decennial census. In some instances the motive for enumeration remains obscure. Initial criteria set by Peter Laslett for inclusion in the collection were coverage of the total population of the parish or township and division of that population into a series of units considered by Laslett as representing households. In practice a considerable number of lists which do not meet these criteria have been added to the collection over the years either because of the exceptional detail provided on sections of the population (for example on the family circumstances of the poor) or to expand the coverage of a particular population (as in the case of cities that were divided into a number of wards or parishes). A few lists compiled after 1841 have also been acquired. In addition, as Peter Laslett himself recognised, in some cases the failure of the list to cover the entire population only becomes apparent after considerable detailed research has been undertaken. Laslett was also aware that not all the name blocks might represent households and, although it is customary to refer to the units identified in the lists as households, it is important to recognise, as discussed below, that different definitions may have been applied by different enumerators.

The guide gives details of all known returns which at either individual or household level were produced for the censuses after 1801 and before 1841. The guide also includes some non-census listings taken during the same period. These are not exhaustive, and only cover those held at the Cambridge Group Library. Considerably greater detail has been provided for all the lists of inhabitants in the Cambridge Group collection. However, we must insist that not all such lists that survive for this period have made their way into the Cambridge Group collection, priority having been given to the acquisition of lists which provide more detail on the inhabitants than required for the national census, specified the ages of the inhabitants (as in the case of enumerations conducted for the census of 1821) or where several lists survive for different census years. This element of the guide expands and corrects two earlier assessments of the quality of the lists, the first originating with Peter Laslett (and held on manuscript at the Cambridge Group), and the second published in successive issues of Local Population Studies beginning with No. 24 (1980).

After 1801 most lists are one or other of the following types: enumerations required for the national decennial censuses, accounts of religious observances, and surveys of the poor. The two latter categories of list are generally less complete in their coverage of a local population than a census enumeration. Surveys of the poor provide less detail on wealthier inhabitants (or even omit
them altogether) while surveys of religious observance through their focus on
the family rather than on the household, tend not to record the presence of
servants or inmates although some reference may be made to the absence from
families of particular children due to service. As is the case with lists taken
before 1801, enumerations, whether taken in conjunction with the censuses of
for other purposes rarely record how the resident population or the household
have been defined. Their definitions have therefore to be inferred from whom
they list and who appears to have been omitted. For example, the omission of
any reference in these lists to the presence of visitors in some household
suggests that the lists record the population resident at their usual address (the
de jure population) rather than those present at a particular address on a given
night (the de facto population) which was selected as the population base for
the mid-Victorian and later censuses.

All lists are recorded in the body of the guide, in alphabetical order, by county.
Every listing contains four key pieces of information:

Location  The physical location of the original or a copy of the list.

Source   The source of the information. Where this is missing, it means that
information for the listing has come from the publication or transcription listed
later in that entry. A very small number do not contain an entry here, which
means that the source is usually a website which mentions the return but gives
no further detail.

Pop.      This gives the population totals for the relevant census year from the
published census reports.

Type     This classifies the listing by its type. Individuals (I) or by households
(H). At present a number of entries contain the entry (?) as the list has not been
examined by the authors. A very small number of entries are included which
we believe contain just statistics (S). We have not sought to collect details of all
such returns as it would have made the guide unmanageable.

If there is a known publication or transcription of the listing, then this is
detailed within the entry. Some of these listings have been published on the
WWW and while an attempt has been made to trace all lists so published it is
likely that some have eluded our observation.

For all those listings where there is a copy at the Cambridge Group, there is
additional information. In the case of lists of householders (H) the number of
members of each unit is usually specified, and sometimes the numbers of each
sex and (as with enumerations for the 1821 census) the numbers of males and
females in each household in age groups through to 90+. Lists which record the
size of the household were defined as those where clear boundaries have been
drawn between groups of names (through numbering, or insertion of lines,
spaces or (where appropriate) other headings such as a relationship or
occupation) and a list is not obviously incomplete due to the omission of
certain sections of the population such as servants and inmates. However, no
try has been made in the guide to indicate what definitions may have been
applied to distinguish one block of names from another although many of the enumerations taken in conjunction with the censuses of 1801–1831 appear to report persons per house rather than per household. This can be inferred from the recording of the poorhouse or workhouse as the equivalent of any other unit and the reporting as one unit of houses occupied by several families. Yet, conversely, other lists note that some units that they listed separately occupied just one house, but without specifying how the property had been divided. The Puddletown listing of 1724 is exceptional in recording how houses and outbuildings were occupied.

The information given in the lists which identify individuals also varies and can include name (first and last), age, sex, and marital status, the presence in the household of a spouse and children, relatives (persons related to the head of the household other than as their spouse or child), servants and inmates or lodgers, and occupations. More detail is usually provided on the head of the household than on other members. This is particularly the case in respect of names, marital status and occupation. Women who head households in widowhood were more likely to have their marital status specified than were men. However, the inclusion of the information on widowhood encouraged omission by the enumerator of the widow’s first name. The occupations of the men who headed a household were also more frequently specified than were those of women. In the guide the sections of the population on whom information is provided have been indicated by the use of the following abbreviations: H (household heads), M (males) F (females), C (children) and A (adults). Instances where information has been provided for some but not all individuals in a particular category for reasons that are unclear are marked with a % in the appropriate section of the guide. Lists with additional details (for example on communicants, church and school attendance), which were taken in a census year but appear not to be part of the census, or raise particular problems of interpretation are identified in the notes field.

Evidence of further inconsistencies is likely to emerge from a more detailed examination of specific lists. The most reliable of the lists are probably those that specify each person by their relationship to the head of the household, identifying spouse, sons and daughters, the exact relationship to the head of any other related persons, and any resident servants, boarders and lodgers. Few lists, however achieve recording of this quality and other lists have to be examined to provide a fuller survey of the extent of the variation over time and by region in the size and composition of family and household. The evidence of the poorer quality lists, however, needs to be used with care. For example, although the guide indicates whether a particular list includes information on relatives (other than spouse and children), servants and lodgers this does not necessarily mean that all such persons have been identified. The presence in a list of some persons whose relationship to the household head is not specified provides one indication of omissions. It is also worth bearing in mind that lists which use child rather than son or daughter to describe relationships to the household head may have included with the term ‘child’ a certain number of grandchildren, nieces and nephews even though other relationships involving the senior generation, the parents of the head for example, are specified.
Figure 1 shows a typical example from the guide. This particular listing comprises two columns of householders names along with the number of males and females in each household. (Since the guide was compiled the web address for this particular listing has altered.)

As noted at the beginning of this report, the guide is incomplete and may contain some erroneous information, which is why we have always given a ‘health warning’ as to the nature of the information. We will be pleased to hear from any reader who knows of additional listings which we have not included within the guide. We would especially like to be informed of any published transcriptions, either on paper or in machine-readable form, which relate to these listings. Please contact Matthew Woollard (matthew@essex.ac.uk) with any further information.

NOTES


4. The Cambridge Group for the Study of Population and Social Structure, Department of Geography, Sir William Hardy Building, Downing Place, Cambridge, CB2 3EN.


7. A re-typeset version of this pro-forma is published in the 1801 census volume. This version is reproduced in Higgs, *Making sense*, 114.


12. For example, David Wright’s *The Kentish census returns, 1801–1901. Origins, location, registration districts and indexes* (Whitstable, Kent, the author, 2003), was brought to our attention just before the completion of this introduction.


16. For a specimen return see Laslett ‘Study of social structure’, 178–81.
NEWS FROM THE UNIVERSITIES

University of Central Lancashire
Department of Humanities

Institute of Local and Family History

The Institute of Local and Family History at the University of Central Lancashire is located within the Humanities Department. It was set up in 2001 under the directorship of Andy Gritt and has developed steadily, offering a range of services to local and family historians in the North West and beyond. Its principle aim is to bridge the gap that unfortunately still exists between family historians and academics, and we hold a series of day schools, conferences and other events to further that end. The programme is wide ranging and is continually under development but in the last year we have held conferences on migration and Lancashire local history, study days on enclosure and oral history as well as courses in family history and genealogy. In the coming months we will host a conference on mariners and the maritime economy in the North West and a study day on the Irish in the North West in the twentieth century.

Teaching developments

Recent additions to our teaching portfolio are three innovative courses that go beyond the traditional approach of university teaching in history. Two of these courses are taught entirely online.

i) BA in History, Museums and Heritage

Material culture is a neglected route to understanding how our ancestors lived and, more obliquely, how they saw their world, especially when the automatic linkages between archaeology and museums, or fine art and art galleries are considered. Following this department’s recent policy of identifying specialist elements in the teaching of history which makes us distinctive, the relationship of social history, including demography, to museums and heritage has now led to a degree in History, Museums and Heritage, offered for the first time this year. With two staff members who have spent substantial parts of their careers working in these fields, we combine their experience with academic approaches to studying the past. The course is aimed at those who would like to know more about the philosophy and workings of this high-growth area of history and focuses on practice in the real world by making use of the many museums located in the North West. It is a sensible first step towards a career, but it is not a vocational degree in any sense.

ii) Certificate in Industrial Archaeology (online)

There are five sections to this course. The first deals in outline form with the
nature and course of industrialisation in Britain during the eighteenth and
nineteenth centuries, its purpose being to provide background detail that will
aid understanding of why, and to what extent, the developments covered in
subsequent sections took place. The second also provides contextual inputs,
this time in relation to the impact that industrialisation had on the built
environment, especially in relation to the formation of industrial colonies and
the development of commercial and transport facilities. The remaining sections
comprise case studies, chosen both because they provide widespread
opportunities for fieldwork, but also because they enable important
historiographical issues to be explored. They deal with factory development
and the growth of factory settlements; domestic workshop design and the
formation of domestic workers’ colonies, especially in textile weaving; and the
nature and extent of road improvements made during the Industrial
Revolution period.

iii) Certificate/Advanced Certificate in Family History (online)

This course has been taught in the classroom for the last two years, but
following a University grant it has been developed for online delivery. A clear
distinction is drawn between genealogy, family history and the academic
discipline of the history of the family and the three approaches are combined to
offer an original training programme for family historians. The courses are
designed to introduce key sources and methods for the study of family history
and also seek to develop an understanding of relevant historical issues
regarding the history of the English family in an economic, social, and political
sense. Students are provided with a wide range of online resources enabling
them to undertake detailed work providing an insight into the lives of ordinary
families and individuals from the eighteenth and nineteenth centuries.

Academic Research

i) Hiring Fairs

Most researchers into the structures of British society before 1850 run into farm
service very quickly, but it remains much misunderstood despite Laslett’s
insistence on its fundamental importance for understanding the early-modern
period. Dr S. Caunce is currently extending a long-running programme of
research into service in the north of England through an examination of the
network of hiring fairs that continued to thrive there into the 1930s, with some
still functioning after 1945, aiming to challenge the general image of fairs as an
inefficient and out-dated system. Industrial competition for labour in the
region, coupled to a vast expansion in agricultural activity of all types led to an
increase in farm service, which proved ideally suited to providing a core
labour force for vital tasks.

ii) Spanish census

Professor John Walton is currently writing up his research on Spanish census
material from the early twentieth century, and is in close touch with Manuel
González Portilla’s team at the University of the Basque Country, Lejona (Bilbao)
who are doing extensive comparative and record linkage work on national and municipal census material in northern Spain. In addition to this work Professor Walton retains a strong research interest in the distinctive demography and migration flows (seasonal and longer-term) associated with seaside resorts.

iii) British merchant mariners

Dr Andy Gritt has recently embarked upon a long-term project investigating the representations of British merchant mariners in the eighteenth century and the social and economic pressures placed on families by the long-term absence and high mortality rates of merchant seamen. This represents a change of direction for Dr Gritt, although he retains his longer-term interest in the social relations of the countryside, particularly the North West, c.1650–1850. He has recently published (with J.M. Virgoe) *The Memoranda Books of Basil Thomas Eccleston, 1757–1789* (Record Society of Lancashire and Cheshire, 2004) which provides invaluable insights into the social relationships between an ‘improving’ Catholic gentry landowner and his tenants and employees. A detailed investigation into the operation of three-life leasehold in south-west Lancashire in the later seventeenth century has recently been published in the *Agricultural History Review*.

iv) Postgraduate work

Recent additions to the Department’s growing list of successful research degree students include Alastair Wilcox’s doctoral thesis on the Anglican Church in Victorian Liverpool, which contains some fascinating material on the role of the Church in pioneering health visiting in the city and on the religious demography of the Liverpool ‘slums’. Liverpool’s moral reformers generated some invaluable evidence regarding working-class life and domestic conditions, which Dr Wilcox uses to great effect. Caroline Joy’s doctoral thesis, dealing with the impact of the First World War in Barrow-in-Furness, contains important material on the relationships between unemployment, social policy, migration flows, demography and health during the transition from a wartime boom economy, with attendant overcrowding, to the economically depressed conditions that dominated the 1920s. Andrew Hobbes recently submitted an outstanding MA thesis on Blackpool’s unjustified reputation for immorality. His reworking of census figures (including the little known 1939 return) and civil registration figures allows him to develop some challenging and convincing conclusions. Current postgraduate students include Susan Pomfret, who is working on model agricultural labourers’ cottages in nineteenth-century Lancashire, and John Harrison who is investigating local ‘government’ in late Georgian Chorley. Future postgraduate work is likely to include a project on the cause, effect and distribution of the 1720s mortality crisis in Lancashire.

*Andy Gritt*

Director, Institute of Local and Family History
Department of Humanities
University of Central Lancashire
The Centre for English Local History, or the Centre for short, tries not to live on its glorious past, but we cannot, and would not wish to, neglect to mention our association with Hoskins, Finberg, Thirsk, Everitt, Hey and Phythian-Adams. In the twenty-first century, as we near our 60th anniversary, we are building on the foundations laid by our predecessors, and looking forward to new ventures. We used to be a Department, and are now a Centre, in line with the University’s tidy policy of sweeping up small units and putting them into larger subject groupings. So we are now part of the School of Historical Studies. This constitutional change still leaves us with a good deal of autonomy, and relieves us of some administrative chores, so we do not view it as a disadvantage. We are settled in a Victorian house named after our benefactor Marc Fitch, away from the main campus of the University, which means that we are regarded as mysterious by most of the other historians. The house is provided with such facilities as a local history library and map room. We share the house amicably with our sister Centre, devoted to Urban History, which was founded, as we like to remind them, 40 years after Local History. Together we have access to another house next door, 1 Salisbury Road, which offers study space for postgraduate students, and a meeting room with a capacity of 60 people for seminars and lectures.

The core activity which brings us all together is the taught MA course in English Local History. This course is wide-ranging, varied and multi-disciplinary, and is enjoyed greatly by the students, many of whom come back for more after graduation. One of its characteristics is its emphasis on fieldwork, and the high point of the programme for many students is the week-long field course in Devon, when they learn intensively, but also get to know each other better. The course is designed to show them landscapes and societies very different from those of the East Midlands, which are studied on day schools (or ‘trips’, as the students call them) in the countryside around Leicester. Most of our MA candidates are mature students taking the course part-time over two years. We also have more than 20 research students, most of them again working part-time for PhDs. Their subjects are very varied, but recent examples which would interest readers of Local Population Studies in particular include migration in and out of Guernsey in the nineteenth century, rural industry in Leicestershire villages, and the provision of rural housing.

The other venture in which we all share is the seminar series, held on Thursday afternoons, in which a succession of distinguished speakers address audiences which are often as large as 30 or 40. At the beginning of this year the opening talk was given by Pat Hudson, on an industrialising society in West Yorkshire, to a capacity crowd.
The research pursued by the staff of the Centre accords with the Leicester School’s traditional concern with landscape and society, but we also reflect more recent general developments in cultural and social history. Readers of this journal will be pleased to learn that, aided by an extended period of study leave, Keith Snell is writing a book on the parish and belonging. They may have seen his recent articles on marriage patterns, local xenophobia and gravestones. Harold Fox, having also been able to take advantage of research leave, is writing a book about Dartmoor which will contain new insights into the management of an upland ‘waste’ for grazing. Having just published his new book entitled *An Age of Transition?*, about the general economic and social changes of the fifteenth and early sixteenth centuries, Christopher Dyer is examining the world of a Cotswold wool merchant, John Heritage, who lived near Moreton-in-Marsh around 1500. Our Marc Fitch Research Fellow, David Postles, is publishing a book later this year on the surnames of the north of England, the latest in the English Surnames Series, and finds time also to write about early modern cultural and religious history. Richard Jones and Mark Page, who are both funded by the Arts and Humanities Research Board (AHRB), work on the interdisciplinary study of landscapes and settlement in the Whittlewood area on the borders of Buckinghamshire and Northamptonshire, and are currently writing a monograph to sum up their work on the ‘beginnings and ends’ of villages. Although he has officially retired, Charles Phythian-Adams is completing his book on English regions, and our visiting research fellows are pursuing such varied projects as late medieval Chester (Jane Laughton) and the modern Japanese landscape (Naoyuki Hara).

We are pleased to host conferences as a way of developing contacts with the wider historical community. ‘The Self-Contained Village?’ in July 2004 attracted a large crowd, and the papers will soon be published. The next conference, for which we have engaged the help of Leicester’s School of Archaeology, English Heritage and a variety of other sponsors, celebrates the 50th anniversary of the publication of the *Making of the English Landscape* by W. G. Hoskins, and under the title ‘W.G. Hoskins and the Making of the British Landscape’ will be held in July 2005. We are also active in the historical world: Christopher Dyer is currently President of the British Agricultural History Society, Harold Fox is President of the Society for Landscape Studies, and Keith Snell continues to co-edit the journal *Rural History*. We have launched a new series of publications, to replace the renowned Leicester Occasional Paper series, of short illustrated books called ‘Explorations in Local History’, the first volume of which is Harold Fox’s book on fishing villages.

The Centre is very fortunate to receive financial support from a number of helpers. Marc Fitch funded the premises and library in which we work, and he provided an endowment which allows us to keep the library up to date. The Marc Fitch Fund pays for the English Surnames Survey. We gain support for our various ventures from the British Academy, the AHRB, the Aurelius Trust, English Heritage and other bodies. Recently, thanks to the generosity of the Duffield family, we were able to institute a fund, named in honour of Hoskins,
which can pay the fees and expenses of postgraduate students. A wonderful ally and asset is the organisation called the ‘Friends of the Centre for English Local History’, most of the members being former students of the Centre, which has academic/social events of its own, publishes an annual Newsletter, and helps deserving students to pay the expenses of study.

We are proud of our traditions, and look forward to developing the study of all aspects of localities and regions for decades to come.

Prof. Chris Dyer
Director,
Centre for English Local History,
School of Historical Studies,
University of Leicester
This book examines the origins of the so-called North-South divide in economic opportunities. Its genesis occurred when it struck one of the editors that there was a broad similarity between the geographical distribution of wealth in England during the early-fourteenth and late twentieth centuries. A workshop was subsequently organised, the fruits of which appear here. Sandwiched between introductory and concluding chapters written by the editors, six eminent historical geographers explore the divide over the period 1066–2000. Starting with the present and going back in time each essay is concerned, ‘with two fundamentally geographical questions: first, to what extent is it possible for us today to detect a North-South divide in England during specific periods in the past; and secondly, how important was the idea of such a divide to contemporaries in those periods?’ (p. 3). Geographies of England therefore seeks to investigate both quantitative and qualitative aspects of the divide. While the book is not entirely successful in providing definite answers, such questions have as yet hardly been addressed by historical geographers and fascinating insights into many aspects of England’s historical geography over the course of the last millennium are provided.

The six substantive essays begin with Ronald Martin on the late twentieth century. Martin does not catalogue the various indicators that have been used to establish the divide; instead he argues that its importance stems from the uneven impact of the emergence of a post-industrial society which was vigorously encouraged by the Thatcher government during the 1980s. Martin also concludes that in the twenty-first century there are few signs that the divide, whether material or imagined, is beginning to disappear. In the second essay Danny Dorling covers 1918–1970, the period when the divide became most acute, even though it went largely unrecognised at the time. Dorling establishes that a line from the Severn to the Wash forms an almost cliff-like border to the divide, although these facts have only recently emerged following detailed analysis of the 1931 census and developments in cartographical representation.

Philip Howell then examines the myths and realities of the divide during the period of England’s industrial pre-eminence. Howell argues that industrial development in the North was counter-balanced by the continuing economic strength of London and the South East. However, in this period the ‘North’ and ‘South’ in Elizabeth Gaskill’s novel of that name emerge as popular metaphors for two distinct, but complementary notions of Englishness. In the
following essay Mark Billinge examines 1750–1830, arguably the ‘most transformational’ age in British history. Billinge sees this period as one with a developing, industrialising North and a largely lethargic, rural South, although at the same time equally important urban-rural differences began to emerge. Billinge has difficulty in establishing the extent to which a divide was perceived by the public at large, but he does argue that a difference between North and South appears to have become an abstract commonplace.

John Langton then examines the preceding two centuries, when despite considerable development the economy remained largely rural. While statistics are difficult to assemble in this period, Langton is able to draw a series of national maps detailing wealth, population densities, population growth, urbanisation and agriculture which, rather than showing a simple North-South divide, highlight London’s importance and reveal a complex mosaic suggestive of economic circumstances and changes in response to greater exploitation of non-agricultural sources. In a period when nation building was important Langton stresses that political actions were aimed at emphasising the whole rather than highlighting differences. Finally, Bruce Campbell demonstrates that medieval England was a land of contrasts: upland/lowland; enclosed/open fields; free/customary tenants and tenures; remoteness/proximity to local markets; London/rest of country. While many of these had a North-South dimension this did not necessarily mean that a North-South divide existed. Campbell is also convinced that this was a period of growing national consciousness and that a corresponding diminution of regional identity occurred.

All these essays were read with interest and pleasure and the editors can be congratulated on putting the volume together and ensuring that the production values are high. Many of the individual essays will no doubt become required reading for individual period specialists, although I would recommend anyone who delves into this book to explore further since the main merit of the book is its wide-ranging and interdisciplinary scope. My only criticism is that some of the contributors are more successful than others in attempting to answer both of the questions posed in the first paragraph. In particular Langton’s and Campbell’s contributions appear to be models of the types of analysis possible, with both providing a good balance between quantitative and qualitative material. By contrast Howell and Billinge focus heavily on qualitative sources. Despite these minor quibbles I would recommend *Geographies of England* to anyone with an interest in England’s historical geography.

Chris Galley
Barnsley College


London was medieval England’s most populous and wealthy city. It also served as the centre of an extensive distributive network, the focus of overseas
commerce, and the model for English urban constitutions. Caroline Barron attempts to unravel why this was so, for there was no steady progression towards London’s eventual pre-eminence. How did Londoners manage to effectively organise the affairs and public life of this vibrant city and allow it to prosper? In her book, Barron examines how the governing and administrative structures of medieval London matured in the context of varied political, economic and social change.

Barron has published widely on the history of medieval London, and this book is the culmination of a significant body of work undertaken since her PhD thesis was finished in 1970. Barron’s knowledge of the numerous primary sources is exceptional, from the city’s medieval letter books to the various court records. The secondary literature has long needed such a broad, expertly researched and well-written study of the metropolis, partly to supplement but also to expand upon Gwyn Williams’s analysis of London’s development in Medieval London. From commune to capital (Athlone, 1963).

The initial focus of Barron’s book concerns the background of political and economic influences upon London. A recurring theme in her analysis is the interdependence of the city and the crown. The city needed royal charters to clarify its privileges and its right to govern itself, while the crown regarded London not merely as a potential political ally but also a potent source of revenue. The relationship was often tense, with the king able to revoke charters when he judged there had been irregularities, as seen in the reigns of Edward I, Henry III and Richard II. London’s progression towards greater self-government was thus neither steady nor assured but subject to continual renegotiation and payments. There were important steps, such as when a charter of 1327 confirmed the freedom for London from arbitrary royal tallages, but also frustrations, particularly when the crown upheld the rights of alien merchants at the expense of Londoners, such as in the Carta Mercatoria of 1303. Barron thus charts a slow and sometimes painful development of the systems of civic self-government, which was ultimately reliant upon the good will of the crown. However, London’s prosperity was also dependent upon its economic vibrancy: exports and imports, distributive trade, manufacturing crafts, and occupational diversity. Part 2 thus examines the context of the economic infrastructure of the city and particularly the increasing domination by London of England’s commerce and wealth.

In the central section of the book, Barron concentrates upon the governing institutions and administrative structure that served London’s citizens. She sketches the early role of the court of Husting, the disappearance of the folkmoot, the growing importance of the mayor’s court, the emergence of the common council, and the continuing influence of the wardmote and aldermen. She also notes the fluctuating tendencies of representative government in London, which sometimes led to factional conflict. Barron suggests that there was a ‘plurality of voices’ that were rarely in harmony. Although it is not always clear how these conflicts of interest were overcome on a regular basis, she does stress the court of the common council that had emerged by the later fourteenth century as the ‘communal organ’ of civic government. This
gradually broadened the basis of government representation in matters of finance and membership of the freedom. Yet, at the same time, lesser citizens found their ability to participate in civic elections was contracting.

Barron also provides a detailed insight into the offices of civic government. Her analysis begins with the unpaid elected mayors and sheriffs, who are listed in an extensive appendix. She then looks at the permanent salaried officers, such as the recorder, chamberlain, and town clerk. She reveals an expanding civic bureaucracy. There was a base of just eight administrative staff in the early fourteenth century, who supported the elected mayor, two sheriffs, and 24 aldermen, as well as a few serjeants and beadles. In contrast, by 1485, there was an administrative staff of 24, accompanied by a swelling payroll. There was also a myriad of lesser offices, which mostly appeared in the decades after the Black Death, notably the constables, the serjeant of the channel, and the water bailiff. This burgeoning civic bureaucracy was becoming professional and interventionist, and it was more capable of making effective the decisions of the elected assemblies.

Of course, London was governed not just through the formal apparatus of civic courts and bureaucracy but also through the institutions of craft, parish and fraternity. Although Barron discusses the crafts guilds at length, it is a shame that she only fleetingly mentions the role of the parishes, even though she describes them as a crucial sub-unit of civic government. She was perhaps right to sidestep the voluminous subject of private religious practice, but the practical and often informal methods of control exerted by the parishes and churchwardens are still worthy of greater attention. It was perhaps at this level that the sense of communal and neighbourly responsibility was fostered. Indeed, the final chapters of Barron’s book are devoted to the urban environment and civic welfare provision and she highlights the plurality of methods adopted to solve these issues: royal pressure, civic initiatives, craft groupings, religious institutions or private charity. Barron rightly notes how a significant part of the infrastructure and welfare provision of London relied on a variety of institutions and individual action below the formal civic bureaucracy.

Throughout the book, there are passages where Barron brings to life both the vibrancy and squalidness of London. She encapsulates the pageants and ceremonies, the crisis caused by plague, the appalling conditions at Newgate prison, the creation of public water supplies, and the hospitals and leper houses that spread throughout the city. These examples highlight how London needed to develop efficient systems of self-government in order to address the problems of a crowded city where neighbours, trade, and industry lived cheek by jowl. Barron includes tentative (and debatable) figures for London’s population of 80,000 in 1300, 40,000 in 1400, 50,000 in 1500 and 200,000 in 1600. She suggests that the problems posed for civic government varied as a consequence of these demographic fluctuations. One of the implications appears to be that the expansion of the civic bureaucracy came at a time of minimal population pressure and was due as much to changing communal attitudes as need.
Overall, this is a long-awaited and detailed study of medieval London, particularly in relation to its administrative and government structures. Barron successfully argues that, during the later Middle Ages, London became more orderly, peaceful and salubrious. Although its autonomy was to be eroded again in the new economic conditions of the sixteenth century, Barron aptly demonstrates how the prosperity and stability of the early-modern city had been underpinned by the hard-earned governing structures of later medieval London.

James Davis
Wolfson College
University of Cambridge


*When Gossips Meet* offers a social history of ordinary women’s lives gleaned largely from church court depositions. Accordingly, it concentrates on the period from the mid-sixteenth to the late seventeenth century for which these records survive in greatest quantity. As evidence from court cases tends to emphasise discord, misbehaviour, and unhappy relationships, this material is supplemented by other better known sources such as the diaries of Samuel Pepys and Ralph Josselin, as well as ballads, advice books and plays. Rather than seeking to describe how patriarchy restricted and constrained women’s actions in early modern England, Capp’s aim is to investigate how women negotiated patriarchy. How, in a world that assumed women’s subordination and dependence on men, did women assert their individuality? This leads to a comprehensive tour of women’s social relations. After an introductory chapter outlining the nature of early modern patriarchy, the book begins by exploring everyday situations that challenged the patriarchal ideal: female headed households, including those of deserted wives, women’s role as money earners, women’s domination of some public spaces, and the nature of female gossip. Women’s work also receives attention in a chapter on maidservants, which touches on wages levels and legal terms of employment. However, on the whole this study concentrates not on women’s economic roles, but rather on the social situations that work and other duties created. Practically and legally, maidservants became part of the family household during their term of employment, and a particularly good section on ‘domestic alliances and rivalries’ explores how, for good or bad, they became integrated into family relationships. Like the relationships between servants and employers, those between wives and husbands varied from the very good to the extremely bad. Unlike servants, ordinary married couples had virtually no legal means of escaping bad relationships. A chapter on ‘the experience of marriage’ is weighted heavily towards the discussion of disfunctional marriages, examining how women and men sought to survive them, using tactics ranging from persuasion, blackmail and adultery, to violence and flight. Two chapters on women and neighbours also focus largely on discordant relationships. One on female disputes serves as a reminder that women’s behaviour was strongly regulated by other women, while that on women’s disputes with men offers
vivid illustrations of men’s power over women, recounting numerous episodes of physical violence, often combined with sexual assault. While Capp’s approach is excellent at presenting vignettes of everyday life, it shies away from answering a number of more difficult questions. Reading a series of examples of vicious sexual assaults starts to feel voyeuristic unless we ask how typical were they, how often did they occur, and in what sense were they characteristic of early modern England as opposed to any other place or time? The book provides no firm answers to such questions, and contains very little quantitative analysis of the church court material. The final two chapters move away from the household and examine women’s public and political roles, and culture and leisure activities. While the first presents a picture familiar from existing studies, of women occasionally holding minor parish offices, forming juries of matrons, being licenced as midwives, and taking part in certain types of political protest; the exploration of female culture, and particularly forms of recreation, offers something much more original. After all the traumas of the previous chapters it is a pleasure to read of women going out dancing, playing ball games, and picnicing with their friends.

The two great strengths of this book are the vividness with which it recreates the dilemmas of women’s everyday existence in the early modern period, and the range of topics it covers. Yet it is hard to pin down. This is not a survey book. Its use of unprinted church court documents is admirable, but other sources which shed light on women’s social relationships, such as probate documents and the records of many other courts, are not used or discussed. The brief treatment of women’s work and religious beliefs could perhaps be justified as falling outside the central focus of the book, but women’s relationship to their own children is also largely missing, surely one the central relationships in many women’s lives. Nor is it presented as an in-depth study of church court evidence. The book contains no detailed analysis, quantitative, textual, or legalistic, of the sources used, although short discussions of such issues are scattered throughout the book, while the two chapters on women’s public roles and culture draw little material from church courts. Local historians will note the lack of regional context. The bibliography of manuscript sources lists church court documents from Berkshire, Ely, London, Leicestershire, Oxfordshire and West Sussex; those from other parts of England available in print are also used, but the choice of this range is not explained. London receives the most specific treatment, and the contrasts between rural and urban life do get an occasional mention, for instance arguing that servants’ work patterns were more closely regulated by the labour laws in the countryside, and that urban women were less likely to take part in popular protests, although both these assertions are questionable. Nor is this a book driven by argument: it has no new theory to offer. Some of its judgments are problematic. For instance, with regard to differences of wealth, it is assumed that women in labouring families are less likely to have companionate marriages, more likely to suffer domestic violence, and more likely to resort to violence themselves than women of the ‘middling sort’, but the evidence to prove this is lacking. Despite these problems, however, this is a useful, interesting, accessible and worthwhile book. It provides evidence on some sorely neglected topics and demonstrates the richness of evidence available about women’s social lives, contradicting those historians who have argued in
the past that we lack the documentation necessary to reconstruct ordinary women’s everyday experiences.

Jane Whittle
University of Exeter


This is no ordinary book about the Black Death. Its primary aim is to justify the following assertion made in the opening sentence, ‘The Black Death in Europe, 1347–52, and its successive waves to the eighteenth century was any disease other than the rat-based bubonic plague (now known as *Yersinia pestis*), whose bacillus was discovered in 1894’ (p. 1). The book therefore adds to a growing literature that questions the organism/s responsible for historical plague epidemics: most notably these include, G. Twigg, *The Black Death: a biological reappraisal* (Batsford, 1984), also see Twigg’s article in *LPS* 71 (2003), 40–52; S. Scott and C.J. Duncan, *Biology of Plagues: evidence from historical populations* (Cambridge University Press, 2001), reviewed in *LPS* 68 (2002), 95–6. Plague swept through parts of the world in three major pandemics and Cohn provides a substantial comparative study of the disease’s epidemiology using evidence drawn mainly from the fourteenth and early twentieth centuries.

Cohn begins his argument with the discovery of the plague bacillus by Alexandre Yersin and Yersin’s immediate association of this bacillus with historical plague epidemics. The epidemiology of plague in China and India is then discussed, mainly via a reassessment of the work of the early twentieth-century Indian Plague Commission published in the *Journal of Hygiene*. Having established this framework Cohn proceeds to an analysis of a large body of primary evidence about the Black Death that encompasses all parts of Europe, ‘over 400 chronicles, 250 plague tracts, 50 saints’ lives, merchant letters and more. From County Kilkenny to Uzbekistan, Sicily to Scotland’ and ‘over 40,000 death documents’ (p. 3). The comparative analysis that follows highlights a number of significant differences between the two pandemics. These include: the absence of rats in medieval plague accounts, a lack of consistency in the reporting of plague symptoms (sometimes there is no reference to the characteristic plague buboes), and finally the highlighting of substantial differences in demography between the two pandemics. This detailed analysis is thorough and interesting and, not surprisingly, the conclusion is reached that there are considerable inconsistencies between the demographic impact of these two pandemics, although Cohn does not provide any speculation as to an alternative causative agent for medieval plague. A final chapter, entitled culture and psychology, examines some of the wider impacts of the various epidemics, but this is rather short and it seems of little relevance to the book’s main theme.

Cohn is certainly to be congratulated for amassing a vast array of impressive and often unusual material. Indeed it does not seem possible that there will be many other sources that may have escaped his attention. Without going into
too much detail concerning the various differences highlighted by Cohn, and these are indeed substantial, his overall case must, however, remain ‘unproven’, largely due to the fact that it cannot be possible to identify with certainty a medieval organism employing only archive material. The surviving fourteenth century evidence is difficult to interpret and some inconsistencies are to be expected. Furthermore, between the plague’s first appearance in the mid-fourteenth century and its disappearance some three to four hundred years later its effects on the population appears to have undergone substantial change. The Black Death affected just about the whole of Europe during the mid-fourteenth century, but by the seventeenth century it had become increasingly confined to towns. It may also be open to question to what extent the same disease is likely to exhibit similar characteristics in both twentieth-century India and fourteenth-century Europe.

Despite such problems The Black Death transformed provides a comprehensive review of the varied sources available to the historian of the Black Death and it should be consulted by all with an interest in this subject. It is well-written and provides many fascinating insights into medieval plague epidemics, as well as highlighting the important work of the Indian Plague Commission in understanding the major features of bubonic plague. However successful Cohn may be in arguing his case, advances in molecular forensic archaeology appear now to have the capability of being able to finally determine the cause of medieval plague. The DNA of the plague bacillus has recently been extracted from the dental pulp of putative plague burials in France (at Montpellier and at two sites near Paris) during both the first (sixth to eighth centuries) and second (fourteenth century) pandemics (see M. Drancourt, et al. ‘Genotyping, Orientalis-like Yersinia pestis, and plague pandemics’, Emerging Infectious Diseases 10 (2004), 1585–92). While such techniques have as yet failed to discover plague in other parts of Europe, it is likely that further investigations using this ‘cutting edge’ technology will finally be able to establish whether or not Yersinia pestis was responsible for the Black Death.

Chris Galley
Barnsley College


For several decades now, human biologists have been using historical data to examine aspects of the biology of human populations. Yet their work seems largely to have passed unnoticed by those from a history or social science background who have been working with similar data. The main reason for this is almost certainly that the human biologists have, in the main, published their results in journals of human biology, human genetics and physical anthropology, which historians and social scientists will not normally encounter in their literature searches.

Yet it is clear that the biologists’ work is of considerable interest to population historians, and the papers collected in this volume demonstrate this. The substantive contributions cover a range of topics including the seasonality of
baptisms and marriages, infant mortality, historical epidemiology, malnutrition and the impact of war on the composition of the population. They study a variety of populations from throughout the world, and (as might be expected, given their reliance on archival sources) mainly deal with the nineteenth and twentieth centuries. There is also an introductory chapter by the editors, and a concluding chapter by Malcolm Smith which reviews the development of archival anthropology since the 1950s, and includes a number of references to the contributions of well-known historical demographers. For population historians who would like to explore this interdisciplinary territory on the borders between history, the social sciences, medicine and human biology, this book provides an excellent introduction.

Andrew Hinde
University of Southampton


This ambitious book will be of interest to all readers of LPS. In a broad sweep Higgs examines information gathering in England over the course of five centuries (1500–2000). The main theme running through the book is the centralisation of information gathering, but along the way Higgs manages to examine a large and impressive series of issues, including the role of war in accelerating this process. Higgs argues persuasively that ‘much information gathering went on in the local state in the early modern period, and that what is significant today is the concentration of this information, and the functions it supports, in central governments’ (p. ix). Throughout the book a wide variety of documents created by both local and national governments are discussed. These range from parish registers to publications associated with the census and civil registration and from those relating to compulsory national service to the various data sets held by a modern state.

A brief introductory chapter, which reveals the extent of information gathering in the modern state, is then followed by a discussion of state information gathering models. This scene-setting allows Higgs to adopt a largely chronological approach in the subsequent chapters. Beginning with a discussion of the wide variety of information collected in local parishes, subsequent chapters deal with the rise of national information gathering in the nineteenth century (which includes the General Register Office—Higgs’ special area of expertise), to the liberal reforms of the early twentieth century, the role of war and finally the impact of the new information technology.

In a short review it is hard to do justice to Higgs’ arguments and to the range of issues he addresses, but this is both a thoughtful and thought-provoking book. It should be read, and perhaps re-read, by anyone with an interest in information sources in this period.

Chris Galley
Barnsley College

This is a big book, both in extent and importance, but despite its length it is a remarkably enjoyable read. This is partly due to the clarity—and not infrequently the elegance—of the prose, but largely due to the manner in which Hindle engages his audience with the fascinating array of life events, the human panoply that forms the subject matter of the history of poverty and poor relief and lies behind the historiographical debates about how, when, where and why. The product of a six-year research fellowship at the University of Warwick, and subsequent AHRB support, this book is based on a most impressive collection of primary source material on aspects of poverty and its relief in rural England from the late sixteenth through to the early eighteenth centuries, supported by a comprehensive knowledge of the pertinent secondary literature which renders the bibliography in itself a valuable resource.

The meta-narrative of the book is the transition from an informal system of provision of welfare for the poor within which charitable giving perforce loomed large, to a system that was centred upon the statutory collection of rates and the transfer of these to the poor in the form of regular pensions or occasional payments in cash or in kind. This was not an inevitable transition, it is argued, nor was it by any means a complete one, and it is quite appropriate that Hindle commences his story with a rehearsal of the now familiar notion of the ‘economy of makeshifts’—a phrase at once so vivid and so vague—that helps us to understand (almost) how the poor survived in an economic environment that was harsh, erratic and unpredictable. In turn Hindle describes the poor rewards for labour, its insecurity and seasonality; the importance of common and customary rights; the support of kin and neighbours; and the importance of begging, credit and crime. In the long term the opportunities in many of these areas were contracting, and although it is impossible to value them with any precision, it is argued that they remained ‘crucial, perhaps even central’ (p. 92) to the relief of the poor into the 1650s at least.

Charitable giving is examined next, and although the widely attested transition from indiscriminate to discriminate charity is rehearsed, it is refreshing to see here an appreciation that this was not a simple linear process, and nor was it complete during the early modern period either in theory or in practice, even if discrimination did eventually become ‘the central, though never the hegemonic, idiom of charitable discourse’ (p. 103). In contrast to the late sixteenth-century campaigns for general hospitality, charitable endowments in the seventeenth century were often very specific about the personal characteristics expected of potential recipients, setting the bounds for inclusion, and reflecting expectations placed upon both those who gave and those who received. But while the giving of alms created crucial points of contact across the social spectrum, the negotiations that surrounded them also reveal
contested visions of social obligation. The tantalizing possibility of a trade-off between charitable giving and formal rates is raised, but not resolved.

Chapter three examines the importance of schemes to provide work for the poor, and provides a salutary reminder of the prominence of this imperative in late Elizabethan legislation. Although arguing that historians have understated the importance of make-work schemes, in both theory and in practice, Hindle finally appears to agree with those who have described such schemes from an urban perspective: they were often impractical, and only very intermittently successful. Pauper apprenticeship, however, may have been adopted much more widely by the 1630s, despite controversy over its legal basis, active resistance from employers and passive resistance from parents. It declined in the late seventeenth century, only to become ubiquitous in the eighteenth, although this later development is barely explored here.

The material in the remaining half of the book is more familiar, much of it having been rehearsed in a string of important articles published over the past few years. During the seventeenth century the role of ‘collection’—rate-based relief—was transformed (as Paul Slack has already shown), becoming almost ubiquitous and far more generous during the second half of the century and, more controversially, being taken up across rural England as a whole as early as the 1630s. As in towns, regular pensions were only ever granted to a small proportion of the population at any point in time, but while payments tended to be more generous in the south than the north, the over-arching reality is one of intense local variation of provision rather than a simple north-south divide, creating a system characterised by local economies of welfare, themselves driven by both supply of, and demand for, poor relief funds. The question of who was eligible for relief, for exclusion or inclusion in the local community, was a fraught one for early seventeenth century magistrates, and again subject to interpretation by thousands of parish officers at the local level, but in general ‘parochial xenophobia’—mediated by the demands of local labour markets—held sway, even if in practice the exclusion of poor strangers was far from easy. The issue of attempts to restrict pauper marriages is again aired but, although Hindle continues to insist upon its importance, evidence of the practice remains tenuous. Negotiation was central to the whole process of poor relief provision throughout, creating ‘a mosaic of interlocking triangles of negotiation between magistracy, vestry, and labouring poor’ (p. 423), with occasional intervention by the King’s Bench too, but it was an unequal process, with the poor enjoying less room for manoeuvre in their negotiations as the seventeenth century progressed, the institution of badging the poor reflecting an increased tendency to homogenise the poor as a class in contrast to the rigorous discrimination of the earlier years of the Old Poor Law. Simultaneously, however, notions of the right to relief were developing, mirroring the long-term evolution of a system of relief sanctioned by law rather than morality or theology, underpinning the micro-politics of poor relief that Hindle has done so much to elucidate.

Much of this is compelling, deeply rooted in evidence, subtly argued, appropriately qualified, and offering a sophisticated analysis of the—often
strained—relationship between theory and practice, with a particularly clear appreciation of local variation. There are reservations, however. First, it may have been a mistake to exclude towns, not only because the urban evidence is so plentiful (and occasionally, perforce, drawn upon by the author) but also because towns were so clearly in the vanguard of poor relief practices, provided the bulk of charitable resources, and exhibited both the tensions that Hindle describes and the difficulties of regulation in particularly stark form. Second, although the lack of evidence in parochial archives does not necessarily indicate the absence of poor relief practices, it is equally problematic to generalise upon the basis of distinctly local evidence, particularly while simultaneously emphasising the intensely local nature of provision. This reviewer is not entirely convinced that ‘the overwhelming majority of parishes over most of the country’ were regularly raising rates and disbursing pensions and casual payments by the late 1630s (p. 296), and nor is there sufficient evidence of attempts to inhibit pauper marriages to generalise this to a widespread policy, let alone to suggest that it played a significant role in demographic change, particularly if one accepts the estimates that have been offered for the prevalence of permanent celibacy in the seventeenth century. Even the extent to which the poor were badge in the early eighteenth century is problematic, for even in those—relatively few—parishes where the practice can be shown to have been employed, badging orders often had to be repeated. Third, there is a distinct absence of systematic quantification here: indeed, the book contains only one table, itself no more than a list. Of course quantification has its limitations, but so does implicit quantification in prose, while there is a significant amount of data presented in the text here that could easily have been tabulated for ease of assimilation. Finally, although the brief of the book is to cover the period 1550–1750, there is relatively little material on the late sixteenth century, understandably because rural poor relief practice was clearly under-developed before the seventeenth century, but relatively limited emphasis upon the early eighteenth century either.

Like all important books On the parish also opens up an agenda for further enquiry. Apart from further exploration of the issues raised above, two stand out. First, the changing balance between charitable and formal provision over time, and the question of whether or not there was an increasing trade-off between the two during the course of the seventeenth century, exploration of which will require systematic investigation of the evolution of charitable giving beyond the chronological remit of Jordan’s pioneering study of philanthropy. Second, this study points up the crucial importance of local economies of welfare, and before a clear geography of poverty and its relief can be established there is much work to be done to elucidate the local relationships that existed between economy, social structure, culture and poor relief, while it seems more than likely that local demographies will form a crucial component of these relationships too.

Nigel Goose
University of Hertfordshire

As a book designed for use by students and others seeking an introductory text, this is a classic of its type. Peter Kirby writes with great authority on a subject that is rapidly becoming synonymous with his name, yet he does this without simply regurgitating his own work (much of which is listed in the extensive bibliography), but by offering a fair and unbiased summary of a large volume of secondary works. The book was not designed to offer new evidence on the issue of child labour, but to provide an up to date survey of decades of academic research, synthesesing the often conflicting arguments of other historians. Unusually, and refreshingly, this book makes a serious attempt to cover Britain, rather than let one region or a single industry speak for the whole. However, England predominates, and there are but few references to Wales in the text. Nevertheless, Kirby achieves more comprehensive national coverage than many other historians ever manage, or even attempt. The weaknesses of this book are largely a consequence of the particular focus of that research rather than any failings on Kirby’s part.

From page one the reader’s attention is engaged, and the text moves at pace throughout, without ever dwelling on issues for too long, and without getting over technical. Chapter one starts with a brief assessment of the major sources available for the study of child labour, and explores some of the weaknesses of those sources. This provides a framework within which the rest of the book should be read, and acts as a useful caveat for those who are not used to thinking critically about primary source material. The problems of approaching this material are clearly stated, although the discussion of sources is rather negative. In just a few pages Kirby provides a catalogue of methodological difficulties. We are told that ‘the single most serious obstacle to the historian of child labour is the paucity of reliable quantitative evidence’ (p. 11); ‘many of the state commissioners harboured strong opinions about the problems affecting the working classes and so permitted their own values and beliefs to colour their reports’ (p. 13); ‘The absence of civil registration prior to 1837 prevents the historian from developing anything more than an impressionistic view of the effects of occupations upon children’s health’ (p. 16); ‘Another unsatisfactory aspect of the historical record is the sparseness of evidence relating to children’s daily work and pay’ (p. 16); ‘differential demand for child labour between sectors cannot be measured using [household accounts]’ (p. 17). However, despite these essential and significant caveats, Kirby could have provided more positive methodological comments in order to offer a way forward. Following the serious concerns raised regarding the reliability of evidence, one cannot be blamed for wondering how the research on which the book is based was ever carried out. Yet, adding a sense of mystery, we are confidently told that ‘Despite such problems of bias and omission, it is possible to develop an equitable approach to the study of child labour in the past’ (p. 19). Indeed, much of the work cited by Kirby is based on one or more of the sources he suggests is biased or incomplete.
The rest of the book provides a masterly summary of a wide range of literature providing a concise account of the state of knowledge at the time the book went to press. New research has already been published, and if new work continues to be placed in the public domain at the same rate as it has in recent years, then it will not be too many years before this book requires updating. Chapter two discusses the social and demographic context of child labour, exploring the impact of wider demographic changes on the labour market as a whole, and the place of children within that labour market. Child labour is seen as providing a vital addition to family income, and children who were raised by widowed mothers, or who were orphaned, were often those who entered the labour market at the youngest age.

Chapter three discusses child labour and the organisation of production, investigating the agrarian child labour market, child labour in workshops, handicrafts and apprenticeships, the urban labour market, the industrial labour market, and the employment and unemployment of children. Chapter four discusses the role of the state and the influence and motivations of various humanitarian, charitable and legislative measures. This chapter more than any other serves to dispel some of the most potent popular myths regarding child labour and the influence of regulatory bodies. Kirby convincingly argues that the legislative measures were not comprehensive enough to have a significant influence on the overall participation rates of children in the labour market. Indeed, technological, social and demographic changes were probably far more influential factors in the decline of child labour in the nineteenth century, and, as Kirby convincingly shows, ‘Between 1750 and 1870, the vast majority of employed children remained beyond the reach of state regulation which was confined to a very small number of industrial occupations and which was frequently unenforceable’ (p. 132).

I would recommend this book to anyone with an interest in the subject, especially those seeking an easily digestible introduction to the topic. The guide to further reading provides useful advice for those wishing to pursue aspects of child labour in greater detail, although as a service to the undergraduate historical community a similar section providing a guide to possible research topics would have been invaluable.

Andrew Gritt
University of Central Lancashire


This collection of essays arises from a conference held at Cromford Mill, Derbyshire, in May 2000, which I had the pleasure to attend. It constitutes more than the conference proceedings, however, for—unless my memory fails me—there are at least three additional contributors, two of the original cast have disappeared, and a new editor has been drafted in to join the team. The result is a valuable collection of papers that will prove to be of particular
interest to historians of poverty and poor relief, and women in agriculture, as well as of general interest to the wider community of local historians.

Three chapters deal with poverty and poor relief, the oddity amongst which is Steve Hindle’s essay on pauper apprenticeship under the Elizabethan poor laws. It is, characteristically, a deeply researched and interesting paper that integrates issues of parish politics with poor relief in a manner that has become a recognisable hallmark of its author, but it has precious little to do with women, work and wages, and has also been published elsewhere, largely verbatim, in the same year (see review of On the parish?, above). Steve King’s essay on women, work and welfare under the Old Poor Law (1770–1830) is more to the point, exploring the vestry records of Tarleton, Garstang, Chorley and Halliwell in Lancashire to underline the manner in which women’s work and poor relief formed part of a seamless web of resources, two of the central components of the economy of makeshifts that Olwen Hufton first alerted us to over thirty years ago. For King, the readiness with which northern women, even if employed, were granted relief, gave them choices over the best means to maximise their incomes, resulting in relatively generous thresholds for family income compared to many southern allowance systems. Interestingly, men were supported far more reluctantly and imperfectly. Samantha Williams takes us back south with her essay on poor law nurses in Bedfordshire, covering an identical period to King, and focusing upon the two communities of Campton and Shelford, for which detailed analysis of overseers’ account books in conjunction with extant reconstitutions has enabled the construction of pauper biographies for 50 of the 77 women carers that could be identified. These women were generally among the very poor, and often in receipt of relief themselves. When caring for relatives they were usually paid, although this was rarer in Shelford than in Campton, and as poor rates escalated in the early nineteenth century fewer opportunities to supplement income by these means were available. Other employment opportunities for women—in gleaning, lace and straw work—are considered, but all too briefly.

Penelope Lane examines women’s employment in the East Midlands between 1700 and 1840, in agriculture, industry and service, to take issue with Joyce Burnette’s recent suggestion that women were paid market wages during the Industrial Revolution. Neither in agriculture nor in the cotton industry is there a clear relationship between gender, earnings and levels of productivity, while the wage gap cannot be explained in terms of either hours of work or payments in kind. Furthermore, the sexual division of labour also meant that women were largely confined to poorly paid jobs anyway, reinforcing the effects of gender discrimination in remuneration. Nicola Verdon focuses upon female day labourers in agriculture, using farm labour and wage books from Stocksbridge in Hampshire, Chippenham in Cambridgeshire and the Audley End Estate in Essex. She discovers that women were generally confined to specific tasks in spring and early summer, notably weeding and stone picking, planting and picking root crops, and haymaking. This clear sexual division of labour was not new, nor was it disrupted by the greater demand for labour during the French Wars, while the female day labour force on many farms was
contracting by the 1830s as they were replaced by boys, but local variations could and did cause significant deviations from this general pattern. Verdon, like Lane, also discusses the arguments of Burnette, though is more inclined to accept that women's productivity in agriculture was lower than that of men, while maintaining that customary forces played their part too. Somewhat oddly, there is no cross reference between these two parallel discussions. Michael Roberts' chapter revisits at length the issue of women's participation in the harvest raised in his 'sickles and scythes' article published in 1979, to now emphasise the gulf that often existed between representation and reality, as well as local variability of both attitudes and practice.

Just two essays deal specifically with commerce or industry. Pamela Sharpe's chapter on women and the East India Company in seventeenth-century London attempts to rectify the invisibility of women in the extensive literature on the company, by emphasising the manner in which it directly or indirectly impinged on their lives—as investors and providers of loans, legal representatives of men, recipients of company relief, companions on voyages, or as employees in a wide range of occupations generated by the dockland economy. Neil Raven's chapter returns to the late eighteenth and early nineteenth centuries upon which most of the essays in this collection focus, to elaborate upon themes that are familiar from his previous work on trade directories. From an examination of over 30 small towns in seven southern counties he concludes not only that manufacturing assumed significance, but that women were often extensively employed, their relatively low wages giving local manufacturers a distinct cost advantage over their competitors in both the north and in London. Lack of female employment opportunities in agriculture, low male wages, the prior existence of a manufacturing population once employed in industries now in decline, and the operation of the Old Poor Law, are all invoked as explanations. The contribution of the earnings of both women and children to the family economy may have been significant—an issue that requires more systematic investigation at the local level—while the contribution of small, southern towns to the industrial profile of early nineteenth-century England must surely be recognised, despite their lack of dynamism compared to the industrial heartlands of the midlands and the north.

Jane Humphries and Keith Snell provide a lively and stimulating introduction to the collection, emphasising local, regional and chronological variability, the wide range of occupations and forms of contribution that women could make (a veritable 'panorama of diversity') as well as the complexity of the process and meaning of remuneration. In highlighting the many unresolved issues surrounding women's work, they effectively introduce the varied contributions offered here, as well as illuminating the path for future research. Although the quality essays printed here offer an excellent starting point, there is clearly much that remains to be done, and one might hope that future collections might be more accessible in terms of price.

Nigel Goose
University of Hertfordshire

This substantial volume contains a complete transcript of a census-type listing of the Irish diocese of Elphin which spans parts of Counties Roscommon, Sligo and Galway in 1749 and gives details of the population in 70 parishes. The introduction, by Legg, contextualises the census, speculating on the influences on Bishop Edward Synge who instigated the investigation. Legg patiently explains where errors and omissions may have occurred in this ‘census’, and gives a brief analysis of the occupational information. This introduction is followed by a ‘statistical analysis’ of the returns, ably carried out by Brian Gurrin. Following this is almost 600 pages of transcript, which is advertised as being available on a subscription basis from http://www.irishorigins.com though not identifiable by this reviewer at the time of writing (14 March 2005).

The main elements of the listing, or rather listings as most parishes were recorded separately, are the name of the householder and (often) his wife, the numbers of children above and below 14 in each household and the numbers of male and female servants. The occupation of the head is generally given as is the religion of each occupant. In some parishes other household members—parents and siblings—are included, while in others they are missing. Some parishes explicitly include widows as heading their households, others seem to exclude them. These issues will tend to diminish the measures used to compare households.

Another oddity relates to the reported population of some parishes. In 28 parishes no wives were specified so Gurrin inflates the total population by adding a wife to every household where there was a male householder who was not explicitly stated as a widower or bachelor. Gurrin comments, in a footnote: ‘while this may slightly overestimate the population of enumerated houses it is very unlikely to overestimate the actual population...as many houses will have been omitted...’. This may be the case, but it also almost certainly invalidates overall calculations relating to household size. It would have been possible to restrict analysis to those parishes where the level of quality of recording was consistent.

These inconsistencies detract somewhat from the results of the analysis, which gives as a mean houseful size across the diocese of 4.54 (ranging from 3.77 to 6.20 by parish). What is significant is that, with these corrections, the mean houseful size for Catholics has been calculated as 4.42 compared with Protestants at 5.80. There may also be other inconsistencies: for example in the parish of Aughrim a total of 147 farmers are given in summary, whereas the count of farmers in the listing which follows totals only 114. Similarly, the occupational totals of Cloontuskert given on page 123 do not reflect the occupations of the heads of household given in the listing on the following pages.

Researchers wishing to use this volume for quantitative research on household structure in mid-eighteenth century Ireland should concentrate on using those
parish listings with truly comparative data, and those interested in local
differences in occupational structure would be wise to carefully compare the
summary tables for each parish with the listings which follow.

Matthew Woollard
AHDS History
University of Essex

David Lepine and Nicholas Orme, *Death and memory in medieval Exeter* (Devon
Europe. Available from Devon and Cornwall Record Society, 7 The Close,
Exeter, Devon EX1 1EZ.

Medieval death is very much alive. Recent years have seen a proliferation of
studies from scholars of many disciplines, including art historians such as
Camille and Binski and archaeologists such as Hadley and Daniell, though,
interestingly, with the exception of work on the Anglo-Saxon liturgy,
comparatively little attention has been paid to the elaborate rituals central to
the funerals of medieval Europe. This local study of Exeter is a most welcome
addition to the literature, with implications and insights that reach well
beyond the regional.

The book is divided into three parts. The first looks at burial places available
both to the Exeter population and the wider Devon region, within the diocesan
cathedral and associated cemetery, and also opportunities outwith the
cathedral precinct in parish churches and religious houses. Control of burial
place was at once a valued symbolic privilege that emphasised a mother
church’s status and hierarchic authority, and also a valuable source of revenue.
It is not surprising, therefore, that such churches went to great, and sometimes
violent, lengths to retain burial rights, nor that such a potential and actual
cause of strife is so well documented. Such disputes, in Exeter as elsewhere,
frequently centred on the newly-established friars’ claims to burial privileges
which cut across old patterns of loyalty and privilege. The cathedral was
unusual, however, in retaining (at least in theory) its monopoly of burial until
well into the early modern period, and permission had to be given for burial
elsewhere. This monopoly had an impact on the very topography of the
medieval city, for parish churchyards seldom existed and parochial interments
were normally within the church rather than outside. Yet the valuable register
of known Exeter burials from 1050 to 1540 provided here, and which is an
exemplary body of data for imitation elsewhere, throws up an interesting
paradox. For all that the cathedral claimed the right of burial of all, the great
majority of burials within the cathedral were of cathedral and other clergy, not
the laity, while the late-medieval list of burials at St John’s Hospital indicates
that it was here that a wide cross-section of Exeter’s population and ‘strangers’,
taking advantage of an episcopal privilege granted in 1351 and much resented
by the cathedral chapter, found their burial place. Was this concession perhaps
a response to the increased mortality consequent upon the Black Death? Only a
few members of the higher aristocracy and gentry found burial in the
cathedral, while *hoi polloi* were buried in the extensive cathedral graveyard.
This is in marked contrast to monastic churches and cathedrals which frequently functioned as prestigious mausolea, as for example at Tewkesbury or Worcester, and suggests the latter were regarded as having a greater spiritual and social cachet than secular cathedrals.

The second section looks at wills and archives associated with their administration, and again includes a useful register, this time of surviving medieval Exeter wills. Though the most interesting and valuable inventory of the executors’ accounts of dean Kilkenny, who died in 1315, is included, this part is generally of lesser significance than the first. The wills of 14 Exeter testators, lay and religious, male and female, dating from 1244 to 1349, are given in full but, though these are illuminating specimens of the genre and shed light on social and devotional practice at a number of levels, there is no indication given as to how typical a sample this is, nor of how that sample was chosen.

The final part, ‘Memory’, deserves much greater attention. It presents a wide range of surviving obit lists throughout the medieval period which indicate both how communities of the living melded with communities of the dead, and how relationships between religious communities and the lay world were negotiated. Some of this material, such as that found in the Leofric missal, or the list of guild members of a little later date, is well known, but much is available in print for the first time. This includes the remarkable obit list dating from the twelfth or thirteenth century of the parish church of St Martin. Parish obit lists of any date are rare survivals, one as early as this is extraordinary, illuminating the nexus of memory in a parochial and very local context. It is the more regrettable, therefore, that the list given here omits the payments recorded by those seeking obits which would have shed further valuable light on the financing of an urban parish church at this date, and on the relationship of these benefactors to it.

In general this is a collection of great interest which will be appreciated and welcomed by a wide spectrum of historians. It is clear, well-presented and illustrated, and will be of worth to specialists and more general readers alike.

Brian Golding
University of Southampton


The questions asked by the ageing and elderly in eighteenth-century England were strikingly similar to those we ask ourselves today. Do we remain independent and self-sufficient at all costs, regardless of the very real expenses such absolute autonomy places on our bodies and life spans? Or, do we submit to more dependent arrangements? Do we settle with our families? Do we gather in a community of like-minded and similarly able-bodied? Or, do we resign ourselves to public support? In short, we worry—as did they—whether our local communities and families will view our final years as a benefit or a
burden. Today’s answers depend as much upon one’s gender, social status, local community structure, and personal inclinations as they did in eighteenth-century England.

The eighteenth century, as revealed in Susannah Ottaway’s ambitious book, was a period of transition, one that witnessed the ebbing away of certain traditions of Merry Olde England, while at the same time experiencing the tug of the developing modern world. For the elderly it was a period of flux, where the strong, traditional expectations to remain self-sufficient and self-supporting sat cheek-by-jowl with the gradual acceptance of retirement, first amongst the elites and then, but only gradually, with the development of state-supported pensions, amongst the poor and labouring.

Yet, this century was also a period where much remained as it had been in earlier times. Ageing parents did not join the households of their adult children as a matter of course. They did so only ‘when the need arose’ (p. 171) and then not equally, with older women finding reincorporation more socially acceptable than older men, who rarely lived as anything except the heads of their own households. While never completely absent from the village community, co-residence was already in the decline throughout most of the sixteenth century and by the eighteenth century male testators tended to leave their widows all or a significant proportion of their entire estate as a bulwark against the precarious economic climate of the century and, as Ottaway posits, as a reflection that old age was now viewed as a time of vulnerability.

Ottaway is quite right to call the eighteenth century a ‘pivotal period of English history’ (p. 6), one that marked the agricultural revolution and accompanying demographic expansion; one that experienced the birth pangs of the Industrial Revolution and its attendant economic insecurities; as well as one that held fast to traditional concepts of self-worth and gendered relations. Her book then is a test of ‘the stability of age-related norms in a particularly dynamic age’ (p. 6).

There is much on offer in her book, and much to provoke serious discussion. Ottaway, for example, argues for an universal age of 60 to mark the onset of old age. In the spirit of full disclosure, I must acknowledge that in my Old age and the English poor law, 1500–1700 (Woodbridge, 2004) I claim a variable, context-specific threshold between middle age and the start of old age, one that ranges from 50 for aged, poor women to 60 for men of the elite. In her book, Ottaway takes extended issue with my position. That being said, this is an extremely useful chapter that clearly outlines the different types of age—cultural, functional, and chronological—and vividly brings home the tension between the fluidity of individual ageing and growing administrative need for a fixed, chronological boundary.

It is the last three chapters of The decline of life that will be of most interest to readers here and offer the strongest contribution towards understanding the elderly’s lived experiences. Building upon earlier chapters which establish a close link between increased age and increased poverty, Ottaway uses finely wrought and demographically sophisticated case studies of three English
communities—Puddletown, Dorset; Terling, Essex; and Ovenden, West Yorkshire—to explore the experiences of the aged poor. Engaging directly with a current preoccupation of historians of the old poor law, Ottaway concludes that the elderly were not granted relief by virtue of their age: a pension was not theirs by right. Yet, there existed a strong expectation of assistance should the elderly’s efforts at self-sufficiency fail.

The particulars of local aid in Puddletown, Terling, and Ovenden reveal that England did in fact have a truly national system of relief—de facto as well as de jure—by the eighteenth-century and that such comprehensive efforts were not a product of the 1834 reforms. Furthermore, the traditional north/south divide existed in the care of the aged poor, but not for the reasons that historians typically expect, namely that the north was both poor and parsimonious and the south more enlightened and better resourced. There was indeed a regional divide, but its cause, as Ottaway clearly demonstrates, was based on each region’s economic structure. The north, in fact, offered less in the way of out-relief because more by-employment was available thanks to developing industrial practices. The economy of the south, dependent upon the sheer physical strength required of its agricultural economy, made the aged less likely to contribute substantially to their own support and thus required a greater contribution from their local community. This is an elegant, and significant, inversion of a historical commonplace.

What cannot be ignored was that the aged were turning to their home parishes in greater numbers over the course of the century and that the quality of that care declined. Eighteenth-century England’s rising cost of living and increasing un- and under-employment in the countryside simply forced the aged into the care of their local communities and on the mercy of their already over-stretched tax base. Towards the end of the century, in a ‘fascinating nexus of the core Enlightenment themes of humanitarianism, individualism, and classification’ (p. 276), the elderly emerged as a group considered especially appropriate for institutional living. Ottaway unravels our modern-day understanding of the Dickersonian polemic to reveal that the real danger for the elderly assigned to the workhouse was the psychological damage done by no longer being contributing and independent members of their local populations.

Ottaway successfully argues that old age was increasingly marginalised over the course of the period and does so in a manner that is sensitive to gender, class, and local economies. Along the way, she has justified her claim that ‘it is high time that historians recognised the significant ways in which age—especially the study of old age—is a useful category of historical analysis’ (p. 278).

This book’s diverse parts add up to an impressive whole: yet, it does so with an awkward calculus. The first part provides several general surveys of the aged: who they were; what did people expect of them; what, indeed, did they expect of themselves; and where and with whom did they live. The second section is dedicated to the exploration of the elderly in local communities. The difficulty lies in the structural disjunction between the two, with the local studies sitting uneasily atop this broader, national context, rather than imbedded into it. In
other words, a greater degree of integration between the village and nation would ease our understanding of her local findings and their larger significance. Similarly, the final chapter seems out of place. It is an important justification for the work within a solid defence of old age studies, a historiographical roadmap, and a timely reminder that the world looks different when viewed through the eyes of the elderly themselves. As such it might well have proved to be a more valuable start than finish to this otherwise impressive study.

Structural quibbles aside, The decline of life is an important book that challenges what we thought we knew about old age in the past and affirms other, long-held, traditional views, but most importantly it covers uncharted eighteenth-century ground and brings home the idea that one of the truest tests of any society is how it treats its dependent members, especially its old.

Lynn A. Botelho
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In 1991 the Bricket Wood Society published All my worldly goods I, a volume extending to 231 pages, in which the wills and probate inventories of the inhabitants of Bricket Wood within the parish of St Stephens were transcribed for the period 1447–1742, prefaced by a short introduction from the compiler and some suggestions from Hertfordshire historian Lionel Munby on how such sources might be used. Most of the documents originated from the archdeaconry court records held at Hertfordshire Archives, although a few wills proved in the Prerogative Court of Canterbury under class Probate 11 were included too. The volume was completed by a useful glossary of terms, and a name index to help negotiate the volume, which was itself arranged chronologically. All documents were transcribed verbatim (even signatories marks were reproduced), while those in Latin were translated. All my worldly goods II complements the first volume by publishing many (though not all) of the remaining probate records from the parish of St Stephens, a large and mainly rural parish that lay partly within the borough of St Albans, but extended into the rural hinterland to the south of the town: documents relating to Park Street, Colney Street, Frogmore and the east side of the parish are the primary focus here. The format and content is identical to the first volume. The chronological arrangement is supplemented with a name index, and a glossary is again provided.

This enterprise arose from a Cambridge University Board of Extra Mural Studies course arranged by the W.E.A. from 1979–1982 and led by Lionel Munby, epitomizing the ‘participatory history’ approach to local history highlighted by Alan Rogers that developed between the late 1950s and the 1970s, clearly extending here into the 1980s (see Journal of Regional and Local
Studies, 15 (1995), 1–14. The result is the reproduction of approximately 700 probate records from the fifteenth to the seventeenth centuries, providing a myriad of opportunities for historical analysis, as well as providing the means for local family historians to further explore their ancestry. The standard of transcription appears to be very high indeed, and the decision not to modernise spelling and grammar was a sensible one. Although Meryl Parker had clearly led the way in completing these transcripts, they are the product of teamwork, and credit must be given too to Brenda Burr, Lesley Darlow, Rodney Hale, Pam Nellist and other anonymous members of the Bricket Wood Society. This enterprise may represent what J.D. Marshall has called ‘proto-history’ rather than history proper, but it stands a world away from ‘primitive antiquarianism’ (The tyranny of the discrete (Aldershot, 1997), 55–9). This is record reproduction as it should be conducted, and represents an heroic task which has made available to the local and professional historical communities a resource of considerable historical value.

Nigel Goose
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The discipline of demography has been largely untouched by postmodern theory. Among the social sciences, this is a feature it shares with economics, but one which marks it as very different from sociology, anthropology and areas of social history and human geography (especially, these days, historical geography). In this book, Riley and McCarthy explore the reasons for demography’s peculiar resistance to postmodernism, argue that demography could be strengthened by taking on board some postmodern perspectives, and present examples of how this might be achieved.

At the outset, the authors are faced with the problem of what kind of postmodernism they wish demographers to embrace, for it is a slippery beast which, as they put it, is ‘famously difficult to define’ (p. 14). They settle in the end for a version of postmodern theory which ‘questions totalizing theories, the universal, and the possibility of a “God’s eye” view of the world; it leans towards difference and localised knowledge’ (p. 15). It is at this point that I began to take a serious interest in what the book might have to offer, as some 12 years ago I reviewed a book edited by John Gillis, Louise Tilly and David Levine called The European experience of declining fertility: a quiet revolution (Blackwell, 1992), which took issue in a similar vein with universal theories of fertility decline, and argued for the existence of many, localised, contingent ‘fertility transitions’, which could not be understood without detailed contextual analysis. Gillis and his colleagues did not, so far as I can recall, mention postmodernism—they were historians who wanted more history put into historical demography, but I think there are important parallels between what they were saying and what Riley and McCarthy commend to demographers in the book being reviewed here.
Having established what they mean by postmodernism, Riley and McCarthy describe what demography is, stressing its attraction to ‘grand’ theories (such as the demographic transition and, now, the ‘second demographic transition’) and universal explanations of, for example, the decline of fertility. Even the discipline’s methodology is geared towards the quest for single accounts which apply cross-culturally, for modern demographic data collection is heavily dependent on large sample surveys which are conducted in much the same form everywhere (notably the Demographic and Health Survey, which since 1985 has applied virtually the same questionnaire in scores of developing countries). They then try to explain why demography has developed in this way. Two key points are, first, its original evolution (especially in the United States) as a branch of economics; and, second, its usefulness and importance to policy makers, who provide it with generous funding but who demand simple (and preferably quantified) prescriptions. I think the authors’ description of the current state of demography is largely correct, and I also agree with their account of how things have come to be this way.

The remainder of the book is devoted to showing how incorporating some postmodern approaches might strengthen demographic research. The examples chosen largely concern the analysis of present-day fertility (and infertililty), and are persuasive. Riley and McCarthy are also careful to stress that they are not arguing that traditional demographic rigour be discarded in favour of the postmodern. The numbers still matter, but the adoption of new perspectives can help demographers interpret them in different and illuminating ways.

What does Riley and McCarthy’s agenda mean for historical demographers—or population historians? First, their emphasis on the importance of locality will be welcomed by many readers of this journal (although this is not the aspect of postmodern theory which they develop most explicitly in their book). Apart from this, however, it seems to me that in practice, incorporating their version of the postmodern perspective involves something remarkably similar to what Gillis and his colleagues proposed more than ten years ago: putting history back into historical demography, recognising that individuals’ decisions about things like childbirth are situation dependent, and rediscovering the importance of narrative. My impression from looking at the periodical literature of the past decade is that demographic historiography with these characteristics is already flourishing (consider, for example, Steven King’s work on the Old Poor Law, Gary Howells’ recent studies of assisted migration in the mid-nineteenth century, or Kate Fisher’s work on the adoption of birth control among the English working classes of the early twentieth century). In this sense, then, the debate which Riley and McCarthy want to start within the broader discipline of demography has already taken place in the sub-discipline of historical demography, and our knowledge of population processes in the past has been greatly enhanced as a result. Rather than being stuck in the past, therefore, population historians (or historical demographers) are—not for the first time—showing the way to their modernist colleagues studying the present day.

Andrew Hinde
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This book throws open a window on a modest English market town, permitting the reader to glimpse its social, economic and administrative life in the second half of the seventeenth century. Several aspects of the writing raise it above the level of just another history. The scale of the project was such as to allow a particularly thorough examination of such contemporary records as charters, municipal and parish records, probate inventories, wills, hearth tax returns, mayor’s accounts and court books. The result has been to pack every page with information.

A chapter on social history in architecture is particularly innovative. A pattern of seventeenth-century building and refurbishment can be observed in surviving medieval and early modern building stock. This is augmented by reference to early photographs and other illustrations. Timber frame buildings continued to be erected, but without their previous jetties. Medieval structures were frequently modernised, increasingly with newly available brick, and enter the municipal record as having been ‘brought forward’ or encroaching upon the highway. Changes of fashion and prosperity were also reflected in the interior of buildings. Not every historian will feel able to emulate the analysis in this chapter, but many will be inspired to try, and will find the St Albans example a valuable guide.

A more rigorous and detailed estimate of population change has been published by the authors elsewhere. Broadly summarised here, the borough population probably remained fairly constant at somewhat over 3000 until the latter years of the eighteenth century, after which it increased rapidly. This is more subjectively supported by an almost unchanging series of town maps extending into the decennial census. The effort put into family reconstruction was of particular value and yielded such vital statistics as family size and age at marriage, and threw up interesting questions as to the popularity of some venues over others for baptisms, marriages and burials.

Until the dissolution of the monasteries St Albans had been dominated by its monastic landlords. It did not receive its Edward VI charter of incorporation until 1553. This was confirmed or modified by subsequent monarchs. The ruling elite of the town were a powerful oligarchy. The burgesses were freemen of the borough, through which status they were able to exercise a trade or craft. They were also able to vote for the two parliamentary candidates for the borough. Electoral bribery was rife in the early modern period, culminating in the disfranchisement of the borough in the nineteenth century. The process of government and role of its officials are well covered in the text.

From the time of its Saxon foundation, recognisable market forces gave the town economic resilience. Whatever setbacks resulted from the loss of the monastery in the sixteenth century, it was far from being a mortal blow. St Albans remained on a main route from London to the north-west, the Midlands and Ireland. It was an easy days’ journey from the capital and
emerged from the medieval period with a well established infrastructure of market and inn trade. The importance of the road route is well illustrated by an analysis of seventeenth-century surnames in St Albans. The significant proportion of surnames derived from place-names show a startling preponderance of locations spread down the west-coast and west Midlands routes. Trade and professional links with London were strong and eclipsed the east-west route with the county town of Hertford. Increased travel throughout the seventeenth century was reflected in the number of inns operating. Their apparent decline during the eighteenth century has been attributed to improved roads and transport speed making the mere 20 miles to London less of a limiting achievement.

Religion, nonconformity, the Civil War, the Restoration and political affiliation and machinations are all examined within the local and national context. The leading citizens displayed characteristic pragmatism.

Both the occupational and social structures of the town are analysed on the basis of gentry, merchants, traders and artisans. Relationships within ten leading families are described and something of daily life deduced from possessions recorded in probate inventories. The parish and the poor receive special attention and it seems something of an oversight that no maps show the parish boundaries within the vicinity of the borough.

This book is not exactly an easy bed-time read, but will clearly be snapped up by the serious local historian. However, its greater importance lies in its record of government and community life in the national context. This importance will increase as similar studies are undertaken for other towns. It should certainly be read for its innovative approach. It is to be regretted that many records do not survive. The potential contribution of missing Quarter Sessions records can well be imagined as can an analysis of market tolls which, in the St Albans case, were farmed out. Deficiencies in parish registers were keenly felt. St Albans must have many parallels elsewhere and discovering the similarities provides as exciting an experience as finding differences. This book should certainly make a contribution to both these enterprises and its authors are to be commended for their work.

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St Albans
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Letters intended for publication in Local Population Studies should be sent to Nigel Goose, LPS General Office, Department of Humanities, University of Hertfordshire, College Lane, Hatfield, Herts. AL10 9AB.

Editor’s note

Readers are reminded that the LPS Editorial Board is always prepared to offer advice on subjects within the scope of Local Population Studies, so if you think we might be able to help please do not hesitate to write to us.

‘Surnames and the search for regions’

Dear Sir,

I read with interest the article by Kevin Schürer on ‘Surnames and the search for regions’, and in particular those parts relating to Wales.

The article rightly draws attention to the fact that the surname situation in Wales is different from that in England, but I feel that neither the text nor the maps bring out just how different that difference can be. Extensive research into the incidence and distribution of surnames throughout Wales in the first half of the nineteenth century carried out by my wife and myself gives a picture for Wales which is, in many respects, several orders of magnitude different to that which may be inferred from the article.¹

For example, in Table 1 (which sets out the distribution of the population by the number of surnames held) the number of surnames accounting for 10%, 20%, 50% and 80% of the population in England and Wales (combined) is 17, 58, 601 and 4359; yet from our work on surnames in Wales, I estimate that the figures for Wales alone would be 1, 2, 8 and 37 respectively.

Another factor – the number of persons per surname – forms the basis for Figure 1. This shows Wales, at over 10 persons per surname (the highest level used), to be little different to substantial pockets widely dispersed across England. Yet I estimate that the level in Wales generally lies between 70 and 160; the only exceptions being in those areas subject to greatest influence from England – along the English border, in Monmouthshire, in parts of Glamorgan and also in south Pembrokeshire. Even so, in these latter areas the figure never falls below 39.

Again in Figure 1, rather surprisingly some isolated parishes in what may be termed ‘the Welsh heartland’ – such as those in the vicinity of Nefyn on the Lleyn peninsula in north-west Wales – are shown as being well below the figure of 10 (probably about 7); yet our work leads me to believe that the figure for this area is unlikely to be much below 70.
Then the statement is made that: ‘Surnames, certainly by the nineteenth century, are inherited from one’s father and women usually take their husband’s surname on marriage.’ While this would be true for England, it is certainly not so for substantial areas of Wales. From work we are currently undertaking it is clear that in many parts of Wales the patronymic system of naming was extensively used until well on into the nineteenth century. Indeed, we have found that, at the beginning of the century, the patronymic system was still in use by a significant proportion (in excess of 30%) of the population in large parts of west and north-west Wales. In the latter area this cultural tradition was still much in evidence in the middle of the century. Clearly, in those areas in which the patronymic system survived it means that their husbands would not have a surname (as such) for women to take on marriage. Instead they would either retain their maiden name or, in some cases, would even appear to take their husband’s given name.

Finally, when undertaking our research we had to identify units which would enable us to avoid the idiosyncrasies which often exist at the parish level without losing the local nature of the characteristics we sought to identify. In our case, although it is a relatively recent introduction into Wales, we chose to analyse our data by the old administrative hundreds and it is surprising that these have not been mentioned as a possible ‘region’ at the sub-county level within this article.

Yours faithfully,

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1. This is based on the names of all partners to marriage, by location, throughout Wales for the period 1813–37; a total of over 270,000 surname occurrences. As the period covered by this study is much greater than that used by Hey in ‘Local History of Family Names’, I feel it is unlikely to suffer in any significant way from the limitations in that work identified by Schürer. Of far greater concern could be the time gap between our study and the 1881 census. Nevertheless, I believe valid comparisons may be made, especially for the rural areas which make up the major part (by area) of Wales and where surname patterns remained relatively stable throughout the nineteenth century.

The results of this study are set out in: John and Sheila Rowlands, *The Surnames of Wales* (FFHS, B’ham 1996).