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EDITORIAL

This issue of *LPS* has a distinct methodological emphasis, with two of our three articles focusing upon the quality of registration of vital events, and the third discussing the exigencies and debates that preceded the passing of Rose’s Parish Register Act in 1813. Geographically we range from Scotland, to the West Riding of Yorkshire, and finally to the debates centred in London, though with significance for procedures for registration of vital events nationally.

Karen Cullen’s article on the reliability of late seventeenth-century Scottish parish registers shows how the reorganisation of church government in the 1680s disrupted the registration of vital events in many Scottish parishes, and in consequence the reliability of extracted demographic data is questionable. She proceeds to make comparisons with English figures to determine the usefulness of data available for Scotland. The period covered is 1685–1705, and selected parishes were drawn from an extant set of 186 tabulated registers, choosing only those with continuous registration of baptisms and marriages for ten of the twenty years under scrutiny. Just thirteen registers conformed to this criterion, and these were predominantly for lowland areas, particularly towards the east of the country. Consideration of the baptism to marriage ratios that these registers produce lead her to tentatively conclude that marriage registers of this period for lowland Scotland are not as unreliable as previously thought. This questions previously conceived ideas about the reliability of baptism and marriage registers and indicates that under-registration of marriage was less problematical than has formerly been estimated. Indeed, it is possible that baptism registers need to be examined with a greater degree of caution than is currently exercised. Ultimately, despite the difficulties of using late seventeenth century Scottish parish registers to provide demographic data, it is evident that by comparison with the results obtained from English registers, Scottish registers can produce usable and meaningful results. But while the low baptism to marriage ratios found among this small selection of registers between 1685 and 1705 return marital fertility levels much lower than are deemed likely for the period, only family reconstitution will show whether the discrepancy between Scotland and England in this respect is real or merely apparent.

Alysa Levene continues the series of articles that have featured in recent issues of *LPS* on the value of the so-called ‘Dade Registers’, examining the impact of a set of instructions of 1777 for more complete registration of vital events in the West Riding of Yorkshire which were inspired by clergyman William Dade. Like other similar studies, she finds evidence of under-registration of infant deaths, using the records of the three parishes Ilkley, Ackworth and Rothwell, and this under-registration was found in parishes of different sizes and socio-economic profiles. That said, it is also clear that parishes which included the additional information commonly associated with Dade were not a homogeneous group, either in terms of the information included or in terms of
the dates for which it was provided. On the positive side, it remains the case
that the additional details that Dade-type registers provide would make family
reconstitution easier for this period should it be undertaken, while from the
information they contain it is sometimes possible to infer possible scenarios
that explain infant baptism practices. Finally, while this avenue of research is
problematic too, such registers have potential for the exploration of adult
mortality. Hence, while we must be careful about the assumptions we make as
to representativeness, these records remain useful for the information they can
provide about local epidemiology, record-keeping, lineage, inheritance and
migration.

Stuart Basten’s examination of the passage through parliament of Rose’s parish
register bill, and the debates that surrounded it, highlights the range of
considerations that resulted in an Act that was a heavily watered-down
version of the initial draft. Rose, appreciating the importance of parish registers
for economic and political purposes, sought to update the information they
contained to cope with the demands presented by the growth of Dissent,
welfare relief and the larger, more complex communities which needed to be
registered. The clergy objected for practical, political and religious reasons.
Time, effort and expense were all raised as issues, while there were particular
concerns regarding the treatment of Dissent. For dissenting ministers the new
procedures were optional rather than obligatory, Anglican ministers would
have to return the information for Dissenters within their purview, while only
Anglicans were required to swear on oath that the information they provided
was correct. While issues such as time, expense, and responsibility for
recording the vital events of Dissenters were foremost among the minds of the
clergy, there was also a fear was that the process of collecting the information
required would further diminish their position in society, by requiring of them
a new inquisitorial role that might alienate their parishioners. The Bill was thus
viewed as a means to compel Anglican clergy to work harder for less reward
while further diminishing both their sacred and secular role in society, and
thus it fell victim to an emotional response to contemporary circumstance,
rather than being welcomed as a rational response to a social and economic
need for better demographic data. In some respects the Bill was poorly drafted,
but its basic intent was laudable, and it contained a number of provisions that
were to be put into effect later in the century.

New LPS features

Debates in population history

This issue also includes the second of our ‘Debates in population history’,
introduced for the first time in the last number. Arising from Chris Galley’s
article in LPS 73 (2004) entitled ‘Social intervention and the decline of infant
mortality: Birmingham and Sheffield c.1870–1910’, Michael Drake and Chris
Galley discuss the provision of health visitors at the end of the nineteenth and
early twentieth centuries, the value of the advice they gave, and their potential
impact upon infant mortality.
Sources and methods
As advertised in my last editorial, we now introduce another new feature to the journal under the title ‘Sources and methods’. This item will consider a range of sources and methods commonly used in local population history. These will vary in sophistication and complexity, but are intended to be of benefit to the broad LPS readership, and will be accompanied by worked examples. Each item will be written by an experienced population history practitioner, and will usually address both the possibilities and the pitfalls of the respective sources and methods under discussion. We hope to be able to include this item in every issue of the journal, but if this does not prove possible it will feature in the Spring issue each year. Andrew Hinde has kindly taken responsibility for coordinating this item, and provides the first offering by introducing ‘The components of population change’.

Electronic sources for local population studies
A further new item, which will appear periodically rather than regularly, is introduced in this issue under the title ‘Electronic sources for local population studies’. The first article under this heading is provided by Humphrey Southall, who presents a guide to the considerable collection of sources that have been collated and digitised by the Vision of Britain project based at the University of Portsmouth, creating a web-site called A Vision of Britain through Time. The article provides a guide to the structure of the web-site, and explains how local researchers can navigate its ‘many millions’ of pages of information to best effect.

LPSS projects
Women’s work in industrial Britain: regional and local perspectives
While this volume has been an unconscionably long time in the making, its genesis rooted in an LPSS conference held as long ago as 1996, it will shortly be going to press. It will contain some key articles that have been previously published in LPS or elsewhere, and a roughly equal number of newly commissioned pieces. The full contents are as follows:

1. Introduction: working women in industrial Britain – Nigel Goose.
2. Diverse experiences: the geography of adult female employment and the 1851 census – Leigh Shaw-Taylor.
3. The female labour market in English agriculture during the industrial revolution: expansion or contraction? – Pamela Sharpe (reprinted from Agricultural History Review, 47, 1999).
5. The straw plait and hat trades in nineteenth-century Hertfordshire – Nigel Goose.
7. Married women and work in nineteenth-century Lancashire: the evidence
of the 1851 and 1861 census reports – J. McKay (reprinted from LPS 61, 1998).


14. From Harliland to Hartley: marital status and occupation in the later nineteenth century – Christine Jones.


It will be published in summer/early autumn of this year, and is expected to retail at a price of £16.95 (plus £2 p.& p.).

Agricultural labour and agrarian society in England and Wales, 1700–1970

At the last meeting of the Executive Committee of LPSS, taken as an agenda item at the LPSS AGM, it was agreed to adopt a volume with the provisional title Agricultural labour and agrarian society in England and Wales, 1700–1970 as a new publication project. This will be discussed further at the next LPS Editorial Board meeting in June, and further details will be provided in due course.

Readers are reminded that the Society and the Board will consider any publication proposal within the general remit of local population studies, which includes associated areas of social and economic history.

Editorial matters

I would like to correct an error I made in my last editorial, where I referred to Enid Hunt, the author of ‘Household size and structure in Bassingham, Lincolnshire, 1851–1901’, as ‘Edith’. Enid, please accept my apologies.

My thanks go as usual to Ken and Margaret Smith for typesetting this issue.

Nigel Goose
April 2006
The sixth Local Population Studies/Local Population Studies Society conference was held at the Faculty of Law, University of Hertfordshire, in St Albans, on Saturday 8th April 2006.

Michael Drake, of the Open University, began proceedings with the first plenary lecture of the day entitled ‘the life and times of infant diarrhoea’. Any suggestion of comedic intent in the title was rapidly dispelled as Michael presented a handful of sobering statistics relating to the contemporary prevalence of a condition that hospitalises approximately 20,000 infants in the United Kingdom each year, and causes an estimated 2–3 million deaths globally. Worldwide health policies have reduced diarrhoeal mortality over the last quarter century, when there were an estimated 4–5 million deaths per year, but the condition still ravages the underdeveloped world. Diarrhoea is a symptom of infections and conditions such as cholera, dysentery and malnutrition, and yet it can be treated relatively easily using oral rehydration therapy—a simple solution of water, salt and sugar. Preventative measures are similarly elementary, and have also been shown to be effective. These include access to clean water and sanitation; hygiene education; promotion of breastfeeding; improved weaning of infants; immunisation against conditions such as measles; clean food and water; and the sanitary disposal of waste.

According to Michael, there are obvious parallels between the contemporary global situation and Britain over a century ago. Just as the least developed countries of the world are most vulnerable today, so too were the poorest socio-economic groups of Britain. The early proposals for amelioration were also broadly similar to those advocated by contemporary health organisations today, as local authorities looked to improve water carriage and sewage disposal systems, as well as to promote improved infant care practices.

While the late-nineteenth and early-twentieth centuries were a period of generally declining mortality, the level of infant mortality was rising over the 1890s. The years 1896–1901 were particularly problematic, for example, as a combination of low rainfall and hot summers resulted in increased rates of diarrhoeal death amongst children under the age of one. Historians, however, have been reluctant to investigate this particular phenomenon. Anne Hardy’s *The Epidemic Streets*, for example, explicitly ignored the subject. Yet as Michael reported, British parliamentary papers are packed with the reports and surveys of the Registrar General and local Medical Officers of Health, detailing not only...
the incidence of infant diarrhoea, but also the measures undertaken by local authorities to tackle the problem. Statistics published in 1913, for example, illustrated the considerable geography of infant deaths ascribed to diarrhoea. In towns with a population over 20,000 the diarrhoeal infant mortality rate varied from 4–50 per 1000 births, with the highest rates typically (though not exclusively) in the north. The statistics also showed a good correlation between deaths from diarrhoea and the overall infant mortality rate. By the early-twentieth century, however, infant deaths from diarrhoea were fortunately beginning to decline. Why was this so?

Michael suggested that this decline could be accounted for by the increasing number of macro-level initiatives undertaken by local authorities. Progress, however, was geographically diverse. In 1912, for example, 43 per cent of the population lived in towns that did not have a complete water carriage system. There was, it seems, a basic correlation between levels of infant deaths from diarrhoea and the provision of this kind of sanitary infrastructure. Of the 20 towns with the highest rates of infant death, most did not have a complete water carriage system. There was a similarly uneven geography in terms of domestic sanitary infrastructure. Many local Medical Officers of Health recognised that private water closets were much healthier than shared privies, and hence some local authorities resorted to subsidising landlords’ costs of converting domestic toilet facilities. Progress was slow and variable, however. In Glossop in 1911, for example, whilst there were 652 houses with their own WCs, there were also 201 households sharing only 100 privies.

Progress was also being made in other areas of preventative health. Following the 1907 Notification of Births Act, local authorities initiated schemes for health visiting. Again, there was considerable variation in practices. There may well have been as many as 750,000 visits made by health visitors to the homes of new parents in 1912, yet Camberwell in London, with a population in 1911 of 261,000, still had no official visitors. By contrast, the authorities in Middlesborough had instigated an official investigation as early as 1903, finding that factors such as poor feeding practices (including the notorious long-tube bottle) were associated with diarrhoeal deaths.

The lecture concluded with an implicit call for future research. The evidence illustrated the remarkable diversity and variation in levels of diarrhoeal infant mortality in Britain at the turn of the twentieth century; a situation that is reflected more globally in the present day. However, the lecture also indicated how localised initiatives could be effective in reducing diarrhoeal deaths, a finding that highlights the importance of local contexts in understanding secular mortality change.

Understanding the local context was also the key to the first paper of the seventeenth- and eighteenth-century panel of the conference. Andy Gritt, of the University of Central Lancashire, presented his analysis of a mortality crisis and its effect on household structure in seventeenth-century Broughton, Lancashire. Thanks to Wrigley and Schofield, it is well known that there were various national mortality crises across the early-modern period, such as that
of the 1720s. Analysis of Broughton’s burial registers also reveals a localised crisis of similar magnitude in the 1670s. Andy’s research indicates that approximately one third or one quarter of the population died in this three-peaked mortality crisis over the years 1667, 1670 and 1672. The patterns are intriguing, with each peak exhibiting a unique pattern of seasonality and variation in the gender and age composition of those dying. Furthermore, Andy’s analysis appeared to suggest that, rather than whole families being wiped out, only individuals from households were dying. This lowered the average household size, but did not fundamentally alter the household structure.

Alysa Levene, of Oxford Brookes University, followed with a paper examining the comparative morbidity and mortality of foundlings in the eighteenth century. Alysa explained that infants abandoned to the London Foundling Hospital were not in fact accommodated in the Hospital itself, but rather were sent out to rural wet nurses, before returning to the Hospital at the age of five years. Using the records of the Foundling Hospital, as well as parish reconstitution data for three rural parishes in which foundlings were nursed (Epsom and Chertsey in Surrey, and Hemsworth in the West Riding of Yorkshire), it is possible to look at infant health in both an urban and rural perspective. In fact, as Alysa concluded, it is difficult to talk of a clear-cut urban and rural dichotomy, although different environments did create variable experiences of disease for the foundlings. On the one hand, foundling infants were found to be fatally weakened by the experience of abandonment, and therefore their ‘rural’ mortality experience was different from that of other infants in these host parishes. On the other hand, the deaths of foundling children in wet nursing communities also reflected their greater exposure to a more varied and open disease environment. By contrast, the morbidity and mortality experience of children housed in the Foundling Hospital itself reflected very much the institutional nature of the care, indicated, for example, by the greater prevalence of infectious and epidemic disease.

The final paper of the morning session was presented by Stuart Basten, of the Cambridge Group for the History of Population and Social Structure, University of Cambridge, who examined smallpox inoculation strategies in Georgian Newcastle-upon-Tyne. Once again, it was difficult not to see how important local contexts are when trying to understand historical change. In this case, Stuart was examining the changing number of smallpox inoculations performed by the Newcastle Dispensary. This institution had been founded in 1777, and almost from its inception set about trying to prevent the loss of ‘some 200 lives’ per year through the promotion of inoculation. Initially, they experienced a great deal of difficulty in persuading parents to inoculate their children, before realising that one of the principal obstacles was the necessity of a parent to nurse their child in the weeks after inoculation. They thus offered to pay nursing parents a ‘gratuity’ of 5s., but take-up remained sporadic. Even at the turn of the nineteenth century, when the dispensary began to offer Edward Jenner’s cow-pock inoculation, the number of inoculations performed was static at around 200–400 annually. The public appear to have remained
stubbornly resistant to inoculation, at least until 1805 when a smallpox epidemic struck South City. This appears to have prompted the public to act, since the number of inoculations jumped, peaking at around 1,800 per annum by the close of the decade. The number declined thereafter, settling again at around 200 per annum in the 1820s. When debates about vaccination still rage today, this examination of late-eighteenth and early-nineteenth century Newcastle is a useful reminder of public scepticism of science and the medical establishment.

The afternoon began with the second plenary lecture of the conference, given by Eilidh Garrett of the University of Cambridge. Under the heading ‘Infant life chances in nineteenth-century urban and rural Scottish communities’, Eilidh reported some of the findings of a larger ESRC-funded research project being undertaken by herself and Alice Reid, also of the University of Cambridge. Given special access to the civil registers for a number of Scottish districts in the period 1861–1901, the project explores the dynamics, and the varied socio-economic and environmental contexts, of infant mortality in the late nineteenth century by linking registrations of births and deaths with data from the population census.

The lecture began with a reminder that, in contrast with the current situation, Scotland was a much healthier place than England and Wales in the late nineteenth century. There were, however, stark differences between different parts of Scotland and between town and country. The thrust of Eilidh’s argument was that these differences, and the true patterns and causes of changing infant mortality, can only be revealed through analysis of disaggregated or local data. This argument was developed through analysis of data for Kilmarnock and Skye. The former had a well-developed industrial sector which employed around 40 per cent of the population at this time and created environmental problems, including smog. In the latter, primary industries predominated: half the adult population were crofters and a further quarter were farmers or fishermen. These contrasts were reflected in differing experiences of infant mortality: levels were steady in Kilmarnock through the latter part of the nineteenth century, whereas on Skye they fell rapidly after 1897. However, Eilidh also highlighted a conundrum, in that infant mortality on Skye was much higher for the first month of life.

While it is clear that there was a broad causal link between infant mortality rates and environmental and socio-economic factors, the precise nature of the link is often difficult to discern since ‘cause of death’ was either recorded under very general headings or simply given as ‘unknown’. The latter was especially common on Skye, where medical practitioners were comparatively rarely involved in the registration of deaths. Eilidh noted that such vagaries in the data make systematic analysis difficult and causal connections uncertain. However, further understanding of the bulge in neo-natal deaths on Skye could be achieved by studying the geography of these events. By mapping such incidents, Eilidh was able to show that they were strongly concentrated into three parishes in the north of the island and into specific communities within these parishes. She suggested that these clusters of deaths might be
caused by local environmental factors or by particular birthing practices, perhaps brought across from other Scottish islands where infant tetanus was a particular problem.

The lecture ended with a reiteration of the central argument: that analysis of infant mortality based on aggregate statistics should be augmented by one based on local data. As this work on Scotland makes clear, this reveals a clearer and often surprising picture of processes and causal relationships, highlighting the importance of particular local circumstances within overall trends and patterns.

This same concern with the knotty questions which face us when we try to make sense of local patterns, events and experiences, was central to the paper which followed. In it, Paul Glenister of the University of Essex noted that the influenza pandemic which swept across Europe in 1918/19, causing around 20 million deaths, had a particular pathology and geography, at least in Essex. It caused much higher mortality rates than other epidemics and was especially prevalent in the ‘metropolitan’ areas in the south-west of the county. Paul argued that such patterns are, broadly speaking, predictable: these were, after all, the most densely populated and poorest districts. However, earlier influenza epidemics in the county had displayed a very different epidemiology, and one that is far less easily explained. The 1892 epidemic, which formed the focus of the paper, had brought death rates similar to those of the later pandemic, but had struck most severely the largely rural districts in the centre of the county. As Paul explained, the reasons for this remain largely unstudied and unknown: age-profile and levels of wealth have little explanatory power; nor do local topography or geology. Those in the audience were unable to suggest alternative explanations, and thus, by implication, suggested the need for further research on the detailed geography and epidemiology of epidemic diseases.

Following this analysis of a disease which tends to strike the poor and frail, Peter Razzell of the University of Essex focused on some of the peculiar hazards of wealth which manifested themselves particularly in the late eighteenth and nineteenth centuries. Beginning with a series of statistical tables, Peter highlighted that neither the gentry nor the aristocracy were especially long-lived. Indeed, aggregate figures suggest that mortality rates were broadly comparable to those of labourers. This surprising similarity was explained in terms of the life-style of the wealthy, in particular their over-indulgence in terms of eating and especially drinking. The consequences of gluttony was a theme which occurred over and again in satirical cartoons in the late-eighteenth and early-nineteenth centuries, with the Prince Regent epitomising the corporeal consequences of consuming to excess. Whilst these presented particularly striking images, Peter developed his argument through reference to the contemporary medical literature, which displays some awareness of these hazards. He also presented data on the weights of aristocratic customers of a well-known London wine-merchant. Whilst being impressionistic, these also confirm that many of the aristocrats who were weighed would now be termed obese.
Appropriately in what is often known as the ‘graveyard shift’ (at the end of the conference) Paul Newton-Taylor, also of the University of Essex, gave a paper on the burial practices of selected Kentish parishes. Burials are generally taken to be of people who had died in the parish, but as Paul explained there was a significant movement of corpses between parishes, including those who were to be buried alongside a previously deceased husband or wife, those being repatriated, or simply those returned to their ‘home’ parish for burial. Comparing the number of burials with the number of deaths recorded in a small number of registers that were transcribed by Michael Drake in the 1960s and are now held as part of the ESRC data archive at the University of Essex, Paul was able to show that there were notably more burials than deaths in the parishes studied. Looking at the names of those recorded in the two sets of records reveals considerable differences: there was a net inflow of corpses, but this was the product of a much greater movement of bodies into and out of the sample parishes. Many of those apparently dying but not buried were very young unbaptised children. These babies and infants were not entered into the burial book, since they had not been baptised, but were registered as deaths, often with names being given. Such individual tragedies, the broader traffic in corpses of which they were part, and the wider social and economic networks which linked together individuals in neighbouring parishes only come to light through detailed local analysis. Again, what Paul’s research highlights is the importance of local population studies in understanding wider demographic trends and processes.

Thomas Nutt  
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BAPTISM TO MARRIAGE RATIOS AND THE RELIABILITY OF LATE-SEVENTEENTH CENTURY SCOTTISH PARISH REGISTERS

Karen Cullen

Dr Karen Cullen recently completed her Ph.D. at the University of Dundee and is currently Lecturer in Scottish History at UHI Millennium Institute at Inverness College.

Introduction

Pre-civil registration Scottish historical demography has received much more limited attention from historians than that of some of its closest geographical neighbours. English, Scandinavian, and particularly French population studies are greater in number, cover a larger proportion of the population and are more advanced in their methods. In contrast, many topics of early modern Scottish population history remain unexplored, mainly due to the comparably poorer quality and quantity of surviving demographic sources. Studies of the Scottish population before the establishment of civil registration in 1855 are reliant for the calculation of births, deaths, and marriages on the Old Parish Registers; records of baptisms, marriages, proclamation of banns, and burials, kept by individual parishes from the sixteenth century. However, the records are by no means complete and some parishes have few, if any, surviving registers. The information contained within them varies between parishes and over time. The geographical distribution of those registers is heavily skewed towards the lowland regions of the country and many parts of the Highlands and Islands have few extant registers before the end of the eighteenth century, making quantitative study of the population in this distinctive region impossible before this period.

The reliability of Scottish registers has been discussed in the past few decades by a number of historians, in terms of the issues both peculiar to Scotland and those common with the pre-civil registration records of other countries. Although many are sceptical about the usefulness of the registers, modern historians have certainly proved more willing to make use of the data than their predecessors. Robert Houston declared, for example, that ‘While poor for some purposes, Scottish parish registers do not perhaps deserve the blanket condemnation they have received from nineteenth century reformers and some twentieth century historians. Each needs to be assessed on its individual merits, and the fullest possible use made in conjunction with other documents in order to throw more light on the workings of Scottish local society’. Such a comment almost certainly relates to the type of damning criticism levelled by H.M. Registration Examiner, G.T. Bisset-Smith, who declared that 'For the
purposes of statistical science, the parish registers kept in the pre-compulsory registration period in Scotland are almost quite useless’. He described the old parish registers as containing only ‘meagre entries’ kept with ‘irritating irregularity’.4

It is the aim of this article to examine the problems posed by the use of Scottish parish registers to extract useable quantitative demographic data and to highlight the ways in which local and national political and religious changes impacted upon the church’s recording of vital events in the late seventeenth and early eighteenth centuries. The particular period studied is a range of 20 years between 1685 and 1705, surrounding the national mortality crisis during the famine of 1695–1700. Parishes have been selected on the basis of quality of the registers and solely from those 186 registers which had been previously tabulated for two demographic studies of this period.5 Although there are problems associated with all pre-1855 Scottish population studies, investigating population change during the last decade of the seventeenth century poses unique difficulties which must be addressed before demographic analysis can take place. This period is significant in terms of a watershed in the recording of the majority of vital events within the registers of the established church, due to the reorganisation of church government under Presbyterianism after the Revolution of 1688. Consequently, the reliability of registers kept during this period has been questioned, but no systematic study has yet been attempted to determine whether this was indeed a serious problem. This paper focuses on the ways in which baptism and marriage registers were affected by the social, religious, economic, and political changes of the late 1680s and 1690s. Control and choice over the timing and location of the celebration of these ceremonies was clearly more flexible than that of burials, and thus a greater number of factors could alter the registration of the first two events. In order to determine the reliability of the records of baptisms and marriages, therefore, the ratios between the two have been calculated to test whether or not they represent adequate substitutions for the identification of the birth to marriage relationship. The first and largest problem faced when using these registers, common to the use of non-Scottish pre-civil registration material, is that they do not exactly represent the data which are being sought: births and marriages.6

Baptism registers

Baptism registers before the later eighteenth century are considered to be the most reliable of the three register types. These were the records most commonly kept by parishes and have therefore survived in greatest numbers. In addition, the majority of babies born in Scotland, particularly before the later eighteenth century, were baptised, and most very soon after birth,7 thus baptism registers can be argued to be fairly representative of births. Despite Rosalind Mitchison and Leah Leneman’s claim that, ‘There was no strong pressure to get children to the font quickly after birth since baptism was not necessary for salvation’, it is apparent that most parents preferred early baptism for their children in the early modern period.8 Certainly it is evident
that parents of a weakly child which seemed unlikely to survive sought almost immediate baptism, with a small percentage of baptisms carried out on the actual day of birth. Although the length of time between birth and baptism varied from parish to parish, the majority of baptisms were carried out within one week of birth.\textsuperscript{10}

Andrew Blaikie examined the accuracy of baptism registers in three north-east parishes from the second half of the eighteenth century to the nineteenth century, by which period baptism registration is believed to have been much less complete than in the earlier period, partly due to the impact of the act of 1783 which imposed a 3d. tax on records. Using the 1851 census he identified people born within the three parishes and cross-referenced the parish registers for records of their baptisms. Blaikie concluded that the data contained within the parish registers were reliable with only 9.2 per cent of births not being registered as baptisms between 1751 and 1851.\textsuperscript{11}

On the other hand, the opposite problem, double registration of baptisms, did take place in some parishes. This occurred when a baby was taken to a different parish to be baptised, but the event was recorded in the registers of both parishes. Nevertheless, in most parishes such examples occurred infrequently and, on the whole, the baptism registers of this period have not received as much criticism by historians as marriage registers.

\textbf{Marriage registers}

The links between marriage registers and actual marriages celebrated are complicated by a number of factors. Firstly, some parishes did not record the date or event of marriage, but that of the marriage contract, or proclamation of the banns in the church. James Stark claimed that of all register types it was only the proclamation of banns, ‘which have been kept with anything approaching to accuracy’.\textsuperscript{12} These registers, however, as Michael Flinn pointed out, were often only records of the fee paid to register the proclamation, or ‘consignation money’, and as such were not always maintained as separate registers from the kirk session minutes and accounts.\textsuperscript{13} Furthermore, Stark failed to identify the complexities of the relationship between proclamations registered and those marriages which were formalised. Proclamations were the declaration of intent to marry which were recorded before the marriage ceremony. Examination of those registers often provides detailed information about both intended spouses, but it is impossible to tell by study of proclamations alone whether the marriage actually took place. Because both brides and grooms had to have their request to marry granted in their own parish, marriage proclamations for one event are frequently recorded in two parishes. Often the date of marriage was later inserted into the proclamation register to confirm that the ceremony had taken place, even when it occurred in another parish. Analysis of the registers of Caputh (Perthshire) and Ayr (Ayrshire) parishes, which recorded both proclamations and marriages, led to the conclusion that the number of marriages not solemnised following a proclamation was actually very small.\textsuperscript{14} However, most parishes did not register both events and even
those that did occasionally allowed one register to lapse, or failed to record vital details which would permit comparison.

Even those registers which recorded the actual marriage ceremony varied in content from parish to parish. Some provided only details of the marriage of female parishioners, as a woman would traditionally be married in her home parish. Others recorded the marriages of all males and females from the parish, whether the ceremony actually took place in the parish or not—thus one event could be recorded twice. If marriages were double registered in both the bride and groom’s parishes on a regular basis, this would give an excessively high level of marriage. Of course marriage did not always take place in the woman’s home parish, it could have taken place in the man’s parish or even in a third parish to which neither bride nor groom had any residency claims. The proclamations had to be registered in both home parishes, but provided a record of this was given, couples were occasionally married elsewhere. An example of this is found in the kirk session minutes for Abernethy parish (Perthshire) in November 1695. The session recorded the proclamation for marriage of a couple, both of whom were residents of the adjacent parish of Newburgh (Fife), ‘in regard they have no min[iste]r and that parochine comes here for sermon’.

Alternatively, Pamela Sharpe’s study of marriages in Colyton parish, Devon, in the late seventeenth and early eighteenth centuries revealed that if couples lived closer to the church in another parish they were less likely to marry in their own parish. The general impression taken from the Scottish marriage registers is that this was less common and couples marrying in a parish in which neither of them was resident frequently attracted comment, as in the above example.

Irregular marriage

This issue of registration is further complicated by the existence of irregular marriage which took place outwith the church. Mitchison and Leneman identified three different types of irregular marriage: ‘verba de praesenti, that is the statement of consent by both parties’ or verbal agreement to live as a married couple, ‘verba de futuro, a promise of marriage in the future, followed by sexual intercourse’, and ‘by habit and repute’ when ‘a couple [were] living together and regarded as married’ by family, friends and neighbours. These types of marriage were recognised by both the church and the law, as ‘the irregularity lay solely in the way the union had been initiated, not in its legal status once established’. The key problem with the existence of these types of marriage is that they were not recorded in the parish register and cannot, therefore, be included in the data collected. If a significant proportion of all marriages in Scotland were formed by these means, rather than performed by a minister of the established church, then calculations based on marriage registers would seriously underestimate the number of marriages taking place. If baptism to marriage ratios return excessively high numbers of baptisms taking place per marriage then this would be an indication that the numbers of irregular and unregistered marriages was indeed fairly high.
The greatest difficulty associated with the interpretation and use of marriage registers is that far fewer marriages took place and were recorded than any other vital event. In addition, they tended not to be distributed regularly across a 12 month period as was more normal in the case of baptisms and burials, making gaps in the register less easily identifiable. However, Michael Drake identified a test for under-registration of marriages using English parish registers that could also be applied to the Scottish registers. He stated that the ratio of marriages to baptisms should be approximately 1:4 or 1:5, but that ratios of 1:7 or 1:8 would indicate under-registration as ‘this would mean a rate of marital fertility far higher than any other evidence we have would suggest was possible’. E.A. Wrigley identified the marriage to baptism ratio in English parishes 1675–1699 at 1:4.45. The important difference when considering how this would apply to Scottish registers is the existence of common law marriage not solemnised by established church ceremonies. This would indicate that the ratio between the two types of register should be higher, but the extent of irregular marriage cannot be fully measured. Mitchison and Leneman compiled figures from a sample of kirk session records identifying the number of irregular marriages that were later registered by couples. Their figures highlighted large regional differences with particularly high numbers in the south-west of the country, but crucially very few irregular marriages were identified before the late 1680s, after which point there was a small increase in numbers with significant increase only beginning in the 1720s and 1730s.

Disruption to registration in the late seventeenth century

Religious change in the hierarchy of church government disrupted the registration of vital events in many parishes in Scotland at a time when economic and demographic crises impacted upon the population altering the birth, death and marriage levels. This factor in part caused, and in part increased, many of these registration problems experienced in the late seventeenth century and at least the first half of the eighteenth century.

The key event from which many of the registration problems stemmed, particularly those relating to marriages, was the change in church government from Episcopalian to Presbyterian following the Glorious Revolution of 1688–89. In the south of the country many Episcopalian ministers were forcibly ejected from, or voluntarily vacated, their parishes. Between 1689 and 1702 this accounted for an estimated 664 ministers out of approximately 900 parishes. The registers of many parishes contain gaps during the 1690s, as there was a vacancy between the departure of an Episcopalian minister and the settlement of a Presbyterian one. In the north-east, and particularly Aberdeenshire, where Episcopalian adherence was strong, many ministers continued in their stipends. Some of those ejected set up illegal meeting houses to provide an alternative type of worship to the ‘imposed’ Presbyterianism. Despite the fact that it was illegal for an ‘outed’ minister to perform either baptisms or marriages, it is clear that some Episcopalians did choose to have these ceremonies performed outside of the established church and risk the censure of church discipline. These ceremonies which took place outwith the church were
frequently not recorded in the parish registers resulting in under-registration of both events. Tyson claimed that in Aberdeenshire, where religious dissent was greater than in other regions, by the mid-eighteenth century: 'Episcopalian baptisms were so numerous that these established church registers are virtually useless for giving any indication of population trends. But this is not a serious problem before 1695 when only a handful of Episcopalian ministers had been ejected.' This watershed date at the very beginning of the famine period obviously poses a problem to the identification of baptism trends. The number of baptisms recorded during the famine would have fallen as the number of births fell in response to the crisis. However, this trend would indicate an exaggerated demographic crisis if a greater number of baptisms are ‘missing’ from the established church register of a parish during this period because they were carried out illegally by an outed minister. This would probably be noticeable in the baptism trends after the famine period as levels neither returned to normal, nor showed evidence of post-famine recovery. In effect, examination of Longside parish registers (Aberdeenshire) revealed very little difference in the baptism to marriage ratio. The extent to which illegal baptism ceremonies significantly altered the trends of baptisms and marriages recorded before 1705 is probably very low.

The increase in irregular marriage from this period was also connected to the reorganisation of the church under Presbyterianism. James Stark of the General Registrar for Scotland Office estimated in 1865 that, “during the whole of the eighteenth century, a third of marriages had been irregular.” Chris Smout highlighted the end of the seventeenth century as the start of the growth of irregular marriages, which in the parish of South Leith (Midlothian) by the 1740s actually outnumbered regular marriages. The extent to which this issue causes problems for the estimation of marriage trends in the earlier period being studied is probably not very serious. South Leith and Edinburgh in many ways are exceptional in terms of the numbers of irregular marriages; particularly due to the residence there of a large number of Episcopalian ministers, and before 1705 the number of irregular marriages recorded in other parishes was extremely small, often less than one per year. That they were rarely recorded, of course, does not mean that they did not actually take place, but frequently the couple actually admitted their irregular marriage to the established church in order to have it registered, a particularly important step for a couple requiring the baptism of their child. One of the prime motivations for a kirk session to pursue and register a couple who had married irregularly was so that they could be ‘rebuked, admonished, and ordered to pay the charges’. In light of this it is likely that kirk sessions would have a financial as well as an ecclesiastical interest in seeking out parishioners who resorted to marrying outwith the established church. For example, Coldstream kirk session cited only two couples as guilty of irregular marriage between December 1690 and December 1700. The pursuit of the first case in 1694, however, clearly had an ecclesiastical motive as it involved one of the parish elders of the established Presbyterian Church, Alexander Trotter, who was suspended from his position after he was married ‘clandestinly and irregularly by ane Episcopal minister at Edinburgh.’ A combination of the importance of
proper marriage registration for couples requiring the baptism of their children and the ecclesiastical motives of Presbyterian kirk sessions, mean that identification of irregular marriage was probably fairly accurate. Since few parishes recorded many irregular marriages before the end of the period selected for this study, it is unlikely that this had much impact on the marriage trend.

What is evident therefore, is that the identification of demographic trends and any changes during this period is not only hampered by the original problems associated with church registration of vital events through records of religious ceremonies, but also through changes in the reliability of those records to reflect the numbers of such ceremonies actually taking place. Simultaneously, the demographic crisis of the late 1690s and the resultant temporary change in population trends may help to mask any otherwise obvious changes in the quality of record keeping.

The calculation of baptism-marriage ratios

In order to determine whether parish registers of this period are useable, the ratios of baptisms to marriages have been calculated for Scottish parishes to compare with the more reliable English figures. Parishes were selected for which both baptism and marriage records were extant without breaks for a minimum of 10 years of the 20 year period studied. Only records for which the actual date of marriage was provided were included. Harvest years (October to September) were used instead of calendar years since this was how the tabulated data had been recorded for the studies by Flinn and Cullen. Due to the selection criteria placed upon registers, the combined tabulated data obtained from the demographic studies of this period returned only 13 parishes with useable data. This low number was primarily an issue related to gaps in registration and the paucity of useable marriage registers. Even within the selected 13 registers, these problems meant that results for some parishes could only be obtained for part of the period studied.

A number of issues relate to how representative the selected parishes are and consequently whether the results can be said to reflect Scottish trends. The first is that the geographical range of the parishes represented is limited to lowland regions, predominantly from the eastern part of the country. Parishes from only 9 of the 34 Scottish counties are represented with 4 parishes included from a single county, Perthshire. The second is that out of approximately 900 parishes in Scotland, this sample is based on only 13 of them, less than 1 per cent of all parishes. This figure is low, but not incomparable to the proportion of parishes included in the extensive study of The population history of England, which relied on results from a maximum of 404 parishes out of an approximate 10,000. It certainly would be possible to extend this study to include more parishes, particularly if only the standard ratio—the ratio of baptisms to all marriages—was used, although the numbers would be severely restricted by the problems associated with the sources and the geographical biases would not be altered, since surviving registers exist in both the greatest quantity and
quality for these particular regions. For example, in the north and north-west of the country, seven counties—Shetland, Orkney, Caithness, Sutherland, Ross and Cromarty, Inverness-shire and Nairnshire—with a total of 114 parishes, have no single parish with baptism and marriage registers which are unbroken for ten consecutive years during this period.

After selection, two different ratios were calculated for each parish. Basic baptism totals were used for each, but two different definitions of marriage registration were used. Firstly all marriages which took place in the parish were used to define the standard ratio. The problem when examining marriage registers is consistency of content. In order to compare baptism to marriage ratios between parishes, therefore, it is necessary to compare records of the same type of event.33 The second set of results used only those marriages recorded in which the bride was a parishioner. Neither method is, of course, ideal. There certainly would have been cases in which women were married outside of their parish of residence without a record of the ceremony being made in their home parish. This may especially relate to women migrating to urban parishes. Equally, due to the preference for early baptism and other religious factors, children were frequently baptised outwith their parish of residence.34 Since complete registers do not exist for all baptisms and marriages during this period, it is not possible to identify all of the baptisms or marriages of parishioners of a single parish.
The average of the standard ratio, 3.662 baptisms to every 1 marriage, falls below Drake’s suggested average of 4 or 5 baptisms to every 1 marriage. By contrast, the average ratio including only the marriages of female parishioners, 4.129 baptisms to every 1 marriage, falls just inside it. The difference between the two ratios is not great, but if the former figure is indeed too low to accurately represent the true ratio of baptisms to marriages in Scotland, then clearly this would support a need for caution to be employed when using data contained within marriage registers. In most parishes there was little difference between the two figures indicating that marriage registers generally were records of female parishioners’ marriages. For Caputh the two ratios were exactly the same since the register only recorded the marriages of female parishioners. Uniquely, in August 1695, two entries recorded male parishioners producing testificates of proclamation (records of proclamation of the banns

<table>
<thead>
<tr>
<th>Parish</th>
<th>County</th>
<th>Baptism-marriage standard ratio</th>
<th>Baptism-marriage ratio (marriages of female parishioners only)</th>
<th>Harvest year range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alloa</td>
<td>Clackmannanshire</td>
<td>3.948:1</td>
<td>5.083:1</td>
<td>1693–1704</td>
</tr>
<tr>
<td>Ayr</td>
<td>Ayrshire</td>
<td>3.995:1</td>
<td>4.713:1</td>
<td>1688–1704</td>
</tr>
<tr>
<td>Campbelltown</td>
<td>Argyllshire</td>
<td>4.840:1</td>
<td>5.124:1</td>
<td>1688–1703</td>
</tr>
<tr>
<td>Caputh</td>
<td>Perthshire</td>
<td>2.230:1</td>
<td>2.230:1</td>
<td>1685–1700</td>
</tr>
<tr>
<td>Dumfries</td>
<td>Dumfriesshire</td>
<td>3.897:1</td>
<td>4.431:1</td>
<td>1685–1704</td>
</tr>
<tr>
<td>Jedburgh</td>
<td>Roxburghshire</td>
<td>4.176:1</td>
<td>4.438:1</td>
<td>1685–1704</td>
</tr>
<tr>
<td>Kinnaird</td>
<td>Perthshire</td>
<td>3.521:1</td>
<td>4.201:1</td>
<td>1685–1704</td>
</tr>
<tr>
<td>Melrose</td>
<td>Roxburghshire</td>
<td>3.752:1</td>
<td>3.804:1</td>
<td>1691–1704</td>
</tr>
<tr>
<td>Methven</td>
<td>Perthshire</td>
<td>3.862:1</td>
<td>4.233:1</td>
<td>1694–1704</td>
</tr>
<tr>
<td>Monifieth</td>
<td>Angus</td>
<td>3.302:1</td>
<td>4.382:1</td>
<td>1685–1704</td>
</tr>
<tr>
<td>Strathblane</td>
<td>Stirlingshire</td>
<td>2.580:1</td>
<td>3.146:1</td>
<td>1690–1704</td>
</tr>
<tr>
<td>Average</td>
<td></td>
<td>3.662:1</td>
<td>4.129:1</td>
<td>1685–1704</td>
</tr>
</tbody>
</table>

issued by kirk sessions) with women from another parish, however, no record of the actual marriages taking place were made and as such they were omitted from the total of actual marriages celebrated. By contrast, in Jedburgh beginning in harvest year 1700 there was a significant number of marriages recorded in which either the bride, or both partners, were resident in another parish: 1700 – ten, 1701 – three, 1702 – six, and 1704 – four, compared to only four previous instances of such types of marriage recorded between harvest years 1685 and 1699. In Strathblane, a similar alteration in record keeping occurred with marriages in which the female partners were resident in another parish regularly recorded between harvest years 1690 and 1699, but none appeared in the following five years. As such, inclusion of these marriages in any estimation of marriage numbers in Jedburgh and Strathblane significantly inflates the marriage rate in those particular years. Of the number of non-resident marriages taking place in Jedburgh and Strathblane, very few can be attributed to couples or brides belonging to a parish with a ministerial vacancy. However, it is difficult to account for the frequent short absences of ministers from their parishes which could lead to a couple being married elsewhere. Some examples of non-resident marriage took place because the minister of the resident parish was actually preaching elsewhere and a couple proclaimed in his parish and due to be married on that particular day simply accompanied him to the other parish to celebrate their marriage there. Thus the marriage was recorded in the register of the parish in which it actually took place, but may have also been recorded later in the parish of proclamation. For example in 1702 a bride from Ayr and her groom from the neighbouring parish of St Quivox were married in the church of St Quivox by the visiting minister of Ayr, although the event was recorded in Ayr’s marriage register.

In Monifieth, the regular registration of marriages in which either the bride or the bride and groom were resident in another parish, meant that the difference between the two ratios was significant. The total number of marriages in that parish was 24.6 per cent higher than the number of female parishioner’s marriages. Thus, a straightforward comparison of the standard baptism to marriage ratio between this parish and a parish such as Caputh would not provide comparable results.

The average baptism to marriage ratios for the period harvest years 1685–1704, and particularly that which includes the marriages of female parishioners only, would seem fairly compatible with those calculated for England during the late seventeenth and early eighteenth centuries: 1680–1689 3.989:1, 1690–1699 4.369:1, and 1700–1709 4.127:1. Analysing the calculation of the baptism to marriage ratios for individual Scottish parishes, however, provided varying results outwith this range. Both Wrigley and Drake suggested that the key problem relating to the calculation of baptism to marriage ratios in England was the reliability of marriage registration. Wrigley claimed that although the ‘expected’ ratio is between three and five baptisms to every one marriage, local circumstances could significantly alter this. He explained that a particular church may have been ‘unusually popular and attracted couples to marry there though neither partner lived in the parish’. Alternatively, the under-registration of
marriages which consequently produced inflated fertility levels was a particular problem of late seventeenth-century registration. Ratios of six or eight baptisms to every one marriage were not uncommon and even returns over ten were recorded.41

Due to the problems associated with the registration of marriage in Scotland throughout this period it has been assumed that marriage registers were more unreliable than baptism registers as indicators of vital events. The results displayed in Table 1 indicate that registers were not generally unreliable, and the very low ratios returned in some parishes indicate that when registration was questionable it was not marriage registers that were at fault. However, it should be noted that this would not highlight cases in which both types of events were under registered. The marriage register for Caputh (Perthshire) returned the lowest baptism to marriage ratio, a little more than 2:1 between harvest years 1685 and 1700. The reasons for this are unclear. Non-resident baptisms made up a very small proportion of baptisms recorded in Caputh, only 4.9 per cent, and are considered to have had very limited impact on the accuracy of the register. The registers kept during the ministerial vacancy, between 1701 and 1705 were deemed to be defective and were not included.42 Even despite this, the ratio is much too low, indicating levels of marital fertility far below the average. Clearly there is a serious problem with the way in which these particular registers have been kept, as the presumption is that too few baptisms were recorded.

**The baptism-marriage ratio in Caputh (Perthshire)**

One obvious possible indicator that Caputh’s baptism register is inaccurate during this period is that the baptism trend was remarkably unresponsive to the famine of harvest years 1695 to 1699. If the overall number of baptisms of babies born in the parish was affected by the famine, which is likely, it seems implausible that the number of baptisms among babies born to parents who did choose to have them baptised in the parish did not also fall. The reduction in marriages between harvest years 1697 and 1700 indicates that the marriage trend was affected by the crisis. This would correspond to a national drop in marriages, particularly in harvest years 1698 and 1699,43 and is unlikely to be due to a short-term preference for couples to marry in other parishes. The reduction of baptisms after 1700 to half of the previous level is accounted for by the absence of a minister from harvest year 1701. The majority of babies born during the vacancy were presumably baptised in neighbouring parishes, those registered as baptised in Caputh were probably baptised by supply ministers. The failure of marriage levels to fall equally significantly could be due to the fact that couples would have been able to wait to celebrate their marriage until a supply minister was available and that perhaps a smaller proportion of marriages rather than baptisms were performed outwith the parish.

The crucial point this example demonstrates is that in this parish it is likely that the marriage register is much more accurate than the baptism register. There are, however, a few possible alternative explanations which suggest that the
registers were not necessarily badly maintained. Firstly, there may have been restricted employment opportunities for married women in the parish, therefore women married in the parish, but moved away shortly afterwards and as a result their children were born and baptised elsewhere. An example of this was given by Anderson and Morse’s demographic analysis of Borders parishes in the late nineteenth and early twentieth centuries which revealed very low fertility levels. They explained that women were not able to retain their jobs in textile mills when married which acted as a disincentive to marriage.44 It is, though, highly unlikely that by the late seventeenth century there would be such levels of local economic specialisation, particularly in this upland Perthshire parish. Textiles were an important part of the local economy, which women would have been engaged in, but on a part-time basis within households also engaged in agriculture.45

The other two possibilities are more likely and both presume that more children were born in the parish than were actually baptised by the established church. The first is that there were a large number of Catholics in the parish. The ratio would be skewed because it would be more important in terms of church discipline to be married in the parish church, but easier to get away with not registering a baptism.46 This option also seems unlikely since the church registers for Caputh and the surrounding parishes do not indicate any problems relating
to large numbers of Catholics who did not conform to the discipline and authority of the established church.\textsuperscript{47} Related to this issue of course, is a matter that is a specific problem when using parish registers from the post-Revolution period: non-conforming Episcopalianism. The trends in the registers could be unrepresentative if either large numbers of parishioners opted to have their children baptised or marriages solemnised by deposed Episcopalian ministers. To some extent this was reduced by the ‘Act concerning the Church’ of July 1695 which, in light of the continuing religious problems in the north-east and the lack of replacement Presbyterian ministers throughout the country, stated that Episcopalian ministers prepared to take the Oath of Allegiance could continue in their stipends.\textsuperscript{48} On the other hand, it is unlikely that the figures for illegal Catholic or Episcopalian ceremonies could have been large enough to produce such a low baptism to marriage ratio. The examples provided in James Gordon’s Diary of the ceremonies that he performed at the Episcopalian meeting house in Montrose (Angus) are very small in number.\textsuperscript{49}

Although the last suggestion seems to be the most plausible explanation of why so few baptisms occurred in the parish, the actual reasons for this very low baptism to marriage ratio remain uncertain. These issues cannot all be dealt with here and clearly much more investigation of the links between Scottish baptism and marriage registers and their reflection of births and marriages is necessary. What should be considered, however, is that the famine crisis could play a part in skewing the ratio. Caution must be exercised especially when analysing marriage registers from a period of high adult mortality. If significant numbers of widows or widowers remarried then this could inflate the marriage level within the baptism to marriage ratio.\textsuperscript{50} Despite the famine that occurred in Scotland in the late 1690s, marriages did not increase significantly either during or in the years immediately after the crisis.\textsuperscript{51} It seems unlikely, therefore, that excessively high numbers of marriages were celebrated in the wake of the famine and consequently this cannot be the factor responsible for some of the low baptism to marriage ratios uncovered.

**Conclusion**

Without more extensive study both of a greater number of parishes and over a longer time period it is difficult to determine how representative these results are. Smout argued that it was only with the beginning of civil registration in 1855 that it was ‘possible to consider marriage in a quantitative manner’.\textsuperscript{52} Tentative conclusions from this small sample, however, indicate that marriage registers of this period for lowland Scotland are not as unreliable as previously estimated. Indeed, it is possible that baptism registers need to be examined with a greater degree of caution than currently exercised. Ultimately, despite the difficulties of using late seventeenth-century Scottish parish registers to provide demographic data, it is evident that by comparison with the results obtained from English registers, Scottish registers can produce usable and meaningful results.

Without further research, such as carrying out a detailed family reconstitution study, it is not possible to confirm whether the results obtained in this paper
really do indicate that Scottish marital fertility levels were slightly lower than English levels during the late seventeenth and early eighteenth centuries. Unfortunately, the two current localised family reconstitution studies in Scotland are both based on a later time period and are focused on only one particular aspect of demographic experience—illegitimacy—and can thus provide no supporting data for these conclusions. On the other hand, this study has demonstrated that late seventeenth-century Scottish parish registers would not appear to have suffered from the same type of registration problems as in parts of England. Nevertheless, examining Scottish registers on an individual basis, as suggested by Houston, reveals the extent to which registration varied widely between parishes and that caution must be employed when contrasting the results of marriage registers in particular. It seems crucial to approach comparisons between the data obtained from different parishes with an element of caution. The point that can be supported by this sample, however, is that marriage registers did not under-represent the number of marriages taking place in Scottish parishes.

NOTES

1. In 1552 the Church ordered that parishes were to keep registers of baptisms and proclamations of banns, and in 1565 requested that burial registers should also be kept. The earliest surviving parish register is for Errol (Perthshire) which records baptisms from 1553. M.W. Flinn et al, Scottish population history from the seventeenth century to the 1930s (Cambridge, 1977), 46–7. The author would like to thank Professor Chris Whatley, Dr Mary Young and the Local Population Studies Editorial Board for their many helpful comments and suggestions relating to early drafts of this article.


3. Houston, ‘Births and baptisms’, 44.


5. K.J. Cullen, ‘Famine in Scotland in the 1690s: causes and consequences’ (unpublished Ph.D. thesis, University of Dundee, 2004). Flinn, Scottish population history, tabulations of baptisms and marriages from the research papers of this text are held by the School of History and Classics, University of Edinburgh. The author is grateful to the School and in particular Professor Michael Anderson for access to the papers.


7. Flinn, Scottish population history, 49.


13. For example, in Caputh between October 1685 and September 1705 only nine proclamations were recorded that did not result in marriages, General Register Office for Scotland (hereafter GROS), Old Parish Register (hereafter OPR) 337/1, Caputh Marriages 1671–1719.
14. GROS, OPR 326/1, Abernethy kirk session minutes, 10 November 1695.
28. Ibid., 10, 16.
29. GROS, OPR 733/2, Coldstream kirk session minutes, 2 December 1694.
30. English parish registers were not, of course, immune to all of these problems either, some of these issues are discussed in Wrigley and Schofield, *Population history of England*, 89–103.
31. The data for Campbeltown in Argyllshire relates to the lowland congregation only.
33. Differing illegitimacy ratios could, of course, be a cause of different baptism to marriage ratios between parishes and regions. Mitchison and Leneman, however, despite acknowledging that Scottish illegitimacy ratios were higher than in England prior to the 1750s, nevertheless claimed that illegitimacy in Scotland was low in the late seventeenth century and that regional variation was not as marked as in the nineteenth century. Mitchison and Leneman, *Girls in trouble*, 75, 122–3.
34. The numbers of non-resident baptisms recorded in a parish varied significantly. For example, in Abernethy parish Perthshire, between October 1690 and September 1705 the numbers ranged from one to ten per year, but were never more than 19.6 per cent of the yearly total of resident baptisms. In Aberdalgie (Perthshire), however, during the same period, non-resident baptisms actually outnumbered resident baptisms in harvest years 1698 and 1702. GROS, OPR 326/1, Abernethy Baptisms 1690–1733, and OPR 323/1, Aberdalgie Baptisms 1615–1819.
35. GROS, OPR 337/1, Caputh marriages 1671–1719, 10 and 24 August 1695.
36. GROS, OPR 792/1, Jedburgh marriages 1669–1772.
37. GROS, OPR 491/2, Strathblane marriages 1678–1819.
39. GROS, OPR 578/7, Ayr marriages 1687–1761, February 1702.
42. GROS, OPR 337/1; H. Scott, *Fasti ecclesiae Scoticae: the succession of ministers in the church of Scotland from the reformation*, vol. 4: synods of Argyll and of Perth and Stirling (Edinburgh, 1923), 147.
52. Smout, ‘Scottish marriage’, 204.
WHAT CAN DADE REGISTERS TELL US ABOUT INFANT MORTALITY IN THE LATER EIGHTEENTH CENTURY?

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Introduction

In recent years, population historians have drawn our attention to the potential for study in a corpus of highly detailed parish registers for Yorkshire and other areas of the north of England. The order for fuller registration was given by Archbishop Markham of York in 1777, following the ideas of a local clergyman, William Dade, apparently to improve the quality of parish records as legal evidence. The fullest of the registers which are collectively given Dade’s name contain considerable detail on the genealogy of each subject, and most record dates of birth as well as baptism in baptismal registers, and causes and ages of death in burial registers. They thus offer particular potential for the calculation of accurate infant mortality rates, which are prone to distortion by the usually undisclosed time elapsing between birth and baptism. Babies who died during this interval (which appears to have been lengthening over the eighteenth century), were not recorded in baptismal registers, while those who died around a year after their baptism may in fact have been considerably over a year in age. The impression of fuller coverage, and the inclusion of corroborative age information in Dade registers, should improve our ability to reach accurate measures of infant mortality. This is valuable to improve our understanding of one important aspect of past demographic trends, and also because infant mortality is frequently taken as an indicator of socio-economic conditions in local communities. Death rates for early age categories, therefore, have great significance for our ability to assess the healthiness (or otherwise) of English communities, and to predict wider demographic trends.

In this article, data from three West Yorkshire parishes are scrutinised to investigate how much the additional Dade-type details add to our understanding of infant mortality. Ultimately, several ways in which the registers appear, in fact, to be defective in coverage are highlighted, to degrees which differ considerably from parish to parish.

That Dade registers present problems for historical demographers is not a new finding, and may stem from the aim to improve the registers as legal evidence rather than to establish universal registration. Although Roger Bellingham,
who first drew attention in print to the nature of the records, presented them as full of potential, more recent studies have discovered incomplete coverage of infant deaths. In a recent article in *LPS*, Chris Galley highlighted problems of coverage in Dade’s own parish of St Olave, York, and work by Stuart Basten at the Cambridge Group for the History of Population and Social Structure has also produced what seem to be unfeasibly low infant mortality rates (IMRs) in eight parishes which kept Dade-style registers. My own work has uncovered similar problems in two Yorkshire parishes being investigated for other purposes. The authors of these studies concur in suggesting that certain infants escape registration altogether in these parishes, so that although the registers are notably detailed, they do not cover the whole resident population. Whether the missing infants represent a particular sub-population is, however, extremely hard to determine. Galley has suggested that they might comprise nonconformists, illegitimate children, or the very young, all of whom had a raised risk of not being baptised, or were baptised outside the Church of England. All of these suggestions are eminently sensible, and there is some limited evidence of under-registration of illegitimates in St Olave York. Galley’s, Basten’s and my own work all also point to a lack of coverage of deaths at very young ages. This article will also consider what types of infants were missed from registration. Before this, however, it will address how the additional information contained in three Dade registers affect the resulting IMRs which can be calculated. It will also consider how this compares with the
earlier, non-Dade period.

The three parishes selected for investigation here are Ackworth, Ilkley and Rothwell, all in the West Riding of Yorkshire (see Figure 1). All three show elements of Dade characteristics in their registers, although to differing extents. Ilkley began to record a greater level of detail from 1777 onwards, but in Rothwell, Markham’s instructions on Dade’s ideas did not take effect until 1782, and then somewhat patchily. In Ackworth, however, a greater level of detail had been recorded in the ecclesiastical registers for some time prior to 1777, at the instigation of an efficient incumbent, the Reverend Timothy Lee. In this parish, the ‘Dade’ period is taken to begin in 1755, although ages at death were recorded in the burial register from 1744. None of the three parishes recorded extensive details on genealogy, but all include dates of birth, ages at death, and causes of death for at least part of the later eighteenth century.

Data for all three parishes were recorded in databases for the period 1748 to 1801, and family reconstitutions were carried out in each case. This produced IMRs for the whole period, and also for shorter time spans such as the Dade period (different in each parish). Although the data could be treated in near-identical ways, it is important to record at the outset that the three parishes were quite different in terms of size, location, and socio-economic circumstances, which might lead us to expect that they might have different levels of infant mortality. Indeed, they were deliberately chosen for their differences in these respects. Ackworth was a rural village in the south of the West Riding, numbering 1,432 souls in 1801. Ilkley was an even smaller community and a market town to the north-west of Leeds, housing 426 people in the parish itself in 1801, although another 300 lived in the adjacent townships of Middleton, Nesfield and Langbar (and registered their vital events at the Ilkley parish church). Rothwell was substantially larger, south of Leeds, and today part of its inner suburbs. The parish housed 4,776 people in 1801, matched by the numbers in surrounding townships. This profile alone might lead to a priori expectations that infant mortality in Rothwell would be higher than in Ackworth and Ilkley, given its proximity to Leeds and the industrialised cloth-making belt of the West Riding. Ackworth and Ilkley were, in contrast, more isolated, and Ackworth in particular, was noted for its healthfulness.7 These a priori assumptions will be a valuable consideration in assessing the accuracy of IMRs calculated for the respective parishes.

Calculating infant mortality via family reconstitution

Family reconstitution is the most commonly accepted method of calculating mortality rates for individual parishes, by linking burials recorded in parish registers to baptisms via parental marriages.8 Deaths of people who registered no other vital events in the parish are thus not included, providing a clearly defined ‘at-risk’ population. Although this has the disadvantage of not considering transient migrants, resident people who cannot be linked to a marriage (such as the never-married, or illegitimates), and non-Anglicans who did not record their vital events in the church registers, it does provide rates for the settled, Anglican population. In the absence of Dade-type information,
Table 1  Infant mortality rates (IMRs) per 1,000 live births for Ilkley, Ackworth and Rothwell, 1748–1801

<table>
<thead>
<tr>
<th>Parish</th>
<th>IMR (1q0)</th>
<th>N baptisms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ilkley</td>
<td>65.4</td>
<td>1,101</td>
</tr>
<tr>
<td>Ackworth</td>
<td>78.1</td>
<td>1,229</td>
</tr>
<tr>
<td>Rothwell</td>
<td>70.2</td>
<td>6,179</td>
</tr>
</tbody>
</table>

Source: Parish reconstitutions
Note: These are valid baptisms only, discounting those of illegitimates, those with missing information on child’s forename or surname, or father’s name, and any obvious duplicate entries.

the age of the deceased is reached by subtracting the date of baptism from date of burial. Although this has little impact on the age at death calculated for adults, as noted above, for infants it may produce a significant underestimation of age. A child who died two months after baptism may, in fact, have been four months old, if the interval between birth and baptism was itself two months. More importantly in this case, a child who died 11 months after baptism and therefore counted as an ‘infant’ for the purposes of calculating mortality rates, may actually have been 12 or 13 months, and not properly an infant (‘infant’ being conventionally defined as 365 days or under). Nonetheless, baptismal dates are frequently the only available proxy for age, and initial rates for the three parishes considered here were calculated in this manner to preserve comparability.

The IMRs for the three parishes for the period 1748 to 1801 are presented in Table 1. It is immediately apparent that all are low for the second half of the eighteenth century, although the period of coverage means that any change in registration in the Dade period cannot be entirely responsible. Wrigley et al have calculated a rate of 162.8 deaths per 1,000 live births for the period 1750–75 in 26 English parishes, and the lowest of the 26 rates taken individually was 92, which is still notably higher than those found here. Two of the 26 parishes were located in Yorkshire, and both did have relatively low IMRs compared to the group as a whole, but again they were significantly higher than those for Ilkley, Ackworth and Rothwell: 134 per 1,000 in Methley, and 128 in Birstall. A range of corrections have been suggested by historical demographers to compensate for deficiencies in parish registration, which would raise the rates reported here. Nonetheless, infant mortality as calculated by family reconstitution was notably low in these three Dade parishes, even when the period is extended back in time to the mid-eighteenth century. The sense of unease over these figures is compounded when we consider the types of parishes under scrutiny. While we might be happy to accept that a small rural parish like Ackworth really did have a benign mortality regime for infants, it seems less likely that a more densely populated parish like Rothwell, which was in an industrialising area of the West Riding, had IMRs as low as 70 per 1,000. For comparison, Steven King suggests levels of 170–180 per 1,000 for the industrialising West Riding township of Calverley-cum-Farsley. Given that
Basten’s work on Dade parishes has also returned low rates from the late 1770s onwards, we will now proceed to consider if, and how far, the Dade period of registration affected the rates presented here.

Table 2 presents IMRs for the pre-Dade and Dade periods separately. It should be remembered that these time-frames are different in each parish: in Ackworth the ‘Dade’ registration starts in 1755, in Ilkley in 1777, and in Rothwell in 1782. The early recording of extra details in Ackworth means that the pool of baptisms in the earlier period is very small (79 cases), and the IMR for these years should be treated with caution. In all cases, IMRs in the pre-Dade period are somewhat higher than for the whole period, although in Rothwell the difference is extremely small. The trend is complicated, however, by the fact that this was a period of falling infant mortality nationally. Since the Dade period started late in Rothwell in particular, the pre-Dade measure may be depressed by capturing part of this fall. In the other parishes, the lower IMRs for the Dade era may reflect a genuine fall in infant mortality. It is also possible, however, that Dade’s ideas did change the process of registration, resulting in less complete coverage and unrepresentatively low IMRs for this period.

Certainly, the Dade period of registration in Ilkley produced extremely low IMRs of 48.5 per 1,000. For this parish, therefore, there is some evidence to suggest that the Dade process of registration did produce a lower level of coverage of infant burials, although some of the fall may be due to lowering infant mortality more widely. In Rothwell, however, there was no notable fall in IMRs coincident with the Dade period, despite the wider mortality shifts. In all cases except Ackworth, where numbers of baptisms were small before the more detailed registers started to be kept, IMRs were below those found for the 26 parishes reconstituted by Wrigley et al, even prior to Markham’s instructions.

This comparison of mortality during different periods of registration has, therefore, muddied the waters somewhat. It seems that the situation was not as clear-cut as considerations of the Dade period alone have suggested, and that IMRs were either extremely low, or suffering from under-registration, earlier in the half-century also. This is explored further in Figure 2, where data on cumulative infant deaths over the first year of life have been plotted using the
The logarithmic transform first put forward by Bourgeois-Pichat. The method was originally used to differentiate between mortality caused by endogenous factors, which were already carried by the infant at birth (such as congenital disease, prematurity or the result of birth trauma), and exogenous causes such as infectious disease. More recently, scholars have pointed out that the method of regression used may have an impact on the level of endogenous mortality returned, and that we should be cautious in interpreting the results of this type of analysis. On a more straightforward level, however, the Bourgeois-Pichat method indicates the rate at which deaths accrued over the first year, and can point to deficiencies in registration. Classically, the trend line produced by this method lies close to a straight diagonal. A curved line may indicate under-registration, where deaths fail to accrue at the predicted level. Figure 2 shows data for Rothwell, distinguishing between registration periods.

It is interesting to note that in all three periods (Dade, pre-Dade and total) the mortality rate at the end of the first year is very similar in this parish, indicating that, in sum, neither registration nor levels of mortality changed much over time. It is possible that a fall in infant mortality was compensated for by more accurate recording of infant burials during the Dade period, but...
this runs counter to all other evidence on the impact of Dade registration. Over
the course of the first year, however, the accumulation of infant deaths differed
between periods. In the earlier registration phase, deaths accrued at the
standard rate; the trend line is close to a straight diagonal. This implies that
there was not unexpected under-registration at particular ages; if deaths were
missed, it was at a constant rate over the first year. During the Dade phase,
however, death rates were lower than expected in all the early age categories,
indicated by the curved shape of the line at the left-hand side. The data for the
period as a whole lie somewhere between the two sub-periods. The data for
Rothwell, therefore, suggest that, despite a concurrence in overall IMRs, there
was indeed under-registration of burials during the course of the first year of
life in the later period, and especially in the early part of the first year. This is
not necessarily the case elsewhere, however: in Ackworth, infant mortality
during the Dade period does conform to a straight line when plotted, albeit at a
considerably lower level than that for the full period. This may again be related
to the dominance of the Dade period over the full time-frame in this parish.
The issue of differences in different parishes is one to which we will return. In
the meantime, we leave the discussion of varying levels of mortality calculated
in the traditional manner, to examine the impact of the uniquely Dade-type
information on IMRs.

The impact of Dade registration on infant mortality calculations

It has already been noted that the principal features of Dade-style registration,
in terms of its impact on infant mortality, are the recording of ages at death and
dates of birth. These details are not unique to Dade registers, as the fact that
they were recorded several decades before 1777 in Ackworth shows, but their
presence in a large number of registers in one part of the country may be very
significant for our impression of regional mortality. What impact do these
pieces of information have on infant mortality calculations?

I: Date of birth

In order to test this question, IMRs were recalculated, using dates of birth to
determine age at death, rather than dates of baptism. It will be remembered
that this creates a more accurate picture of age at death by confining the pool of
‘infant’ deaths to those who truly were infants. Some Dade registers (including
Ackworth’s) record dates of death as well as burial, but these tend to be only a
few days apart, as opposed to potentially several months in the case of births
and baptisms. For the Dade period, the recalculation produced IMRs of 44.7
per 1,000 for Ilkley, 73.8 per 1,000 for Ackworth, and 48.2 per 1,000 for
Rothwell. In Ilkley and Ackworth, this is only a few points lower than the rate
calculated using dates of baptism.17 This is the direction of change which
would be expected from the fact that some infants are now found to be too old
to count in IMR calculations, albeit perhaps only by a matter of weeks. In
Rothwell, the discrepancy is much greater: 70.0 using date of baptism, 48.2
using date of birth. This may be related to two factors. The first is that the lag
between birth and baptism was considerably longer there than in the other two

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parishes. In Ackworth, an average of 34.3 days passed between birth and baptism, and this was relatively unchanging over the last three decades of the century. In Ilkley, the lag was higher in the 1770s and 1780s (79.2 and 69.8 days), but had fallen by the 1790s to 40.2 days. In Rothwell, however, the average time elapsing was 62.2 days, and was still in the mid-60s in the 1780s and 1790s, albeit reduced from the 1770s. This means that a greater number of young deaths will be found not to have occurred under the age of one year, and the resulting reduction in mortality may be real in that it reflects the use of more accurate information. The second factor to be borne in mind for Rothwell, however, is that dates of birth were never recorded as consistently as they were in Ilkley and Ackworth. It is not clear why some baptisms had a date of birth recorded and some did not; it may be as simple as the clerk or minister not always remembering to ask the parents when their baby was born. If we confine the calculation of mortality only to the pool of baptisms where a date of birth was recorded, however (since entries without this information by default cannot produce an age at death), the IMR emerges as 60.5 per 1,000. This is much closer to the rate produced using dates of baptism, and represents a more appropriate at-risk population. Using the date of birth information in Dade registers, therefore, lowers IMRs slightly, and has highlighted the importance of considering local factors to do with registration on a parish by parish basis. The latter point continues to stand when we use the age at death information recorded in the burial registers.

II: Age at death

In this case, burials are not linked to corresponding baptisms; instead deaths recorded as being of infants age one or under are related simply to the number of valid baptisms. This is clearly a much simpler method of calculating mortality, since the record-linkage process is a relatively time-intensive one, and may represent a significant advantage of Dade registers. It does, however, produce a less tightly defined pool of infants, since ‘one year’ was a far more likely age label than 364, 365 or 366 days. This will be discussed further below. The method produced IMRs for the three parishes which were generally higher than the original rates calculated via reconstitution and using dates of baptism: 83.5 in Ilkley, 95.8 in Ackworth, and 52.4 in Rothwell. Again, the numbers of infant burials involved are relatively small: 43 in Ilkley, 109 in Ackworth and 149 in Rothwell, which raises the need for caution in accepting the exact levels produced. It is noteworthy, however, that the rates in two parishes are now higher: have we picked up some previously missing burials?

Unfortunately, it seems unlikely that matters are this straightforward. Firstly, it is possible that some of these infant burials were not of infants born in the parish, which confuses the definition of the ‘at-risk’ population. If some of these newly-included infant burials do not appear in the baptismal register because they died before they had been baptised (or had been baptised elsewhere), they ought to be added to the ‘at-risk’ population, or they represent the death of someone who was never counted as present in the first place. Secondly, much depends on the accuracy of age-at-death information. In all cases, comparison with ages calculated by linking dates of birth and death
shows that there is relatively little discrepancy between what the clerk recorded and the child’s true age. The largest margins of error tended to be of children recorded as age one, who were actually either considerably younger, or nearer to the age of two. In Ilkley, for example, three infants who were allegedly one year old at death were in fact 48 days, 91 days, and 587 days old respectively. Generally speaking, however, discrepancies are not large, although they might affect relatively large numbers of children: in Rothwell, 54 children labelled as dying at age one or under were actually past their first birthday when they died. Age at death information does, therefore, increase the numbers of visible infant burials, but there are doubts over how this affects the accuracy of resulting IMRs.

Conclusions

It is clear that few of the estimates of mortality made here approach the range of values found in national studies. We should beware of dismissing low levels of infant mortality as deficient out of hand, but the use of parishes of very different sizes and socio-economic profiles should perhaps make us suspicious of near-uniformly low levels as have been reported here. Ultimately, the evidence does point to some under-registration of infant deaths in these parishes, as has been found for others in the Dade group. Gloomy though this sounds, there are several positive outcomes to emerge from this study.

The first and most simple is the ease that the increased detail lends to the process of family reconstitution. This may seem somewhat ironic, since the evidence suggests that we must be cautious in how we interpret the results of reconstitution in these parishes. Nonetheless, the inclusion of maternal names in particular, as well as corroborating information on ages, makes the reconstruction of families very much easier. These details are not unique to Yorkshire, although they are particularly concentrated there. The second positive conclusion of the study is the way that it has highlighted the importance of the state of individual registers, even within the Dade-style corpus. The registers for Rothwell were never as uniformly well-kept as those for Ilkley, for example, while those for Ackworth were particularly detailed. Ironically, the Ackworth registers were not improved because of Dade’s influence; the increased level of detail from mid-century seems to have been the result of internal decisions. This affects how much can be added to the accuracy of IMR calculations, especially where, as in Rothwell, extra detail is patchy. This was highlighted when information on date of birth was used: in Rothwell, attention had to be paid to the definition of the pool of baptisms which could be related to infant deaths. Different parishes may have taken up Markham’s Dade instructions to varying degrees, and from varying dates, and we cannot assume that they represent anything like a homogeneous corpus of registers.

The third positive conclusion of this study is that the extra details provided by the Dade-style registers do allow us to refine and broaden the pool of infant deaths. This enables us to be more accurate in writing about the mortality of
certain groups of the population, most notably infants who were buried unbaptised. Figure 2, however, illustrated that there does seem to be deficient registration of infant burials. Galley’s suggestion of missing illegitimates, nonconformists, or unbaptised infants all stand in the current case also. Illegitimacy rates are not unduly low in these parishes; nor were the baptisms of illegitimate infants marked out with particular disapprobation (further than the marker ‘base born’). Occasional mention of the appearance of Quaker or Catholic infants suggest that non-Anglicans used the parish church to register certain events, although we cannot tell how uniformly this was true. Several examples from the Ilkley registers illustrate some of these scenarios. William and Mary Blacoe registered their marriage in the parish church during the Dade period, and the burials of three children. None of the three children was baptised in Ilkley, but at least two were infants when they died. It is possible that this couple were simply not very active Anglicans; marriage and burial were, after all, the two vital events which could scarcely be avoided through lack of participation in church life. Alternatively, they may have been nonconformists, with facilities for their own baptismal arrangements, but not for burials. Finally, the Blacoes may simply not have had time to register their children’s baptisms before they died. This seems to be a likely group of infants to be missed from baptismal registers, especially where birth-baptism intervals were long. Other missing baptisms may indicate migration: David and Mary Curtis, for example, first appear in the Ilkley registers burying their eight-month old daughter, Martha, in 1789. They went on to baptise four more children in 1790, 1792, 1793 and 1795. This family may have moved to Ilkley after their marriage and Martha’s birth, and then continued to participate in community life. Alternatively, Martha may have died very soon after birth, and was never baptised. It should be noted that unbaptised babies under Anglican doctrine were not seen as sharing the fate of Catholics, who would go to limbo in eternity. There was, therefore, less imperative to rush the baptism of a sick baby, although there is evidence that this did sometimes happen.18

We may never know what types of infants were omitted from baptismal registers in these parishes, or if there was even this amount of method to it. Galley noted in his study of St Olave that the greater detail characteristic of the Dade parish registers was not there to improve the state of knowledge about the population. The evidence used for the current study confirms this, and suggests that it may have been particularly true for infants and young children. In Rothwell, for example, only 22 per cent of infants identified as dying under one year by linking baptisms and burials were given an age in the burial register: the majority of infant burials thus provide no information on their age. This was less true in Ilkley and Ackworth, where 75 and 83 per cent of infant burials respectively were labelled as being one year or under. It is quite possible that clerks were more concerned to record the details of adult burials, especially since Markham’s instructions on the state of the registers stated that his intention was to improve their reliability as pieces of evidence. It was much less likely that information on a child burial would be called upon in a court than that of an adult, and Dade may have changed the priorities of parish clerks in this part of the country in pressing for registration reform.
Is it possible, therefore, that Dade registers may tell us more about adult burials than those of children? Calculating adult death rates is a much more complicated process than for infants, and local historians and historical demographers may be put off the task. It may, nevertheless, be a fruitful avenue of research. We should continue to bear in mind the state of individual registers, however. The Ackworth burial register covers a wide range of adult causes of death: for example, from old age, through consumptions and fevers, to killings, dropsy, childbed and diabetes. In Rothwell, in contrast, it was only the most ‘interesting’ deaths which were described: almost all of the 30 adult deaths with a cause ascribed were the result of accidents. We must conclude that Dade registers were neither uniform in coverage nor complete. This should not, however, deter us from using them to discover more about local epidemiology, record-keeping, lineage, inheritance and migration; we must simply be careful about the assumptions we make as to representativeness.

NOTES


9. Wrigley *et al.*, Table 6.4, 226 and Table 6.16, 270–1. The lowest rate was found for Bridford in Devon, and is for the period 1675–1749.

10. Wrigley *et al.*, *English population history*, Table 6.16, 270–1. The rates are for the period 1675–1749. Basten, ‘The environmental and economic context’ also found extremely low rates of infant mortality in eight Yorkshire parishes with Dade registers.


13. In each case, the pool of baptisms is one year shorter than that of burials, to ensure that the deaths of infants born in the final year are captured.


16. See, for example, C. Galley and N. Shelton, ‘Bridging the gap: determining long-term changes in infant mortality in pre-registration England and Wales’, *Population Studies, 55* (2001), 65–77. They note that the use of quadratic regression (the most common method, and that used here), may over-state endogenous mortality, compared with a linear regression. Galley and Shelton also note that there may be more meaningful explanatory age categories when considering early mortality than endogenous and exogenous, such as neonatal and post-neonatal. For all these reasons, precise age categories are not given much weight here.

17. The number of linked infant burials is small when broken down by time-frame, so we should not place too much weight on the exact levels produced here. The number of infant burials in Ilkley was 23, in Ackworth 84, and in Rothwell, 137.

18. See, for example, Wrigley, ‘Births and baptisms’.
In January 1813, the Act for the better regulating, and preserving of Parish and Other Registers of Births, Baptisms, Marriages and Burials in England, popularly known as ‘Rose’s Act,’ came into effect, the intention being to ‘greatly facilitate the proof of pedigrees claiming to be entitled to real or personal property, and be otherwise of great public benefit and advantage.’ The most familiar manifestation of this piece of legislation was the introduction of standardised, printed forms of parochial registration of baptisms, marriages and burials.

Prior to 1812, apart from the mandatory name and date of event, the registration system of a given parish was often based solely on the whim of its rector, or at best the local bishop. As such, while some areas of the country—Durham and York for example—benefited from a Diocesan drive for better registration, irregularity in the information recorded was common. Some parish registers recorded occupations, others date of birth as well as baptism, others still maiden names, and so on. In introducing the compulsory schedules shown in Figure 1, Rose’s Act imposed uniformity upon a chaotic, heterogeneous system. For Wrigley and Schofield, this represented a significant improvement upon the ‘old, idiosyncratic manuscript registers.’ While the omission of certain key information—such as occupation in the burial registers, and parent’s name if the burial is that of a child—has hindered much demographic research, particularly that employing nominal record linkage, the consistent recording of other data, such as occupation in the baptismal registers, has allowed this post-1813 data to be used in a variety of research projects.

The Act was designed generally to tighten up what had appeared to many as an increasingly failing system. Clause III, for example, reiterated that:

> every such Rector, Vicar, or Curate, or Officiating Minister shall as soon as possible after the Solemnization of every Baptism, whether Private or Public, or Burial respectively, shall record and enter in a fair and legible Handwriting, in the proper Register Book to be provided, made, and kept as aforesaid, the several Particulars described in the several Schedules herein before mentioned, and sign the same; and in no Case, unless prevented by Sickness, or other unavoidable Impediment, later than within Seven Days after the Ceremony of any such Baptism or Burial shall have taken place.
The inclusion of private as well as public baptisms was a significant development in the history of English parochial administration. This was clearly noted in the abstract to the 1821 Census, which stated that the ‘very distinct mention of the Registry of Baptisms ‘whether Private or Public,’ has evidently added to the number of Registered Baptisms, (to an uncertain amount indeed) and in so far has been useful’.

The Act further proposed a tightening up of the procedures regarding the care and accuracy of registers. The origins of these demands can be seen in the record of the Parish Register Bill debate in February 1812, which states why Rose believed that it was ‘was highly desirable [that parish registers]...should be regularly entered, and safely deposited.’ In his role as Treasurer of the Navy, Rose found ‘numberless instances’ where ‘the widows of seamen were not able to prove their marriages’ because the parish registers, ‘instead of being kept in the house of the clergyman of each parish, were kept in a very slovenly manner in the dwelling of the parish clerk.’ Hence, stipulations such as the
specification of the quality of paper, storage in a ‘dry well-painted Iron Chest’ and reform of the system of Bishop’s Transcripts, with the sending of copies to the Diocesan office each June, were promulgated. As well as fighting against ‘culpable negligence’, the Act can also be seen as a response to the numerous scandals of the period, whereby registers were falsified, thus undermining their use as a legal document. This can be observed in the stipulation of Clause V that registers:

shall not...be taken or removed from or out of the said Chest, at any Time or for any Cause whatever, except for the Purpose of making such Entries therein,..., or for the Inspection of Persons desirous to make search therein, or to obtain Copies from or out of the same, or to be produced as Evidence in some Court of Law or Equity, or to be inspected as to the State and Condition thereof, or for some of the Purposes of this Act; and that immediately after making such respective Entries, or producing the said Books respectively for the Purposes aforesaid, the said Books shall forthwith again be safely and securely deposited in the said Chest.

While many of the provisions of the Act seem laudable and useful, both contemporary observers and modern historians have tended to regard the Act as, at worst, a failure, and, at best, a missed opportunity. W.E. Tate, for example, denounced the Act as merely ‘designed for Government jobbery,’ while J.S. Burn, writing in 1829, noted that ‘It has ever since remained subject to ridicule, and without the power of enforcing any of its enactments, except that respecting forgery.’ John Wilkes referred in 1833 to ‘the Act under which all parish registers were still kept, [which] certainly added to the innumerable proofs of the wretched state of our legislation; statutes being indefinitely multiplied without unity of purpose or accuracy of effect.’ These observations, of course, sit in the broader framework of criticism of the evidence upon which demographic analysis of this period can be performed.

The first major criticism which historical demographers might level at the Act, however, is that the data required in the schedules are simply not comprehensive enough. As readers of Local Population Studies will be aware, in areas such as the Dioceses of Durham and York, where large amounts of ‘extra’ information was often recorded in the registers prior to 1812, the passing of the Act had a retrogressive effect upon the quality of demographic data recorded. Indeed, the Vicar of the Durham parish of Auckland St. Andrews referred in 1812 to ‘An act having been passed the last session for altering (I do not think improving) the present mode of registering.’

The lack of data regarding the birth as well as the baptismal date of a child is a particular feature in which the Act was found wanting. This aspect, criticised by G.M. Burrows in his 1818 Strictures on the uses and defects of Parish Registers and Bills of Mortality, was especially salient at this time, as research suggests that the time elapsed between birth and baptism was generally increasing. The calculation of precise age based on birth rather than baptismal date was crucial in determining matters of majority and inheritance. While some clerics did include date of birth in baptismal registers, ‘In several cases, the Courts of Law had decided, that a baptismal registry could not be given in evidence of
the age or legitimacy of a child; as the statement was only an unauthorised declaration, which might, indeed, be true, but might, also, be intentionally false." This was confirmed in the ‘important case of Wiper v. Law, [where] Mr. Justice Bayly ruled that the entry of a date of birth, opposite to the date of baptism, in the parish register, could not be received as evidence; and the Court of the King’s Bench confirmed that opinion by a unanimous judgement."18

A further criticism is that the Act did not provide adequately for the registration of Dissenters. As well as forming a key part of historiographical critiques of the usefulness and reliability of demographic data for this period, this was also a central component of the political attack on the Act in the 1830s.19 A Bill introduced by Lord Nugent in 1832, for example, called for the creation of a General Registry because of ‘the legal problems affecting all because of the dubious status of the Dissenter’s registers as evidence in courts of Law.'20 John Wilkes, MP for Boston and a central figure in the campaign for civil registration, went further, by stating that the exclusion of the ‘not less than 4,000,000’ Dissenters from Rose’s system, and the refusal of ‘a former Master of the Rolls…to receive the copy of a dissenting registry in evidence’ meant that ‘Dissenting registers…were comparatively proscribed; and practical evils, greater than those which the Test and Corporation Acts really inflicted, were yet quietly endured.’21

Rose’s Act, therefore, has attracted criticism from the date of its imposition through to the present day. What is remarkable, however, is that the Bill initially proposed by Rose in the 1810–11 session was quite a different piece of legislation. Not only was the Bill far more inclusive with regard to coverage, the proposed schedules and clauses in the Bill were considerably more comprehensive than those found in the final Act, requiring even more information than the prevailing registers in Durham and York.22 Figure 2 shows the comprehensive schedules initially proposed by Rose in the 1810–11 session. Clearly, the schedules in the Bill not only meet many of the criticisms that were later levelled at the Act—such as inclusion of birth date in the baptismal register and occupational data in the burial register—but actually go much further and, had they been brought into force, would have yielded a demographic gold mine. The specifying of the child’s parents’ marital status; the date of both the mother and the father’s birth; the location and date of their marriage; marital status of the deceased in the burial registers; and date and place of birth of the deceased, as illustrated in Figure 2, represent what would have been a significant improvement upon the schedules as actually implemented.

The criticism of the failure of the Act to include the registration of Dissenters is also addressed if we turn to the original 1810–11 Bill, where we see that the interests of Dissenters were very much included. This is made clear from the respective preambles of the Bill and the Act, with the former referring to ‘His Majesty’s subjects of whatever religion’, while the latter merely concerns ‘His Majesty’s subjects in the several parishes and places in England.’23 Specifically, the Bill provides for ‘the better enabling of all persons in England who do or shall
Figure 2. Original schedules as proposed in Rose's Bill

### BAPTISMS in the Parish of St. A. in the County of B. in the Year 1813.

<table>
<thead>
<tr>
<th>Date</th>
<th>Child's Name</th>
<th>Father/Mother</th>
<th>Occupation</th>
<th>Place of Birth</th>
<th>Marital Status</th>
<th>Date of Baptism</th>
<th>Place of Baptism</th>
<th>Date Married</th>
<th>Place Married</th>
</tr>
</thead>
<tbody>
<tr>
<td>2nd February No. 2. 3rd March</td>
<td>Ann</td>
<td>Wood</td>
<td>Henry March Hill</td>
<td>Windesfer</td>
<td>Single</td>
<td>2nd July 1780</td>
<td>Windesfer</td>
<td>2nd July 1780</td>
<td>Windesfer</td>
</tr>
</tbody>
</table>

---

### BURIALS in the Parish of St. A. in the County of B. in the Year 1813.

<table>
<thead>
<tr>
<th>Date</th>
<th>Christian Name</th>
<th>Surname</th>
<th>Place of Abode</th>
<th>Trade or Profession</th>
<th>Marital Status</th>
<th>Date of Burial</th>
<th>Place of Burial</th>
<th>Date of Death</th>
</tr>
</thead>
<tbody>
<tr>
<td>1813, 1st January</td>
<td>John</td>
<td>Jones</td>
<td>York</td>
<td>Gentleman</td>
<td>Married</td>
<td>September 1770</td>
<td>Wiltshire</td>
<td>14 December 1813</td>
</tr>
</tbody>
</table>
practice Religious Rites and Ceremonies different from those established by Law in the Church of England, to trace their pedigrees, and thereby facilitate the Proof of their respective claims to Real and Personal estates.’24 The Bill stipulated that ‘memorandums’ were to be produced by the ministers of Dissenting chapels for every baptism performed, each containing the following data:

- Birth date
- Sex
- First Name
- Names of father and mother
- Profession, Trade or Calling
- Abode
- Time and place when and where parents baptised
- Time and place when and where ceremony was performed

These ‘memorandums’ were to be delivered to the local Anglican minister within three months of the ceremony. Indeed, it was also specified that information regarding Jews and Quakers was to be collected as well. These parts of the Bill, however, were disposed of before it was finally entered onto the statute books.

The Bill also went much further than the Act in its proposals regarding the management and duplication of parochial registers. Under these proposals, the Archbishops of Canterbury and York were to be given £5,000 and £4,000 to build registries in London and York respectively, which would house the original registers of all of the constituent Archdiocesan parishes. These repositories would be administered by Archdiocesan Registrar-Generals appointed by the Archbishops. Here, the ‘Registrar-Generals’ would not only have been charged with keeping the registers safe, but granted the power to ‘make, sign and certify office copies of any Entry in any of the said books; and all such copies so certified shall be received in evidence in all courts of Law and Equity.’25 This service was to be charged at the same rate of Stamp Duty as in place for the copying of marriage certificates. The Bill stated that ministers were to be forbidden from certifying vital events. ‘Government jobbery’ perhaps, but this proposal was clearly a significant advance towards the centralisation of vital registration in the early-nineteenth century, and in developments towards civil registration and the General Register Office.26

The provisions of the Bill can also be placed in the context of wider eighteenth- and nineteenth-century discourses advocating improved parochial registration, and recognising the importance of registration documents for both individuals and institutions.27 Contemporaries were in no doubt as to the value of a comprehensive system of parochial registration. As well as discussing the importance of ‘proper parish registers’ in diagnosing the medical and moral health of any given community, Burrows remarked that:

**Politically. They are a means –**

1. Of ascertaining the increment or decrement of the population in every place, and at any period

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2. Of accurately ascertaining the population of the country, and at any period
3. Of diminishing, if not nearly superseding, the immense expense incurred by the census
4. Of obviating the difficulties, great expense, and frequent disappointment in proving marriages, burials, baptisms, and burials, to which persons who are desirous of establishing legal proof of their identity, descent, consanguinity, &c. are still exposed
5. The present extensive and beneficial system of assurance on lives, reversionary payments, annuities, and legacy duties on the latter species of testamentary property, is founded on calculations deduced from numerous bills of mortality
6. The prosperity or decay of commerce, manufactures, or trade of any place, is shewn by comparing bills of mortality of different dates.28

Shute Barrington who, as Bishop of Durham, initiated the comprehensive registers of that Diocese in 1798, noted that 'The Father’s Rank, Profession, Trade, &c. is very material...Mentioning the Places of Nativity of the Parents, though attended with some little Trouble, may at a future Time be attended with beneficial Effects. Without such Information, many are the Instances where the Descent of Families cannot be traced.'29 He explicitly stated that ‘Real and extensive benefits would, in my coolest judgement, result from the introduction of a better form of register than that at present in common use. Asserting claims of property, especially maternal property, and the investigation of lineal and collateral descents, would be among those benefits.’30

From a very different source, the registers of the Bethel Independent Chapel in Chester-le-Street likewise stated that:

The reference to the FORMER NAMES OF MOTHERS will contribute evidence of identity, and materially aid in the recovery of estates descending from female ancestors: and the SIGNATURE of PARENTS may supply proofs of the time and the place of the birth, with which a minister is not personally acquainted, and which he cannot therefore legally or effectually attest.31

The Chester-le-Street registers also noted that the inclusion of data regarding place of birth would ‘assist in the ascertainment of parochial settlement.’32 Placing Rose’s Bill within a broader framework of the tightening up and clarifying of poor law entitlement, a significant theme from this period, therefore seems reasonable. This notion is substantiated with the observation that Rose himself wrote extensively on poor relief, and that William Sturges Bourne, arguably one of the leading poor law reformers in parliament at this time, was a strong supporter of the Bill.33 Indeed, aspects of the Bills sponsored by Bourne in 1818 and 1819 have clear echoes of the parish register reform proposed in 1812—particularly with regard to more rigorous administrative procedures, such as the establishment of select vestries, and regular minute-keeping in all parish vestries.34
Examination of Rose’s letters and papers yields little evidence, regrettably, as to the precise motive behind why Rose initiated this particular Bill. However, consideration of his broader interests suggests that he was not a particularly unusual champion. As well as his concern for proper registration arising from his roles as Treasurer of the Navy and an active poor law reformer, Rose can be seen to concerned with broader issues relating to the measuring of population. In 1812, for example, The General Register related an important speech by Rose, in which he discussed at length the economic implications of population growth in the preceding ten years. Perhaps the fact that Rose ‘procured his act to be circulated through the country, courting objections and amendments to it’ suggests an interest, rather than an expertise, in developing effective systems of parochial registration.

These arguments suggest that while the Act could be seen as a retrogressive step, and quite out of line with much contemporary discourse relating to the use of parish registers for wider political and economic purposes, the Bill as proposed in the 1810–11 session was, in fact, the natural culmination of Rose’s motives set against the background of broader agitation towards parish register reform. In short, Rose’s Bill sits within the political economy of the period far better than Rose’s Act. The rest of this paper, therefore, is devoted to uncovering why, when such comprehensive and useful data were initially proposed for inclusion in the schedules, so little made it through parliament, and discovering why Dissenters were excluded from participating in the new system.

The consequence of Rose circulating his Bill had been that many ‘objections and amendments to it’ were, indeed, proposed. So much so that Rose was ‘surprised to find that his intention to bring in this Bill had given considerable alarm to the clergy in many parts of the kingdom,’ and remarked that ‘in the neighbourhood of Epsom a meeting of clergymen had been called on the subject.’ Perhaps in order to gain maximum publicity to their arguments, some of these clergymen applied their ‘alarm’ to paper in the form of cheap, printed pamphlets. Indeed, one of the speeches given at the meeting in Epsom has survived. Using this evidence, it is possible to see how the registers initially proposed in the Bill evolved in response to these clerical anxieties, to end with the diluted form which the Act finally stipulated. The responses also tell us much about prevailing clerical concerns of the day—including attitudes towards Dissent, arguments over the extent to which ecclesiastical officers were bound to perform civil duties, and over how systems of vital registration should be administered.

**Objection to Rose’s Bill**

*Time and effort*

We can begin with the clerical objections to certain practical workings of the Bill as proposed. These can be subdivided broadly into concerns over time, reimbursement and jurisdiction.

The sheer amount of time needed by the cleric to fill in the data required by the Bill was a significant concern. Charles Daubeney, for example, believed that, ‘In
some large Parishes it is supposed that two days in a week will be insufficient for these purposes." Likewise, Samuel Partridge felt that ‘the keeping of Registers according to the Schedules annexed to this Bill, with all its minute enquiries, would occupy the greater part of an hour in every day; and that, attended with much trouble and perplexity.’ This widely held concern led most of the clerics to agree with John Courtenay that, particularly in larger parishes, the new Bill ‘will so occupy ministers with attending to the temporal concerns of their parishioners, as to leave no time for the considerations of those which are eternal.’

The proposals that the registers should be presented to the Magistracy each January incited further wrath. The case put against this inconvenience was demonstrated, rather melodramatically, by Partridge:

Moreover:- In cases very frequent; a poor and perhaps aged Minister, must in every Year walk a dozen miles in the coldest Season, to the nearest Justice, carrying these books, and returning on the same day: Nay, he may walk thrice within the year; as each book shall become filled...and all this, without fee or reward.

It was also feared that the additional responsibility of registering Dissenters and those residing in extra-parochial areas would make great inroads into clerical time. Quite apart from the recording and checking of the Dissenter’s memorandums, ‘The receiving of these Memorandums, by the Minister at any Hour of the Day (or, of the Evening) would render his house a completely open Shop; differing from other Shops in one respect, that there might be constant business, without any profit.’ John Hey, however, extended this concern to its logical extreme. If Dissenters refused to deliver the necessary Memorandums, then, he asked:

Can a Minister know every birth, marriage and burial which takes place amongst the Dissenters in his Parish? Take the Parish of Leeds, Manchester, or that of Halifax ... or any of their chapellies; take the village of Pudsey, where there is a capital Establishment of Moravians; besides several thousands of inhabitants of all denominations...At all these, is a Church Minister to watch every birth, baptism, marriage, funeral; and to examine the memorandums in every particular? And go to a Magistrate and make affidavit if he is not satisfied? What is to become of his parishioners? What of his studies?

A further concern over jurisdiction was the addition of responsibility for extra-parochial places. For Samuel Partridge, as vicar of the Fenland parish of Boston, this meant a considerable added burden:

Drainage and Inclosure are going on throughout the kingdom; as well as in the Fens of Lincolnshire; where, in addition to former Extra-parochial places, Fourteen Thousand Acres (in many parcels) have been sold and inclosed as Extra-parochial, within ten years; to defray the expense of draining and dividing the whole Forty-one thousand. The many evils, attending such Extra-parochial places, are already well known to Magistrates; and need not be here specified. But, why should the
Officiating Minister of Boston receive Memorandums from these places? Thither they will, nearly all, be brought; as the great Market-Town and Mart for Corn and Cattle; and whether any place (without a name) be ‘immediately adjoining’ or not, the Minister must determine at his Peril; and that, with scarcely a particle of benefit to him from all this drainage and inclosure. So, doubtless, it will happen, in many parts of the Kingdom.46

As already alluded to, the cleric was to perform these added functions ‘without fee or reward.’ This caused further concern. However, the insult to injury appears to have been that many clerics would actually lose a significant part of their income. The Bill proposed that the task of copying registers and certificates was to be taken out of the hands of the clergy, and centralised in Archdiocesan Registries. In response to this, Daubeny noted, ‘the Curate of a large Parish in London receives at least forty pounds per Annum, from copies of Registers and Certificates’; the Bill, in creating a far more centralised system of data duplication, absolved the cleric of this responsibility and, hence, its concomitant income.47 Partridge elucidated this point further:

The framers, or the amenders of this Bill, were doubtless unapprised, that in the most populous Parishes (particularly Market-Towns) Ministers are usually the worst provided for; and that a considerable portion of their incomes is derived from granting Marriage-Licences as surrogates; publishing Banns solemnizing Marriages; and furnishing copies of Parish Registers. But this [Bill] would take from them much of this portion of their incomes; while the whole Bill does most wonderfully leave them without recompense, for all the trouble which it casts upon, and the penalties to which it subjects them.48

Likewise, while Dissenters often recorded their vital events in Anglican registers to solidify claims to property, the fee which this registration would previously have incurred would now be waived. Courtenay states ‘Here is an actual robbery; depriving ministers of those fees, which it has been customary to receive, and which in large parishes, I understand, form a considerable part of their income, and occupying them four days in a week in these gratuitous services.’49 The solution, according to Partridge, was simple: ‘Let then the words, without fee or reward, be struck out from every Clause where they now stand in the Bill: and let us suitably acknowledge a great public benefit and advantage.’50

However, this is not to say that all pecuniary concerns were of a totally egocentric nature. Daubeny, in particular, highlighted the financial implication of the Bill to the Public as a whole. His initial concerns relate to the centralisation of data duplication:

As the registers are now kept, the Laity have easy access to them; and the advantage of making their enquiries in the Parish to which the Register belongs.... But in the case of all the original registers being deposited in London, this important advantage will be entirely lost to the community. Whilst in the case of those who want Certificates, as seamen, soldiers, and their wives in particular, application must, in the event of this Bill passing into a law, be made to the
attorney of the next town; this attorney applies to his agent in London; this agent to the General Office &c. so that by the time the Certificate is returned to the applicant, in consequence of its having passed through this circuitous route, it probably costs the poor man as many pounds as it might have cost him shillings, had it been procured as heretofore from the hand of the Parish Minister.\textsuperscript{51}

Likewise, increased delay and expense would arise from the need to procure copies of registers from London ‘in various litigations about Parish Settlements.’\textsuperscript{52} Similarly, Courtenay claimed that, due to the circuitous nature of retrieving information regarding births, the working man ‘can neither prove his parish, nor advance his claims of exemption from the militia. These,’ he continued ‘are two instances out of the many hardships inflicted by this Bill, on the lower orders of society.’\textsuperscript{53} If, as suggested earlier, settlement clarification was a significant motive in the drafting of the Bill, this criticism seems somewhat ironic.

A final practical concern was highlighted over the cost of the new system to the state, and hence the parochial taxpayer. As well as small practical issues, such as the waste incurred by many parishes handing in a barely filled register most years, the amount of money necessary for the scheme seemed, by contemporary standards, too large to justify the perceived benefits. Indeed, many of these fears were quite justified. By 1815, the Dioceses of Lichfield, Durham, Gloucester, Worcester, Norwich and York had requested, between them, a further £7,600 in order to fully meet the provisions of the Act at a regional level, namely the Diocesan storage of copies of Registers. Each diocese, it should be noted, suggest a different method of collecting the monies. The following comment from the Diocese of York is quite representative: ‘we are wholly unable to form any satisfactory opinion as to the most suitable mode of remunerating the officers employed in each registry, for their increased trouble in carrying the provision of the act into execution.’\textsuperscript{54}

The Dissenters

The treatment of Dissenters and their ministers relative to those of the ‘Established Church’ formed the second fundamental objection to the Bill. The later eighteenth century was a time of significant numerical expansion for the nonconformist interest in England. However, there was also a feeling among many in the Established Church that the power and influence of the Dissenters was growing at the highest level in society. It is crucial to the understanding of the reaction to this Bill, for example, to realise that a Bill presented to Parliament by Lord Sidmouth in 1811, designed to tighten up the registration of Dissenting ministers, was defeated in the Lords due, in the main, to agitation from nonconformist interests.\textsuperscript{55} That this roused the ire of many in the Anglican church seems quite clear. Hey, for example, castigated those who ‘petitioned against Lord Sidmouth’s excellent Bill. I call it excellent, because I think it would have been, had it been pressed into Law, beneficial to all sober-minded rational Christians, of every denomination.’\textsuperscript{56} Daubeny, however, went further, citing the rejection of Sidmouth’s Bill as further evidence of Government neglect, and claiming that ‘a Bill has lately been thrown out of the House of Lords, for no other apparent cause, that that of its being displeasing to the Dissenters.’\textsuperscript{57}
The outcry against the relative treatment of the different denominations was based around two fundamental aspects of the Bill. Firstly, there was a concern about the practicality of the proposals in relation to the treatment of Dissenters. Daubeny noted that ‘it cannot escape observation, that the Bill in question, by being *optional* to the Dissenters, will not serve the purpose of providing a *General* Register for the Kingdom; because, under such a circumstance, it will be but partially carried into effect.’

Following from this, Hey claimed that he ‘cannot think that the population, and the connections, and pedigrees of the *Dissenters* are well provided for in this Bill.’ Recognising the rapidly increasing numbers of vital events which would have to be registered in the new fashion, he highlighted concern over ‘thousands upon thousands of loose memorandums, on separate slips of paper, of no given shape, and therefore of all shapes, many of them probably dirty, ragged, ill spelt; without uniformity even in the same family.’

Daubeny also highlighted the effect of the recording of nonconformist births upon the Anglican clergy. Describing the ‘painful situation in which a Minister must be placed in a parish where Dissenters are numerous’, he bemoaned the ‘necessary circumstance of [the cleric] being called upon to make a large sacrifice of time in receiving and transmitting to the general office all memorandums with which Dissenters may think proper to charge him; a work which is for the most part foreign to his ecclesiastical duty; and which, as a *mere civil* regulation, ought, it is presumed, to be provided for accordingly.’

A further significant criticism regarded the different treatment of the respective ministers with regard to swearing the validity of the data, and the consequences thereupon. Indeed the Bill, in general terms, was widely condemned as bowing to Dissenting pressure, particularly in the wake of the dismissal of Sidmouth’s Bill. As Courtenay remarked:

> as a member of the Established Church; with all my prejudices in favour of universal toleration (of which, perhaps, I may live to give convincing proofs that they *do* exist in my mind) I cannot submit with patience, to the manifest, the glaring partiality towards Dissenters, which is shewn in this Bill, on the very face of it. I am willing to tolerate *them*; but if such bills as this pass into a law, how long will they tolerate us? The consequence would be, exclusion of ourselves from all those rights and privileges which we *now* enjoy.

Under the terms of the original Bill, Anglican ministers would have been obliged to annually present their registers, under oath, to their local magistrate. If the registers which they swore as correct were found to be otherwise, then the offending clergyman would be guilty of felony and liable to a maximum of 14 years transportation. Dissenting ministers, however, were simply required to state the validity of their memoranda upon presentation to the Anglican minister. This led Hey to exclaim:

> I am astonished quite to stupefaction, when I reflect, that (unless I misunderstand) the State which is allied to the Church, and ought to protect it, thinks of oppressing it in the most ignominious manner! Exposing every worthy person whose business...
it is to preserve the morals and religion of the people, to be informed against by any artful villain; to be imprisoned, tried, ruined; and yet shelters from infamy every one who determines to quit the national church.63

This fear of ‘any artful villain’ is taken up elsewhere in the literature by clerics fearing Dissenters, or their associates, abusing the terms of the Bill; that in short they might use the Bill ‘as an engine of spite and hostility.’64 It was feared that a Dissenter, or his messenger, might not convey the details of a birth or death to the minister, but then, perhaps of malicious intent, inform the local magistrate that their event had not been recorded. As Hey noted:

...for if the silent man gives the information required when he comes before the Justice, all is over; he has no apology or compensation to make to the Clergyman; he may deride him as much as he pleases: he has nothing to allow for horse-hire, or Apothecary’s bill. Nor to the sick Parishioners, &c. whom he causes to be neglected.’65

This fear was, of course, tied to the concerns over unfair treatment as regard to Dissenters as commented upon above. Hey continued:

Surely a British Legislature would not compel a worthy, pious, aged, infirm Minister of the Established Church to be at the beck of any low vulgar person whom a Dissenter might employ to convey his memorandum; and to attend such a person to a distant Magistrate, and, perhaps, in farther measures!...I can scarcely keep tears out of my eyes whilst my imagination draws the ignominious picture. If I was to paint it in reality, I should draw the emissary as scoffing secretly at the distress of the Parson, who had been led a wild-goose chase, and making mouths at him. 66

Clearly, the handling of Dissenters was an emotive issue. At this time, there was a clear feeling among some that the Anglican Church was under attack by both the Dissenting Churches and the very legislature by whom it was established. Elsewhere, however, the clerics were more mindful of the consequences of the practical application of the Bill. Courtenay represented these sentiments with his suspicion that the Act ‘will promote ill blood betwixt churchmen and dissenters.’67 While Courtenay issued a call to arms, Hey was more sympathetic to the concerns of the Dissenters as well as the Anglicans. While he shared the concern that Dissenting ministers might ‘harass’ Clerics, he was interested to know quite why this might happen. As well as alluding to recent political salvos fired by the two religious branches, he asked:

Why should different sects be made more jealous of each other than they are? And without any convenience? The Dissenters would feel themselves as much degraded by having to wait upon the Parson, as the Parson by having their memorandums to examine. Indeed, they would be more so; for they would be in the situation of inferiors, which there is no reason why they should...The examined would feel inferior to his examiner.68

Hey went on to claim that ‘a very respectable person has known Dissenters complain of the Bill: as wishing rather to be on the same footing in this respect, with Churchmen.’69 The solution, for Hey, was simple:
Dissenters must keep their own Registers, as well for their sakes as ours: and they might shew such proofs of the regularity of these registers as the State should adopt; after proposing some proofs, and attending to such remarks upon the most respectable Dissenters should respectfully offer: that burden, and danger to Christian clarity, removed, suppose, the State were to give forms to be followed; but my notion is, those forms should be mere rules, separate from the Register Books; Forms, less complicated than those now proposed, and, in a few points, more definite.70

As we have seen from the Chester-le-Street Dissenters' registers above, this advice was, in some cases, followed.

The inquisitorial nature of the Bill

The final objection to the Bill was grounded in the collection of the data required by the schedules. While issues such as time, expense, and responsibility for recording the vital events of Dissenters were foremost among the minds of the clergy, a pervasive fear was that the process of collecting the information required would further diminish their position in society. As Courtenay suggested, there was a widely held fear that 'civil rights may be invaded' and that ministers 'are to be converted into instruments of oppression: becoming inquisitorial civil officers instead of ghostly comforters and advisers—Wolves in sheep’s clothing.'71

Clause VIII of the Bill instructed the cleric to ‘interrogate and require information from the person requiring the christening of any child, or the parties married, or from the person employed about any funeral, of and concerning all such particulars, as under and by virtue of this Act may be necessary to be enquired into by such officiating Minister upon the respective occasions of Baptism, Marriages and Burials.’72 If the necessary information was not forthcoming, ‘then every such person shall for every such offence forfeit and pay the sum of Five Pounds’ which should, if necessary, be paid for by a sale of goods owned by the offender.73 The offender would also be charged for the cost of organising the sale.

Courtenay’s reaction to this clause was one of sheer outrage, and is worth quoting at length:

I fear we owe this clause to our magnanimous support of a continental power, and that a Spanish inquisition is to be erected in this land of freedom. Can it be a grateful task to pry into the secret history of our parishioners? Is it constitutional? Would it be easily submitted to? And if the spirit of the people be so broken, are they enabled to give the information required? Are they not often too ignorant and uninformed to answer these numerous interrogatories? And how are we to judge of the truth or falsehood of their answers? And are we to be the inquisitors; we the informers, in case of their giving us a wrong statement; we their arraigners and accusers? And are we for these odious purposes to have another journey to a magistrate? And how shall we be received on our return? How shall we be listened to, when next we endeavour to impress on the minds of our parishioners a sense of their relative and social duties? Will this invidious office of ours inspire

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them with proper feelings towards their spiritual guides? Instead of their blessings, may we not expect their imprecations on our head? Thus, by this clause would all the purposes of an established church be defeated, and every religious sentiment weakened, if not absolutely eradicated.  

One particular cause of discontent was the necessary recording of the surname of an illegitimate child’s father. The consequences of recording these data would reflect on both the families involved and the minister himself. As Partridge noted, ‘A man may thus be stigmatized as the Father of a Bastard Child, without the Oath of any one; and without his knowledge.’ False charges of this kind, even upon oath, are dreadfully common.’ Likewise, ‘In the case, which is but too common, of antenuptial fornication, after the female has been made an honest woman by marriage, the parties would go some lengths to avoid the recording of all particulars.’

With such high stakes, the potential impact upon the minister was clearly great. As Hey noted, ‘a clergyman’s insisting on this [information], might overthrow the comfort of his life: the joint influence of suspected fathers and faulty mothers, with all their connections, would be continually exerted to undermine his credit and his happiness. As to his saying that he only acted officially, that would gain no attention: all would be resolved into personal malice.’ Hey then discusses, with some hyperbole, the hypothetical situation where the mother of a bastard child maliciously named the minister himself as the father. Under the terms of the Bill, Hey claimed, the minister would be forced to comply, or if he denied the claim and refused to enter it into the register, he could be guilty of felony and transported for 14 years!

In sum, therefore, this aspect of the Bill was attacked on various levels. First, it ascribed to the cleric a civil duty which, it was felt, was not of his domain. Second, the information needed to fill in the schedules, and the process by which these data would be sought, were seen as objectionable both to the ministers themselves and to society as a whole. As Courtenay concluded, ‘there is not an individual in the nation, however high or low his rank in the scale of society, whose feelings and interests are not attacked by the provisions of this Bill. Even the Dissenters themselves, to whom such ‘vantage ground is given,’ must in some respects be content to walk ‘Æquis passibus’ with us of the Established Church.’

Conclusion

The Tudor founders of the modern parish registers designed a system ‘for the avoiding of sundry strifes and processes and contentions arising from age, lineal descent, title of inheritance, legitimation of bastardy.’ Rose, perhaps spurred on by broader discourses regarding the importance of parish registers for economic and political purposes, sought to update this to cope with the demands of the day. These included issues of Dissent, welfare relief and, perhaps most fundamentally, coping with larger, more complex communities which needed to be registered.
However, for practical, religious and political reasons, these reforms appear to have been too much for the clergy to accept. At a time of growing population, rising levels of Dissent coupled with a decline in the power and authority of the Established Church, economic insecurity and civil unrest, a Bill which compelled Anglican clergy to work harder for less reward, while further diminishing both their sacred and secular role in society was, in truth, unlikely to succeed, particularly after a process of consultation and review. That the Bill was a victim of an emotional response to contemporary circumstance rather than a rational response to a social and economic need for better demographic data is reflected in M.P. W. Smith’s observation that ‘if the clergy, as well as the laity, had considered the Bill with the same spirit of conciliation that had actuated the House, much of the ill-blood to which it had given rise would have been spared.’

It seems that, as the clergy were to be called upon as the personnel to administer the terms of the Act, Rose may have had little alternative but to jettison all but the most basic parts of his Bill. The Bill was, in truth, poorly formulated. One of the clauses, for example, proposed that whosoever informed upon a negligent clergyman should receive half of the fine imposed, neglecting to make an exception for penal punishment, thereby committing the informant to seven years transportation if the full sentence was given out. Likewise, while the title of the Act stipulated ‘the better regulating, and preserving of Parish and Other Registers of Births, Baptisms, Marriages and Burials’, the recording of birth dates was, as seen in Figure 1, omitted in the final schedules. Despite these objections, however, Rose’s Bill represented a radical set of proposals which sought to update parochial registration to cope with the demands of the day. Many aspects of the Bill’s initial requirements were effectively implemented later on in the century. The proposed Archdiocesan registries, for example, could be viewed as a precursor to the establishment of the GRO. Likewise, we see in both discourses on parish registers, and the vital registration reforms of the 1830s, proposals that strongly echo aspects of the initial Bill. The alternative schedules proposed by Burrows in his 1818 Strictures, and in the 1830 Bill for Better Registration of Parochial Registration in Scotland both contain some of the missing elements of Rose’s Bill—particularly date of birth, for example.

While the accusations of ‘Government jobbery,’ complexity, and incompetent drafting levelled at Rose’s Act (and, indeed, the Bill) may be justified, it is crucial to separate the Bill, as presented in the 1810–11 session, from the Act which came into force in 1813. The Bill was an advanced set of proposals, designed in response to discourses highlighting the importance of comprehensive systems of parochial registration for a variety of social, political and economic purposes. The final Act, however, was a response to a quite different set of clerical concerns and anxieties.

Acknowledgements

The author wishes to thank Professor Richard Smith, Dr Simon Szreter, participants in the Ecclesiastical History Society’s 2005 Postgraduate Conference on the History of Christianity and the University of Cambridge
Graduate Social and Economic Workshop, as well as Dr Tom Nutt, Dr Edward Higgs and the LPS Editorial Board for their invaluable comments and suggestions on earlier versions of this paper.

NOTES

1. 1812, 52 Geo. III, c.146, An Act for the better regulating and preserving Parish and other Registers of Births, Baptisms, Marriages, and Burials, in England.


5. 1812, 52 Geo. III, c.146 s.3.

6. 1821 Parish Register Abstract, British Parliamentary Papers (hereafter BPP) 1822, XV, xxii. It should be noted, however, that this paper is not concerned with quantifying the extent to which Rose’s Act actually improved the accuracy of registration in this period.

7. HC Deb, 25 February 1812, paragraph 917.


9. This differed from existing legislation (from 1598) by specifying that exact copies of the registers, written on printed sheets of parchment, often with the page and entry numbers copied from the register were required to be sent to the Diocesan Registrar.

10. HC Deb, 25 February 1812, paragraph 947; see, for example, J. Cazeneuve, A true state of the case, relative to the dispute about the parish register-book, of Chatham in Kent. To which is added, an answer to a very disingenuous and calumnious charge made against the late church-wardens of that parish, in a pamphlet lately published by the Minister, intituled, ‘Letters and instruments relative to the dispute, &c., (London, 1766); See also Daubeny’s remark that ‘The falsification of a Parish Register, we are sorry to admit, has been proved in a case lately brought before the Public’ in his Remarks on a Bill, for the Better regulating and preserving of Parish and Other Registers addressed to the Right Reverend the Lord Bishop of Sarum (Salisbury, 1811), 32.

11. 1812, 52 Geo. III, c.146 s.5.


13. HC Deb, March 28th 1833, paragraph 1215.


15. Durham County Record Office, Durham, Auckland St. Andrews Parish Register, EP/Ay 1/3. The proximity of this rector’s church to Barrington’s home at Auckland Castle may, however, go some way toward explaining his eagerness.


17. HC Deb, March 28th 1833, paragraph 1215.

18. HC Deb, March 28th 1833, paragraph 1215. John Wilkes, in his 1833 Commons speech proposing the appointment of a ‘Select Committee to consider the general state of parochial registries, and the registration of births, baptisms, marriages, deaths, and burials, in England and Wales,’ further implies that the explicit specification of baptism in the Act was a further attack on Dissenting interests by the Established church. He stated, ‘many hundred congregations, disapproved of infant baptisms, and must be especially precluded from all registries except registries of births. For that great portion of the people, no provision, by the existing laws, supplied the means of effective and legal registration, which their security – and the general welfare, inseparably involved in their security – imperiously demanded’ (HC Deb, March 28th 1833, paragraph 1218).

19. See, for example, Krause, ‘The changing adequacy’.

20. BPP 1831–2, I, 265.

21. HC Deb, March 28th 1833, paragraph 1218.

22. Indeed, Rose’s Bill was twice amended by committee; twice amended on re-commitment, and substantially amended by the House of Lords before finally becoming law in 1812. This alone suggests the controversial nature of the Bill.

23. BPP 1810–11, I, 37 (preamble); 1812, 52 Geo. III, c.146, preamble. Section struck out by Lords’ amendment in BPP 1812, I, 553.


26. See, for example, J. Harnaway, Serious considerations on the salutary design of the Act of Parliament for a regular, uniform register of the parish-poor in all the parishes within the Bills of Mortality (London, 1762); T. Percival, Proposals for establishing more accurate and comprehensive bills of mortality in Manchester (Place of publication and date unknown) reproduced in T. Percival, The works, literary, moral, and philosophical, of Thomas Percival, etc. A new edition (London, 1807); Burrows, Strictures; R. Bigland, Observations on marriages, baptisms, and burials, as preserved in parochial registers (London, 1764); J. Lucas, An impartial inquiry into the present state of parochial registers; charitable funds; taxation and parish rates (Leeds, 1791).

27. See, for example, B. Burrows, Strictures, reproduced in D.V. Glass ed., The development of population statistics (Farnborough, 1973), 6–8.

28. Durham County Record Office, Muggleswick parish register, DDR/EA/PBT/1/1; For a fuller discussion of Barrington reforms see Basten, ‘A tale of two dioceses.’

29. S. Barrington, A letter to the clergy of the Diocese of Sarum. To which are added directions relating to orders, institutions, and licenses (Salisbury, 1790), 38.


31. Ibid.

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36. HC Deb, 25 February 1812, paragraph 948.

37. Ibid.

38. Ibid.

39. Rev. S. Partridge, *Remarks upon, and proposed improvements of, the Bill for Parish-Registers* (Boston, 1811); Rev. J. Hey, *Substance of a Bill Respecting Parish Registers... with Remarks* (London, 1812); Rev. J. Courtenay, *Cursory remarks on a Bill, as amended by a committee of the House of Commons, for the better regulating and preserving of Parish Registers &c. &c. and for establishing general repositories for the same* (London, 1812); Rev. J. Courtenay, *Speech of the Rev. John Courtenay addressed to the Clergy, assembled at Epsom... to take into consideration the Parish Register Bill* (London, 1812); Daubeny, *Remarks*.


55. See, for example, T.E. May, *The constitutional history of England since the accession of George the Third, 1760–1860* (London, 1863), 133–45; Sidmouth’s Bill was superseded by 1812, 52 Geo. III c. 155 *Protestant Dissenting Ministers Act*. While Sidmouth’s Bill, essentially designed to ensure that Dissenting preachers were not simply ‘entering the pulpit’ to avoid service in the militia, on the whole seems reasonable, the National Register remarks in 1811 that ‘to remedy the evil required an uncommon penetration and knowledge of mankind; and unfortunately the noble lord was deficient in these respects.’ (*The New Annual Register or General Repository of History and Politics and Literature for the Year 1811* (London, 1811), 237.) It is perhaps significant that, as Glass notes, John Wilkes, who later became a key figure in the campaign for civil registration, established the ‘Protestant Society for the Protection of Religious Liberty’ in the wake of Sidmouth’s Bill. The Society played a significant role in the campaign to repeal the Test and Corporation Act in 1828, and in the laws lessening restrictions upon Catholics in 1829. See D.V. Glass, *Numbering the people: the eighteenth-century population controversy and the development of census and vital statistics in Britain* (Farnborough, 1973), 119.


64. Hey, *Substance of a Bill*, 23.
72. BPP 1810–11, I, 37.
73. Ibid.
77. Ibid.
78. Courtenay, *Speech*, 7. ‘Æquis passibus’ translates as ‘with equal steps,’ perhaps taken from Book II of Virgil’s *The Aeneid* (‘Sequiturque patrem non passibus aequis’—‘He follows his father with unequal steps.’).
80. HC Deb, 25 February 1812, paragraph 948.
81. BPP 1830, III, 63.
SURELY THEY MADE A DIFFERENCE? HEALTH VISITORS AND INFANT MORTALITY IN THE 1900s

Michael Drake

In number 73 of Local Population Studies, Chris Galley discussed the sharp secular decline in infant mortality that commenced 'at or around 1900' ... almost simultaneously in every English and Welsh Registration District, and the role played in it by social intervention, especially through the appointment of health visitors. He concluded that 'social intervention by itself was not responsible for the turning point in the national infant mortality series'. He is probably right, if only because we have been taught that mono-causal explanations of demographic phenomena are highly suspect. I feel, however, that by not providing quantitative evidence of the nature and enormous amount of work carried out by the relatively small number of health visitors—the word Stakhanovite springs to mind—his argument lacks depth. This note is an attempt to redress that balance.

There is little doubt that in the course of the opening decade of the twentieth century there was a dramatic increase in the amount of attention paid to the problem of infant mortality and in the nature of that attention. Previously a macro-level approach (general improvements in sewerage, water supply, diminution of 'nuisances' etc.) had succeeded—some, but not all would argue—in dramatically reducing the mortality rates of other age groups from c.1870. Now this effort was to be supplemented by a micro-level one: the creation of a one-to-one relationship between an infant's mother and a health visitor. To assess the effectiveness of this form of social intervention, several questions need to be addressed. First, what changes in behaviour were being attempted; second, how speedily could such changes be effected; third, were the number of health visitors sufficient for the task.

As to the first of these questions we can confine ourselves to the experience of Sheffield, one of two towns (the other being Birmingham) that provide the empirical material for Galley's article. In 1906 the town conducted an inquiry into 'infantile mortality'. Table 1 shows the findings of the visits paid in 1905 and 1906 by the six female sanitary inspectors who in addition to their normal duties had, from 1900, taken on a health visitor role. From this table it would appear that the matters to which attention was being paid and, one assumes, those that might be the object of social intervention, were: the health of the child at the time of the visit (surprisingly good, it would seem); how it was being fed (82 per cent 'breast-fed entirely' in both 1905 and 1906 suggests the
visits were made early in a child’s life); if a feeding bottle was used was it a
safe one; whether a child was being put out to nurse (negligible); whether a
mother had an occupation (a common complaint by the ‘chattering classes’ but
seen here to be negligible too); whether a house was dirty (again commonly
supposed, but seen to be negligible); and whether a separate cot was being
used. This last mentioned factor was a matter of frequent comment—children
were dying from overlaying by parents and, presumably, siblings. Finally, a
high proportion of births appear to have been attended by ‘professionals’ (65
per cent), although there is some ambiguity here: was it an either-or situation
or did midwives and doctors attend a birth together. These features can be seen
to be the ones that impacted directly on the infant, so the fact that such
attention was being paid can only have been of benefit to the child.

Our second question—how speedily could change be effected?—can also be
answered, in part, by Table 1. In 1906, 2,785 more babies were visited than in

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Table 1  Particulars with regard to visits paid with respect to births during 1905 and 1906

<table>
<thead>
<tr>
<th>Activity</th>
<th>1905</th>
<th>1906</th>
</tr>
</thead>
<tbody>
<tr>
<td>No. of babies visited</td>
<td>6,673</td>
<td>9,458</td>
</tr>
<tr>
<td>No. above who were:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* first children</td>
<td>1,302</td>
<td>1,857</td>
</tr>
<tr>
<td>* healthy</td>
<td>6,338</td>
<td>8,824</td>
</tr>
<tr>
<td>* puny</td>
<td>335</td>
<td>634</td>
</tr>
<tr>
<td>* breast-fed entirely</td>
<td>5,450</td>
<td>7,809</td>
</tr>
<tr>
<td>* breast-fed partly</td>
<td>658</td>
<td>812</td>
</tr>
<tr>
<td>* bottle-fed entirely</td>
<td>531</td>
<td>781</td>
</tr>
<tr>
<td>* fed otherwise, e.g. spoon-fed etc.</td>
<td>34</td>
<td>56</td>
</tr>
<tr>
<td>Type of feeding bottle used:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* boat-shaped</td>
<td>383</td>
<td>761</td>
</tr>
<tr>
<td>* long-tubed</td>
<td>257</td>
<td>310</td>
</tr>
<tr>
<td>Children put out to nurse (usually day time only)</td>
<td>40</td>
<td>63</td>
</tr>
<tr>
<td>Cases in which mother engaged in some other occupation</td>
<td>167</td>
<td>251</td>
</tr>
<tr>
<td>Cases where house was dirty</td>
<td>250</td>
<td>269</td>
</tr>
<tr>
<td>Cases where separate cot used</td>
<td>-</td>
<td>721</td>
</tr>
<tr>
<td>No. of cases where –</td>
<td></td>
<td></td>
</tr>
<tr>
<td>* midwives attended</td>
<td>-</td>
<td>4,506</td>
</tr>
<tr>
<td>* doctors attended</td>
<td>-</td>
<td>3,037</td>
</tr>
</tbody>
</table>

**Note:** The information on attendance by doctors and midwives was not obtained until after February, 1906.

**Source:** City of Sheffield, Special committee as to infantile mortality: reports submitted to and summary of evidence given before the committee (Sheffield 1907), 11.
1905, an increase of 42 per cent. This is both a substantial increase in absolute terms and relative to the number of births. For in 1905 the number of babies visited per 1,000 births was 490, whilst in 1906, it was 678.6 On the question of feeding methods (breast versus bottle) there is little change between the two years. However, what the figures could well hide is the impact of the visit itself. Did some mothers breast-feed their children for longer after the visit (even an additional few weeks could be a matter of life or death) and if they were already bottle-feeding—or intending to do so—did they shift to the boat-shaped bottle from the lethal long-tubed one? It is interesting in this latter regard that the number of babies who were fed by the safer boat-shaped bottle rose by 99 per cent between 1905 and 1906, while those being fed by the long-tubed one rose by only 22 per cent. The evidence from Table 1, then, does suggest that important changes affecting infants could be brought about quickly.8

Our third question—were the number of health visitors sufficient for the task?—cannot be answered fully from the information provided by Table 1, for it does not tell us how many infants were visited more than once, or the impact of those visits. There were six female sanitary inspectors in 1905 (two of whom had been appointed in 1899 and four in 1901), with a further two being added in 1906.9 If the babies were visited only once, then, on average, each sanitary inspector visited 1,112 in 1905 and 1,182 in 1906. Evidence from other towns suggests this was a relatively small number of visits. This may have been because, in Sheffield, the visitors were sanitary inspectors first and health visitors second. Thus, if they had to carry out duties they shared with their male colleagues, they would have less time for what came to be called health visiting. The productivity rate of Birmingham’s health visitors was much higher. For by 1900, the upwards of eight visitors ‘paid 23,504 visits and 8,538 re-visits to the homes of the poor’, or 4,000 per visitor.10 In the woollen textile town of Batley (West Riding of Yorkshire), a health visitor was appointed in 1906, but she was paid by voluntary subscriptions and assisted by voluntary lady visitors. Her work was immediately welcomed by the town’s Medical Officer of Health: ‘I can vouch for an important fact viz. that there are more people suckling their children than did so before she began her labours’. We do not know how many visits she made, but her successor in 1910 (a fully-trained nurse with certificates from the Royal Sanitary Institute and the Central Mid-Wives Board) aimed to visit every baby born, with re-visits where necessary. By 1913 she was recorded as making 4,000 visits a year.11 In 1907, a health visitor was appointed in Ipswich. In 1909 she paid 1,770 visits. There were in that year 1,820 births in the town. The Medical Officer of Health was loud in her praise, noting that her arrival coincided with the beginning of the secular decline in the infant mortality rate, it being ‘evident that general sanitary improvements exerted no influence upon the infant mortality rate up to the end of 1906.’12

A hypothetical question, but perhaps worth putting, is how many health visitors would have been required in the country as a whole to visit every newborn child, given that a single visitor could make between 2,000 and 4,000 visits.
a year. There were in the first decade of the twentieth century between 830,000 and 930,000 births per year in England and Wales. If then we take the lower figure (2,000 visits per year) then only between 415 and 465 visitors would have been needed. With the higher figure (4,000 visits per year) then only between 208 and 233 visitors would be needed—tiny numbers, one must admit, and giving an indication that the problem of providing a one-to-one relationship (albeit, in this example, fleeting) was far from insuperable.13

Most of the evidence on health visiting is of the state-sponsored variety. This is not surprising as official records tend to be better preserved than private ones. But there are indications that the state got in on the act after the private sector had paved the way. In this regard, then, health visiting was like elementary education, giant strides in which had been made long before the Education Act of 1870. I have already referred to the first health visitor in Batley paid for from voluntary subscriptions. In Manchester, the Ladies Branch of the Manchester and Salford Sanitary Association started the health visiting process.14 Another example comes from Chesterfield, a small industrial town (population 26,000 in 1900) close to Sheffield. A Miss Ashwell remarked in 1899 that as the officer of the Chesterfield Infant Life Protection Society, she visited ‘each house where a birth had taken place.’ Her visits, she said, were ‘appreciated, expected and sought after’ and ‘wherever possible repeat visits made’ and [she] ‘always found that some attempt [had] been made to carry out teaching given ... teaching ... frequently passed on to neighbours and friends’.15 Miss Ashwell’s work was greatly facilitated because she was supplied with ‘monthly lists of births and deaths under one year of age.’16 Note that this was eight years before the Notification of Births Act came into force; yet another case of the state entering the arena after a private initiative had paved the way. A local manufacturer also produced the ‘Chesterfield Health Bottle’, a cheap (3½d.) tubeless feeding bottle which, as Miss Ashwell pointed out, was a ‘practical difficulty overcome’.17 What role she or the Society she worked for had in getting this made is not stated.

Galley argues that because in Birmingham the IMR fell between 1904 and 1908 faster in its outer wards ‘where little intervention appears to have taken place’ than in its inner wards, where it had (by 40 as against 27 per cent) ‘intervention can provide, at best, only a partial explanation of Birmingham’s declining IMR’.18 This can be interpreted in several ways. Either Galley believes that social intervention brought about, in part, the decline in the IMR in the inner wards, but that something else accounted for its decline in the outer ones; or that what brought about the decline in the IMR in the outer wards also applied, although, with less force, in the inner wards, with social intervention in the form of health visiting having only a subsidiary role in the latter. I would suggest an alternative, although equally unquantifiable, hypothesis, namely that in both areas the same factors applied—improvements in child-care, especially in feeding, together with better personal hygiene. The middle classes and upper working classes of the outer wards embraced these without benefit of health visitors. They got their information from other sources—doctors, newspapers, books, the manufacturers of baby foods and
feeding bottles. The lower classes of the inner wards need chivvying, and this was done by health visitors. We see the same thing today, with the middle classes far more adept at exploiting, without social intervention, the benefits offered by education and health care than are the working classes for whom various programmes of positive discrimination are put in place.

Turning to Sheffield we find a rather different situation as regards both the level and trajectory of infant mortality between inner and outer areas. My comparison is not as nuanced as that carried out by Galley on Birmingham, being based on just two sub-registration districts rather than 18 wards, although I cover a longer period. North is the inner city sub-registration district and Eccleshall, the outer one. As Figure 1 indicates, the IMR in North was consistently higher than in Eccleshall and its secular decline began later, 1905 as against 1897. We also notice that the rate of decline in the IMR in North was lower than in Birmingham’s inner city wards. The latter experienced a fall of 27 per cent between 1904 and 1910. In North the reduction was 21 per cent.
(from 222 to 176 deaths under one year per 1,000 births). Galley’s view that ‘Birmingham was far more active than Sheffield in implementing interventionist policies’ might suggest the reason for this if, as I have argued, social intervention was important in bringing down the IMR.

Galley both starts and ends his article by urging a greater use of Medical Officer of Health Reports to cast light on the matters he discusses. To this I would add a plea for greater use of Parliamentary Papers, although these are more difficult to access (a micro-fiche edition is, however, available) and local newspapers. Both these sources provide more information on private initiatives in the care of infants, as opposed to public initiatives which are the main concern of the Medical Officer of Health Reports.19

NOTES
4. City of Sheffield, Special committee as to infantile mortality: reports submitted to and summary of evidence given before the committee (Sheffield 1907). I am grateful to former Open University Research Student, Valerie Dodgson, for drawing my attention to this source.
7. In 1906 an analysis of the amount of cow’s milk drunk by 204 families with a recent birth, 174 of which had ‘lost one or more children by death under the age of 12 months’, was carried out in Sheffield. The families were taken from four precisely delineated districts. It was found that the consumption varied from 1.1 to 1.8 pints (1.2 to 2 litres) per head per week. Taking adults out of the calculation we find the consumption per child would have been from 1.7 to 3.3 pints (1.9 to 3.6 litres) per week. City of Sheffield, ‘Special committee’, 12.
8. In Norwich, the use of the long-tubed bottle to provide supplementary food fell from 72.4 per cent of all new-borns to 5.7 per cent between 1905 and 1916. Also the number of infants receiving sterilised dried milk (Glaxo’s) rose from 1.7 per cent in 1906 to 46.4 per cent in 1919, V. Fildes, ‘Infant feeding practices and infant mortality in England, 1900–1919’, Continuity and Change, 13 (1998), 26. As often in historical demography, evidence is fuller in the Nordic countries. Three examples of rapid change in feeding practices come from northern Sweden where Carl Josua Wrotholm, the first physician to arrive in the small town of Haparanda managed to get its mothers to breast feed their new born children (a practise previously resorted to only when no other food was available) between 1836 and 1851. He did so by appointing a ‘licensed mid-wife’ to make one-to-one visits. The IMR fell from 400 to 200 per 1,000 between these dates. On a somewhat larger scale, again involving trained mid-wives not only to visit but to stay with mothers for some days after they had given birth, the IMR in Iceland fell in four decades from ‘being higher than in most European societies to being among the lowest’. Finally, in Norway, only 30 per cent of mothers were still breast feeding at three months in the late 1930s. By the late 1980s this had risen to 80 per cent, which is what it had been from 1860–1920. G. Rostrum, A. Brändström and L.–A. Persson, ‘The impact of breastfeeding patterns on infant mortality in 19th century Swedish parish, (Umeå, n.d.), 12; O. Gardardsdóttir, Saving the child: regional, cultural and social aspects of the infant mortality decline in Iceland, 1770–1920, (Umeå, 2002); K. Liestøl, M. Rosenberg and L. Walløe, ‘Breast-feeding practice in Norway, 1860–1984’, Journal of Biosocial Science, 20 (1988), 49.
HEALTH VISITORS: HOW MUCH DIFFERENCE DID THEY MAKE? —A REPLY TO MICHAEL DRAKE

Chris Galley

Anyone who ends the first paragraph of an article by suggesting that, ‘a number of tentative conclusions about the nature of infant mortality decline’ will be made, ‘in an attempt to stimulate further debate’ deserves to be challenged, and it is therefore not surprising to discover that Michael Drake disagrees with some of my conclusions.1 Drake makes the point that by not providing a quantitative assessment of the work done by the health visitors I have failed to give an account of their true worth. Using evidence from Edwardian Sheffield he demonstrates that the amount of work undertaken by the health visitors was indeed impressive and he then proceeds to assess the effectiveness of social intervention by posing three questions: (1) what changes in behaviour were being attempted; (2) how speedily could such changes be effected; (3) were the number of health visitors sufficient for the task? Drake’s Table 1 shows that in Sheffield the health visitors were mainly concerned with the health of the child, infant feeding, nursing, mothers’ occupation, whether
or not the house was dirty and whether a separate cot was used. He admits that most of these proved to be of little consequence in influencing the infant mortality rate and he concludes that the main thrust of the health visitors’ work focussed on infant feeding, cleanliness and presumably the prevention of infant diarrhoea. Drake’s critique is to be welcomed for providing these additional data about health visiting and for pointing out the enormous amount of work carried out by the health visitors. Here there is little to take issue with. Where we differ is in our assessment of the effectiveness of health visiting in the first decade of the twentieth century. Drake’s evidence may be useful in answering each of his above three questions, but it does not address the more important underlying question concerning the effectiveness of these visits. Most official information about health visiting is biased; it is good at revealing the advice given, but less so on how that advice was received and acted upon. In this short reply I wish to explore some of the reasons for the apparent paradox that while health visitors undoubtedly dispensed sensible advice, they appeared to have made little impact on infant mortality rates.²

I have little to add about health visiting in Sheffield, but the other town examined in my original article, Birmingham, provides further interesting evidence. Here female health visitors were appointed in 1899 and most of their initial duties were concerned with improving domestic hygiene. According to the medical officer of health,

Their mission being to visit the houses of the poor, with the object of helping the tenants to make their homes as healthy and as comfortable as possible, having regard to their construction.

The directions given to the Visitors were as follows:—

To visit from house to house in such localities as the Medical Officer of Health shall direct.

To carry with them disinfectant powder and use it when required.

To direct the attention of those they visit to the evils of bad smells, want of fresh air, and dirty conditions of all kinds.

To give hints to mothers on the feeding and clothing of their children, and to use their influence in getting children sent regularly to school.

In cases of sickness, to assist in promoting the comfort of the invalid by advice and personal help.

To urge, on all possible occasions, the importance of cleanliness, thrift, and temperance.

They must note—

(1) The general sanitary condition of the house.

(a) The number of rooms and of occupants.

(b) The existence of bad smells, and whether they arise from deficient ventilation, from bad drainage, or from accumulations of filth.

(c) The state of the walls and floors: whether dirty from the tenant’s or landlord’s neglect, or in need of repair.

(2) The general mode of living, particularly with regard to personal and
domestic cleanliness.

(3) The feeding and clothing of children, especially of those under two years old. Whether the baby is nursed by the mother or fed by hand; if the latter, what it is fed upon.

(4) Any cases of illness in the house—
   (a) Nature of the disease
   (b) Whether there is a medical man in attendance.
   (c) How far the necessary sanitary precautions are being carried out.

The sections dealing with infant welfare have been italicised and are shown to be only a fraction of the health visitor’s overall workload. Drake suggests that health visitors could undertake between 2,000 and 4,000 visits per year, which implies that between 7.6 and 15.2 visits were made each day (assuming that the visitor worked for 5½ days per week for about 48 weeks per year). This means that on average the maximum time allowed for each visit would have been somewhere between 30 minutes and one hour, although this estimate does not take into account any illnesses, training, administration, travelling time or visits made when no one was at home. Given the health visitors considerable responsibilities and the problems of forging positive relationships under such time constraints it is likely that many visits were short, formal and in some cases perfunctory. It is therefore not surprising that health visiting made little immediate impact on the infant mortality rate and that it took time before it became effective.

During the first decade of the twentieth century, as infant health assumed greater importance, health visitors began to focus more of their efforts on the prevention of infant mortality. In 1908 Dr Jessie Duncan was appointed to work alongside two health visitors in St George’s and St Stephen’s, districts of Birmingham that suffered some of the highest rates of infant mortality in the city. This scheme appears to have been well thought out and it was managed efficiently.

The children born in the district are visited as soon after birth as convenient, usually about the end of the first week. At this visit directions are given as to the care of the child, and information is obtained regarding the mother's employment, previous history, husband’s wages, etc.

Visits are then paid by the Health Visitors (one visitor for each ward) every week for the first five weeks and every month afterwards. If at any of these visits the baby is found to be unsatisfactory in any way it is reported to me (i.e. Duncan), so that I may visit, and, if necessary, take over the case altogether. The unhealthy and ailing children are subsequently visited by me very frequently, according to the condition of the child.

Duncan noted that her visits were welcomed: indeed in those ‘better class’ households, which were excluded from visiting, mothers often ‘expressed their disappointment’ when the visitors did not call. Infant consultations were also held and here Duncan believed that mothers were more receptive to the advice
being dispensed. Given such evidence, it is difficult to imagine how health visiting could have been better administered in this period. However, whilst infant mortality rates declined in St George’s and St Stephen’s, no doubt in part due to the good work of the health visitors, they also declined in other working-class districts in the city and the rate of decline in those middle class districts where there was no health visiting was even higher.9 The reasons why infant mortality rates remained stubbornly high in these two districts can be linked to the social condition of the population. Duncan’s initial remit had been to investigate the relationship between women’s employment and infant mortality, but during the course of her research she discovered a more powerful relationship at work—that between poverty and infant mortality (Table 1).10 Thus, while the advice meted out by the health visitors to prevent infant deaths may have appeared appropriate, it proved difficult to implement in those poor households which inevitably had to endure the worst environmental conditions.11 There was also the additional problem that some mothers were reluctant to take on the advice given by the health visitors. As late as 1933 the Medical Officer of Health was expressing concern about the high level of infant mortality in Birmingham on the canal boats. He quotes an illuminating example of the difficulty of putting health messages across,

Very few of the babies are breast-fed and the artificial food chosen is almost without exception Nestles condensed milk. It appears to be a custom, and one mother boasts of having reared sixteen children on it, with the help of a long tube feeding bottle, still in use.12

The health visitors appeared to have been powerless to influence many of the underlying problems associated with poverty. Consequently, and precisely as Drake infers, it was the better-educated middle classes who were able to make the most of the various messages relayed by the infant welfare movement even though these messages were not directly addressed at them.13

During the very hot summer of 1911 the health visitors faced their severest test when a severe outbreak of infantile diarrhoea occurred. The measures that were enacted were sensible: the seriousness of the disease was emphasised at every

<table>
<thead>
<tr>
<th>Mother’s employment status</th>
<th>Father out of work or earning less than £1 per week</th>
<th>Father earning £1 per week or over</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed in factory</td>
<td>235</td>
<td>146</td>
</tr>
<tr>
<td>Employed at home</td>
<td>176</td>
<td>120</td>
</tr>
<tr>
<td>Total employed</td>
<td>217</td>
<td>137</td>
</tr>
<tr>
<td>Not employed</td>
<td>199</td>
<td>154</td>
</tr>
<tr>
<td>Total</td>
<td>211</td>
<td>146</td>
</tr>
</tbody>
</table>

opportunity, house-to-house visiting was instituted (including those homes with children aged over one), special meetings of mothers were held in courts and yards, warnings were given about a lack of cleanliness, long-tubed bottles, comforters and the care of milk and all those who were ailing were visited frequently and sometimes daily. Yet, in spite of all the health visitors’ efforts, infant mortality rates soared to over 200 per 1,000 live births in many working-class areas. Clearly, while the measures advocated by the health visitors were in themselves capable of preventing infantile diarrhoea, their application proved wanting and consequently many infants died. Writing in 1912 the medical officer of health commented that the various infant health measures introduced in the city had achieved only ‘slow results’ and he felt that the health visitors were ‘overburdened’. He also recommended that Duncan be moved from St George’s and St Stephen’s to undertake more general infant health work throughout the city. In spite of this setback Birmingham persisted with its health visitor scheme, but there was now a realisation that more health visitors were needed if the problem was to be dealt with successfully. Four visitors had been employed in 1899 and this number had been increased to eight in 1900 and 17 in 1910. However, by 1916 49 health visitors were employed together with another 23 women, who worked in other types of visiting or voluntary centres and also dispensed infant welfare advice where appropriate. Thus, by the middle of the First World War, a total of 72 female health workers were employed throughout the city and these were backed up by a range of both official and voluntary bodies actively promoting infant welfare.

Given the number of health visitors employed during the first decade of the twentieth century, the tasks they were required to perform and the problems they had to overcome it is not surprising to discover that in Birmingham at least, they appeared to make little impact on the infant mortality rate. The increased attention and more enlightened attitudes shown towards infants, including the employment of health visitors, did have an impact, but that impact was often indirect. There is much contemporary evidence about the indirect benefits of social intervention with many leading contemporary authorities, such as George Newman and Arthur Newsholme, believing that this played a part in the overall decline of infant mortality. George McCleary, medical officer of health for Battersea and a major force behind the first national conference on infant mortality in 1906, writing from the perspective of the 1930s, is worth quoting on this subject. He detailed the nature of various infant welfare initiatives and then went on to argue,

From the beginning of the present century [20th] there was a steady growth in the public interest in infant welfare not only in the towns in which new measures had been adopted, but, and largely owing to the influences of those measures, all over the country. The growing interest was soon followed by a growing appreciation among all classes of the conditions necessary for infant nurture. Infant welfare was in the air.

More pertinently, at least as far as this discussion is concerned, in the same paragraph he then writes,
Where the success of a movement depends on the growth of an enlightened public opinion, its progress cannot be estimated merely by the mechanical process of counting the ameliorative agencies in operation.19

In conclusion, my reading of the Birmingham sources would be that this town appears to fit well with McCleary’s view of infant mortality decline. Referring back to the three questions posed by Drake, my answers are that in Birmingham: (1) the advice given by the health visitors appears to have been appropriate; (2) that advice took time before it became fully assimilated and effective; and (3) more health visitors than were employed before 1914 were needed to make a difference. Of course, other towns may have been different—there is a wealth of local source material on this subject in record offices throughout the country—and alternative analyses are to be welcomed.

NOTES


2. The most important evidence to support this assertion is that infant mortality rates declined throughout the whole of England and Wales after 1900, including the large number of areas where no health visitors were employed: Galley, ‘Social intervention’, 40–4; see also A. Reid, ‘Health visitors and child health: did health visitors have an impact?’ Annales de Démographie Historique (2003), 119–20.

3. Annual report of the Medical Officer of Health for Birmingham, 1889 (Birmingham, 1900), 34.

4. The hours worked by health visitors are given in F.J. Greenwood, ‘Women as sanitary inspectors and health visitors’ in E.J. Morley, ed., Women workers in seven professions (Routledge, 1914), 228.

5. As was the case in Sheffield, the health visitors emphasised the importance of improving the home environment, personal cleanliness and infant feeding: J. Robertson, Special report of the medical officer of health of the city of Birmingham (Birmingham, 1904).

6. J. Robinson, City of Birmingham Health Department report on industrial employment of married women and infantile mortality (Birmingham, 1910).

7. J. Duncan, City of Birmingham Health Department report on infant mortality in St George’s and St Stephen’s wards (Birmingham, 1911), 3.


9. Galley, ‘Social intervention’, 35–7. The infant mortality rate declined by 18.1 per cent in St Stephen’s and St George’s between 1907 and 1910. This compares with 11.5 per cent in the city as a whole. If the 18 wards of Birmingham are ranked according to this figure then St Stephen’s is fifth and St George’s twelfth. The greatest decline, 26 per cent, occurred in middle class Edgbaston and Harborne, see Annual report of the Medical Officer of Health for Birmingham, 1910 (Birmingham, 1911), 18.

10. As far as the relationship between female employment and infant mortality was concerned, Robinson, industrial employment of married women, 21 argued that the effects were ‘somewhat indefinite’ since while employment prevented breastfeeding it also alleviated poverty and it was difficult to say which was the ‘greater of two evils’.

11. Likewise, using health visitor records from Derbyshire, 1917–1922, Reid, ‘Health visitors’, 132 concluded, ‘it appears that health visitors were often stymied in their efforts to do good by the poor conditions mothers were living in which inhibited them from carrying out the advice’.

12. Annual report of the Medical Officer of Health for Birmingham, 1933 (Birmingham, 1934), 137. There was also the problem that in some instances the health visitors’ advice was misunderstood: see G. McCleary, The early history of the infant welfare movement (H.K. Lewis, 1933), 125; Galley, ‘Social intervention’, 44. This may partly explain why Britain diverged from the Scandinavian examples quoted by Drake in footnote 8, where the infant health messages appeared to have been readily
assimilated.

14. J. Duncan, *City of Birmingham Public Health and Housing Department report on infant mortality in St George’s and St Stephen’s wards* (Birmingham, 1912), 6. Leaflets dealing with the prevention of diarrhoea were distributed freely, but such printed advice was felt to be ‘almost useless unless the instructions are gone over and explained to the women’.
ELECTRONIC RESOURCES FOR LOCAL POPULATION STUDIES

A VISION OF BRITAIN THROUGH TIME:
MAKING SENSE OF 200 YEARS OF CENSUS REPORTS

Humphrey Southall

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Introduction

Conventionally assembling a time-series of population statistics for a particular parish from published census reports to compile a graph such as Figure 1 can be a tedious business. Complete runs of census and vital registration reports are rare, and most local population researchers will have long journeys to the copyright and academic libraries which hold such sets. Once located the volumes are vast, and simply finding the relevant tables in each of a series of reports can take hours. Statistical reporting units have changed greatly over time, so which nineteenth-century Registration District or sub-District, or which post-1911 Local Government District, covered the parish of interest has to be worked out, which can be very difficult when the necessary maps are even harder to find than the statistical reports. When eventually located, the data then have to be entered into a spreadsheet in order to create the desired graph or graphs. Mapping the data is probably impossible without boundary information.

As a result of this obstacle course, the published census and vital registration reports are under-used. However, thanks to a free web site, life has been made much easier for local population historians. A researcher can now enter the site, called A Vision of Britain through Time, type in the name of the town or village being studied or click the appropriate place on a map; decide whether to view basic population counts, occupational structure or some other aspect of local history; and be presented with a graph showing change over time in that variable for the chosen locality. The graph, or the actual numbers from which it is derived, drawn from the original census or vital registration reports, may then be cut and pasted for further study, or for inclusion in written work—with an appropriate citation, of course!
Vision of Britain, it will become clear, is a large site with many millions of pages and while a researcher may wish to simply ‘click and go’, and should be able to do so, it does help to realise the full scope of the content, and to understand a little of its structure. This article aims to provide just such an introduction.

From a historical GIS to a vision of Britain

Between 1994 and 2000, over 20 grants from a great variety of sources supported the construction of the Great Britain Historical GIS (Geographical Information System)—a systematic record of the changing boundaries of the main statistical reporting units over the nineteenth and twentieth centuries. The GIS included the boundaries of Registration Districts and Counties between circa 1840 and 1911; Local Government Districts (Urban and Rural Districts, County and Municipal Boroughs) and Administrative Counties between 1911 and 1974; plus the evolving Civil Parish system from the 1870s onwards.

The grants also funded a large programme to computerise statistics from census reports between 1801 and 1961, and vital registration data from the 1840s to 1974. Many other researchers generously donated datasets they had already computerised. The end product was in two parts. The first comprises digital boundaries which have been made available to academic researchers via the UKBORDERS service operated by Edinburgh University. The second contains computerised versions of hundreds of statistical tables which are
documented on the GBHGIS web site and are down-loadable via AHDS History.³

However, in 2001 the GBHGIS team were awarded a new grant by the UK national lottery, via the Big Lottery Fund. The work to be undertaken included some new digitising of boundaries and statistics, but was mainly concerned with making the existing resources accessible to a wider audience of ‘life-long learners’, especially those interested in local history. To this end, conventional Geographical Information Systems technology was abandoned and a one-of-a-kind system built, organising information in new ways.

Organising population statistics for on-line access

The world is full of ‘statistical databases’, and they all hold their data in many separate tables, each organised just like the tables in printed reports. This works well as long as the purpose of the system is to let users download whole tables, but Vision of Britain needed to be able, for example, to extract the population totals for a particular parish from the many original tables they appeared in and to present them as a single time series. To do this it focuses on individual data values, storing them all in a single column of one very large table. Currently this table contains about 11.5 million rows. Further columns in the table then explain what each number means. These cover five elements: Source, When, Where, What and Thanks.

Source indicates where the data came from. The Source Documentation System lists every census from 1801 to 1971; every report published from each census; and each table within each report. Each individual data value can therefore be linked to the source table from which it was drawn. The row and column position of the variable within its source table are also recorded, so that one part of the web site can reconstruct the original tables. Non-census data are covered by a simpler system.

When indicates the date to which the statistics relate. Dates are stored within a date object, which can hold anything from a simple year value, for a census, to a period defined by two calendar dates.

Where defines the location from which the statistics were compiled. In a conventional GIS, statistics are treated as ‘attributes’ of ‘polygons’, which represent locations, but in the new system location is an attribute of the statistic. Furthermore, location is specified primarily as an administrative area, not as a geographical point, so data can be held for units such as ancient Hundreds, whose boundaries are uncertain, or for nineteenth-century Sanitary Districts for which electronic maps do not currently exist. The Great Britain Historical Gazetteer of administrative units was created by computerising existing reference sources, including Frederick Youngs’ Guide to the Local Administrative Units of England.⁴ The Gazetteer defines over 50,000 units with information on variant names, boundary changes and so on. The system also stores actual boundaries for about half the units, based on earlier research by the GBHGIS team, plus Kain and Oliver’s mapping of the ancient parish
Several different boundaries can be stored for each administrative unit, distinguished by date. It is also worth noting that the system is capable of generating approximate boundary maps for certain types of administrative unit for which precise boundaries are lacking. Thus those studying hundreds, wapentakes, registration sub-districts, sanitary districts or Scottish poor law combinations can find boundary maps for these units derived from the boundaries of their constituent parishes.

The *What* columns in the table describe the meaning of a particular variable via a *Data Documentation System*. This is quite separate from the *Source Documentation System* and can be directly explored within the web site. It knows, for example, about the relationships between the individual occupations reported on by the 1841 census and the Booth-Armstrong classification of occupations. More importantly, it enables the site to turn those 1841 data into simple histograms, or to present age structure data from multiple censuses as sequences of population pyramids.

Where data have been obtained from other researchers *Thanks* are given. Data are checked back against the original reports and the latter are treated as the source, but the donors are acknowledged and any restrictions on use are indicated.

The ‘five elements’ are a simplified guide to a complex system, with the main sub-systems being substantial reference sources in their own right. However, the overall architecture of the system really is as simple as it sounds: one big table with all the numbers in one column, and other columns recording ‘source’, ‘when’, ‘where’, ‘what’ and ‘thanks’. The deepest level of the web site consists of data value pages, each presenting a single row from the ‘big’ table. But how does one get at them?

**Accessing statistics through Vision of Britain**

**Places and units**

The *Vision of Britain* site is large and includes subsidiary home pages focused on particular content types: ‘Historic Maps’, ‘Travellers’ Tales’ and ‘Census Reports’. Although the latter are apparently most relevant to *LPS* readers, don’t go there! The whole architecture of the site is designed to bring together in one place everything the system knows about each locality, and so long as your concern is with a particular town or village you should start at the web site’s main home page, where you will find the form shown in Figure 2. Type the name of your chosen place into the form and you should be taken straight to a place page which is all about the location you have specified.

The place page includes a link to the modern local authority which covers the place. Even though you are seeking historical data, you may wish to follow this link. There are also two maps, one showing the place as a point on an outline of Britain, the other showing an excerpt from a historical map covering that particular location. Clicking on the second map takes you into the web site’s
Figure 2  From the Vision of Britain home page: specifying places by name, postcode or map

STEP ONE - SELECT A LOCATION

There are three easy steps to finding detailed historical information on Britain. The first is to select a location:

Enter either a full postcode or a place name (just a name, no county) in the box below to find information on a location.

Alternatively click on a region of the map.

Place or postcode search:

search

national overview

‘historical maps’ area and lets you either zoom in further or look at maps from different dates.8

You are further provided with information on what has been said about the place in three late nineteenth-century descriptive gazetteers and by 12 historical travellers including William Cobbett, Daniel Defoe, Celia Fiennes, Arthur Young and Charles Wesley.9 All these texts have been fully computerised and linked to the main gazetteer. The place page also displays a list of administrative units associated with your chosen place. The distinction between administrative units and places is a real problem in working with Vision of Britain, but one with which anyone who has worked with historical censuses will be familiar. The places gazetteer, apparently searched from the home page, is in fact a thin overlay on the main gazetteer of units, constructed by a program which groups together units sharing names and locations. Although Defoe and Fiennes each visited a place called Reading, by the Thames, our historical statistics relate to one or other of the 14 units called Reading (or Reading St. Giles, Reading St. Lawrence or Reading St. Mary), all of which are listed at the bottom of the place page for Reading.

Clicking on any of the units at the bottom of the page, or on the link for the modern Unitary Authority of Reading at the top of the place page, will take you to a unit page. Each of these is a kind of home page in itself and Vision of Britain has one for every unit in the system although some, such as those for
ecclesiastical parishes, are fairly sparse.

Unit pages again link to a variety of information. Each begins with a general location map, with the larger administrative units shown as areas, not just points. Units are not always small and local: ‘England’, ‘Wales’, ‘Scotland’ and ‘Great Britain’ are all defined as units and have statistical data. Next to the map is a brief summary of the unit’s relationships with higher-level units, so from most of the ‘Reading’ units you get a link to some kind of Berkshire: the system knows about four different kinds of county—Ancient, Registration/Union, Administrative and Current, post-1976.10

There is then an area where links to up to eight different statistical themes appear. Each tries to include a snippet of useful information, so for example the text for the ‘life and death’ theme for Reading Registration District says, ‘In 1851, 135 babies in every thousand died in their first year. In 1911 it was 105.’

Finally links to non-statistical topics are listed, depending on what data is available. The Historic Boundaries link, where provided, shows the boundaries of the unit superimposed on historical maps. Related sites provides links to other web sites. Reading, in general simply returns you to the place page. Historical descriptions is another way into the descriptive gazetteers, and for parishes includes entries for places within the parish. Census reports takes you straight to reconstructions of the original tables for the current unit, as explained below. The Relationships and changes link, delivers very formal information about the history of the administrative unit, including boundary changes, the names it went under, including all variants encountered in census reports and its relationships within the administrative hierarchy. Every reference to another unit on a relationships page is itself a hyperlink, taking you to the equivalent page for that unit.

What kind of unit?

Anyone working with statistics in Vision of Britain, just like anyone using the original census reports, has to understand that statistics are for administrative units, not vague ‘places’, but with 14 different ‘Readings’ to choose from, which one do you select?

The system deliberately pushes non-expert users towards the 408 modern districts (and unitary authorities) which were reported on in detail by the 2001 census. This is, of course, only possible if we take the data as originally reported for historical unites and, using our detailed knowledge of the boundaries of both historical and modern units, produce ‘re-districted’ data that apply to the modern units. If all the historical units fitted neatly inside the modern ones this would be a matter of simple addition, and in fact for 1971, 1981 and 1991 we used the separate Linking Censuses through Time system to simply merge wards into modern units, but with nineteenth-century Registration Districts and twentieth-century Local Government Districts the original units had to be chopped up and re-combined. This was done using parish-level data on population distribution, but even so the results are clearly
more reliable when the final geography is simpler than the original reporting geography. With anything other than the simplest demographic variables, this work also involved converting and simplifying classifications, such as those for occupations.

If you just want to find total population figures, select **parish-level units** and, for many parishes, you will find time-series covering every census between 1801 and 1971 inclusive. However, the reason the units are not called simply **parishes** is that many were only townships or chapelyries until the creation of the Civil Parish system in the third quarter of the nineteenth century. There are unavoidable gaps in coverage: the data for all years from 1801 to 1851 are drawn from the 1851 census tabulations, but are affected by confusion about reporting units in the earliest censuses; in 1861 and 1871 the transition to Civil Parishes confused the listings; and from 1961 onwards, the census authorities ignored parishes within cities in favour of wards. Available variables at **parish-level** are always limited but there are often data on numbers of houses, including vacant houses and houses under construction. For 1831, David Gatley, of Staffordshire University, has supplied quite detailed parish-level occupational data.

If you need access to the original historical statistics and want more than basic totals, most of the data are for either **Registration Districts**, which run from 1851 to 1911, or for **Local Government Districts** (Rural and Urban Districts, Municipal and County Boroughs) which run from 1911 to 1971. The latter is one example of how **unit type** is treated separately from **unit status**: a map of the boundaries of all units with type ‘Local Government District’ is a complete map of England and Wales, but it is also essential that it is recorded which were ‘Urban Districts’ and which were ‘Rural Districts’, as the older Registration Districts were typically divided into an Urban District covering the town at the centre and a Rural District covering the surrounding parishes, both with the same name and in the same county. ‘Registration District’ is in fact a **status** within a **type** called ‘Poor Law/Registration District’, as the system is designed to also hold pauperage data and the small number of differences between the two geographies are recorded.

At present most of the county-level statistics held, whether for **Ancient**, **Registration** or **Administrative Counties**, are aggregates of the district-level data but there are already important exceptions, notably for occupational data. Some less well-known **unit types** were used at certain dates: age-structure data for **Sanitary Districts** in 1891, for example, and **Registration Sub-District** age-structure data between 1851 and 1881 and mortality data from 1871 to 1911. Generally, **ad hoc** reporting geographies independent of administrative structures have not been included, but an exception was made for **1841 occupation reporting areas** so that the census’s enormously detailed data for selected towns in that census could be included. Data for **Ancient Districts**, such as Hundreds, Wapentakes, and Boroughs, are limited, while none at all is included for **Manors** and various **ecclesiastical units**.

The above historical units are all for England and Wales. **Vision of Britain**
Figure 3  Graphical view of an nCube: age structure of Reading (2001 census boundaries), 1851, 1931 and 2001
excludes Ireland but aims for equal coverage of Scotland, holding information for counties, parishes, burghs and poor law combinations. Unfortunately, Scottish ‘district’-level geographies varied greatly over time, and the census reports often used ad hoc selections of units for particular tables. More work is needed, but the bulk of the parish-level tables are on-line, as are useful data for counties.

Themes, rates and nCubes

The Data Documentation System defines various kinds of entity that are used to organise the statistics, but three are most visible to users: themes, rates and nCubes. Themes are unremarkable: Population, Industry, Social Structure, Housing, Learning and Language and Roots and Religion cover Population Census data; Life and Death holds vital registration data, while Employment and Poverty covers unemployment and pauperage statistics. Two more themes, Agriculture and Land Use and Political Life, wait in the wings to cover other types of non-census data.

Rates give the most accessible view of the data, as they are listed at the start of each theme page and cover such topics as ‘population density’, ‘infant mortality’, ‘percentage working in agriculture’ and so on. Rates for particular units are initially plotted against a national total, and currently they are the only statistics that can be mapped. Clicking on a particular date within a time series graph takes you to the statistical maps, but you can get directly to the maps via National Overview on the home page. Each Data Map Page lets you select one of the historical maps as a backcloth, essential once you zoom in on a particular area. The date, unit type, or the rate being viewed may be changed from within the theme; but in each case options are limited to those for which data exist. National overview maps initially present 2001 data, and the only available unit types are modern ones, but if you go back, say to 1911, historical units become available. You may also find that other rates which have not been re-districted to the modern units start to appear.

However, users wanting access to the raw numbers from which the rates are calculated must go deeper—to the nCubes. This piece of terminology will be unfamiliar, but is used to distinguish the multi-dimensional structures used to present data from the source tables in the original published report and from the underlying database tables in which everything is stored. An nCube is defined as a combination of variables, each variable consisting of categories. For example, most of the data from the Registrar General’s Decennial Supplement for 1861–70 form a three-dimensional nCube based on two sex categories, twelve age categories and twenty-five cause of death categories. However, the same source table also populates a second nCube with the same sex and cause categories, but decomposing the under-fives into five single-year categories. Available nCubes are listed at the bottom of theme pages, for both units and national overviews.

The initial view of an nCube is graphical, the type of graph depending on the dimensions of the nCube and on whether multiple dates are covered. An alternative view presents associated information on sources, with links to the
Figure 4  A ‘data value page’ from Vision of Britain, covering the number of female textile workers in Derbyshire as reported by the 1931 Census of Population

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
<th>Meaning</th>
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<tbody>
<tr>
<td>Identifier</td>
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<td>This number locates the particular value within the data table; it is like an accession number in a conventional library.</td>
</tr>
<tr>
<td>Value</td>
<td>19,477</td>
<td>This is the data value itself.</td>
</tr>
<tr>
<td>Date(s) covered</td>
<td>1931</td>
<td>We store dates within a date object, which can hold anything from a single year value, for a census, to a period defined by two calendar dates.</td>
</tr>
<tr>
<td>Administrative area covered</td>
<td>19061428</td>
<td>Derbyshire Admin. Derbyshire was an Administrative County in England. It was created in 1889 and abolished in 1974. It was also known as Derby.</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Meaning (ODS cell reference)</th>
<th>OCC_ORD1931_XII_F</th>
<th>Cell within nCube N. OCC_ORD1931: Persons of Working Age by Sex and 1931 Occupational Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dimension</td>
<td></td>
<td></td>
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<tr>
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<td></td>
</tr>
<tr>
<td>1</td>
<td>Sex</td>
<td>Female</td>
</tr>
<tr>
<td>2</td>
<td>1931 Occupational classification</td>
<td>Textile Workers</td>
</tr>
</tbody>
</table>

| Table in census reports          | EW1931OCC_M16    | 1931 Census of England and Wales, Occupations, Table 16. 'Occupations of Males and Females, showing also total operatives and the total of Work'. |

| Column in census table           | 2                 | Column label from original table: Females                                                    |
| Row in census table              | 217               | Row label from original table: XII TEXTILE WORKERS                                          |
| Status                           | P                 | Public, Visible in both graphics and tables.                                                 |

original census tables, acknowledgments and restrictions on use. Everything in Vision of Britain, including the most modern data, can be used pretty freely in not-for-profit local studies. A further view presents the numbers themselves, labelled using the variables and categories we have defined. Small blue triangles beside each number link to Data Value Pages, presenting individual data table rows, as shown in Figure 4.

Other ways of getting to units

Unlike most on-line databases, there are many different ways of moving around the Vision of Britain system, depending both on the ultimate goal, and
on what initial knowledge is possessed. Many LPS readers will already know a
good deal about historical administrative units, and which ones are likely to
have useful data available. Thus, with practice, they can bypass the home page
and places page, instead using an alternative administrative units search. This
offers many more options, including wild card and ‘sound-alike’ specification of
names and the narrowing of searches by geographical area and by type of unit.
Narrowing searches by area exploits the underlying structure of the system. For
example, if you search for ‘Tidenham’ within Gloucestershire you will find the
parish of that name; but you will get to exactly the same parish if you specify
Monmouthshire, because Tidenham was in Chepstow Registration District
which lay in the Registration County of Monmouthshire. Using this search
interface takes you to the relationships pages for the units you find, but you can
then use the crumb trail links at the top of the page to go to the main unit page.

However, if you do not have a place-name, or are unsure what administrative
unit covered your location, Vision of Britain can still give you a lot of help, via
clickable maps and postcode-based searching. The map on the main home
page shows the nine English ‘government office regions’ used today, plus
Wales and Scotland. Clicking on any of these produces a more detailed map
showing modern local authorities within the selected area, and clicking on one
of those takes you to the unit home page for that authority. However, more
precise and detailed access to information by location is available via the
‘historical maps’ pages. Keep clicking on the maps to zoom in on the place you
are interested in. Then, once it can be seen clearly, select ‘Tell me more’ instead
of ‘Zoom in’ from the menu at the bottom right and click once again on your
location.

The final click triggers a ‘point in polygon’ search using the system’s spatial
capabilities, and will take you to a location page which resembles the place
page. The first link is, as usual, to the modern local authority, and both a
general location map and an excerpt from the historical maps are provided. For
those seeking qualitative information, links are given to the five nearest
‘places’ for which descriptive text, from gazetteers or travellers, are held.
Crucially, the system lists the historic units which covered the point indicated,
including the dates for which they covered it. Thus you can go from a
particular building depicted on an historic map to the Ancient Parish within
which it sat, and on to the later Registration District. One obvious limitation is
that this can only be done for units whose boundaries are held within the
system: Registration Sub-Districts are not included, for instance. In addition it
should be noted that the historic boundaries are accurate only to 100 or 200
metres, although the boundaries for modern districts are much more precise.

Census Reports

The Census Reports area of the site, rather than supplying local level statistics, is
about the census itself, and the highest level information is the full text of a
guide to the reports. Selecting a particular census year takes you to a page
listing the precise day of the census, and the reports published from it. A
distinction is sometimes drawn between reports and individual publications,
which allows source tables scattered across individual county reports to be treated as one. The text of every Preliminary and General Report has been computerised, along with the introductions to other selected reports such as those on Fertility (1911) and Occupations (1931), although much of this material is not yet on-line.

All numbered or otherwise clearly distinguishable tables from the published census reports are listed. Although Vision of Britain currently holds just a small fraction of all census tables, they are generally those with the greatest geographical detail and therefore also the largest, often occupying most of a report. Exact reconstructions of the original report pages would be almost unusable on-line, so instead the national totals and, if there is space, the county figures are presented. However, a researcher can ‘drill-down’ to a county via the down-arrow icons next to county names, or by using a drop-down menu. From the county it is possible to move down to districts and sometimes to parishes. The arrangement of the columns and their labelling reproduces the source table. Unit names are hyperlinks taking you to the relevant home page, and triangles next to individual numbers again link to data value pages.18

These reconstructions of census tables are closely linked to the gazetteer structure and each page is focused on a particular unit, starting with ‘Great Britain’. Navigating to a parish table listing for a particular Rural District and its component parishes may be tedious from the Census Reports home page, but the Census Reports option on the relevant unit home page will take you straight there. If a population time series is wanted, then it would be better to follow themes and nCubes, but it should be noted that not all statistics are covered by the Data Documentation System. Detailed occupational statistics are, for example, often accessible only via the census table reconstructions.

Conclusion

The overall aim, in creating the Vision of Britain web site, has been to computerise and then integrate varied systematic surveys of Britain to create, primarily, a powerful representation of the nation’s diverse localities. The recreation of particular sources was only a secondary goal. That said, the Census of Population is the most important of our sources, and the whole site is generated from the underlying database by a surprisingly small number of programs. Similar-looking pages within the system will therefore work consistently, and clicking on links will always lead somewhere sensible, although this often means moving between Place Information and more specialised content.

Although Vision of Britain is a useful reference source for genealogists or casual enquirers about local history, this article has tried to show that it is also a powerful research aid for, very specifically, those interested in historical local population studies. Many researchers associated with LPS have already contributed to the site, and this article concludes with both an offer and a request for help. Vision of Britain is highly extensible, absorbing any amount of statistical data without design changes to the database or web site. However,
major funding opportunities are now pretty much exhausted. Volunteer assistance is thus being sought to extend the site, partly by cleaning and documenting existing transcriptions, partly by adding whole new data sets: if you transcribe them they can be published on the web site. The aim is obviously to add more national tables rather than local time series, but the system’s purpose is to convert national surveys into resources for local research.

NOTES

1. The construction of the Vision of Britain site was funded by the Big Lottery Fund, but the contents were also funded by 28 distinct grants and contracts from 17 different bodies, plus contributions from many other researchers.


3. The GBHGIS may be found at: http://www.port.ac.uk/research/gbhgis/aboutthehistoricalgis/database. The census statistics at may be found at: http://ahds.ac.uk/history/collections/census-statistics.htm.

4. Royal Historical Society, 1979 and 1991. A major aim of the lottery funding was to create an integrated on-line version of the name authorities identified by the National Council on Archives in their Rules for the construction of Personal, Place and Corporate Names (1997). We also incorporated Melville Richards’ Welsh Administrative and Territorial Units (Cardiff, 1969), the Scottish Archives Network Gazetteer and, for available counties, the National Register of Archives’ Manorial Documents Register. Loading census data and especially the parish tables into the system provided a cross-check on both names and relationships, and the final gazetteer contains many additional variant names that appeared in census reports and, for Wales, whole administrative layers that were missing from Melville Richards but which we added mainly from the census.


6. The Data Documentation System is the most abstract part of the whole system. For the technically minded it is a relational implementation of the Aggregate/Tabular Data Extension developed by the Data Documentation Initiative (DDI); see http://www.icpsr.umich.edu/DDI.


8. Another resource within the system is three complete sets of one mile to the inch maps of Great Britain: the original Ordnance Survey First Series, the 1940s New Popular edition, and the interwar Land Utilisation Survey of Great Britain.

9. The three gazetteers are: John Bartholomew’s Gazetteer of the British Isles (Edinburgh, 1887), John Marius Wilson’s Imperial Gazetteer of England & Wales (Edinburgh, 1872) and Frances Groome’s The Ordnance Gazetteer of Scotland (Edinburgh, 1885); computerising this last was a collaborative project with the Gazetteer for Scotland. A specialised search interface for this material, which is the only way to reach entries for physical features, landed estates, etc., may be found at http://www.VisionOfBritain.org.uk/descriptions.

10. Registration and Union counties were assembled using Registration Districts and Poor Law Unions respectively, without any administrative existence. Although there were some differences between Registration Districts and Poor Law Unions, no differences are known between the two types of county.

11. Until the mid-19th century, parishes were primarily ecclesiastical units, although often used for other kinds of statistical reporting. Especially in the north of England these Ancient Parishes often covered several settlements, individually defined as Chapelfries and Townships within a mother parish named after the main settlement. Between 1851 and 1881, a new system of Civil Parishes was defined in which Chapleries and Townships generally became separate parishes. Thereafter Civil and Ecclesiastical Parishes evolved separately. Vision of Britain treats Ancient and succeeding Civil Parishes as one and the same, but Ecclesiastical Parishes as a separate kind of unit. This is historically incorrect, but enables us to present parish-level census data in
continuous time series from 1801 onwards.

12. Details of our unit typology may be found at: http://www.VisionOfBritain.org.uk/types.
13. The comparison unit can easily be changed for modern districts, counties, etc., via the unit home page. You can change the comparison for historical units by typing a different comparison unit ID (‘c_id’) value into the URL, finding the ID numbers on the relationships pages, but it is then your responsibility to ensure the necessary data exist for both units.
14. Decennial cause of death data for 1851–1900 were supplied by Robert Woods (Liverpool University), although 1901–10 were added by the GBHGIS team. The original data use five different cause of death classifications, but a simplified nCube, ignoring sex and using a twelve-way categorisation of causes, designed by Graham Mooney (Johns Hopkins University), spans all six decades.
15. This search can be found at http://www.visionofbritain.org.uk/units.
16. A ‘crumb-trail’ is the set of hyperlinks just below the main title bar, for example: ‘Your Location: Home > The Isles > UK > England > Devon >Colyton > Relationships’.
18. This is obviously not the most elegant interface possible, but our site had to be usable with any imaginable browser, and not necessarily on a PC.
SOURCES AND METHODS

This item considers a range of sources and methods commonly used in local population history. These vary in sophistication and complexity, but are intended to be of benefit to the broad LPS readership, and are accompanied by worked examples. Each item is written by an experienced population history practitioner, and will usually address both the possibilities and the pitfalls of the respective sources and methods under discussion. The LPS Board are happy to enter into correspondence on this item, which should be addressed in the first instance to the LPS General Office.

THE COMPONENTS OF POPULATION CHANGE

Andrew Hinde

Andrew Hinde is Senior Lecturer in Population Studies at the University of Southampton. He is the author of two books: Demographic methods (London, 1998) and England’s population: a history since the Domesday Survey (London, 2003).

Demography is the study of population structure and change, and the most fundamental quantity in demography is the total number of people living in a particular place. This number will typically change over time, and how and why it changes are often research questions of interest for local population studies. Consider an example. In eastern Hampshire lie the small market town of Alton and the neighbouring village of Holybourne. In the first census of 1801, the population of Alton was 2,026 persons and that of Holybourne was 366 (Table 1). During the next century the population of Alton increased steadily so that by 1901 it was 5,479, more than two and half times what it was in 1801. The population of Holybourne also increased, but by the third quarter of the century the increase had stalled, and after 1871 its population began to fall. This pattern of a rise and subsequent fall in population was characteristic of many English villages during the nineteenth century.

Why did these two settlements have a different demographic history between 1801 and 1901? The ultimate answer lies in their different social and economic evolution, as shaped by local, regional, national and even international forces. Yet these forces can only act to change the population of a given place through three processes: fertility, mortality and migration. It is through these components of population change, and only through them, that the total number of people living in a defined locality can change. In seeking to understand the causes of population change, therefore, it is useful to try to measure how these
three components have combined to produce the observed growth or decline of the population.

The relationship between fertility, mortality and migration and population change is encapsulated in what is often termed the demographic accounting equation. If the population of a given place in a given census is denoted by the symbol $P_1$, and the population of the same place in the next census is denoted by the symbol $P_2$, then we can write down the following equation:

$$P_1 + \text{births} - \text{deaths} + \text{in-migrants} - \text{out-migrants} = P_2$$

where the 'births' and 'deaths', refer to the numbers of these events occurring in the period between the two censuses, and 'in-migrants' and 'out-migrants' are the numbers of persons arriving and leaving the place over the same period. The difference between births and deaths is called the natural increase of the population, and the difference between the number of in-migrants and the number of out-migrants is termed net migration. Since in the United Kingdom there is not, and never has been, compulsory registration of changes of place of residence, it is not normally possible to work out the numbers of in-migrants and out-migrants. Therefore the demographic accounting equation is usually simplified to read

$$P_1 + \text{births} - \text{deaths} + \text{net migration} = P_2.$$  

The equation makes one important assumption: that the boundaries of the place to which it is applied do not change between the two censuses. In other words, it is important that the geographical extent of the area to which it is

<table>
<thead>
<tr>
<th>Census year</th>
<th>Alton</th>
<th>Holybourne</th>
</tr>
</thead>
<tbody>
<tr>
<td>1801</td>
<td>2,026</td>
<td>366</td>
</tr>
<tr>
<td>1811</td>
<td>2,316</td>
<td>384</td>
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<tr>
<td>1821</td>
<td>2,499</td>
<td>482</td>
</tr>
<tr>
<td>1831</td>
<td>2,742</td>
<td>487</td>
</tr>
<tr>
<td>1841</td>
<td>3,139</td>
<td>522</td>
</tr>
<tr>
<td>1851</td>
<td>3,538</td>
<td>497</td>
</tr>
<tr>
<td>1861</td>
<td>3,769</td>
<td>586</td>
</tr>
<tr>
<td>1871</td>
<td>4,092</td>
<td>618</td>
</tr>
<tr>
<td>1881</td>
<td>4,497</td>
<td>591</td>
</tr>
<tr>
<td>1891</td>
<td>4,671</td>
<td>587</td>
</tr>
<tr>
<td>1901</td>
<td>5,479</td>
<td>558</td>
</tr>
</tbody>
</table>

applied is identical throughout the period being studied.

Consider the application of the equation to population change in the parishes of Alton and Holybourne between 1871 and 1881. The population of Alton in 1871 was 4,092; by 1881 it had risen to 4,497 (Table 1). So we can write

\[4,092 + \text{births} - \text{deaths} + \text{in-migrants} - \text{out-migrants} = 4,497.\]

Similarly, for Holybourne (Table 1) we can write

\[618 + \text{births} - \text{deaths} + \text{in-migrants} - \text{out-migrants} = 591.\]

The next stage is to obtain the numbers of births and deaths. For certain geographical units, such as registration districts (RDs) or counties, the numbers of births and deaths in recent decades are published by the Registrar General.\(^3\) There were roughly 600 RDs in Victorian England; their average population rose with the national population, but in 1881 it was about 20,000. For individual parishes or small groups of parishes, though, civil registration data on decadal numbers of births and deaths are not normally available.\(^4\) If ecclesiastical registration is of good quality, the numbers of births and deaths might be estimated from the numbers of baptisms and burials in the parish registers. However, an alternative approach is to make the assumption that the birth rate in the parish or parishes being studied was the same as that prevailing in the RD in which the parish was situated. The annual number of births and deaths in each parish can then be worked out by applying the RD birth and death rates to the average population of the parish over the decade.

Both Alton and Holybourne were in the Alton RD, which during the 1870s had a birth rate of 32.3 per thousand and a death rate of 16.7 per thousand, and an average population of 15,098.\(^5\) The average population of Alton parish during the decade 1871–1881 was \((4,092 + 4,497)/2\) which is 4,294.5. At a birth rate of 32.3 per thousand, 4,294.5 people will produce 4,294.5 \times 0.0323 = 138.7 births per year. Over the ten years between the 1861 and 1871 censuses, therefore, we estimate that there were 1,387 births in Alton. Similarly, at a death rate of 16.7 per thousand, 4,294.5 people will generate an average of 71.7 deaths per year, so that over the decade we can expect a total of 717 deaths. The natural increase of the parish of Alton between 1871 and 1871 was therefore equal to the difference between the decadal numbers of births and deaths, which is 1,387-717 = 670.

A similar calculation for the parish of Holybourne during the same decade (average population 604.5), using the same birth and death rates, produces estimates of 195 births and 101 deaths, resulting in a natural increase over the decade of 94. Inserting these numbers into the demographic accounting equations for the two parishes produces:

- for Alton: 4,092+1,387-717+net migration = 4,497,

The estimated net migration during the decade is then simply the number
required to make these equations balance. For Alton this is -265, and for Holybourne it is -121. We estimate, therefore, that during the decade 1871–1881, 265 more people left the parish of Alton to live elsewhere than arrived to reside in Alton: for Holybourne, there were 121 more out-migrants than in-migrants.6

The growth in the population of Alton during the decade 1871–1881, therefore, was produced by the natural increase of 670, but the effect of this was reduced by about 40 per cent by net out-migration. In Holybourne, despite the natural increase of 94, the population actually declined during the decade, because the natural increase was more than cancelled out by heavy net out-migration.

Similar calculations can be applied to the remaining decades of the nineteenth century for both parishes.7 The results (Table 2) show that for most decades of the century out-migration exceeded in-migration in both parishes. Despite its urban character as a market town, Alton only gained population through migration in the decades 1801–1811, 1831–1841, 1841–1851 and 1891–1901, and only in the last decade of the century was the increase through net migration substantial. The village of Holybourne lost population quite heavily through net migration in all decades except 1811–1821 and 1851–1861, with the rate loss increasing during the last three decades of the century—a common pattern in the villages of southern England.

It is important to recognise that, because we have used the same RD birth rates and death rates to estimate the number of births in the two parishes, we have assumed that fertility and mortality were the same in both. While this is clearly

<table>
<thead>
<tr>
<th>Decade</th>
<th>Population change</th>
<th>Natural increase</th>
<th>Net migration</th>
<th>Population change</th>
<th>Natural increase</th>
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<tr>
<td>1801–1811</td>
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<td>274</td>
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<td>1811–1821</td>
<td>183</td>
<td>349</td>
<td>-166</td>
<td>98</td>
<td>63</td>
<td>35</td>
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<tr>
<td>1821–1831</td>
<td>243</td>
<td>377</td>
<td>-134</td>
<td>5</td>
<td>70</td>
<td>-65</td>
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<tr>
<td>1831–1841</td>
<td>397</td>
<td>362</td>
<td>35</td>
<td>35</td>
<td>62</td>
<td>-27</td>
</tr>
<tr>
<td>1841–1851</td>
<td>399</td>
<td>387</td>
<td>12</td>
<td>-25</td>
<td>59</td>
<td>-84</td>
</tr>
<tr>
<td>1851–1861</td>
<td>231</td>
<td>460</td>
<td>-288</td>
<td>89</td>
<td>77</td>
<td>12</td>
</tr>
<tr>
<td>1861–1871</td>
<td>323</td>
<td>499</td>
<td>-192</td>
<td>32</td>
<td>79</td>
<td>-47</td>
</tr>
<tr>
<td>1871–1881</td>
<td>405</td>
<td>670</td>
<td>-265</td>
<td>-27</td>
<td>94</td>
<td>-121</td>
</tr>
<tr>
<td>1881–1891</td>
<td>174</td>
<td>619</td>
<td>-445</td>
<td>-4</td>
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<td>-84</td>
</tr>
<tr>
<td>1891–1901</td>
<td>808</td>
<td>406</td>
<td>301</td>
<td>-29</td>
<td>57</td>
<td>-86</td>
</tr>
</tbody>
</table>

Notes: The natural increase figures in this table for decades before 1851 involve estimates of either or both of the crude birth and death rates (see endnote 7).

unlikely to have been exactly true, there is plenty of evidence that variation in fertility from place to place in nineteenth-century England was in general rather small, and that major variations over short distances were uncommon.8 Local variations in mortality are more problematic, and it is probably not advisable to apply RD-based death rates to parishes which are known to be unrepresentative (for example, in their occupational structure) of the RDs in which they are situated. In small units such as parishes, there will, of course, also be random fluctuations in the numbers of births and deaths from year to year, but over a whole decade these will tend to cancel out, so that decadal totals of birth and deaths will exhibit much less random variation.

The demographic accounting equation can be applied at all geographical scales from the individual parish, to groups of parishes, through registration districts and counties to entire countries, provided that the boundaries of the units analyzed do not change during the period of investigation. Generally speaking, the reliability of the results increases with the size of the units, because accurate data on births and deaths are more likely to be available. Nevertheless, even at the parish level where the numbers of births and death must often be estimated using birth rates which apply to larger geographical units, the application of this method can provide useful estimates of the contribution of fertility, mortality and migration to the observed growth or decline of the population. This knowledge can then be related to what is known of changes in the social and economic situation to aid understanding of the causes of population change.

NOTES

1. Alton and Holybourne are chosen here simply because the author resides close to the boundary separating their respective parishes. Both, however, have their place in the cultural history of England. It was in Alton on 24 August 1867 that an eight-year old girl called Fanny Adams was murdered and her body horribly mutilated; her grave is in the town's cemetery. Soon afterwards, the expression 'sweet Fanny Adams' was adopted by sailors to describe some of the food they were served at sea. Holybourne was the place where the novelist Elizabeth Gaskell, whose best known works include *Mary Barton: a tale of Manchester life* (1848), *North and south* (1855) and *Wives and daughters* (1866), died unexpectedly in 1865, in a house she had recently bought in the village.


3. For the second half of the nineteenth century, for example, they are published in decennial Supplements to certain of the Annual reports of the Registrar General of births, deaths and marriages in England. These are in the British Parliamentary Papers (BPP) as follows: 1850s, BPP 1865/XIII [Cd. 3524]; 1860s, BPP 1875/XVIII, pt 2 [Cd. 1155-1]; 1870s, BPP 1884-5/XVII [Cd. 4564]; 1880s, BPP 1895/XXIII, pt 1 [Cd. 7769]; 1890s, BPP 1905/XVIII [Cd. 2619]. Death rates are available by registration district (RD) for decades from 1841 onwards, and births for decades from 1871 onwards. An alternative, more convenient, way to obtain RD births and deaths data together with base populations for the decades from 1851 onwards is to use H. Southall and I. Gregory, *Great Britain historical database: census data: inter-censal population change statistics, 1851–1961* [computer file], (London, 2004) which is available as study number 4556 from AHDS History at the University of Essex (see www.ahds.ac.uk/history). Users based in UK HE/FE institutions can download the tables from this study through the Collection of Historical and Contemporary Census Data and Related Materials (see http://ahds.ac.uk/history/collections/
chcc.htm). More details of electronic resources for the local population historians can be found in H. Southall, 'A vision of Britain through time: making sense of 200 years of census reports', in this issue of LPS, above, pp. 76–89.

4. It is possible to obtain totals of births and deaths for registration sub-districts (there were usually two, three or four sub-districts within any one registration district) from the Annual reports of the Registrar General. However, these are not presented on a decadal basis in the Supplements to the Annual reports, neither are they available in a convenient electronic format (so far as the author is aware), so using sub-districts involves a considerable amount of searching through the British Parliamentary Papers. They do, however, permit more localised analysis.


6. It is important to recognise that knowing just the net migration, it is not possible to know exactly how many in-migrants and out-migrants there were. For example, in the case of Alton, there could have been 265 out-migrants and no in-migrants, or 965 out-migrants and 700 in-migrants, or any other combination that produces a net migration of -265.

7. So far as the method described in this paper is concerned, it matters not how the registration district (RD) birth and death rates are calculated, but simply that some birth and death rates representative of the parishes being studied can be estimated. For those readers who are interested however, the birth and death rates for the Alton RD in those decades when RD-specific figures are not available were estimated by deriving a comparability factor based on the relationship between the birth (or death) rate in the Alton RD and the national birth (or death) rate during the decades for which RD-specific birth (or death) rates were available. This comparability factor was used to adjust national rates for the decades before 1851 (in the case of birth rates) and before 1841 (in the case of death rates) to provide estimated rates for the Alton RD for those decades. The national birth and death rates were obtained from E.A. Wrigley and R. S. Schofield, The population history of England 1541–1871: a reconstruction (Cambridge, 1989).

NEWS FROM THE UNIVERSITIES

University of Aberdeen

Research

Historical research in population studies at the University of Aberdeen has largely concentrated upon the diasporas from Scotland and Ireland and thus upon emigration.


Major projects conducted within the Arts and Humanities Research Council (AHRC) Centre for Irish and Scottish Studies, situated within the Research Institute of Irish and Scottish Studies (RIISS), include *Irish and Scottish diasporas from the 1600s to the present* (led by Dr Enda Delaney). The Diaspora Programme, which has now been completed, consisted of seven projects at the heart of the Centre’s activities. These reflected the distinctively high emigration rates of the Irish and Scottish peoples since medieval times and their remarkable but contrasting impact on early modern Europe and the Americas, Australasia and India/south east Asia since c.1600.

Three of these projects are particularly relevant to LPS interests. The first of these is *Migration and Mobility from the British Isles to Northern Europe, 1603–1707*, run by Dr S Murdoch and Dr A Grosjean between 2001 and 2004. This resulted in the *Scotland, Scandinavia and Northern Europe, 1580–1701 Database* which is now hosted by University of St Andrews at www.st-andrews.ac.uk/history/ssne/. This includes information relating to 5,000 or so individuals from all corners of the British Isles who migrated to, or worked in, Denmark-Norway and Sweden-Finland between 1580 and 1707.
The second project, funded by the AHRC, *Data Compilation and Analysis: Diaspora Studies*, ran between 2003 and 2005, headed by Marjory Harper and Nicholas Evans. The third project, *The Twentieth-Century Diaspora: Emigration from Ireland and Scotland, 1921–2001* was undertaken in 2001–2004 by Enda Delaney and Angela McCarthy. As a result of these projects *The Scottish Emigration Database* was created. Currently it contains the records of over 21,000 passengers who embarked for non-European ports at either Glasgow or Greenock between 1 January and 30 April 1923, and at other Scottish ports between 1890 and 1960. The database may be searched at: www.abdn.ac.uk/emigration/search.html, and the records covering the first four months of 1923 have been deposited at the Arts and Humanities Data Service (AHDS), at the ESRC Data Archive at Essex University.

Also working within the History Department, Dr William Naphy has produced *Plagues, poisons and potions: plague-spreading conspiracies in the Western Alps, c. 1530–1640* (Manchester, 2001), and *Sex crimes from Renaissance to Enlightenment* (Stroud, 2002), both providing useful comparative material for those interested in social demography, as does Dr Frederik Pedersen’s *Marriage disputes in Medieval England* (London, 2000).

Based in the Department of Sociology, Andrew Blaikie, Professor of Historical Sociology, works on the relationships between biography and demographic structures, using nominal record linkage to investigate patterns and processes of family formation, unmarried motherhood and infant mortality. This research is micro-local in character and has involved both family reconstitution and community reconstruction of parishes in north-east and south-west Scotland from 1750 to the 1930s. Analysis has required extending the use of Old Parish Registers, which end in Scotland, to include civil registers, which start in 1855, census enumerators’ books, kirk session records and poor law archives to capture shifts in demographic and household patterns, the initial focus being a study of the familial, social and welfare context of unmarried motherhood which was published as *Illegitimacy, sex and society: north-east Scotland, 1750–1900* (Oxford, 1993). An important, continuing strand of Prof. Blaikie’s research since then has been the analysis of the relationships between biography and demographic structures and childhood life chances in Scottish rural communities. The use of uniquely Scottish poor law sources, Applications and General Registers of Poor, in conjunction with demographic data to reconstruct case biographies has been a central element of this work. Linkage has allowed investigation of four themes: the generation of individual life histories and their interaction with the developmental cycle of the household; the extent to which the coping behaviour of individuals and families may be regarded as strategic; the impact of migration upon household patterning; and the balance of resource transfers between kin and collectivity. Prof. Blaikie has published two articles in *LPS* (‘Infant survival chances, unmarried motherhood and domestic arrangements in rural Scotland, 1845–1945’, *LPS* 60 (1998), 34–46, and ‘Coastal communities in Victorian Scotland: what makes north-east fisher families distinctive?’, *LPS* 69 (2001),15–31. Readers may also find ‘Problems with “Strategy” in micro-social history:
families and narratives, sources and methods’, published in Family and Community History, 4 (2001), 85–98 of specific interest. Professor Blaikie is currently working on a major ESRC project, with Dr Alice Reid, Dr Eilidh Garrett and Ms Ros Davies at the Cambridge Group, on ‘Determining the demographic characteristics of nineteenth-century Scotland through record linkage: a rural-urban comparison’.

Courses

While all of the individuals mentioned above welcome expressions of interest in their research, including those from potential doctoral or M.Phil. students, the University also offers a number of postgraduate taught courses, resulting in an M.Litt. or a Postgraduate Diploma. These include: Early Modern Studies, taught in the Centre for Early Modern Studies; Modern Historical Studies, in the Department of History; and Irish & Scottish Studies, in the Research Institute of Irish and Scottish Studies. Further details are available from: www.abdn.ac.uk/prospectus/pgrad/. Information concerning courses within the undergraduate History and Historical Studies programmes can also be found via: www.abdn.ac.uk/prospectus/ugrad/.

In addition, the Centre for Lifelong Learning teaches a web-based course on Family History in Northern Scotland, accompanied by audio sessions. The course is aimed at the practical aspects and problems of tracing ancestry in Scotland. Discussions take place on the formation of archives, churches and local and national government with special emphasis placed on the use of names as guides to information. Each student will be expected to undertake a research project on a particular Scottish name and also to draw up a family tree. No academic qualifications are necessary, but 75 per cent course attendance is required, including attendance at the audio sessions. Assessment consists of one essay/project report, the monitored compilation of the family tree and an end-of-course assessment.

Other information

Several articles on local population studies have appeared in Northern Scotland, the journal of the Centre for Scottish Studies, which is published by the University. See http://www.abdn.ac.uk/css/northern.hti.

Meanwhile, those researching the population history of north-east Scotland may be interested in the George Washington Wilson collection, which consists of over 40,000 glass plate negatives produced by the Aberdeen firm of George Washington Wilson & Co. during the second half of the nineteenth century. This is part of the University of Aberdeen Photographic Archive and may be consulted via www.abdn.ac.uk/gww.

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Demographic and community studies at the University of Exeter

A distinct research theme is emerging at Exeter that revolves around community history. Most of the work in this area is located within the History Department, a part of the new School of Humanities and Social Sciences (HuSS). Here, a regular seminar series on family and community history provides the focus for a group of postgraduate students engaged on work relevant to Local Population Studies. These include Gerrie Bewes, studying kin relationships in 1851 Taunton; Janet Few, working on kinship and migration in north Devon; Caroline Verney, researching nineteenth century families and households in north Devon; Diana Trenchard, investigating migration into and out of Dorset; and Celia Langley, whose inquiry into family farming in north Cornwall since 1850 combines analysis from census enumerators’ books with farm surveys and oral history interviews.

The seminar series is organised by Henry French, whose study of the Essex village of Earls Colne from 1550–1750, written with Richard Hoyle at Reading, is about to be published by Manchester University Press. Other staff in the History Department with an interest in demography include Kate Fisher, whose book with Oxford University Press, Birth control, sex and marriage in Britain, 1918–1960 will be published soon, and Jane Whittle, whose current research funded by the AHRC and ESRC Cultures of Consumption programme is based on the early seventeenth-century household accounts of Lady Alice le Strange of Hunstanton, Norfolk. This includes an analysis of all the people mentioned in the accounts between 1606 and 1626, including servants, tenants, craftsmen and others. Jane also has an article on ‘Population mobility in rural Norfolk among landholders and others c.1440–c.1600’ appearing in a volume titled The self-contained village, edited by Chris Dyer, forthcoming in 2006 in the University of Hertfordshire’s new series Explorations in Local and Regional History.

Outside HuSS the Geography Department is home to a research project entitled: ‘Geographies of religion: the role of Methodism in Cornish cultures, c.1830–1930’. This project aims to shed light on the influence of Methodism in the formation of communal identities during the nineteenth and early twentieth centuries and is being undertaken by David Harvey and Adrian Bailey from the main Exeter campus, together with Catherine Brace, who is based at the university’s Cornwall Campus.

The work on Methodist communities provides a bridge to the university’s activities in Cornwall. Since 2004 we have shared a brand new campus with University College Falmouth, near Penryn in west Cornwall. From 2007 there will be a large expansion of undergraduate teaching of History there, along with other Humanities and Social Science subjects. One of the themes of the planned degree is scale—from regional to global history—and it is hoped that regional and community history will be a feature of the new campus, together with maritime history, building both on the resources of the locality and the
existing expertise of the Centre for Maritime Historical Studies at Exeter and the Institute of Cornish Studies in Cornwall.

The Institute of Cornish Studies was established in 1971 and is now part of HuSS. At the Institute the work most directly relevant to Local Population Studies is the broad research programme initiated by Bernard Deacon: the Cornish Communities Programme. This aims to encourage comparative research on the history of Cornish communities at a variety of scales. Currently a project on ‘Contrasting Migrations’, funded by the Leverhulme Trust and the European Social Fund, is reconstructing partial life histories of a cohort of children from 1851 in three economically contrasting communities with the aim of understanding the context of the migration decision in more detail. As well as this work Bernard Deacon, whose history of Cornwall is being published by University of Wales Press later this year, is also researching the historical geography of Cornish surnames. In both this and the Contrasting Migrations project he is working closely with the Cornwall Family History Society whose digitised database of the Cornish census enumerators’ books is an invaluable resource. Together with Family History Societies, migration centres in Devon, Dorset and Somerset and the Devon Records Office, a South West Migration Group has been established to further work on migration and help to bring together academic and family history networks in the south western peninsula.

The other major, externally funded research programme at the Institute is the Cornwall Audio-Visual Archive, a Heritage Lottery and European Social Fund supported oral history programme. This is led by Garry Tregidga, whose book Killerton, Camborne and Westminster: the political correspondence of Sir Francis and Lady Acland, 1910–29, will shortly be published by the Devon and Cornwall Record Society. The Cornish Audio Visual Archive now holds over 500 recordings relating to the twentieth-century history of Cornish communities. Current projects in this field include a study of border identity in the Tamar Valley, kinship networks throughout the region and mining communities in West Cornwall. A pilot project studying the cultural memories of Cornish descendants in the USA is also being developed in association with the University of Colorado at Boulder. Meanwhile Sharron Schwartz, a researcher at the Institute employed on the Contrasting Migrations project, is pursuing her special interests in nineteenth-century Cornish transnationalism and its relation with the mining heritage of contemporary Cornwall.

A number of postgraduate research students at the Institute are working on a variety of themes related to Cornish Studies. Among them Alan Honey is investigating nineteenth-century internal migration in Cornwall using the published Census and Registrar General’s reports. In addition other students are pursuing a diverse range of topics in the nineteenth-century regional setting, including brass bands, wrestling, political identities, the Anglican Church, and Romanies. The Institute has also been home to a popular part-time modular MA programme in Cornish Studies since 1999. This innovative programme, including modules on Cornish history and on community studies,
has attracted students from North America and Australia as well as the UK and combines online with face-to-face delivery.

Finally, the Victoria County History of Cornwall has recently been awarded a Heritage Lottery Fund grant to pursue its current two research projects. The first is a history of religion in Cornwall to 1559, being written by Professor Nicholas Orme, based at Exeter. The second is a study of the fishing villages of Newlyn and Mousehole, which is being coordinated by Joanna Mattingley, located at the Cornwall campus of the university. Both of these projects have a strong community dimension, with the active involvement of teams of volunteer researchers.

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BOOK REVIEWS


No mention of Babbage, but a book that deals with the application of computers and ICT for the historian, both ‘professional’ and ‘amateur’. The coverage is comprehensive and includes word processing, presentations, the internet and World Wide Web, databases, spreadsheets, and digital texts and images.

The word processing section deals with basic and complex techniques, covering essential elements such as: headers and footers, footnotes and endnotes, quotations, bibliography, setting up ‘styles’, and how to make a ‘Table of Contents’. Presentation looks at the ubiquitous Power Point, and provides a brief guide to its use. Chapter 3, ‘History on the World Wide Web’, covers the basic principles of searching and provides some useful sites for the historian. The chapter on databases gives a step-by-step approach for the creation of databases, together with data analysis and information retrieval. Chapter 5, ‘Spreadsheets and the Historian’, looks at the use of spreadsheets in: performing calculations and statistical analyses, acting as a simple database, and presenting information. The final chapter discusses digital text and images, and gives a basic introduction to text analysis, together with the acquisition and manipulation of digital images. There is also a glossary that covers some of the ‘computer jargon’.

As someone who grew up with log tables and slide rules, I found this book a useful guide to using the various applications described. For undergraduates and graduates/post-graduates of tender years, who have grown up with computers, the book may be used as a reference tool. I would have liked to have seen more information on saving and storing data, together with printing and the manipulation of files and folders. Furthermore, the section on databases was a little heavy going, but overall this is a detailed book that provides a ‘how to’ manual of computers and ICT for the historian.

David Robinson


The principal strength of this book is the impressive scope of its research. In exploring the ‘varied circumstances, meanings, and experiences of lone motherhood in eighteenth-century London’ (p. 3), Tanya Evans has marshalled thousands of Foundling Hospital petitions; bastardy and settlement examinations; ballads and chapbooks; and entries from the admissions registers and minute books of lying-in hospitals. The chapters deal with
aspects of plebeian life; attitudes towards courtship and marriage; the Foundling Hospital and the ‘philanthropic imagination’; the mothers petitioning for the admission of their child to the Hospital; and a similar analysis of the mothers using London’s lying-in hospitals and charities. The focus of the book is fixed clearly upon the ‘material lives of around two thousand women who produced legitimate and illegitimate offspring’ (p. 3), and Evans goes some way to bringing to life the makeshift economy of lone motherhood in the eighteenth-century metropolis. The book is generously peppered with first-hand accounts of poor, lone mothers, illustrating an enormous diversity of experience. These mini-biographies are a pleasure to read, and if pauper narratives are the new ‘history from below’, this book makes an important contribution to this innovative and expanding field.

Evans sets out to challenge the received wisdom that historically, lone mothers formed either a deviant sub-society (following Peter Laslett’s infamous ‘bastardy prone sub-society’) or else were the passive, seduced victims of predatory males (implicit in the work of Randolf Trumbach, for example). Readers of ‘Unfortunate objects’ will be left in little doubt that this is a false dichotomy, for London’s lone mothers were drawn inevitably from the heterogeneous mass of the plebeian population. Evans is correct to highlight the dearth of social or cultural historical research on unmarried and lone motherhood, and this book succeeds in beginning to rectify the imbalance. However, in the process Evans is in danger of conflating all quantitative history with that which represents unmarried mothers as deviant. There is very little discussion of the historical-demographic literature on illegitimacy, even though much of it is quite germane to the subject of the book. There is no mention, for example, of E.A. Wrigley’s 1981 contention that ‘in some periods of English history, it was a common experience for a woman to bear a first child who was either illegitimate or conceived several months before marriage...at times this was probably the predominant mode of entry into maternity’. Rates of illegitimacy rose steadily across the long-eighteenth century, such that by 1800 approximately one in four first births were outside wedlock. This suggests that social attitudes towards unmarried motherhood may have been tolerant or indulgent; an implication that has clear relevance to the argument of this book. It is also disappointing that Evans does not engage more substantially with the fact that London, from the early-modern period to the nineteenth century, consistently recorded lower rates of illegitimacy than provincial and rural areas. It would be interesting to consider whether this really was a function of deficient registration, as Evans suggests (p. 2), or rather a directly-related feature of London’s highly migratory plebeian culture.

That said, this book adds a considerable layer of lived experience onto the existing historiography of metropolitan illegitimacy and poverty. The thrust of the argument is that poor mothers captured the philanthropic imagination of the eighteenth century. This is most clearly manifest in the foundation of so many institutions dedicated to infant and maternal health, such as the London Foundling Hospital (which opened its doors in 1741) and lying-in hospitals and charities such as the General Lying-In Hospital (founded in 1752) and the Royal Maternal Charity (founded in 1757). These institutions were not only
enormously fashionable amongst eighteenth-century polite society, but also were considered (at first, at least) to be meeting the natalist demands of an expanding imperial nation. Evans usefully describes the rise and fall of these institutions, and her discussion is an up-to-date point of reference for those interested in the provision of institutional welfare in eighteenth-century London. However, this book is clearly not an institutional history. Its real value is in its exposition of the lives of individuals. Not only did lone mothers capture the philanthropic imagination of eighteenth-century London, they also captured a wider, and also benevolent, public imagination. Evans deploys a considerable range of sources to illustrate how lone mothers could be treated with toleration, humanity and compassion by their neighbours, employers, friends and family. Far from being moral outcasts, London’s lone mothers were perceived as ‘unfortunate objects’, deserving of sympathy, charity and assistance. This was manifest most obviously in the bricks-and-mortar of institutions, but also in the petitions and references written by, or on behalf of, lone mothers. These documentary sources illustrate the circumstances of individual women’s ‘misfortune’, and also implicitly detail the social networks available and the paths by which women navigated their poverty. We learn, for example, that petitioners to the Foundling Hospital usually made reference to ‘at least one friend who had helped them’ (p. 175), although the fact that an application for institutional assistance was being made presumably indicates that such forms of self-help were largely inadequate.

The book is highly evocative in its descriptions of the plebeian morass of eighteenth-century London. Women could find themselves alone with children as a result of illegitimate pregnancy, the death of husband, abandonment or enforced separation (perhaps as consequence of military recruitment). The welfare needs of such women were inevitably similar. This blurring of boundaries between different social groups emerges clearly from the sources, and is illustrated, for example, in the fact that it was economic necessity or ‘misfortune’, rather than moral eligibility, that formed the basis of the admissions procedure to the Foundling Hospital (pp. 107-125). This is an interesting argument, and confirms Alysa Levene’s findings that both legitimate and illegitimate children were admitted to the eighteenth-century Foundling Hospital. However, whilst poverty was undeniably common to eighteenth-century plebeian Londoners, one can not help wondering whether the sources used by Evans can really tell us the extent to which single, pregnant women, and unmarried mothers, were welcome in the capital’s parishes. Settlement and bastardy examinations may detail the circumstances of the pregnancy, but were designed primarily to establish either the woman’s settlement or paternity of the child. Such sources tell us little about what happened after the examination took place (especially if it was an examination before birth). As Evans describes, such women were ‘vulnerable’, and of course, many received relief under the parochial affiliation system (pp. 26-27). Others presumably turned to the Foundling Hospital, whilst others were formally removed, although Evans suggests this ‘was not a common experience’ (p. 26). It is also plausible, however, that many single, pregnant women chose to leave London in order to give birth in their own parishes of

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settlement in the provinces, or where they had family or kin support. Since illegitimate children took settlement in their parish of birth, it would have made sense for both mother and child to share settlement. This may well partially explain why London manifested such comparatively low rates of illegitimacy.

The least satisfactory aspect of the book is Evans’ varying reluctance to analyse her sources quantitatively. Given the size of her samples of documentary evidence, this is frustrating. It could be argued that sources such as settlement examinations and Foundling Hospital petitions are difficult to categorise and quantify, but we are nonetheless told that ‘many’ mothers did this, or ‘most’ mothers did that. ‘Many’ fathers of illegitimate children were, for example, ‘sent to war’ (p. 36). This is a basic form of quantification, but it is frustratingly imprecise. How many is ‘many’? Does ‘most’ mean more than half? There is inconsistency, however, since at times Evans uses statistical evidence to good effect. Chapter Five contains all sorts of important details derived from quantitative analysis. We learn that only 16 per cent of unmarried mothers applying to the Foundling Hospital admitted feeling shame at the birth of their illegitimate child (p. 113), and that 18 per cent claimed that they had commenced sexual relations with a partner under a (later broken) agreement of marriage (p. 116). It is a shame that this approach could not have been applied more consistently throughout the book.

Where Evans is effective, however, is in illustrating how London’s lone mothers were very much ordinary women. She shows that while some unmarried mothers were condemned as morally reprehensible, others were not. Either way, they were able to adapt and negotiate strategies for survival. Yet it is difficult to agree with her conclusion that ‘poor women, despite being seduced, abandoned, poor and desperate, were not victims – either of men or society’ (p. 205). Victimhood is a difficult, and politically contentious, concept. In her desire to move away from the deviant/victim dichotomy, Evans risks denying the extent to which lone mothers may be seen as victims of circumstances beyond their control. Surely a single woman, who having consented to sex after a promise of marriage, and is then subsequently abandoned by her lover, can be regarded as a victim by some definition? With regards to the Foundling Hospital, it could also be argued that metropolitan, ‘philanthropic’ society offered lone mothers an unenviable choice. In return for welfare assistance (or rather, the opportunity to return to work), these desperate women had to abandon their children to the care of an institution. As Evans describes, there is no evidence of a lack of maternal love (pp. 139-143). While these ordinary women and mothers were certainly not passive actors, it is hard not to conclude that, by some definition, they were indeed victims of both men and society.

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Many readers of *LPS* will be familiar with the ecclesiastical returns of 1563 and 1603, the former more commonly known as the ‘Bishops’ Census’ the latter sometimes described as the ‘communicant census’, and may well have used them in attempts to establish the population of local communities at one or both of these dates. They were brought to the attention of the local historian fully 47 years ago by Joan Thirsk in ‘Sources of information on population 1500-1760’ published in the *Amateur Historian*, 4 (1959) (later to become *The Local Historian*) and have since been deployed in innumerable local and one major regional study, the latter being John Patten’s survey of East Anglia, most readily accessible via his book *English towns 1500-1700* (Dawson: Archon Books, 1978). Alongside the Compton Census of 1676, they form a trilogy of ecclesiastical censuses that have both informed and challenged the local population historian. An edition of the Compton Census was published as volume 10 of the same British Academy series in 1986 (A. Whiteman ed., *The Compton Census of 1676: a critical edition*, Oxford University Press), and this has established itself as a classic of its kind and received much well-deserved critical acclaim. The British Academy is to be congratulated on completing the series with the publication of the current volume, which will prove equally valuable and will no doubt again deservedly produce plaudits for the co-authors for both their diligence and their scholarship.

The coverage of these two ecclesiastical returns is unfortunately far less comprehensive than the later Compton Census. They survive for only 12 dioceses (out of 26) in 1563: Bangor, Bath and Wells, Canterbury, Carlisle, Chester, Coventry and Lichfield, Durham, Ely, Gloucester, Lincoln, St Davids and Worcester. For 1603 they cover 16: Bangor, Bristol, Canterbury, Chester, Chichester, Coventry and Lichfield, Durham, Exeter, Gloucester, Lincoln, Llandaff, Norwich, Oxford, Salisbury, Winchester and York. It is particularly unfortunate that the overlap in terms of survival is so limited, for only seven dioceses have returns for both years. Furthermore, the returns for the various dioceses are often far from complete, sometimes fragmentary: for both Coventry and Lichfield and Exeter in 1603 data is only available for a single parish (respectively Shirland and Uffculme), while no parish data is available at all for Durham at the same date. The local population historian must therefore inspect the volume carefully, and not simply buy on the strength of the apparent coverage listed in the contents. Where there is significant coverage the data is arranged in an admirably clear manner, in turn by diocese, archdeaconry, deanery and parish, the latter with spellings modernised to aid identification, and maps to identify counties, archdeaconries and deaneries included towards the start of each chapter. Each chapter is also prefaced by a discussion of the documentation available, its coverage (including a particularly useful list of omissions), and an assessment of its reliability based upon the extent to which data has been rounded to a multiple of ten, twelve or twenty in 1563, and to a multiple of ten and twenty in 1603. In the introduction
to the volume details are also provided of the summary returns for the various dioceses that are extant for 1603.

How reliable these returns are as an indicator of population size remains a controversial issue, and the debate between the present reviewer and Alan Dyer concerning the accuracy of the Bishops’ Census has been rehearsed in the pages of this journal (A. Dyer, ‘The Bishops’ Census of 1563: its significance and accuracy’, LPS 49 (1992), 19-37 and N. Goose, ‘The Bishops’ Census of 1563: a re-examination of its reliability’, LPS 56 (1996), 43-53). It is re-entered in the introduction to the present volume, where it is suggested that the apparent discrepancy between parish register data and population totals which can be established from the 1563 returns may be the product of exceptional demographic circumstances prevailing in the early 1560s, themselves a product of the well-known mortality crisis of 1556-60. To this reviewer the argument is rather strained and unconvincing, and it remains the case that even the adoption of a generous household multiplier of 5.05 produces a national total from this source well below the Cambridge Group estimate for 1561 based on generalised inverse projection—but readers should follow the debate for themselves and make up their own minds. For 1603 the authors accept that the discrepancy between the Cambridge Group figures and the national totals that can be established from the returns must reflect omissions, the reasons for which are outlined here, and a correction factor is suggested which might be applied to make good the shortfall. For the local population historian, I would suggest that these sources are best used in conjunction with parish register data wherever possible rather than as free-standing sources, particularly when it comes to tracking change over time.

This is a most welcome, and long-awaited, volume, and the editors are to be warmly congratulated on its production. It will prove of immense value for the data that it contains, the detailed appraisal of its coverage and for the erudite discussion of the complexities involved in its interpretation. As one might expect of a British Academy volume, it is very well produced, and it offers excellent value at just £40 for a book of this weight, both scholarly and metric.

Nigel Goose
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Though there had been aliens in England for centuries, the beginning of the ‘first refuge’ is generally linked to the foundation of the ‘Strangers’ Church’ in London by Edward VI in July 1550 (p. 14). This first major wave of immigration, more accurately conceptualised as a series of successive waves across several generations, continued until the early seventeenth century, before it petered out in the mid- to late-seventeenth century, in the face of repatriation and partial assimilation. It is the aim of this volume to provide an up-to-date appraisal of the significance of this early large scale movement of refugees in the early Tudor and Stuart periods, providing not only ‘the basis
for a reassessment of some of the issues relating to immigrants’ that were first explored as long as a century ago, but also the opportunity to highlight a number of new areas of interest (p. 2). From the early twentieth century through to the 1960s historians had concentrated on the role of migrants as ‘harbingers of economic change’ (p. 223). During the 1980s and 1990s, however, early modern migration studies entered a new phase as researchers, shifting focus, began to centre their investigations on the function and organisation of the immigrant communities. Success followed, the key to this being the decision to supplement the usual English urban and governmental sources with records mined from the archives of the foreign communities themselves, both here and on the continent. This collection, which continues to draw extensively on such sources, thus seeks to offer ‘fresh perspectives on the immigrant communities, exploring their multi-faceted nature as well as raising pertinent issues relating to the study of immigrants in general’ (p. 225).

In doing so, it also seeks to raise the historical profile of the first major wave of immigration into early modern England. This is important for two reasons. Firstly, this wave is often overshadowed—both in the academic and popular contexts—by the history of the later wave of immigration in 1685, that of the Huguenots. Their arrival has had a much more lasting impact on English society and culture, to a considerable extent the result of the activities of the Huguenot Society. Secondly, as Lien Luu rightly protests, early modern migration studies are rarely part of mainstream history and need to be more fully integrated into general surveys of the early modern period. Consequently the volume opens by setting the first wave of alien immigration squarely in its historical context, introducing first the political and religious, and then the economic and social background for the non-specialist, with Nigel Goose proving to be particularly adept at the latter. It then highlights some of the threads running through the collection: the greater overall impact of the economy rather than religion on the lives of aliens; the rise and fall of immigrant communities; the geographic specificity of the immigrant population (the south eastern towns were their main location); the varied levels of integration that were achieved; and the complexity of the reception of aliens in those host towns. The introduction also provides a short dialogue on immigrant numbers and the problematic nature of measuring them, and an excellent set of cameo discussions of the rise and fall of alien numbers in the major towns of south-east England.

The ten essays that form the main body of the collection are divided into three sections: ‘Immigrant Communities in England’; ‘Immigrants and their Impact’; and ‘Immigrants and the International Community’. The dominant group of aliens to arrive in England during the Tudor period, as Raymond Fagel’s essay reveals, had travelled there from the Low Countries. ‘75 per cent of the alien population of London and Westminster in 1567’, for example, may have originated in the Low Countries, although some areas, such as the ‘populous and highly developed provinces of Brabant and Flanders’ were more significant than others (pp. 53-4). Rather than consider the position of these individuals simply as immigrants, however, Fagel chooses to reverse the perspective and examine them in addition as emigrants. By sketching the
historical and geographical development of the Netherlands in the sixteenth century he is able to reveal the other side of the story: the nature of some of the push factors that were important in driving the migration process.

Nevertheless, escape to England, while releasing aliens from the danger of religious and political oppression, may not have provided them with the economic and social security they desired. Though Luu notes that immigrants were ‘embraced on the one hand by [protestant] sympathizers’, in other ways their reception was much less welcoming: in terms of English common law, for instance, they were of lesser status than their native counterparts, with fewer legal rights (p. 57). This was especially damaging in terms of property. Since they were unable to own it, aliens could neither purchase, nor inherit, nor bequeath property, and were in addition prevented from leasing premises and thus keeping a shop. Moreover they were liable for double the standard rates of taxation, and were unable to improve the lot of their children: the same restrictions were frequently applied to second-generation immigrants. Occupational niches were available, but even in London opportunities for economic advancement may have eluded many individuals. Despite the image of London as a city of opportunity—the legend of Dick Whittington and his cat remained a popular early seventeenth century rags-to-riches story—Joseph Ward’s essay suggests that ‘the ability of the metropolitan labour market to accommodate immigrants’ may well have been overestimated (p. 85). Clearly such restrictions did not prevent immigrants from trading, for they had to earn in order to exist. Such independent action may, at certain times and in certain places, have been tolerated, but difficult economic conditions ensured that this veneer of acceptability was easily damaged. Luu and Ward therefore open up the debate on the subject of xenophobia that is taken up later in Section II.

However, the second section opens with Andrew Spicer’s discussion of the significance of the stranger churches, as ‘migration came to be seen in increasingly confessional terms during the sixteenth century’. Not all aliens were religious refugees, but any sharp differentiation between religious and economic motives belies the complexity of factors that informed decisions to migrate. And whatever the reasons behind those decisions, many found it convenient ‘to express their motives in confessional terms’ (pp. 91-2). The stranger churches thus became the focal point for the alien community, and on some occasions, as the locus for native expressions of anti-alien sentiment. At Sandtoft in the Isle of Axholme, for example, the hostility of local inhabitants towards the drainage system being constructed there by foreign craftsmen resulted in serious damage to the strangers’ church.

This theme of hostility is taken up and extended by Goose in the first of his two essays in the volume. In a fascinating discussion of the phenomenon of ‘xenophobia’ in the early modern period, Goose—arguing against the more general trend of the collection—suggests that the mid-sixteenth to the mid-seventeenth century may have constituted ‘a veritable oasis of tolerance between the more violent prejudice of the medieval period and the arrogant self-confidence that accompanied a rise in nationalism during the eighteenth
century’ (p. 129). He may overstate the case, but it is clear from other authors in the collection that the problems suffered by immigrants were predominantly economic in origin and brought about by the difficult trading conditions that many towns endured, especially in the 1590s. Goose’s second essay offers an equally balanced revision of the role and effect of immigrants in the push towards industrialisation, seeing a relationship that was based on ‘interaction as well as tutelage’ (p. 155). The role of aliens in economic development is complemented and broadened by the final chapter of this section, in which Raingard Esser assesses the impact of immigration on the cultures of Tudor and Stuart England, by examining participation in printing, festival, ceremony and celebration, and the production of material goods, especially at the fine art and luxury end of the market.

In Section III the focus shifts towards the continent, as the volume seeks to reveal some of the factors that affected levels of migrant repatriation. Charles Littleton argues that connections remained strong between immigrants and the continent in the four decades after the first refuge, aided by a group of enterprising ‘porteurs’, whose exploits in criss-crossing the Channel with correspondence alone make this chapter a gem worth reading (p. 182). His view that immigrants in England became more inward looking after 1610 following religious peace in France and the Netherlands, however, is not supported by Luu, who sees religious intolerance, economic depression and an active policy of migrant recruitment by the Dutch Republic as significant factors in encouraging immigrant repatriation (and some English emigration). Yet all was not lost. Despite economic difficulties and early seventeenth-century Laudian policies that alienated some immigrants, other factors encouraged integration. Stranger churches, active in the support of religious wars in their homelands, were aided in their efforts by native Englishmen, and fighting a common enemy so reduced English soldiers’ xenophobia, according to David Trim, that ‘trans-ethnic marriages became relatively common’ (p. 217).

If the first wave of immigrants is still commonly overshadowed in the literature by that of the second—the Huguenots—it is not difficult to see that the latter would have been much less of a success without the former. And this collection of essays does considerably more than bring the immigrants of the first refuge out of the historical shadows. It draws together important new research in an accessible, enlightening and enjoyable collection of essays that offer a wonderfully rounded picture of English aliens in the Tudor and early Stuart periods. Though the editors are clearly of a mind in prioritising the relationship between economic factors and migration, the collection also gives due regard to religious, political and cultural aspects of the immigration process. For the non-specialist in particular, there is much of value and little to criticise (although a footnote explaining exactly what happened on St Bartholomew’s Day would have been helpful!). Indeed, this book deserves to be read by anyone with an interest in the history of the early modern period.

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This is the third handbook on the manuscript returns for England and Wales published by this author and I am sure that most LPS readers will already be familiar with *Making sense of the census: the manuscript returns for England and Wales* (HMSO, 1989) and *A clearer sense of the census: the Victorian censuses and historical research* (HMSO, 1996) both of which are out of print. It is essentially a reissue of the second of these handbooks, although some material about the early censuses (1801-1831) has been reincorporated, discussion of the recently released 1901 census has been added and short analyses of four diverse communities in 1901 are provided (pp. 143-152, 207-212). Recent published work is discussed where appropriate and reference is also made to relevant websites, an area that has vastly expanded in recent years. Anyone who is familiar with Eddy Higgs’ publications, especially his account of the work of the General Register Office, *Life death and statistics* (Local Population Studies, 2004), will know that this new volume is essential reading for all those working or intending to work on the various source material produced in conjunction with the taking of the census in England and Wales.

This book does exactly what you would expect of the best handbooks—it provides a good general introduction to the topic for those who are new to working with these sources, for more experienced researchers it provides many interesting insights into how these documents were produced and it also remains a handy reference aid for anyone who uses these source materials on a regular basis. The first section discusses the history of census taking and the structure of the enumerator’s books. This is followed by a longer section on how census data may be interpreted. Issues such as how information relating to households and individuals were recorded are discussed and a separate chapter is devoted to the thorny problem of how occupations were recorded in the census. The final section concerns the skills needed to effectively exploit census material and it discusses both the potential and limitations of these sources. Finally nine appendices contain varied information such as the dates when the censuses were carried out, examples of changing enumeration schedules and a list of geographical details required on each page of the enumerator’s books. Such information is useful to have and can make using the returns a less painful experience.

The seemingly deceptive simple notion of counting the population created a wealth of information that is often difficult to interpret and this book could be used as an objective lesson in how such official documents were created and how their interpretation is not always straightforward. Overall a welcome resource that should be consulted not only by those who analyse this source material on a regular basis, but by anyone with a wider interest in the administration of Victorian Britain. Yes, reading this book really does help to make sense of the census.

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This is no ordinary book about maps nor is it simply a history of medical cartography. Koch uses examples from the seventeenth century to the present day to illustrate that mapping disease is more than just a visual representation of data—it is also an exercise in the use of authorial tools. Other books that have offered support in techniques in how to map have not discussed the question what to map and Koch addresses this issue in considerable detail for medical cartography.

The book starts with a discussion of early medical maps of seventeenth century plague quarantine strategy. Koch argues that the simplistic techniques used to illustrate these maps underestimate the knowledge of disease diffusion they represented with quarantine zones being enforced by military action. By the eighteenth century with environmental determinism driving medical thought, mapping of disease developed to encompass this theory. That locations of yellow fever outbreaks and of city sewage were co-terminus was shown in a series of maps of New York from the 1790s and this supported the thinking that miasmas (foul smelling vapours) that rose from the waste and water spread the disease.

The book then concentrates on the history of mapping cholera and its contribution to the development of later medical cartography. Koch explains how the patterns this mapping illustrated were related to the lack of medical knowledge at the time of their drawing. Koch argues that medical mapping did not expand in the early nineteenth century simply as a response to cholera, as has been previously suggested, but developed from the earlier mapping of diseases such as yellow fever. The battle between the contagionists and the anti-contagionists contributed to the development of the mapping of cholera and vice versa. Prior to Snow’s mapping of the vicinity of the Broad Street pump, cholera outbreaks had been variously mapped including one for Exeter supporting a miasmatic theory of the disease’s spread, one in Hamburg supporting anti-contagionist transmission and an international mapping that represented diffusion of the disease that neither contradicted nor supported either theory.

Koch then charts the history of Snow’s study of cholera, from his early work tabulating population and cholera outbreak duration, through to his mapping of the Broad Street outbreak and the removal of the pump handle. Koch challenges the theory that Snow’s work was pivotal in the persuasion of his contemporaries that cholera was waterborne, partly because not all the cases or even deaths were mapped, but rather only all the deaths Snow felt were directly linked to the water from the pump. Koch criticises Snow for not expanding his theories on cholera transmission to other diseases which might have given his work more credence earlier. Other less well remembered scholars continued to map cholera and link it with other determinants such as altitude and climate advancing the links between the physical environment
and disease spread, whereas the mapping of typhoid transmission in the US followed from Snow and supported his theories. It was not until the late nineteenth century that Snow’s disease theories would be testable with advances in bacteriology, and the 1900s before he would be vilified, and that his work would be seen as a turning point in medical history. But it was bacteriology itself that led to the decline in disease mapping. Once waterborne disease vectors could be identified in the water, the need to map the cases declined.

The book includes a lengthy discussion of how later scholars took Snow’s maps and redrew them. Sedgewick in 1911 added a boundary of equal distance between Broad Street and other water pumps to emphasise the sanitary link. This redrawing may have led to Thiessen polygon analysis being wrongly attributed to Snow; instead, argues Koch, Snow may have developed district analysis on the basis of proximity. Formal Thiessen polygon analysis was carried out on Snow’s map by Cliff and Haggett in 1998 (and this demonstrated that the Broad Street pump was implicated in more deaths than other neighbouring pumps). Other redrawings have proved more contentious. One of the limitations of the book under review is that Koch is very dismissive of Tufte and does not attribute to him the vast contribution in mapping theory development he deserves, simply it seems because of his treatment of yet another redrawing (Gilbert’s redrawing in 1958) of Snow’s Broad St. map, to which Koch takes exception. Similarly Monmonier is criticised heavily by Koch, both for his more recent redrawings of Snow’s maps (also based on redrawn versions, not Snow’s originals) and for his criticisms of Snow’s mapping. The contribution Monmonier has made to mapping theory and map thinking generally is ignored. The debate rages on and versions of Snow’s maps have since been adapted as example data by The Center for Disease Control in their epidemiological mapping software, and according to Koch, again misrepresented.

Koch then provides a brief (and somewhat less provocative) history of the decline of medical mapping in the first half of the twentieth century and then discusses in more detail its renaissance in the latter half of the twentieth with the advent of computer-aided mapping. The descriptive disease mapping phase of national atlases and international disease patterns in the mid-century is considered and then the subsequent shift to more analytical work discussed. Koch returns to Snow’s mapping and other examples in these later chapters to further discuss the use and misuse of modern mapping techniques such as GIS.

This is not a book to dip into lightly as the indexing and chapter titles belie a great more detail in certain topics (such as the history of cholera mapping) than in others (for example the modern development of cartographs and mapping techniques more generally). Nor is it a book to be read in one sitting as its arguments are very demanding and warrant close scrutiny for their ability to inform debate and future mapping. The book is worthwhile reading for a range of academic audiences from medical historians, through to population geographers and cartographers. Koch’s text encourages more mapthinking and this must be a good thing. In particular, mapping historical (disease)
phenomena, with the benefit both of hindsight and modern mapping techniques, requires more thought than it ever did.

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Forming the third volume of the University of Hertfordshire Press series Studies in Regional and Local History, this book explores the changing relationship between Cambridge and its economic hinterland during the fifteenth and sixteenth centuries. Beginning in 1540 when England was characterised by demographic decline, labour shortages and trade recession Lee charts Cambridge’s fortunes until c.1560 when rates of population increase were high and the economy had begun to prosper. The fortunes of towns during this period have been the subject of a long-running debate concerning whether the problems associated with the aftermath of the Black Death, which were still evident in the fifteenth century, extended into the sixteenth century. Although Cambridge was not a leading provincial town in this period (according to the 1524-5 Exchequer Lay Subsidies it was ranked fifteenth in terms of its taxpaying population), it was still prominent amongst the second tier of English towns. Of course, Cambridge was different from other towns (Oxford excepted) in that the presence of the university provided a powerful stimulus to trade, thus enabling the city to maintain its population. By examining a wide range of sources from the city’s two communities—borough and university—Lee is able to present a sophisticated analysis of Cambridge’s economy and society which also allows him to make important contributions both to the ‘urban decay’ debate and to the wider social history of England during the later Middle Ages.

Following a scene-setting chapter which could also be read as a useful and succinct introduction to the varied roles of towns in the fifteenth and sixteenth centuries, Lee goes on to consider Cambridge’s place within the English urban hierarchy. Cambridge had a population of around 4,000 during the fifteenth century and this rose to around 6,500 towards the end of the sixteenth century. Throughout the sixteenth century the university population remained relatively stable, at between 1,300 and 1,500, and as early as 1495 ‘there were approximately 17 hostels accommodating 800 scholars’ with others scattered throughout the city (p. 65). However, as the colleges began to take in undergraduates the numbers lodged throughout the city declined, although this did not appear to have had a detrimental effect on Cambridge’s population and economy. The thriving university enabled the city to stave off the worst effects of population decline during the fifteenth century and it clearly formed an important part of Cambridge’s economy throughout the period. Indeed, an important part of Lee’s thesis is that ‘town and gown’ were never as polarised as some commentators have suggested.
Chapter 3 examines Cambridge’s society and builds up a picture of what in many ways is a typical small town. Its occupational structure was dominated by food and drink, clothing and services (p. 56) while religious institutions and the parish church played an important role in everyday life and were significant features of the medieval townscape (pp. 69-76). The university attracted scholars mainly from the northern and eastern counties and while aliens formed only a small part of total migration to Cambridge, they were well documented, and specialist demand from the university ensured that foreign craftsmen such as printers were able to settle in the city. Chapters 4 and 5 deal with trade and show that Cambridge acted as a natural focus for the region; it was a marketplace for its immediate rural hinterland, although it also had extensive trade connections further afield, most notably to Lynn and London. The local saffron trade ensured that national trading links were commonplace throughout the county. Likewise, Stourbridge Fair, which was described by a contemporary as, ‘by far the largest and most famous fair in all England’ (p.139) was held during August and September and it attracted traders from around the country. The university maintained certain privileges with respect to trading in the city and this often created problems with the borough.

The final two substantial chapters consider college consumption and new university building projects. The colleges were certainly wealthy institutions. A survey of 1546 showed that they had a combined net income of £3,500, which was three times that yielded by taxation from Cambridge and its county in 1524 (p. 152). While some of the college’s demand was met from within the town itself, much had to be brought in from Cambridge’s hinterland, while more specialist goods came from much further afield. With the establishment of new colleges and the general expansion of the university, colleges became increasingly independent institutions, often employing their own bakers and from the 1550s organising the cultivation of their own estates to provide basic foodstuffs (p. 173). Yet despite such trends the problems associated with transporting bulky produce ensured that many college trading links were confined to a ten mile radius of Cambridge.

In many ways Cambridge’s relationship with its hinterland, although inextricably bound up with its local geography, was similar to other English towns of this period. Lee’s analysis, if truth be told, does not reveal a radically different picture from other towns such as Worcester, Colchester or York, where similar studies have been undertaken. Where Cambridge differed of course was that the presence of the university, and the demand it created, enabled the city to fare much better than many other late medieval towns. Thus, Cambridge was simultaneously both an exceptional and a typical late medieval city and this fact alone should ensure that this well-written and engaging book should be read by anyone with an interest in the social history of England in this period.

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Margaret Spufford’s *Contrasting communities* (Cambridge University Press, 1974), with its pioneering approach to community history, has inspired a number of similar studies. Here is another one. However, rather than focusing on a single settlement or parish this book examines the small market town of Cranbrook in the Weald of Kent together with its six contiguous rural parishes—Hawkhurst, Benenden, Biddenden, Frittenden, Staplehurst and Goudhurst. A family reconstitution was carried out across this region and subsequently a wide range of other sources were linked to the reconstituted families. The focus of the study is 1660-1700, a period when this area experienced high levels of religious dissent, and registers from five of these parishes contributed towards Wrigley and Schofield’s national sample (*The population history of England 1541-1871: a reconstruction* (Edward Arnold, 1981)).

The book claims to be ‘the first proper treatment that has ever been given not only to a single community but to a group of communities focused on a market town’ and that this ‘investigation is unique in being both essentially local in its focus, yet with an astonishing breadth that takes in national patterns of social and demographic history’ (frontispiece). We should therefore judge the book against these assertions.

The text in effect is divided into four sections. The first chapter introduces the wide range of sources used in the study and these include parish registers, marriage licences, hearth tax returns, probate records and churchwarden’s and overseer’s accounts. Chapter two then discusses the socio-economic background to the Cranbrook region. The second section (chapters 3-5) discusses demographic patterns while the next two chapters deal with the social hierarchy. The final section comprises three chapters entitled, ‘Support across village societies’, ‘Borrowing and lending money’ and ‘The nonconformist factor’. Just under half the book discusses demography and the rest is broadly concerned with social history. Much of interest can be gleaned from reading this book. For instance, it provides useful information about omission rates in baptism registers due to the varying numbers of unbaptised infant deaths (p. 8) and a variety of evidence is presented concerning whether nonconformists recorded events in parish registers (p. 189). A myriad of individual family examples are provided about diverse topics such as poor relief, will witnesses, who swore affidavits for witnessing burial in woollen and who lent money to whom. Clearly the author has built up an impressive picture of how this local society operated.

Poole is less impressive when dealing with how the local society related to the wider national one and he also fails to provide much illumination about how the market town interacted with its immediate rural hinterland. A couple of examples will illustrate these problems. While Poole provides a critique of the parish register source material and he calculates infant mortality rates for each of his seven parishes (pp. 80-81), his subsequent discussion of local patterns of infant mortality (pp. 82-84) can at best be described as superficial. He does quote comparative rates from other parishes, but his references do not extend
beyond 1979, even though Wrigley, et al.’s, *English population history from family reconstitution* (Cambridge University Press, 1997) is quoted elsewhere. Moreover, Table 4.2 (p. 80) reveals infant mortality rates ranging from 240 to 69 infant deaths per 1,000 live births in Cranbrook’s surrounding parishes with two parishes experiencing higher rates than the market town itself. These interesting patterns are noted, but they are not explored further. Likewise, the possibility of examining social variations in infant mortality, which should have been possible with this data set, is not taken up. Indeed, given that much of the book is concerned with demography, Poole seems to have a curious aversion to engage with the demographic literature and he places little weight on the various demographic measures that he calculates. He also often fails to employ the conventional demographic statistical apparatus. Thus, when birth intervals are discussed, rather than using descriptive statistics, the data are presented as a series of histograms with intervals over 60 months being ignored (Figures 4.1-4.16, pp. 68-77). Whilst this method highlights the range of experience within the sample it makes comparisons between the seven parishes difficult to judge and little reference is made to other local or national studies. Likewise, Poole’s discussion of duration of marriage also employs histograms and moreover, this evidence is biased since those marriages that ended in a death are more likely to be included in the reconstituted sample than those who survived sufficiently long for migration out of the region to take place. Poole appears to be sceptical about the worth of descriptive statistics—we are told that even though the mean age at marriage was 26 for men and 23 for women he could find no incidence of a 26 old man marrying a 23 old woman in his sample (pp. 53-54). Instead demographic patterns are often illuminated by reference to individual families and Poole seems happier discussing qualitative rather than quantitative material.

The second half of the book is more successful. It builds up a very detailed picture of how society in Cranbrook and its surrounding area operated and it certainly provides plenty of comparative material for those interested in the varied topics included in the individual chapters. However, while many individual family experiences are given, there is little within the text that gives an impression of the national picture that they are intending to amplify. Thus, in chapter 8, which discusses support across village societies, only 8 out the 41 footnotes refer to comparative modern studies. Indeed, this chapter is the only one that truly attempts any trans-parish comparisons. It provides an analysis of will overseers and witnesses, witnesses to burial in woollen and appraisers of probate inventories, although again Poole’s arguments tend to be illustrated by individual examples rather than with wider generalisations.

The value of this book will in many respects depend upon the individual reader’s research interests. It provides a meticulous account of Cranbrook society based on the available source material and many fascinating details such as the following are recorded:

The Stapelhurst mercer, Robert Kite, had three children registered before the establishment of the Friends in the area; he died c.1683, but his burial is not recorded in the registers. The likelihood is that, as with the others mentioned
above, he was buried in the Quaker burial ground. His son Abraham, however, used the Anglican church to the full, having ten children baptised at Staplehurst between 1679 and 1700 (p. 189).

If the reader is seeking answers to the wider issues raised in the frontispiece, however, I suspect that they will need to look elsewhere.

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Readers of this journal may be surprised to discover that one of the leading historical demographers of his generation has now published a book on early Tudor taxation. They may be even more surprised to learn that, despite the weight of the contribution to demography that Roger Schofield has made, ‘direct taxation has remained my first love’ (preface, p. xiii). The publication of this book comes as no surprise to this reviewer, however. In 1976, as a young scholar in my first year of postgraduate study, I sat in the manuscripts room of Cambridge University Library where dissertations were then held, and read a Cambridge thesis submitted in 1963 entitled ‘Parliamentary lay taxation, 1485-1547’: indeed, I still have the notes. I recall being immensely impressed, somewhat daunted by the depth and quality of the scholarship, and in consequence quite pleased to be working in the field of early modern urban history and not public finance. I also learned a great deal about the Exchequer Lay Subsidies that subsequently helped me to form views on the demography and social structure of early sixteenth century towns. Roger Schofield’s impressive study has remained largely hidden from view until now, for although it informed his *Economic History Review* article published in 1965, The geographical distribution of wealth in England, 1334-1649 (18, 483-510), the only other significant publication to emerge from the thesis was a chapter entitled ‘Taxation and the political limits of the Tudor state’, included in C. Cross, D. Loades and J.J. Scarisbrick eds, *Law and government under the Tudors* (Cambridge, 1988), a festschrift to the supervisor of Roger’s thesis, Sir Geoffrey Elton.

The book follows the thesis very closely. Chapter one provides an introduction to late medieval and early Tudor taxation, the long-standing fifteenth and tenth and the directly assessed subsidy, the latter by no means new but levied regularly only after 1512, most notably in the rigorous and wide-reaching assessments of 1523-7. Chapter two outlines the parliamentary procedures that underpinned taxation. Chapters three and four discuss in much more detail, respectively, the fifteenth and tenth and the late medieval evolution of direct subsidies. Chapters five through eight comprise the heart of the book, and elaborate upon the directly assessed subsidies of the years 1513-47. Here we find a thorough exploration of the administration of the subsidies, the nature of the assessments, procedures for collection, the procedures and records of the Exchequer, the yield of the taxes and an assessment of their efficiency. The final
chapter is a very slightly revised version of the chapter published in the Elton festschrift in 1988. Two appendices list the years of taxation acts and dates of payment, and Chancery enrolments of commissions.

After 41 years does this study retain its currency and importance? The answer is resoundingly in the affirmative, for not only does it provide an insight into parliamentary and exchequer procedures for this period that is unlikely ever to be surpassed, but it also lays out with admirable clarity the intended scope of early Tudor taxation, most crucially the very full assessments of 1524 and 1525 which have been so heavily used (and sometimes abused) by scholars of demography and economic and social history. The study also reveals a degree of administrative efficiency that might surprise, for even on the most pessimistic view it emerges that the crown in the early Tudor period was ‘spectacularly successful’ (p. 176) in securing taxes due, at least as measured by the expected as compared with the actual yield, while more generally the crown showed considerable ability in securing ‘the co-operation of the leading social classes in obtaining valuations of income and wealth which were more realistic than could normally be achieved’ (p. 218). This was not to last, for in a situation where the wealthiest taxpayers were also responsible for administering the tax, self-interest very quickly ensured that their contribution was minimised. Comparison with probate inventories reveals quite clearly that the later assessments became increasingly unrealistic as true measures of wealth, most notably for the richest taxpayers, eventually resulting in the ossified returns of the Elizabethan period that still await their historian.

For the local economic, social or population historian, this book should be read alongside John Sheail’s discussion and gazetteer, *The regional distribution of wealth in England as indicated in the 1524/5 Lay Subsidy Returns* (List and Index Society, Special Series, 28, ed. R.W. Hoyle (1998)), and much has been written in the past 40 years that does not feature in its bibliography, but it still stands as a monumental study of abiding value that all those who use the early Tudor taxation returns will ignore at their peril.

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Gregory King’s estimates of national wealth are possibly best known by readers of *LPS* for their information on social structure in the late seventeenth century and the estimates of mean household size. Slightly less than half of this volume is an extended essay by Taylor, the remainder reprints some key sources including King’s autobiography, Chalmers’ life of King and the full text of the *Natural and Political Observations*. These documentary extras augment a fascinating and discursive discussion of the birth of political arithmetic and Gregory King’s working methods.
Taylor’s essay is an attempt to place Gregory King’s *National and Political Observations* in the context of the history of statistics, rather than in terms of the history of demography or social structure as his two most recent commentators, Peter Laslett and Geoffrey Holmes have done. Taylor’s approach makes for absorbing reading and his synthesis demonstrates the vital role of ‘shop arithmetic’ and observation in King’s working practices.

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