Over the last 40 years or so English parish registers have been extensively analysed to create a range of demographic measures relating to mortality, fertility and nuptiality. This process has enabled the major population changes to be revealed from 1538, the date when parish registers were first ordered to be kept, until 1837, when a national system of civil registration was introduced.\(^1\) In addition to providing simple lists of baptisms, burials and marriages occurring within the church, some parish registers, for certain periods, contain a wealth of additional details relating to age, occupation, place of residence and cause of death. A few registers even recorded stillbirths, babies who died before, during or at birth. Stillbirths are a neglected, but important, demographic phenomenon since stillbirth rates (SBRs) are linked with infant, and especially neonatal, mortality (deaths within the first 28 days), birthing processes, the mother’s health and patterns of fertility. Indeed, when Wrigley sought to account for increases in fertility during the eighteenth century he argued that, ‘there was a large fall in the stillbirth rate in England in the course of the “long” eighteenth century, and that this in turn caused the mean interval between births to shorten and thus marital fertility to rise’.\(^2\) Wrigley could not confirm this association empirically, but nationally SBRs would need to have been in the region of 100–125 per 1,000 birth events during the late seventeenth century in order for the resulting increase in fertility to have occurred.\(^3\) Curiously, given the importance of this topic, there has been no systematic attempt to calculate a representative SBR directly from parish registers. This note seeks to begin this process: it aims to draw attention to the importance of stillbirths and it presents rates derived from a range of parish registers.

A stillbirth is defined by the Office of National Statistics as, ‘a child born after the 24th week of pregnancy who did not show any sign of life at any time after being born’.\(^4\) Before 1 October 1992 foetal deaths before 28 completed weeks of gestation did not need to be registered, and hence prior to 1993 stillbirths by definition had to be born after the 28th week of pregnancy.\(^5\) This change ensured harmony with the Abortion Act of 1990 which had reduced the limit on abortions from 28 to 24 weeks. It also reflected the view that medical advances had meant that most foetuses were viable after 24 weeks.
Determining exactly what constitutes a stillbirth is not necessarily straightforward. All foetal ages must to some extent be considered approximate since they are usually based on the recalled date of the mother’s last menstrual period. Likewise, there may also be some ambiguity, especially in historical populations, about what precisely constitutes ‘signs of life’—in some instances infants who only survived for a very short time may have been buried as though they were stillborn. Wrigley cites examples from Spain where all live-born children dying within 24 hours of birth were registered as stillborn, while in France the practice of baptising difficult confinements in the womb (ondoyé décedés) inflated the infant mortality rate (IMR) because some of these were subsequently stillborn.\textsuperscript{6} Even within contemporary populations Gourbin and Masuy-Stroobant showed that when international comparisons of stillbirth and early-age IMRs are made, an awareness of the precise definitions in use within individual countries is needed.\textsuperscript{7}

In England and Wales stillbirths did not need to be registered until 1 July 1927, but afterwards national and local SBRs were published annually by the General Register Office. Between 1927 and 1938 the national SBR remained relatively stable, varying from 38.3 to 41.4 per 1,000 birth events, although the range within local authority areas was from c.25 to c.70.\textsuperscript{8} After 1938 the national rate declined steadily, reaching 22.6 in 1950, 10.8 in 1975 and 5.3 in 2000 (24+ weeks). It seems reasonable to conclude, therefore, that national SBRs below 40 were unlikely to have occurred prior to the 1920s, given some form of link between stillbirths and infant mortality, and that pre-1927 IMRs were not significantly lower than those in the 1930s.\textsuperscript{9} Unfortunately, this assumption cannot be verified since no single source systematically listed stillbirths prior to 1927. Estimates of the SBR can, however, be made for selected groups. For instance, some maternity hospitals differentiated live from stillbirths, while medical officer of health reports occasionally reported numbers of stillbirths.\textsuperscript{10} A systematic trawl through these types of sources may produce estimates of the SBR during the late nineteenth and early twentieth centuries but, with little quantitative work having been carried out, in 2005 Robert Woods used an alternative method to establish a long-run series of SBRs.\textsuperscript{11} By examining variations in early neonatal and maternal mortality rates during the 1930s Woods proposed a theoretical foetal-infant life table for a high mortality population and this allowed him to estimate a long-term series of SBRs using data from English population history from family reconstitution (1997). Woods’ estimates of the national SBR range from 64 (1650–74) to 42 (1825–37), which are considerably lower than those suggested by either Wrigley or Hart.\textsuperscript{12} It therefore seems reasonable to ask, are these SBRs supported by parish register evidence?

While the recording of stillbirths, or abortives as they were sometimes called, in parish registers was not commonplace, examples are easy to discover. The following are taken from the register of St Vedast, Foster Lane, London:

Rob’tte Farringtons still borne childe was buried the xxvith day of Septembre 1591;
A stillborne child of John Chretchloes was buried in ye crosse Ile of ye Church Decem ye 18th, 1659; A still borne childe of John Kirke was buried in the Churchyd. The 22nd day of August 1696, out of Widow Brookes house in ye old Chaine.13

In each case stillbirths are specifically identified and, moreover, they are clearly distinguished from unbaptised infant burials; for example, A new borne child of Mr Bents was buried in the crosse Ile of the Church March the 15th, 1658; A Chrisome child of Captin John Eatons was buried in ye north Angle of ye Chancell, Jan 5th, 1668.14

It cannot be known for certain exactly what individual parish clerks and parents understood by the term stillbirth, but in this register it would appear to be a relatively simple task to count the numbers of baptisms, unbaptised infant burials and stillbirths and then calculate the SBR.

Entries from the register of All Hallows Bread Street, London, reveal additional details. Between 1619 and 1653 the locations of most burials were indicated, charges were given and some stillbirth burials were listed, although not in sufficient quantity to provide a representative rate during this period. For example,

15 Oct 1627, a still born child of Mr Edward Rudge, salter [of this p’ish. 7s 4d];
10 Aug 1633, A stillborne childe of John Pymmes, wollen drap. [of this parish, in the church in the middle yle under the footstolle against the 9 pewe 4s];
8 Nov 1633, a still borne childe of Mr Richard Counes [in the middle oyle against the middle grene pewe 3s 4d]. 15

Charges were similar to most child burials and stillbirths were not confined to special burial locations. The cost of most stillbirth burials was c.4s., while adult burials could cost as much as £1 6s. 8d., depending on location, although most were c.10s. I have yet to discover similar evidence in other registers, but that from All Hallows suggests that stillbirth burials were treated in a similar way to those of the rest of the population. This evidence may also suggest a reason why the recording of stillbirths may have been defective in this period—any burials where no payment was made, such as pauper ones, may have been omitted from the register.16

The accuracy of any demographic rate is dependent on the quality of registration, but with no alternative source listing vital events during the parish register period it is necessary to rely on internal consistency within the source itself in order to have confidence in any resulting rate. When stillbirths are recorded calculating the SBR is straightforward, but care needs to be taken to ensure that stillbirths have been consistently recorded over a sufficiently
long period of time for the rates to be considered representative. Any sudden drop in the level of recorded stillbirths will probably represent a gap in registration since short-term variations in SBRs, about which little is known, are unlikely to have been great. Three examples, which illustrate both the limitations and potential of parish registers in producing reliable SBRs, will now be considered.

Roger Schofield discovered that stillbirths were recorded in the parish register of Hawkshead, Lancashire between 1581 and 1710. The overall SBR was 45, although decadal rates varied between 15 (1591–1600) and 87 (1691–1900). During the sixteenth century large numbers of un-named infant burials were also recorded and Schofield argued that some of these may have been stillbirths—if these decades are eliminated then the overall SBR (1601–1710) becomes 52 and the lowest rate increases to 28 (1641–1650). Wrigley also used data from this parish to suggest that high SBRs were plausible, quoting a rate of 75 for the period 1658–1705. However, in 1980 Roger Finlay reworked the Hawkshead data. He showed that the overall IMR was low and, when the residences given for infants and abortives buried between 1690 and 1709 were mapped, there was a tendency for those living in the more distant parts of the parish, often more than five miles from the church, to register stillbirths rather than infant burials. Rather than demonstrating spatial variations in SBRs, Finlay argued that transport difficulties would have caused a greater proportion of infants born in the outlying parts of the parish to have died unbaptised and he concluded that a, ‘plausible explanation is that some of the abortives were stillborn and some were liveborn’. The high SBRs are therefore a consequence of differential recording practices. If this is true then Wrigley’s high estimate needs to be reconsidered. We are now left with two intriguing questions: how accurate was the Hawkshead register in reporting stillbirths? and what is a representative SBR in Hawkshead? These questions cannot, of course, be answered satisfactorily, part of the reason being that in any single parish only small numbers of stillbirths were recorded: even during 1691–1700 only 27 were entered, less than three per year.

In 1971 Thomas Forbes published a study of St Boltoph without Aldgate, London, based on memorandum books kept by clerks in that parish. These documents provide a wealth of detail about life and conditions within the parish and they also listed stillbirth burials. Forbes reported SBRs for two periods: 1584–1598 when the rate was 96.6; and 1609–1623 when it had declined to 39.8. Examination of the memorandum books reveals a likely reason for this apparent fall with Forbes quoting the following entry: a child, ‘Dyed and was buried the ixth day of May Anno 1596. Which chyld was borne alvy the day before and for that he was not cristned he was accompted a stilborne’. Another child was recorded as a stillbirth even though it was seven days old. In this instance it would appear that unbaptised, early neonatal, burials were being treated the same as true stillbirths. Consequently, while there is no way of knowing how the parish clerk defined stillbirths, it is unlikely that the fall between the two periods is connected with changing prenatal conditions: instead, by 1609–1623 a more rigorous definition of
stillbirth was probably being used. Again such a conclusion must remain supposition, but without the level of detail included in the memorandum books it could not have been discovered that the SBR recorded during the earlier period is unreliable.

The first two examples have demonstrated some of the difficulties associated with calculating a representative SBR; the third illustrates the potential of parish registers in this respect. The parish of Hackness is located in North Yorkshire between Scarborough and Whitby and has a register of exceptional quality. Between 1630 and 1676, when John Richardson was parish clerk, the register was kept immaculately. Richardson included descriptions of terrible storms and difficult confinements, including those of conjoined twins in the register. He made every effort to record all events that occurred in his parish—even recording births from Papists. Richardson also recorded stillbirths,

An abortive childe of Thomas Coulson buryed the 30 Novembr (1632); William Consetts wyffe was brought in bedd of two children the xiijth day of January (1656) the one was an abortive sonne born dead the other was a daughter and was Babtized the xiiijth day of the same and named Ann.

The second entry shows that he distinguished between live and stillborn twins and there is every reason to believe that Richardson has provided us with a very accurate guide to the numbers of vital events that took place in Hackness. During the period from 1631 to 1660 (the burial register from 1661 onwards is lost) 25 stillbirths were recorded together with 465 baptisms and 13 unbaptised infant burials, which produces a SBR of 50 ($25 / (465 + 13 + 25)$). At the same time the IMR was 146 per 1,000 live births and both rates appear plausible. Even though only relatively small numbers of events were recorded, there is every reason to believe that the SBR recorded in Hackness is as accurate as any that can be produced from a parish register.

These three short case studies have illustrated some of the challenges faced when attempting to derive accurate SBRs from single parish registers. The detail included in the first two sources show that determining whether registration is complete is by no means straightforward. They have also shown that under certain circumstances the calculated SBR may overestimate the true rate. Determining when under-registration has taken place is probably easier, since in many circumstances visual examination of the register or significant annual variations in the number of recorded stillbirths will probably induce suspicion. Again it is worth reiterating that SBRs below those recorded in the 1930s (<25) are probably implausible.

As a first step towards determining a representative SBR for early modern England, Table 1 reports rates from a variety of parishes. It brings together previously published SBRs together with new ones calculated directly from printed parish registers. The criteria for inclusion was that there was no
evidence of under-registration in the register, stillbirths had to be registered for a long period (usually over 20 years, although an exception was made in the case of St Martin-in-the-Fields, due to the large number of events recorded in each year) and there were no sudden changes in the number of stillbirths registered during the period of observation. These criteria were met first, by visual inspection of the register and, second, by an examination of the annual number of stillbirths. No statistical testing was employed and no attempt to make the sample representative was made. The new parishes selected for analysis were chosen because their registers were easily accessible or that they were already known to list stillbirths. London parishes dominate the sample and this was a consequence of Finlay’s work which resulted in other transcripts being searched.27 Given the disparate sources used, Table 1 reveals a low level of variation—from 29 (St Mary Somerset) to 55 (St Vedast & St Michael le Quern). Indeed, the non-London parishes show even less variation, from 42 (Terling) to 50 (Hackness), and all the rates in Table 1 fall within the range recorded in local authority areas during the 1930s. While too much should not be made of the overall rate of 45, this does appear to provide a fairly representative value for this period, with Table 1 including a range of environments from rural parishes to small towns to provincial cities and London. There is also no strong association between SBRs and infant mortality. IMRs varied from c.100 in Hawkshead to 146 in Hackness, c.270 in York and perhaps even higher in some of the London parishes.28 Likewise, the single late-eighteenth and early-nineteenth century rate from Balderstone suggests tantalisingly that there may have been little change in SBRs throughout the entire parish register period. Unfortunately, it is difficult to test this hypothesis since few parish registers appear to have recorded stillbirths during the eighteenth century.

While Table 1 does not contain sufficient data to allow definite conclusions to be drawn, a number of tentative ones can be proposed. First, it is worth reiterating that ascertaining the accuracy of SBRs remains difficult and there always remains the possibility that the rates included in Table 1 may suffer from either under- or over-reporting. However, the mere act of recording stillbirths—events that were not required to be entered into a parish register—suggests that these registers are generally of a very high quality. It therefore seems safe to conclude that Table 1 provides no evidence to support the view that SBRs were in the region of 100 or even higher during the early modern period; indeed, the evidence presented broadly supports Woods’ long-run series of SBRs. It also implies that between 1840 and 1940, unlike infant mortality, but similar to maternal mortality, no substantial decline in the SBR occurred. It is, of course, still possible that significant improvements in foetal health occurred during the ‘long’ eighteenth century, causing marital fertility to rise; but it was early-foetal mortality (miscarriages) rather than late-foetal mortality (stillbirths) that declined.

In order to verify the above conclusions, many more parish register estimates are needed, especially from rural or late-eighteenth and early-nineteenth-century parishes, both of which are under-represented in Table 1. Likewise, a
similar analysis employing the various available sources from the nineteenth and early twentieth centuries could confirm whether or not the general stability of SBRs was maintained until the 1920s. Although time-consuming, the process of deriving SBRs from parish registers is straightforward and a good place to start would be to search through the various series of printed parish registers that exist for many English counties.

Acknowledgements

I am grateful to Eilidh Garrett, Nigel Goose and Bob Woods for making comments on an earlier draft of this article.

Table 1 Parish register stillbirth rates

<table>
<thead>
<tr>
<th>Parish</th>
<th>County</th>
<th>Date</th>
<th>Births</th>
<th>Stillbirths</th>
<th>SBR</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Hallows Bread St a</td>
<td>London</td>
<td>1671–1700</td>
<td>301</td>
<td>17</td>
<td>53</td>
</tr>
<tr>
<td>St Botolph Bishopgate b</td>
<td>London</td>
<td>1617–1650</td>
<td>2,101</td>
<td>112</td>
<td>51</td>
</tr>
<tr>
<td>St Dunstan in the East b</td>
<td>London</td>
<td>1605–1653</td>
<td>3,103</td>
<td>103</td>
<td>32</td>
</tr>
<tr>
<td>St Helen’s Bishopgate c</td>
<td>London</td>
<td>1595–1680</td>
<td>1,521</td>
<td>76</td>
<td>48</td>
</tr>
<tr>
<td>St Martin-in-the-Fields d</td>
<td>London</td>
<td>1620–1636</td>
<td>5,142</td>
<td>275</td>
<td>51</td>
</tr>
<tr>
<td>St Mary Somerset b</td>
<td>London</td>
<td>1605–1653</td>
<td>2,079</td>
<td>62</td>
<td>29</td>
</tr>
<tr>
<td>St Michael Cornhill b</td>
<td>London</td>
<td>1580–1650</td>
<td>2,261</td>
<td>75</td>
<td>32</td>
</tr>
<tr>
<td>St Mildred &amp; St Margaret Moses e</td>
<td>London</td>
<td>1670–1700</td>
<td>509</td>
<td>23</td>
<td>43</td>
</tr>
<tr>
<td>St Peter Cornhill b</td>
<td>London</td>
<td>1580–1650</td>
<td>1,769</td>
<td>88</td>
<td>47</td>
</tr>
<tr>
<td>St Vedast &amp; St Michael le Quern f</td>
<td>London</td>
<td>1578–1700</td>
<td>3,755</td>
<td>219</td>
<td>55</td>
</tr>
<tr>
<td>Balderstone g</td>
<td>Lancs</td>
<td>1787–1812</td>
<td>949</td>
<td>47</td>
<td>47</td>
</tr>
<tr>
<td>Hackness b</td>
<td>Yorks</td>
<td>1631–1660</td>
<td>478</td>
<td>25</td>
<td>50</td>
</tr>
<tr>
<td>Hawkshead i</td>
<td>Lancs</td>
<td>1581–1710</td>
<td>4,606</td>
<td>218</td>
<td>45</td>
</tr>
<tr>
<td>Terling f</td>
<td>Essex</td>
<td>1601–1665</td>
<td>1,309</td>
<td>58</td>
<td>42</td>
</tr>
<tr>
<td>York (four parishes) a</td>
<td>Yorks</td>
<td>1614–1700</td>
<td>4,624</td>
<td>220</td>
<td>45</td>
</tr>
<tr>
<td>Overall</td>
<td></td>
<td></td>
<td>34,507</td>
<td>1,618</td>
<td>45</td>
</tr>
</tbody>
</table>

Sources:  
a) Bruce Bannerman, ‘All Hallows’;  
b) Finlay, Population and metropolis, 37;  
c) W. Bruce Bannerman ed., ‘The registers of St Helen’s, Bishopgate, London’, Publications of the Harleian Society—Registers, 31(1904);  
e) W. Bruce Bannerman ed., ‘The registers of St Mildred Bread Street and St Margaret Moses, Friday Street, London’, Publications of the Harleian Society—Registers, 42 (1912);  
f) Littledale ‘St Vedast’;  
g) Lancashire Online Parish Clerk Project (http://www.lan-opc.org.uk), accessed on 2 April 2008;  
h) Johnson and Hart, ‘Hawknese’;  
i) Schofield, ‘Perinatal mortality’, 13;  
NOTES


16. More informal burials may also have occurred as a means of avoiding these charges. Registration in All Hallows Bread Street appears more reliable during the period 1671–1700, see Table 1. Some of the SBRs reported for London parishes by R. Finlay, *Population and metropolis* (Cambridge, 1981) are also clear underestimates.


20. Finlay, ‘Distance to church’, 35. Wrigley, ‘Marital fertility’ does not cite Finlay’s *LPS* paper.


27. Finlay, Population and metropolis, 37.


29. With a view to undertaking further research on this topic the author would be grateful if any reader with knowledge of parish register stillbirths, or other similar information, contact him at c.galley@barnsley.ac.uk or at Barnsley College, Eastgate, Barnsley, S70 2YW.