

AN EVALUATION OF THE RELIABILITY OF ANGLICAN ADULT BURIAL REGISTRATION

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Introduction

The accuracy of parish registers is central to historical demographic research in the pre-civil registration period. A number of approaches have been adopted to analyse the quality of registration, including statistical analysis of plausible patterns of demographic events.¹ In recent years, new techniques involving nominal record linkage have been used for assessing birth registration, including the comparison of census with parish register data, and the same-name method for evaluating the reliability of the burial registration of infants and young children.²

The findings derived from these assessments of register reliability can have a major effect on conclusions about the population history of England and Wales in the parish register period. For example, Wrigley and Schofield concluded that the increase in population in the eighteenth century was mainly due to a rise in fertility, whereas the present author has argued that the prime determinant of population growth in this period was a reduction in mortality. Wrigley and Schofield's conclusion about the central role of fertility in their aggregative work was largely based on the inflation of baptisms at the end of the eighteenth century, derived from an assumption that birth registration deteriorated sharply during this period as a result of increasing religious nonconformity.³ I have presented an alternative set of figures on births based on inflation ratios derived from census/parish register comparisons.⁴ Additionally, I have compiled a range of figures on infant and child mortality for different parishes, using inflation ratios derived from same-name research.⁵ Little or no work has been carried out on the accuracy of adult burial registration using nominal record linkage, and the purpose of this paper is to present some provisional findings on this topic, based on the linkage of data from census, parish register and probate records.

Comparing census records and parish registers

Census-type listings have survived for a number of parishes in the pre-1841 period, and they exist in some instances for short runs of years. Where these

Table 1 Burial registration of Lyme Regis husbands and wives enumerated in 1695 but not in 1703

	Total number of deaths	Deaths traced in burial register	Percentage of deaths traced
Husbands no longer enumerated, wives becoming widows	47	24	51
Wives no longer enumerated, husbands becoming widowers	9	9	100
Husbands no longer listed, wives enumerated in their own names	4	2	50
Wives no longer listed, husbands enumerated in their own names	23	19	83
Totals	83	54	65

Source: Lyme Regis burial register deposited in Dorset History Centre (formerly the Dorset Record Office) Dorchester.

schedules include data on the marital status of adults, it is possible to compare information on the death of an individual—for example, a husband no longer enumerated in a later census and his wife becoming a widow—with the list of burials in the parish register. Census-type listings were carried out under the 1695 Marriage Duty Act, compiled in order to implement taxation on marriages, births and burials, as well as on bachelors over the age of 25 years and childless widows. The function of these listings was to help establish the population due for taxation under the Act. The Act ran for an 11-year period between 1695 and 1706, and required the census-type listing to be carried out annually.⁶ The schedules for two parishes—Lyme Regis, Dorset and Swindon, Wiltshire—have survived with information on marital status for a number of years from 1695 onwards.

For Lyme Regis, 83 married couples were traced in the 1695, 1698 and 1703 censuses, in which either the husband or wife disappeared between 1695 and 1703.⁷ These 83 couples were in the following categories: (i) 47 husbands whose wives were later enumerated as widows; (ii) 9 wives with husbands later listed as widowers; (iii) 4 husbands whose wives were later enumerated without their husbands; (iv) 23 wives whose husbands were later enumerated without those wives, some of who were listed with new wives. Identification of individuals was possible because of the near-identical sequence of listing of families in successive censuses, as well as the presence of children in families.

An attempt was made to locate these 83 individuals in the Lyme Regis burial register. In all, 29 of the 83 unlisted husbands and wives (35 per cent) could not be traced in the burial register (Table 1). It is possible that the two disappeared husbands with wives listed in their own names (the third category) had either temporarily left Lyme Regis or abandoned their wives. However, all the families of the unlisted husbands and wives continued to reside in Lyme Regis, usually with their children, and given that most

surviving spouses were enumerated in later censuses as widows or widowers, the evidence suggests that the great majority of missing husbands and wives had died between censuses.

One important feature of the Lyme Regis results is the large number of missing husbands who were not registered in the burial register (Table 1). It is possible that some of these died at sea: about a fifth of men were listed as mariners in the burial register during 1703–1704 and in apprentice indenture documents in 1663–1725. Also it is possible that some of the missing burials were due to the ‘traffic in corpses’ with individuals being buried outside their parish of residence. However, it is unlikely that this could explain why it was mainly men who were missing from the burial register. Also, the Lyme Regis register often noted such burials: for example, the register recorded that on 12 January 1697 ‘Margaret Miller widow died in this parish but was buried at Musberry in Devon.’ Additionally, there is other evidence to be discussed later that suggests missing burials were mainly due to clerical negligence in parochial registration.

In the 1695 and 1698 Lyme Regis census listings, a number of individuals were crossed out of the list with the capital letter ‘D’ marked against their names, presumably because their families were liable to the tax on burials under the Marriage Duty Act. Of 22 such individuals, 13 were traced in the burial register, all in the year of the census (from 1 May to 30 April, the year defined by the Marriage Duty Act). The other nine cases were missing from the burial register, representing an omission rate of 39 per cent, very similar to that found for the missing husbands and wives among the 83 married couples (Table 1). It is unclear whether these nine cases were all marked for payment of tax on burials, or were simply listed as dead. They could not be located in the 1703 census listing and it is likely that they all died between 1695 and 1703, but it is unknown whether they were buried in Lyme Regis or not.

Twenty-two cases were marked with the letter ‘D’. Eleven were husbands, seven were wives, three were daughters and one was a son of the families enumerated. Seven of the eleven husbands were missing from the burial register, one of the seven wives, one of the three daughters, and none of the sons (the one son was registered). This again mirrors the earlier finding that husbands were much more poorly registered in the burial register than other members of the family, possibly as a result of being buried at sea or elsewhere outside of Lyme Regis. Missing cases were not distributed evenly between the 1695 and 1698 censuses: 11 of the 13 cases listed as dead in 1695 were found in the burial register, as against only 2 out of 9 in 1698. This indicates that the legal penalties for the non-registration of burials were taken much more seriously in the first year of the Act, and that the Lyme Regis clergyman and his clerk became much laxer in burial registration in the later period. This is compatible with what is known generally about the gradual deterioration of compliance with the Act during the 11-year period that it was in force.⁸

How typical was the poor burial registration found in Lyme Regis? The evidence from Swindon is that in some other parishes it was very much better

during this period. Of 25 husbands and wives who disappeared between censuses in Swindon during the period 1697–1702, leaving widows and widowers behind, 22 were found in the burial register. Research on 47 Bedfordshire parishes tracking married couples from the 1841 census to the 1851 census identified 32 wives and husbands enumerated in 1841 who had become widow and widowers by 1851. All except two of these 32 cases were traced in Anglican burial registers between 1841 and 1851, indicating a high degree of burial registration reliability, even higher than that found in Swindon at the end of the seventeenth century.⁹

Comparison of probate records with parish registers

A further way of checking burial registration reliability is to compare information in probate records with that in burial registers, searching the parish register for the registration of the burial of the person leaving the will. The majority of wills give the parish of residence of the person leaving the will, but this is not necessarily the parish of burial. This in effect is a form of ‘traffic in corpses’ and is an issue that must be addressed when considering the registration of burials of those leaving wills.

Of 202 people leaving wills in Lyme Regis in the period 1664–1749, 74 could not be traced in the burial register within five years previous to probate, an omission rate of 37 per cent.¹⁰ This is slightly higher than the proportion of missing burials found through the tracking of husbands and wives (35 per cent), but sufficiently similar to give some confidence in both methods of evaluating burial registration reliability.

Information on wills is widely available, and it is possible to check registration reliability where both wills and parish registers survive. Ideally we would want to evaluate both the burial registration of people leaving wills in their parish of residence, as well as in neighbouring parishes where a ‘traffic in corpses’ might have taken place. This is possible for parishes in the county of Bedfordshire, where a digital transcript of Anglican and nonconformist burials, covering 355,985 individual entries, has been compiled for the whole county for the period 1538–1851.¹¹

A published index of wills proved or administered in the Archdeaconry of Bedfordshire church court is available for the same period, giving information on name, parish of residence and occupation.¹² People whose wills were administered by this court are likely to have only owned property in the county of Bedfordshire, as wealthy people owning property in more than one county frequently used Prerogative Courts for this purpose. Patricia Bell, the editor of published Bedfordshire wills, concluded that ‘local probate records relate to the more prosperous husbandman, yeomen, and tradesmen and their widows, and also to parish clergy and some minor gentry’.¹³ For people using the Bedfordshire court and only owning local property, this is likely to have reduced the incidence of ‘traffic in corpses’ outside the county. This is confirmed by the analysis of parish of intended burial listed in Bedfordshire probate records: of the first 100 wills for the period 1510–23 with relevant information, 96 gave the parish of residence as the requested parish of burial.¹⁴

Table 2 People named in probate records and traced in 13 Bedfordshire burial registers, 1538–1849

Period	Total number named in probate records	No. traced in burial registers	% in probate records traced in burial registers
1538–1599	181	147	81
1600–1649	292	249	85
1650–1699	348	287	82
1700–1749	405	343	85
1750–1799	280	228	81
1800–1849	241	197	82
Total	1,747	1,451	83

Sources: A.F. Cirket ed., *Index of Bedfordshire probate records 1484-1858*, vol. 1, (London, 1993). Bedfordshire burial registers (for details see text).

Thirteen Bedfordshire parishes were selected for intensive study, having been originally chosen for a project on infant and child mortality because of their high quality of information running from the sixteenth through to the nineteenth century.¹⁵ The parishes are as follows: Barton in the Clay, Bedford St. Marys, Chalgrave, Dunstable, Henlow, Houghton Regis, Husborne Crawley, Maulden, Milton Bryant, Sandy, Shillington, Toddington, and Woburn. The majority of the parishes are located in the south of the county, six of them on the edge of Bedfordshire and six of them partly contiguous to each other. The sample was constructed by selecting names beginning with the letters A to G, chosen from the index of Bedfordshire Probate Records. A name search was then made both in published Anglican burial registers and in the digital burial index.¹⁶ In order to allow for date errors, a case was defined as traced when located in the burial register within the five-year period immediately before the date of probate. In order to trace a case in a neighbouring parish register, a search was only made to within one year before probate because of the greater difficulty of establishing correct identity. Phonetic variations were allowed for, and matching criteria were defined as widely as possible—such as a woman listed as a widow even without a forename—in order to minimise the risk of missing a traced case.¹⁷

There was little variation in the proportion of untraced cases over time (Table 2), and the overall average of missing burials was 17 per cent. Seventy-nine per cent of burials were found in the year of probate, 17 per cent in the previous year, 2 per cent two years before, and 2 per cent three to five years previous to the year of probate. Only 4 per cent of burials were located outside the parish of residence as stated in the will index.

It is not possible with the present data to trace burials outside Bedfordshire, but a comparison of the six parishes on the edge of the county with the seven 'inner' parishes suggests that this is not a major problem. The proportion of untraced cases in the former group is 16 per cent (148 out of 917), compared to

Table 3 People named in probate records traced in 13 Bedfordshire burial registers, by individual parish

Parish	No. in probate records	No. traced in burial records	% traced in burial records	No. traced in same parish burial records	% traced in same parish burial record	Population size 1801
Milton Bryant	53	50	94	49	92	333
Barton in the Clay	118	107	91	103	87	448
Total for parishes with populations under 500	171	157	92	152	89	
Chalgrave	82	64	78	58	70	534
Husborne Crawley	108	93	86	87	81	543
Hentlow	91	82	90	80	88	552
Total for parishes with populations of 501–700	281	239	85	225	80	
Maulden	121	99	82	96	79	738
Houghton Regis	167	138	83	131	78	784
Shillington	234	206	88	203	87	899
Total for parishes with populations of 701–1,000	522	443	85	430	82	
Sandy	209	184	88	183	88	1,115
Dunstable	174	126	72	123	71	1,296
Toddington	191	148	77	138	72	1,443
Woburn	133	111	83	103	77	1,563
Bedford St Mary	66	49	74	47	71	616
Total for parishes with populations over 1,000	773	618	80	594	77	
Total	1,747	1,457	83	1,401	80	

Note: The parish of Bedford St Mary was included among the parishes in the largest size category because it was one parish within a large town.

Sources: A.F. Cirket ed., *Index of Bedfordshire probate records 1484–1858*, vol. 1, (London, 1993). Bedfordshire burial registers (for details see text).

18 per cent (148 out of 830) in the seven 'inner' parishes.¹⁸ However, the proportion of cases traced in adjacent parishes is slightly less in the parishes on the edge of the county—3.5 per cent (27 out of 769)—than it is in the 'inner' parishes—4.3 per cent (29 out of 682). Most parishes on the edge of the county were surrounded by three or four other Bedfordshire parishes, and so the small difference between the two groups in the proportion of burials registered in other parishes is not surprising.

There are variations in the proportions of untraced cases by individual parish (Table 3), and these appear to have been partly a function of population size. However, the sample includes only two parishes with populations of under 500, in order to partly remedy this defect, three additional parishes with population sizes of less than 500 people—Little Barford, Bletsoe and Great Barford—were selected for analysis. Of 120 individuals establishing probate in these three parishes during the period 1538–1851, 15 (13 per cent) could not be traced in the burial registers or the digital index. Adding this figure to the 14 untraced people in the parishes of Milton Bryant and Barton in the Clay (Table 3), therefore, produces 29 untraced cases out of a total of 291 (10 per cent) in the five parishes with populations of less than 500. This is exactly half the proportion of untraced cases in parishes with a population of over 1,000. The reasons for variations in the proportions of traced cases in parishes of different population size will be discussed later in the paper.

There appears to have been little or no association between occupation and registration accuracy (Table 4). It might be expected that the poorer socioeconomic groups such as labourers and husbandmen would be subject to less adequate burial registration, but this does not appear to have been the case. The finding of a slightly higher proportion of untraced cases amongst widows and spinsters is different from the findings on Lyme Regis, suggesting that there were special factors at work in the latter place. There was also a tendency for gentlemen and professionals to be buried outside their parish of residence, whereas the reverse was true of labourers and husbandmen. However, the samples are small and the topic requires research on larger numbers for confident conclusions.

There is evidence from other areas of the country comparing probate records with information in individual parish registers to suggest that adult burial registration was incomplete in the period before the end of the eighteenth century (Table 5). Indeed the overall percentage of traced cases in the 13 Bedfordshire parishes (Table 3) was higher than the average reported from seven parishes elsewhere (Table 5)—80 per cent compared with 72 per cent—a fact which may have been partly due to most of the seven parishes in the latter group being small towns. However, there is no linear relationship among the parishes elsewhere in the country between population size and the proportion of burials traced (Table 5). Most of the sample sizes in these parishes are very small, and they relate to varying time periods. Only more systematic research will settle the issue of the relationship between population size and burial registration accuracy.

Table 4 People named in probate records traced in 13 Bedfordshire burial registers, by occupation

Occupation in probate records	Total no.in probate records	No. traced in burial registers	% traced in burial registers	No. traced in same parish burial register	% traced in same parish burial register
Gentlemen and professional	67	57	85	51	76
Farmers and yeomen	447	387	87	371	83
Artisans and tradesmen	466	397	86	382	82
Labourers and husbandmen	190	160	84	157	83
Widows and spinsters	249	204	82	191	77

Sources: A.F. Cirket ed., *Index of Bedfordshire probate records 1484–1858*, vol. 1, (London, 1993). Bedfordshire burial registers (for details see text).

Table 5 People named in probate records traced in the burial registers of seven individual parishes

Parish and period	Total no.in probate records	No. traced in burial registers	% traced in same parish burial register	Population size in 1801
Lyme Regis, Dorset, 1664–1749	232	150	65	1,451
Hartland, Devon, 1598–1793	81	66	81	1,546
Colyton, Devon, 1553–1773	124	79	72	1,641
Great Dunmow, Essex, 1559–1602	50	40	80	1,828
Long Melford, Suffolk, 1559–1610	97	77	79	2,204
Newbury, Berkshire, 1546–1648	50	38	76	4,275
Thaxted and Saffron Walden, Essex, 1560–1602	62	51	82	5,075
Total	696	501	72	

Note: A search was made in the burial registers for a period within five years before the date of probate. The parishes in this table were selected in the course of other research. For example, the two parishes Colyton and Hartland were chosen because they were important in the Cambridge Group for the History of Population and Social Structure's reconstitution project. With the exception of Lyme Regis, all source material on probate records and burial registers is to be found in the Society of Genealogists' Library.

Table 6 Comparison of information on pauper burials in poor law records and parish registers

Place	Period	Total number of pauper burials	Number of pauper burials traced	Percentage of burials traced
Whitchurch	1651–1750	93	74	80
	1751–1800	68	53	78
Folkestone	1732–1751	57	47	82
	1752–1787	57	51	89

Source: P.E. Razzell, *Essays in English population history* (London, 1994), 211–12.

Table 7 Components of death under-registration in English burial registers, 1630–1799

Date	Deaths not registered as % of all deaths	Estimated components of under-registration as % of those deaths not registered		
		Religious dissent	Delayed baptism	Residual
1630–1639	0.0	-	-	-
1640–1649	0.2	50	-	50
1650–1659	0.8	51	-	49
1660–1669	1.2	52	-	48
1670–1679	1.8	50	2	48
1680–1689	2.5	43	15	42
1690–1699	3.2	35	26	40
1700–1709	3.7	28	35	37
1710–1719	4.2	24	40	36
1750–1759	6.7	12	59	29
1790–1799	16.5	7	40	53

Source: J. Boulton, 'The Marriage Duty Act and parochial registration in London, 1695-1706', in K. Schürer and T. Arkell eds, *Surveying the people: the interpretation and use of document sources for the study of population in the later seventeenth century* (Oxford, 1992), 224.

In one respect the tracing of burials of people making or administering wills is a mild test of burial registration adequacy. People establishing probate were mostly adults— usually males—who owned property and were not from the poorest section of the community.¹⁹ We would expect families of such people to ensure registration of their burials, particularly because of the legal implications of property transfers. One way of examining the relationship between burial registration and wealth is to compare the burials of will-leavers with that of paupers. Many parishes paid for the burial of the poor, including the purchase of coffins and carrying the dead to be buried. Lyn Boothman has carried out such research for the parish of Long Melford in Suffolk. Of 97

people who left wills in 1559–1610, 20 (21 per cent) could not be traced in the burial register, compared with 34 of 52 paupers (65 per cent) buried at about the same time.²⁰ Boothman has suggested that the very high omission rate amongst Long Melford paupers may have been a result of the non-payment of burial fees by the local poor law authority.²¹

Comparison of poor law and burial records for the two parishes of Whitchurch, Oxfordshire and Folkestone, Kent indicate that burial registration of paupers was of a similar level to that found amongst will-leavers (Table 6). The range of omission rates—from 11 to 22 per cent—is similar to that found among will-leavers in Bedfordshire (Table 3), suggesting that wealth was not an important factor in burial registration reliability.

Discussion

A number of questions are raised by the findings summarised in the previous two sections. Perhaps the most important is what factors accounted for the under-registration of burials in the parish register period? Wrigley and Schofield have presented figures for different components of death under-registration, which have been summarised by Jeremy Boulton (Table 7). Burial under-registration due to delayed baptism is not relevant to adult burials, but the other two components—religious dissent and the residual—are applicable. However, perhaps the most striking feature of the table is the zero amount of burial under-registration in the 1630s, and the relatively negligible extent of under-registration in the period up to the middle of the seventeenth century. This is in strong contrast to the findings derived from the comparison of probate/burial data (Table 2), where there is a significant amount of burial under-registration in the seventeenth and first half of the eighteenth century, not dissimilar in amount to that found subsequently.

It is possible to clarify the impact of religious dissent by analysing the nonconformist registers that have survived for Bedfordshire and been included in the Bedfordshire Family History Society's burial database (Table 8). The majority of these registers begin in the late eighteenth and early nineteenth century. Only four of the thirteen parishes in the Bedfordshire probate sample have surviving registers: Bedford, Houghton Regis, Maulden and Woburn. There were several nonconformist denominations in Bedford, and there were a substantial number of burials (510) in the Moravian register between 1746 and 1850. Burials included in the registers for the three other parishes were insignificant in number: 18 in the Houghton Regis Baptist register between 1794 and 1837, 32 in the Maulden Independent register in the period 1785–1834, and 66 in the Woburn Quaker register between 1704 and 1850. The number of burials in the Bedford nonconformist registers could be an important factor in Anglican under-registration in that town, but it appears that religious dissent played an insignificant role in the other twelve parishes in the Bedfordshire sample.²²

The remaining residual component of burial under-registration probably relates to clerical negligence and registration problems such as the non-

payment of fees. In the sixteenth and seventeenth centuries, many of the 13 sample registers had annual gaps in the registration of burials, even after many years of regular registration. However, there was a significant change over time in the occurrence of annual gaps: in the period 1538–1649, 32 per cent of untraced probate cases were the result of yearly gaps in the burial register, whereas after 1700 there were none. This suggests that burial registration improved during the late seventeenth century, but the aggregate evidence from the Bedfordshire sample (Table 2) suggests otherwise. Much burial under-registration was probably the result of systematic clerical negligence, as indicated by Burn in his study of parish registers, first published in 1829:

The custody of parish registers having been frequently committed to ignorant parish clerks, who had no idea of their utility beyond their being occasionally the means of putting a shilling into their own pockets for furnishing extracts, and at other times being under the superintendence of an incumbent, either forgetful, careless or negligent, the result has necessarily been, that many Registers are miserably defective, some having the appearance of being kept from month to month, and year to year, yet being deficient of a great many entries.²³

This clerical negligence appears to have been present from the sixteenth century onwards. For example, ‘in 1567 the incumbent of Tunstall, Kent, appeared to have tired of registering the Pottman family because of its concentration in the parish and simply stated in the register: “From henceforwd I omit the Pottmans”.’²⁴

Some of the neglect of burial registration was due the non-payment of fees. In the Northamptonshire parish of Brington, ‘the very true reason why this register, is found as imperfect in some years as from 1669 to 1695 is because the parishioners could never be persuaded to take to see it done, not the churchwardens as ye canon did require, and because they refuse to pay such dues to ye curate as they ought be custome to have payed.’²⁵

In 1702–1703 ‘a committee of Convocation drew up a list of ecclesiastical offences notoriously requiring remedy, in which irregularity in keeping registers is prominent in the list of gravamina.’²⁶ Evidence for clerical negligence became abundant in the early nineteenth century. The Gentleman’s Magazine remarked in 1811 that ‘the clergyman (in many country places) has entered the names at his leisure, whenever he had nothing better to do, and perhaps has never entered them at all.’²⁷ The Report of the Select Committee on Parochial Registration in 1833 provided substantial evidence on the reasons for defective parish registration. One of the witnesses, Mr William Durrant Cooper, a solicitor, had extensive experience of tracing individuals in parish registers for property cases, and concluded that parish registration was ‘exceedingly defective ... [with] a very large number of marriages, deaths and baptisms not entered at all ... especially deaths.’²⁸ To illustrate this, he gave the following example:

Table 8 Nonconformist burial registers in Bedfordshire, 1538–1850

Place	Denomination	Period covered	Number of burials
Amphill	Methodist	1817–1841	27
Amphill	Quaker	1707–1847	112
Bedford	Bunyan Meetinghouse	1846–1850	93
Bedford	Congregational	1785–1836	38
Bedford	Howard Church	1790–1837	147
Bedford	Primitive Episcopalian	1834–1845	62
Bedford	Protestant Dissenters	1837–1850	87
Bedford	Moravian	1746–1850	510
Biggleswade	Baptist	1786–1829	3
Biggleswade	Methodist	1835–1850	26
Biggleswade	Protestant Dissenters	1727–1786	2
Blunham	Baptist	1739–1850	99
Cranfield	Baptist	1794–1837	97
Hockliffe	Congregational	1817	1
Houghton Regis	Baptist	1794–1837	18
Leighton Buzzard	Baptist	1771–1850	98
Leighton Buzzard	Quaker	1826–1850	44
Little Staughton	Baptist	1786–1806	22
Luton	Baptist	1837–1850	397
Luton	Quaker	1776–1850	115
Maulden	Independent	1785–1834	32
Southill	Baptist	1802–1820	9
Stevington	Baptist	1830–1850	43
Turvey	Congregational	1848–1850	6
Woburn	Congregational	1790–1837	75
Woburn Sands	Quaker	1704–1850	66
Total			2,501

Note: The registers listed here are those in the Bedfordshire Family History Society's database, which is based on those registers which have been copied or transcribed and deposited in the Bedfordshire Record Office. This table includes nine registers not covered by the Registrar-General's list of deposited registers published in 1859, and is likely to include all surviving Bedfordshire nonconformist burial registers (see *Bedfordshire Notes and Queries*, 3 (1890–92), 199–202). The registers not covered by the Registrar-General's list are: Amphill Methodist, Bedford Bunyan Meetinghouse, Bedford Primitive Episcopalian, Bedford Protestant Dissenters, Biggleswade Protestant Dissenters, Hockliffe Congregational, Leighton Buzzard Baptist, Little Staughton Baptist, and Maulden Independent.

Table 9 Percentages of individuals listed in the 1851 census not traced in baptism registers, by period of birth: 45 parishes

Period of birth	Total number of cases listed in the 1851 census	Percentage of cases not traced in the baptism register of the parish of birth as stated in the 1851 census
1761–1770	68	32
1771–1780	347	28
1781–1790	637	33
1791–1800	1,053	36
1801–1810	1,517	32
1811–1820	1,989	33
1821–1830	3,092	30
1831–1834	2,251	27

Source: P.E. Razzell, *Essays in English population history* (London, 1994), 95.

On the sale of some property [in 1819] from Mr Cott to Lord Gage, it was necessary to procure evidence of the death of three individuals, Mrs Pace, Mr Tuchnott and Mrs Gouldsmith. They were at different places, all in Sussex; Mrs Pace was regularly entered; Mr Tuchnott was buried at Rodmell, about five miles from Lewes, and on searching for the register of burial we found no entry whatever. On making an inquiry in the churchyard of the sexton, he stated he recollected digging the grave, and the ceremony being performed; Mr Gwynne, the rector, whose neglect in that and other parishes is well known, had omitted to enter it ... Mrs Gouldsmith, who was buried at Waldron, in the same county, was not entered, but on going to the parish clerk, who was a blacksmith, he stated he recollected the circumstance, and accounted for her burial not being entered in this way: he said it was usual for him, and not the clergyman, to take account of the Burials, and he entered them in a little sixpenny memorandum book ... If it so happened that the fee [of one shilling] was paid at the time, as was the case with affluent persons, no entry would appear in his book, he only booked what was due to him, and as the clergyman entered the parish register at the end of the year from his book, and not at the time of the ceremony, all burials that were not entered in his book would not find their way into the register.²⁹

This evidence suggests that clerical negligence was the main reason for the non-registration of Anglican burials. However, if this were the case, we would expect baptism registration also to be subject to the same process of under-registration. Evidence of births which did not find their way into baptism registers can be found by comparing census statements of birth with entries in baptism registers. This has been carried out for a sample of 45 parishes drawn from all parts of England during the period 1760–1834 (Table 9).³⁰ The proportion of untraced births is higher than the percentage of untraced adult burials, and this may be for a variety of reasons, including the different socio-

Table 10 Percentages of individuals listed in the 1851 census not traced in baptism registers, by population of parish: 45 parishes

Population in 1851	Total no. of cases listed in the 1851 census	Percentage of cases not traced in the baptism register of the parish of birth as stated in the 1851 census
Under 500 (9 parishes)	579	19
500–999 (7 parishes)	638	15
1,000–1,499 (9 parishes)	2,003	28
1,500–1,999 (10 parishes)	2,383	31
2,000+ (10 parishes)	5,351	36
All 45 parishes	10,954	31

Source: P.E. Razzell, *Essays in English population history*, (London, 1994), 94.

economic characteristics of the samples, as well as being partly a function of population size.³¹ There was little or no trend with year of birth in the percentage of births traced, which accords with a similar finding for the same period for adult burial registration (Table 2).

The proportions of untraced cases in the smaller parishes is significantly less than those in the larger parishes, a similar finding to that for adult burial registration (Tables 3 and 5). It may be that if many clergymen only compiled their registers sporadically or even at the end of the year, as suggested by the anecdotal evidence quoted above, then the larger the parish the more likely they were to forget or neglect the registration of marriages, baptisms and burials. This hypothesis will have to be evaluated through further research on much larger samples, and will perhaps have to include the study of legal records, diaries, autobiographies and other local historical sources.

Conclusion

The present article has illustrated the application of nominal record linkage methodology to the measurement of adult burial registration. The limited amount of evidence from this research suggests the following conclusions:

1. Burial registration was deficient in all periods between 1538 and 1851.
2. Burial registration of adults was worse in larger than smaller parishes.
3. Socio-economic status appears to have had little or no influence on the quality of burial registration of adults.
4. Religious dissent played an insignificant role in Anglican burial under-registration, which was caused mainly by clerical negligence.

These conclusions are necessarily provisional, given the small number of parishes covered by the research. However, demographic data by their very nature lend themselves to the analysis of registration reliability, particularly where it is possible to 'triangulate' sources, as in the case of Lyme Regis. The availability of a wide range of digital sources—the baptism and marriage registers transcribed by the Church of Jesus Christ of Latter Day Saints

(Mormons), the digitised burial registers produced by local family history societies, and the computerised national censuses of England between 1841 and 1901—will allow research on a large number of parishes.

Methodological work on these digital sources will be a prelude to a new research agenda, not based on 'model-down' reconstruction of national data, but derived from detailed and meticulous local evidence including both quantitative and qualitative source material. These exciting developments will allow comprehensive research on parishes from a wide range of places and counties, and should allow in due course confident general conclusions about the population history of England in the parish register period.

NOTES

1. The main works using statistical techniques for evaluating register reliability are E.A. Wrigley and R.S. Schofield, *The population history of England, 1541–1871: a reconstruction* (London, 1981), 66–154; and E.A. Wrigley, R.S. Davies, J.E. Oeppen, and R.S. Schofield, *English population history from family reconstitution 1580–1837* (Cambridge, 1997), 73–118.
2. See P.E. Razzell, *Essays in English population history* (London, 1994), 82–149; E.A. Wrigley, 'Baptism coverage in nineteenth century England: the Colyton area', *Population Studies*, 29 (1975), 299–316; P.E. Razzell, 'Evaluating the same name technique as a way of measuring burial register reliability', *Local Population Studies*, 64 (2000), 8–22.
3. P.E. Razzell, 'The conundrum of eighteenth-century English population growth', *Social History of Medicine*, 11 (1998), 471.
4. Razzell, 'The conundrum', 471.
5. P.E. Razzell, 'Population, poverty and wealth: the history of mortality and fertility in England, 1550–1850', in P.E. Razzell, *Essays in historical demography* (London, forthcoming).
6. For a discussion of the Marriage Duty Act, see T. Arkell, 'An examination of the Poll taxes of the later seventeenth century, the Marriage Duty Act and Gregory King', in K. Schürer and T. Arkell eds, *Surveying the people: the interpretation and use of document sources for the study of population in the later seventeenth century* (Oxford, 1992), 165–70; J. Boulton, 'The Marriage Duty Act and parochial registration in London, 1695–1706', in Schürer and Arkell, *Surveying the people*, 222–52.
7. Copies of the Lyme Regis census schedules were kindly supplied by the library of the Cambridge Group for the History of Population and Social Structure.
8. This was reflected in Swindon by the declining number of people enumerated in the censuses: 747 in 1697, 649 in 1701 and 522 in 1702. Most of the missing individuals in later censuses were children, as the number of families remained more or less constant.
9. For further details see P.E. Razzell and C. Spence, 'The hazards of wealth: adult mortality in pre-twentieth century England', *Social History of Medicine*, forthcoming. There is evidence that parish registration in rural, predominantly Anglican areas, was of a high quality in the post-1837 period, and held up well until at least the second half of the nineteenth century (personal communication from Andrew Hinde).
10. These probate records are deposited in the Dorset Record Office.
11. A copy of this digital transcript has kindly been made available by the Bedfordshire Family History Society for the current research.
12. A.F. Cirket ed., *Index of Bedfordshire probate records 1484–1858, vol. 1* (London, 1993); J. Stuart and P. Wells eds, *Index of Bedfordshire probate records 1484–1858, part 2: Kimpton-Z* (London, 1995).
13. P. Bell ed., *Bedfordshire wills 1484–1533*, Bedfordshire Historical Record Society, 76 (Bedford, 1997), 1.
14. Bell, *Bedfordshire wills*. These are the Bedfordshire wills nearest in time to the parish register period which have been transcribed and published.
15. See P.E. Razzell, 'Life and death in Bedfordshire: early research findings', *Bedfordshire Family History Society Journal*, 15, 4 (2005).

16. No attempt was made to trace individuals in the digital nonconformist burial index, as the main purpose of the research was to assess the quality of Anglican burial registration.
17. Phonetic variations were examined manually, and any possible name variation was counted as a traced case. It is therefore likely that any false negatives would be more than balanced by false positives.
18. The parishes on the edge of the county are Barton in the Clay, Dunstable, Henlow, Houghton Regis, Shillington, and Woburn; the 'inner' parishes are Bedford St. Mary, Chalgrave, Husborne Crawley, Maulden, Milton Bryant and Toddington.
19. See N. Goose and N. Evans, 'Wills as an historical source', in T. Arkell, N. Evans and N. Goose eds, *When death do us part: understanding and interpreting the probate records of early-modern England* (Oxford, 2000), 38–71.
20. Personal communication from Lyn Boothman.
21. L. Boothman, 'Letter on Long Melford parish registers', *Local Population Studies*, 50 (1993), 80–1.
22. The nonconformist churches in Bedford probably served a wide hinterland taking in a number of rural parishes as well as the town itself, but none of the other 12 parishes in the Bedfordshire sample were either adjoining or within a radius of 10 miles of the town.
23. J.S. Burn, *The history of parish registers in England* (London, 1862), 18.
24. Burn, *History of parish registers*, 41.
25. J.C. Cox, *The parish registers of England* (London, 1910), 20–1.
26. W.E. Tate, *The parish chest* (Cambridge, 1969), 49.
27. Burn, *History of parish registers*, 42.
28. *Report of the Select Committee on Parochial Registration*, British Parliamentary Papers 1833, XIV, 24.
29. *Report of the Select Committee on Parochial Registration*, 25.
30. There are a number of complex methodological issues involved in measuring birth under-registration: see Razzell, *Essays in English population history*, 82–149.
31. The samples are also for different parishes, and in the case of births were selected from the general population rather than from those whose wills were proved or administered.