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EDWARD ARNOLD
LOCAL POPULATION STUDIES

No. 10 Spring 1973

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EDITORIAL

Fees for Searches in Church Registers

Readers have drawn to our attention the report *Fees for Searches in Church Registers* presented by the Standing Committee of the House of Clergy to the General Synod of the Church of England. In November 1969 the House of Clergy, by a majority vote, expressed disapproval of a government Statutory Instrument abolishing the fees payable to incumbents for searches in post-1837 marriage registers and demanded an enquiry into the whole question of fees payable for research in all registers in the Church's keeping. As a result the Standing Committee appointed a working party consisting of Canon Graham Christie (Rural Dean of Pocklington), the Archdeacon of Aston and Canon K.W.H. Falstead (Master of St. Cross, Winchester), which produced the report (GS 114/C) which bears the above title.

Given the mood of the 1969 debate and the previously expressed opinions of two of the three members of the working party, the contents of the publication and the recommendations which have been submitted to, and now approved by, the General Synod of the Church were perhaps predictable. Nonetheless, this does not assuage the dismay many of our readers must feel in connexion with them, for, if they are ever put into operation, the proposals will have a serious adverse effect on English historical demography and on the valuable work being done by a large number of English local historians in the field of the history of population and social structure.

Dealing with the original cause of the clerical rumpus, the report accepts the view of the Registrar General that it is not possible to reimpose fees for searches in post-1837 marriage registers without Parliament amending the Marriage Act. It should however be noted that the report expresses the hope that these fees will be reimposed the next time the Act comes up for revision for any reason, thereby giving the clergy of the Church of England a privileged position not possessed by their nonconforming brethren. The original cause of the rumpus thus disposed of, the working party then goes on to urge the General Synod to adopt a uniform scale of fees to be introduced by an order to be made under the Ecclesiastical Fees Measure of 1962, with the following amounts to be paid by searchers into all pre-1837 registers:
1. For every search over any period not exceeding three years £0 50

2. For every search during any number of successive hours, not exceeding 8, and over any period exceeding three years -
   (a) For the first hour (or part of it) £1 00
   (b) For each subsequent hour (or part of it) £0 50

The situation with regard to registers deposited in diocesan record offices is complicated. The report recommends as a long-term aim that the Parochial Registers Measure (1929) should be amended so that registers deposited in publicly maintained record offices (in effect county record offices), but not those deposited in private record offices, should be accessible to searchers free of charge. In the meantime, however, the report proposes that the Synod should approve "a set of model regulations which could act as a guide to bishops who wish to frame regulations under Ss. 2 and 11 of the 1929 Measure, and that these regulations should provide for:

i. Exemption (from fees) of searches in diocesan record offices for the purposes of historical research subject to the right of incumbents to their half of the fees, and

ii. A power to enable diocesan record offices to accumulate fees payable to incumbents under s.11(3)(i) so that remittances need not be made until the end of each calendar year or, if earlier, until the accumulated balance reaches £50."

At present, as the report itself notes, record offices in fact rarely collect fees under the agreements by which they hold a parish's set of registers. Although described as temporary, these new proposals are likely to remain in effect for many years and in our opinion it would be directly harmful to historical research if such fees were to be introduced in this way.

In the case of registers remaining in the parish, the working party states that for general searches by bona fide historians, incumbents will be free to waive fees if they wish, but it insists that this must be left to the discretion of the individual incumbent. The higher fees proposed, as the report makes clear, are not wanted in order to maintain or increase clerical stipends, for the diocesan grants aimed
at giving the clergy a decent income are adjusted each year upwards or downwards to allow for decreases or increases in income from fees. So the higher fees will not add a penny to clerical stipends. The report makes quite plain that the proposals are intended "for the purpose of deterring amateur browsers whose numbers are on the increase".

The "amateur browsers" complained of are to a great extent, of course, local historians many of whom are using recently evolved techniques to discover the population history of their locality, and who as a class are making important contributions, not only to their own local history but to the social history of England. It need hardly be said that the levying of fees on the scale envisaged would indeed reduce the amount of research being done using parish registers, and would thus provide a severe blow at English historical studies.

This country leads the world in the quality of the work done by its local historians. The foundations have been laid by many of the parish clergy over many generations, who have done research, written local histories, served as officers of local societies and considered it as part of their work in the local community to encourage enthusiasts amongst the laity to follow their example in this field. English historical studies owe a great debt to these men, and to those of their successors today who follow in that distinguished tradition.

But what should we think of a report whose whole tenor is to repudiate that tradition? A report which takes the view that registers kept by the Church of England for the period before 1837 should not be considered as national records, unlike those of the nonconformist bodies (and for which no fees are levied)? Which, despite the fact that it acknowledges "the greater security for registers...deposited in diocesan record offices", seems to think this less important than "the loss of local pride in parish treasures" which depositing them allegedly involves, and expresses no concern for the appalling neglect with which some of these "treasures" can be treated in their parishes? How can one find common ground with those who are so blind to the requirements of historical research that they apparently feel parishes should keep their "original registers as museum pieces" and in effect recommend that local historians should be dissuaded from using them for research purposes by the imposition of a fee of £4.50 for a day's research?

The Society of Archivists, whose members run the record offices, is
opposed to fees being levied on deposited records in their care. Apart from the inconvenience the proposals would cause them, they are after all providing the Church with a free technical service at public charge. The Society of Genealogists would like to see all pre-1837 records deposited as a matter of course and is also opposed to the introduction of the suggested new fees. (These points were made by these societies in their representations to the working party.)

We endorse the views of these two societies. If the clergy really are finding it difficult to meet their statutory duties to provide access to the registers which they keep on behalf of the state, then the solution is simple: to deposit the registers in diocesan record offices.

When the matter comes again before the General Synod for approval of the wording of the new order we hope its members will, at the very least, refuse to countenance the "temporary" proposals for the imposition of fees for research done in record offices and will provide that bona fide students (for example, members of educational institutions and of historical organisations, or individuals working under the aegis of such bodies) shall have free access to those registers retained in the parishes.

The best thing however that the Synod could do is to delay implementing this highly partial report and to instigate a new, objective enquiry with members nominated not only by the Church but by bodies such as the Royal Historical Society, the British Records Association, the Society of Archivists, the Society of Genealogists, the Social Science Research Council and the Standing Conference on Local History of the National Council for Social Service. Such and enquiry would need to investigate the present situation and its problems much more thoroughly than did the working party whose report we have been considering. We looked in vain for evidence in the report that the working party had acquainted itself with the access-requirements and practices of the growing body of research groups and extra-mural classes. Are we to believe that these groups and classes which are directed by qualified people, not infrequently by archivists, make the same demands on an incumbent's time as an individual enquiry which will require his personal supervision and guidance? The scale of fees recommended by the report does not differentiate between the two. We need to know the precise legal nature of the obligation the clergy have to provide access to the registers. The assertion in the report that access need be given only by appointment "in business hours and at a time compatible with the incumbent's other
parochial commitments" has sometimes been advanced by certain clergy to make access to the registers in their keeping impossible. We need to know the precise authority on which the assumption that incumbents can charge fees for searches into pre-1837 registers is based. Some authorities doubt whether fees can indeed be charged in this way under the relevant acts.

There is a vast amount of information needed to enable an objective study to be made of the problems. Certainly, if the clergy of the Church of England's ancient parishes wish to avoid their obligations because the statutes are no longer appropriate to the modern situation, they must bear in mind that any changes will have a considerable effect on others apart from themselves. It is in their own interests, as well as those of the historians, to sort out what the situation is and to co-operate with those bodies whose members will be affected.

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Local Population Studies in Schools, Colleges and Groups

LPS has been looking back at its own history and growth and that of population studies in general. It is nine years since the Cambridge Group for the History of Population and Social Structure came into being and recruited its small army of local amateur historians to analyse registers. It is eight years since Peter Laslett published The World We Have Lost and opened the eyes of a wider reading public to the nature and promise of historical demography. LPS, which grew out of the Cambridge Group newsletter to its "extended family", is now entering its fourth year. In that time its readership has grown from three hundred to seven hundred, quite a healthy reproduction rate; though our total reader population remains smaller than we would wish. Various 'anti-Malthusian' (1) devices suggested in our last issue will, we hope, stimulate further and more rapid growth. In general however one can be satisfied with the way in which population study has expanded as a field of research, and pleased with the increasing impact it has made on the population at large. Overall the population of historical demographers is in good shape. It is only when one examines the population's structure, in particular its occupational structure, that one serious imbalance becomes apparent. There is amongst our readers and contributors a remarkable paucity of college lecturers and school teachers.

Why are schools and colleges so poorly represented? There are various possibilities. Perhaps educational institutions are teeming with population studies that LPS does not get to hear about, but this seems unlikely to judge from conversations held with a random selection of teachers and lecturers. Perhaps schools and colleges do not hear enough about LPS, yet this is not for want of effort on our part. One must face the possibility that they hear but do not want to listen. A recent survey of active history teachers' associations certainly bears out the contention that very little population study is being undertaken in schools and little interest shown. Of 50 associations written to, only 9 took the trouble to reply and of these only 2 reported any demographic work recently undertaken. At a moment when history teaching is going through a period of rapid change and rethinking it is alarming and depressing that population studies have not yet gained a foothold. To judge from the wide variety of projects and syllabuses described in the pages of Teaching History, it is not so much that the seed sown by LPS is

-9-
falling on infertile soil but rather that the ground is choked by a jungle of variegated growths. Nevertheless, it should be possible for demography to establish itself when such exotic blooms as psycho-history can take root.

It seems that LPS must spell out more clearly and more forcefully the educational value of population studies in schools and colleges. At a recent conference of the Historical Association which considered suitable objectives for the history syllabus, several speakers emphasised in discussion how important it was for the historian to acquire some skill in quantification. Demography is not the only branch of history that lends itself to quantification, but it is certainly one of the most important and arguably the best medium through which to introduce counting into school history, using as it does simple terms like family, rather than dealing with the more abstruse concepts such as GNP used in economic history. But it is not only because of its methods that demography fits well into an up-to-date school curriculum. As teachers will know already, history in common with other single subjects is losing ground in many schools to broadly conceived humanities and social studies courses. Many teachers feel that these courses represent forced marriages between incompatible subject partners, but demography is a genuinely inter-disciplinary subject, drawing on the knowledge and skills of geographers, sociologists and statisticians as well as of historians. Indeed it demonstrates the real necessity for interdiscipliinary co-operation. Peter Laslett has shown, in _The World We Have Lost_, how powerful and persuasive literary descriptions of the past need to be checked against the more objective evidence that demography can provide. In topics such as childhood, family life and marriage, subjects rightly very popular in humanities courses, historical demography has an obvious place along-side the literary and sociological material. 'Population Problems' is an almost obligatory part of most Sixth Form General Studies courses, yet remarkably few of these, in their obsession with present 'crises' and future 'catastrophes', bother to look back at the troubles of past populations. Many schools are beginning to set up inter-departmental resources centres, realising that material collected for one subject may have a useful application to another. Demographic data can form a valuable part of a resource bank, useful for instance to the teacher of the 'new Maths,' concerned to put across such concepts as 'sets', averages, correlation and to demonstrate their practical application.

In other words historical demography can perform a dual role in schools, either as an integral part of a history, humanities or social
studies course, or, by providing raw material, servicing other subjects. It would be difficult to find another branch of study so flexible and versatile in its use in schools and it is high time that more teachers recognised its potentialities. LPS will do all it can to make teachers aware of the opportunities they are missing and will try to remedy this imbalance in its readership. We hope also that existing readers, whether or not they have any formal connections with the world of education will join us in pointing out to teachers in schools and colleges that they are missing out on a vital aspect of history and a valuable method of extending historians' skills.

It has been suggested to LPS that it should encourage its readers to participate in joint research on a regional or area basis. This proposal seems to have a great deal to recommend it. It has always been the aim of LPS to bring individual researchers in contact with each other's work through the medium of its pages. There are obvious limits to what can be achieved in print and when half a year passes between issues but we do our best to answer all the enquiries we receive and so provide an effective communication between readers which is not tied to the production of an issue of the magazine. By the very nature of the subject, research into population benefits from co-operative work. Techniques worked out to analyse registers in one parish can normally be applied with little modification to another and often the real significance of results obtained from one area can only be seen when they are compared with those from elsewhere. Joint research also reduces the individual's share of the necessarily rather tedious spadework that wide-ranging demographic research requires.

All this will be familiar enough to those of our readers who are fortunate enough to live in an area in which adult education groups or local history societies are already engaged on elaborate joint research. The majority however will not be so fortunate as to have such an active group in the area and many people anyway lack the time or inclination to participate in a major project, yet they might nevertheless welcome occasional contact with other researchers in their neighbourhood. It is for such people that we hope regional research groups can be formed.

If it were decided to set up such a group, it should for preference consist of members who lived close enough to meet from time to time. If this proved impracticable, correspondence groups could still prove useful. Ultimately of course the success of a group would
depend on its members, but we would do all we could to get it off to a good start and to encourage its continuation. We can supply the names and addresses of readers and researchers to anyone attempting to set up such a group and would be prepared to publicise and follow its progress in LPS. We would also consider publishing any findings of particular interest.

Naturally any group would wish to decide for itself what project it wished to undertake but it would be wise at first not to undertake anything too elaborate or involving too complex a method. Otherwise group members may come to feel that their limited time is being too greatly diverted from their own private research. The three investigations described below would all appear to be suitable as a first project and would have the added advantage of linking up with work already being done by the Cambridge Group or others.

The first project is an investigation of the number of illegitimate children recorded in the parish registers at various periods. Though there are technical problems involved in discovering the precise level of illegitimacy in the population, even a simple count of the number of recorded illegitimates and the proportion they form of the total number of baptisms would provide valuable information if collected from a large number of parishes. It would also be useful to distinguish stated bastardy, where the word base or a synonym is actually used in the register, and inferred bastardy, where only the mother's name is mentioned in the baptismal entry.

A second project would be to follow up the Cambridge Group's preliminary investigation described by Dr. Wrigley in LPS 3 and further developed in this issue, namely to analyse the baptism/marriage ratios in the parish registers of the late seventeenth century, which in some cases were found to rise to an unrealistic eight or ten to one, suggesting under-registration of marriages at this period.

The third and perhaps the most valuable project would be to apply the methods advocated by Roger Schofield in the last issue to discover years of 'crisis mortality'.

None of these three projects need consume much time nor do they require any great expertise or previous experience of parish register demography. The choice of projects is not of course limited to parish register analysis. Census Enumerators' Returns also provide opportunities for simple but valuable undertakings.
LPS would very much like to hear from anyone who is interested in a regional research group scheme, or from anyone else who wishes to comment on this proposal. We shall hope to record reactions to it in our next issue.

David Avery
Colin Barham
Christopher Charlton
Roger Schofield
Derek Turner
Richard Wall

NOTE

(1) Malthus was concerned about the rapid growth of populations leading to mass starvation. L.P.S. is not dismayed at the prospect of rapid growth.
NEWS FROM THE CAMBRIDGE GROUP

FOR THE HISTORY OF POPULATION AND SOCIAL STRUCTURE

Professional and local historians intermingled at the Population History Seminar organised by the Department of Economic History of the University of Exeter at Dartington Hall in February. The majority of the papers were based on sources to be found in South-West England although not peculiar to it. But this was the only unifying theme. Brian Clapp and Nicholas Crafts both dealt with the eighteenth century but while the former used an early local census and parish registers to estimate fertility and mortality levels in one parish (Wembworthy), the latter presented a critique of current theorizing about the relationship between population growth and an expanding economy. On the nineteenth century Richard Wall explained how a comparison of family reconstitution forms and census schedules not only enabled one to assess the degree of reliability of registration of baptisms but also permitted the tracing of kinship links between neighbouring households. The remaining speakers concentrated on particular areas, Professor Pounds on the distribution and growth of population in Cornwall between the Middle Ages and the nineteenth century, and Dr. Mary Griffiths on the mortality of the poorest parts of Exeter more particularly in the nineteenth and twentieth centuries. A lively discussion followed the presentation of each paper.

Thos who were unable to attend can still catch up on the proceedings because the papers are to be published by the University of Exeter as part of the series Exeter Papers in Economic History. Further details can be obtained from Brian Clapp, Department of Economic History, University of Exeter, Streatham Court, Rennes Drive, Exeter EX4 4PU.

Peter Laslett
R. Schofield
E.A. Wrigley
Clandestine marriage in Tetbury in the late 17th century

In an earlier note published in *Local Population Studies* I drew attention to the high baptism/marriage ratios often found in English parishes in the late seventeenth century\(^1\), and suggested that this may have been due to the prevalence of marriage contracted without benefit of church ceremony. Work on the aggregative analysis of the registers of Tetbury, Gloucestershire \(^2\), has revealed a little more about this phenomenon. It is likely that other registers also contain similar evidence\(^3\). Since it would be most valuable to draw together all such scraps of information, I write this note in the hope that it may hasten the day when we attain a more adequate knowledge of marriage in this period.

Early in 1695 there is a note in the Tetbury marriage register, 'Registered by the Vicar according to the Act for Marriages, Anno 1695'. Thereafter until 1699, the register contains three types of marriage entry, rather than one, for in addition to the normal form of entry consisting of the date of the marriage and the names of the bride and groom, there were two novel forms. In both cases the name of the groom only is set down and the entry is undated, but whereas some grooms are said to be 'clandestinely married', others are simply said to be 'married' (in two cases in the latter class a date is also given). The first entries in an unusual form occur in 1696. The frequency of entries of each type is shown in Table 1.

<table>
<thead>
<tr>
<th>Year</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>1696</td>
<td>7</td>
<td>2</td>
<td>6</td>
<td>0</td>
<td>15</td>
</tr>
<tr>
<td>1697</td>
<td>7</td>
<td>3</td>
<td>2</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>1698</td>
<td>12</td>
<td>7</td>
<td>6</td>
<td>2</td>
<td>27</td>
</tr>
<tr>
<td>1699</td>
<td>9</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>14</td>
</tr>
<tr>
<td>Total</td>
<td>35</td>
<td>14</td>
<td>17</td>
<td>2</td>
<td>68</td>
</tr>
</tbody>
</table>

A entries in the normal form; B described as clandestine, groom only named, undated; C groom only named, undated; D groom only named dated.
During the period 1696-99 almost half of the marriages entered in
the register were in an irregular form. Of these 33 marriages, 14
were termed clandestine. It is probable that the vicar was moved
to record additional marriages from fear of the penalties to which he
might be liable under the Marriage Duty Act.\(^4\) If he made any
attempt to compel more of his parishioners to marry in his church,
he had little success. The number of 'ordinary' marriages was not
significantly different from the level of the years immediately before
and after 1696-99. But by recording the establishment of other
unions in the parish, he may have hoped to avoid the danger of
prosecution. By clandestine marriage he may either have meant a
common law marriage contracted by the exchange of vows before
witnesses or marriages celebrated by 'hedge priests' in private
dwellings. It is not immediately clear whether the 19 other
marriages (in columns C and D of table 1) represent a different class
of event or not. Possibly they refer to the marriage of Tetbury
men in other parishes celebrated in the normal form but taking place,
as was customary, in the bride's parish. By consulting the registers
of neighbouring parishes it will be possible to establish whether
this was so.

Table 2 shows the decadal totals of marriages and baptisms between
1660 and 1719 and the baptism/marriage ratio in each period.
The clandestine and other 'irregular' marriage entries 1696-9 have
been excluded from the marriage total 1690-9 (i.e. those marriages
listed in columns B-D of table 1).

<table>
<thead>
<tr>
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<th>Marriages</th>
<th>Baptisms</th>
<th>Ratio (baptisms per marriage)</th>
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<tbody>
<tr>
<td>1660-9</td>
<td>73</td>
<td>489</td>
<td>6.70</td>
</tr>
<tr>
<td>1670-9</td>
<td>130</td>
<td>609</td>
<td>4.68</td>
</tr>
<tr>
<td>1680-9</td>
<td>98</td>
<td>561</td>
<td>5.72</td>
</tr>
<tr>
<td>1690-9</td>
<td>69</td>
<td>555</td>
<td>8.04</td>
</tr>
<tr>
<td>1700-9</td>
<td>145</td>
<td>749</td>
<td>5.17</td>
</tr>
<tr>
<td>1710-19</td>
<td>119</td>
<td>532</td>
<td>4.47</td>
</tr>
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The ratio was high in the first decade 1660-9, fell sharply in the 1670s
only to rise again to a very pronounced peak in the 1690s. Thereafter
there was a further fall until in the 1710s the ratio was close to the

-16-
level of the 1670s. The smoothness of the wave-like movement of the ratio is exaggerated by the use of decades as time units. Examination of the annual totals suggests that there were four major phases in the fluctuations of the ratio during the 60 years after the restoration of the monarchy, and that they were more sharply distinct from each other than the decadal figures in table 2 might lead one to think. Table 3 presents the same data as table 2 but with a different periodisation to substantiate this point. In 1671-85 and again in 1703 the ratio, though still higher than in many other parishes, was at a sufficiently modest level to raise no immediate doubt that marriages were fully registered. In 1660-70 on the other hand, and still more

<table>
<thead>
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<th>Baptisms</th>
<th>Ratio (baptisms per marriage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1660-70</td>
<td>80</td>
<td>554</td>
<td>6.93</td>
</tr>
<tr>
<td>1671-85</td>
<td>193</td>
<td>914</td>
<td>4.77</td>
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<tr>
<td>1686-1702</td>
<td>130</td>
<td>998</td>
<td>7.67</td>
</tr>
<tr>
<td>1703-19</td>
<td>231</td>
<td>1029</td>
<td>4.46</td>
</tr>
</tbody>
</table>

in 1686-1702 the ratio is suspiciously high. For the ratio to be 'genuine', marital fertility would have had to be much higher and/or age at marriage much lower than there is any evidence to warrant for early modern England. Furthermore, the abrupt and large changes in the ratio also argue against the view that marriage registration was on the same basis throughout the period.

Several possible explanations of the fluctuations in the ratio can be envisaged. For example, it might be argued that the high ratio of the 1660s was due to the difficulty of re-establishing ecclesiastical marriage after several years in which the country had a civil registration system for marriages, but that the period 1686-1702 when the ratio was again high, was one in which Tetbury parishioners were making much greater use of the churches of neighbouring parishes when they wished to marry. The proportion of marriages in which one partner came from another parish was normally so high in English parishes that a change on this scale might have occurred simply because a ceremony in Tetbury church was not attractive to the 'home' partner in mixed marriages.
The information about clandestine marriage in 1696-99, suggests that the 'real' baptism/marriage ratio may have changed very little between the two 'low' periods and the intervening 'high' period but that many marriages were clandestine during the 'high' period. Table 4 shows how the inclusion of clandestine marriages lowers the ratio during the period in which their occurrence was registered. If normal and clandestine marriages are counted together the ratio

<table>
<thead>
<tr>
<th>Year</th>
<th>Marriages</th>
<th>Baptisms</th>
<th>Ratio (baptisms per marriage)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1696-99</td>
<td>35*</td>
<td>253</td>
<td>7.23</td>
</tr>
<tr>
<td>1696-99</td>
<td>49+</td>
<td>253</td>
<td>5.16</td>
</tr>
<tr>
<td>1696-99</td>
<td>68†</td>
<td>253</td>
<td>3.72</td>
</tr>
</tbody>
</table>

* Only marriages in the normal form counted
+ Normal marriages plus marriages described as clandestine
† All marriages registered.

is 5.16, a figure reasonably close to those found in the preceding and succeeding periods. If all marriages shown in table 1 are counted the ratio drops to 3.72, lower than the ratio in other periods but similar to that found over long periods in many English parishes.

The vicar of Tetbury appears to have regarded all three types of act which he recorded in his marriage register between 1696 and 1699 as marriages and no doubt baptised and registered the offspring of all three types of union indifferently, treating all as legitimate, as no doubt he had always done. Consulting the baptism register would quickly test the truth of this assumption but there was no reason in ecclesiastical law for him to do otherwise. Certainly the fluctuations in the annual number of baptisms in the four periods shown in table 3 was very modest compared with that in the number of marriages. For the four periods 1660-70, 1671-85, 1686,1702 and 1703-9, the annual average number of baptisms was 50.4, 60.9, 58.7 and 60.1 respectively, whereas the annual average number of marriages in the same four periods was 7.3, 12.9, 7.6 and 13.6.

Gloucestershire is one of the counties in which the parish register data collected by Rickman and published in the 1841 census suggest that deficient marriage registration was widespread in the period 1660-1720. Many parishes in Gloucestershire and elsewhere show
fluctuations in the baptism/marriage ratio similar to those visible in Tetbury. Until more is known about marriage customs in this period it is perhaps idle to speculate about the circumstances which caused some couples to avoid marriage in church performed by the parish priest. It is, however, worth noting that the pattern found in Tetbury—alternation between apparently full and presumptively deficient coverage—is often found elsewhere, suggesting that the pressures on couples to 'conform' varied from time to time (possibly with the incumbent?).

It was a normal feature of English life that a substantial proportion of first children were baptised less than nine months after marriage. Many baptisms were performed quite soon after the marriage. In these cases marriage in church often simply confirmed established unions. If the community had already recognised the union and its legitimacy was not affected by the ecclesiastical ceremony, it is understandable that there should be variations in the proportion of couples who decided to go through the church form of marriage. It might be illuminating to discover whether in periods when the baptism/marriage ratio was high, there was an increase in the proportion of marriages between couples of high status because couples of low status were more likely to have disregarded the church ceremony. This can be done without great difficulty from those rare registers which at this period give the occupation of the groom (or of the father at baptism) but may prove more troublesome in parishes where the occupations of men can only be established indirectly from other sources. There is incidentally an interesting indication of the flexibility of Anglican usage in regard to the ecclesiastical marriage ceremony from Newfoundland at a much later date. The fishing communities on the island's west coast had no resident clergyman. They were visited periodically by Anglican ministers who then conducted baptism services for children born between visits, and marriage services for couples whose unions had begun recently. The form of entry concerning such marriages makes it clear that they were regarded by the officiating ministers as giving a spiritual confirmation to a marriage which already existed.

There was a further period in Tetbury when the baptism/marriage ratio was very high, from 1737-49 when it was 7.7. In this Tetbury was unusual. High ratios were much rarer after 1720 than before in most parishes. After Hardwicke's Marriage Act of 1753 it became impossible to contract a valid marriage except by an Anglican ceremony in church (with certain negligible exceptions). Thereafter,
few marriages escape registration. It was rare, however, for the ratio to change significantly after the Act came into force, and, despite the existence of a few parishes like Tetbury with a high ratio at a later date, it seems fair to conclude that early in the eighteenth century the Anglican Church succeeded in re-establishing marriage in church as a nearly universal custom.

In order to learn more about irregular marriages in periods when baptism/marriage ratios were high, it is important to seize the opportunities presented by registers like Tetbury after the Marriage Duty Act of 1695. In such parishes many of the characteristics of clandestinely married couples can be established by family reconstitution supplemented by the use of other local documents. The respects, if any, in which such couples differed from others in the parish can then be specified, and much may be learned indirectly about the institution of marriage more generally. This is only feasible however where clandestine marriages are registered. Where they are not, it is unlikely to be possible to distinguish between a clandestine marriage and a marriage celebrated outside the parish but in the 'normal' way even though the subsequent history of the marriage can be traced in detail.

It would be a pleasing irony if a tax levied on demographic events which proved a failure as a source of revenue to the state, should three centuries later provide the means of increasing substantially our knowledge of one of the events which it was intended to make more expensive.

E.A. Wrigley

NOTES


(2) The aggregative analysis of Tetbury was carried out by Mrs. Joan Lawley. I am greatly in her debt for the care and trouble which she took. The Cambridge Group has been singularly fortunate in the assistance and advice given to it by volunteers all over England and it is a pleasure to have an opportunity of acknowledging the value of their work.
(3) Since the bulk of this note was written I have learned from Mr. Christopher Charlton that some of the published marriage registers of Nottinghamshire contain information about clandestine marriages similar to that for Tetbury described below.

(4) The Act specifies that every person must '... take an exact and true account, and keep a register in writing of all and every person or persons married, buried, christened or born' in his parish. The collectors and others concerned were to have free access to the register, '... and if such parson or minister shall refuse, or neglect to keep a true register thereof, as before directed, such a parson or other minister so offending, shall forfeit the sum of one hundred pounds ...' (6 & 7, William and Mary c.6, 24).

(5) See for example, P.E.H. Hair, 'Bridal pregnancy in rural England in earlier centuries', Population Studies, XX, no. 2 (1966) 233-43. In the sample of marriages he drew from many parishes over the period 1550-1820 32% of all first births or baptisms occurred within 8½ months of the marriage and 21% within 6 months of the marriage.

(6) I owe this information to Miss P.A. Thornton of the Institute of Social and Economic Research, Memorial University of Newfoundland.

(7) This appears from the general tabulations of aggregative returns made by the Cambridge Group.
EXPANDING FAMILIES
Some Aspects of Fertility in a mid-Victorian Community

Carol G. Pearce

Mrs. Pearce, in collaboration with Professor Michael Drake of the Open University, has been engaged in detailed research into the social structure of a mid-nineteenth century country town (Ashford, Kent).

The evolution of the family consists basically of two phases: an expanding phase embracing marriage and the childbearing years, and a reducing phase when death, and the movement away of individual members, is dominant. This article is concerned with some aspects of the former of these two phases and looks in particular at the childbearing experience of couples who married in the Kent town of Ashford, between the years 1840 and 1870.

During this period, Ashford was growing rapidly, from a census population of 3,082 in 1841 to one of 8,458 in 1871. This growth stemmed principally from a local industrial revolution ushered in by the arrival in 1842 of the first railway, and given impetus by the decision of the South Eastern Railway Company to locate a major locomotive and carriage works just outside the town. The works were started in 1847 and, concurrently, a model settlement, New Town, was built to house the company's employees. In a relatively short space of time, Ashford, traditionally a market centre for the surrounding agricultural area, was injected with numbers of highly skilled industrial workers from London and the north, together with their families. There was also a considerable influx from adjacent rural parishes, of people who were able to obtain employment as labourers, stokers, guards etc., at the new railway works. By 1861, 1280 of Ashford's population lived in New Town.

The demographic record of these processes is to be found in such sources as the census enumerators' books (for 1841, 1851 and 1861) and the registers of births, marriages and deaths. This study was made possible by the generosity of the Registrar General in allowing the examination of the Civil Registration data at present resting in the Kent County Council Archives. For this particular investigation
### TABLE 1

**FERTILITY IN ASHFORD AND IN ENGLAND AND WALES**

1851 and 1861

<table>
<thead>
<tr>
<th></th>
<th>Column a</th>
<th></th>
<th>Column b</th>
<th></th>
<th>Column c</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Live birth rate per 1,000 population</td>
<td>Live births per 1000 women aged 15 - 44</td>
<td>Legitimate live births per 1000 married women aged 15 - 44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1851</td>
<td>1861</td>
<td>1851</td>
<td>1861</td>
<td>1851</td>
<td>1861</td>
</tr>
<tr>
<td>Ashford</td>
<td>36.9</td>
<td>39.2</td>
<td>151.3</td>
<td>170.0</td>
<td>283.1</td>
</tr>
<tr>
<td>England &amp; Wales</td>
<td>34.3</td>
<td>34.6</td>
<td>145.0</td>
<td>147.4</td>
<td>290.8</td>
</tr>
</tbody>
</table>

**NOTE:**

For the Ashford 1851 figures the annual average of births taken over a ten year period from census anniversary 1846 to census anniversary 1856 was applied to the 1851 census population. The 1861 figures were calculated from the annual average of births between the census anniversaries of 1856 and 1866.

of fertility, a comparison was made between entries in the registers of marriages and of births. Using a computer (because of the sheer bulk of the data) an attempt was made to 'match' the names of the bride and bridegroom at a given marriage with the names of parents of new-born children. Identification of couples appearing in more than one source was not as difficult as might be imagined, since there were four nominative points of comparison: the christian name and surname of the man, and the christian name and maiden surname of his wife. Once marriages and births had been linked in this way, it was possible to examine the interval between a couple's marriage and the birth of their first child, the extent of bridal pregnancy, and the number of births during specified periods within marriage. Of course many marriages and births remained unmatched; there were a number of births to unmarried parents and many to those who were married either outside the area covered by Ashford birth registration, or at a date prior to 1837 when civil registration was introduced. Conversely, for one reason or another (see below), not all registered marriages produced births which were recorded in the registers being studied.

**Fertility rates in Ashford**

As the period under review was fairly short (30 years) it was not possible to discern any long-term trends in Ashford's fertility rates. It does seem, however, that compared with the figures for England and Wales, Ashford experienced a slightly higher birth rate than average (Table 1); also the crude birth rate (column a), the general fertility rate (column b) and the marital fertility rate (column c) all increased faster in Ashford than in the country as a whole. Ashford's higher than average birth rate figures can to some extent be attributed to the demographic effect of New Town, populated predominately by married couples in the fertile age groups. In 1851, for instance, 10.7% of Ashford's female population aged 20-49 inclusive lived in the New Town enumeration district, but as many as 17.5% of the children aged 5 did so. Turning to 1861 the proportion of women aged 15-44 who were married was also found to be considerably higher in the New Town than in either Ashford as a whole or England and Wales (68%, 53% and 49% respectively).

**The Interval between Marriage and Maternity: the extent of pre-nuptial Pregnancy.**

During the period 1837 to 1870, about 1600 marriages took place in
Ashford, and 631 of these eventually produced at least one child whose birth was registered in the Ashford civil register. The 631 comprise less than 40% of all the marriages, but the apparent lack of maternities among the others can probably be explained in a number of ways. It is possible, for instance, that there were in fact no children of the union; Hair estimates that this would account for about one third of the "missing" maternities - if applied to 19th century Ashford this would represent 20% of all marriages. (Childlessness could arise through infertility of one or both of the partners, through the death of a potential parent, or because the marriage took place after the end of the wife's childbearing years.) Also, some first births took place after 1870 to couples married before that date, while non-registration might account for a few more. But probably the main reason for the number of untraced maternities was the migration of the couple out of the birth registration area. Perhaps they never lived in Ashford itself. In 220 marriages both bride and groom gave a parish of residence other than Ashford; this represents 13.8% of all Ashford marriages, but they provided only 6.2% of the traced maternities. Or perhaps an Ashford bride, marrying in her home parish, moved back with her husband to his own home parish. (In fact only 17.5% of the 240 marriages involving a groom from outside Ashford were traced to maternities, whereas in the 101 marriages involving an Ashford groom but a bride from elsewhere, the percentage traced to maternities rose to 39.6%). Alternatively, it is probable that many couples, both resident in Ashford at the time of marriage, subsequently (and before the first maternity) moved away to another area.

Table II shows for the Ashford data the number and cumulative percentage of birth occurrences month by month. In the case of births occurring earlier than 3 1/2 months after marriage, conception is assumed to have taken place before marriage. Other intervals have sometimes been used, such as 8 months or 9 months, but whatever interval is chosen, it is assumed that births included in the total of pre-marital conceptions erroneously (i.e. where a child conceived after marriage was born prematurely) would be balanced by those erroneously excluded (i.e. where the pregnancy lasted longer than usual).

If the index of pre-marital pregnancy is defined as the number of marriages in a certain period giving rise to births registered not later than 3 1/2 months after marriage, divided by the total number of marriages traced to maternities, then the index for Ashford is 38.4% which is similar to that found by Hair for rural southern England after 1700.
<table>
<thead>
<tr>
<th>Age of mother at marriage</th>
<th>Pre-marital Maternity</th>
<th>Interval (months) to first maternity</th>
<th>% of total involving pre-marital conception</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 - 2</td>
<td>3 - 5</td>
<td>6 $\geq$ 8.5</td>
</tr>
<tr>
<td>15 - 19</td>
<td>2</td>
<td>25</td>
<td>17</td>
</tr>
<tr>
<td>20 - 24</td>
<td>6</td>
<td>40</td>
<td>40</td>
</tr>
<tr>
<td>25 - 29</td>
<td>2</td>
<td>11</td>
<td>9</td>
</tr>
<tr>
<td>30 - 34</td>
<td>2</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>35+</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>NOT KNOWN</td>
<td>6</td>
<td>18</td>
<td>10</td>
</tr>
<tr>
<td>TOTALS:</td>
<td>19</td>
<td>97</td>
<td>80</td>
</tr>
</tbody>
</table>

% (Cumulative) 3.0 18.4 31.1 38.4 64.3 74.3 79.7 83.4
Hair concluded that 43% of the traced births and 35% of the traced baptisms were recorded within 8½ months of marriage, although Laslett has shown a very large variation in the indices for different parts of the country in different periods. There is obviously scope for further research on the rates for other nineteenth century, or post-industrial communities.

Relative to the marriage itself, there were three main birth 'groups'. The first was within three months of the ceremony, and comprised as many as 15.4% of all the traced first maternities. On the conservative assumption that none of the untraced maternities were in this category, then approximately 6% of all brides had completed six months or more of a pregnancy. If, on the other hand, it is assumed that the behaviour of the known group is typical of all couples (other than the 20% expected to be childless) then the figure rises to approximately 12%. The second cluster of births occurred, not surprisingly, between 8½ months and 12 months after marriage. This is to be expected in a society without sophisticated methods of contraception, accounting in this case for about 26% of all first births. About two-thirds of all traced first maternities occurred within the first year of marriage, and only a further 19% took place in the whole of the second year. Quite a significant number, however, did not occur apparently until at least 24 months after the marriage. Although these were spread out over many months, they may be considered together as the third main birth group. It seems very likely that these, in fact, represented second, or possibly, subsequent pregnancies, the first having ended in abortion or still birth. Hair asserts that about 10% of all first pregnancies terminated in this way, and it has further been estimated that the minimum interval until the next successful maternity was on average about 16½ months (though this allows for infertility during lactation following an earlier birth). This would account for a number of the lengthy intervals between marriage and first successful maternity. It is also possible, of course, that the first child or children of a marriage were not registered at all, or that they were registered elsewhere; this again would result in a long interval between marriage and first (Ashford) birth.

Birth Experience Among Selected Occupational Groups

It was thought that a comparative look at two different social groups would be useful, and two of the largest - unskilled labourers, and members of the retail trades - were chosen for study. The occupation description used was that given by the bridegroom in the marriage register, though this was checked against the occupation of the same
man when he appeared subsequently as a father in the birth register. The two groups each represent a different sector of society, and the figures for the period 1840 to 1864 do seem to indicate certain differences in their fertility patterns. For instance, contrary to popular belief, the families of labourers were not the fastest growing: indeed for each five-year cohort, the average number of births to labouring fathers within the first five years of marriage was smaller than average. This pattern was repeated at the ten year point for all except the 1850-54 cohort of marriages. It is quite possible that the conditions of life and level of subsistence of labourers was such as to depress the numbers of pregnancies terminating successfully, but on the other hand labourers' wives tended to be slightly more fertile than average in the later stages of marriage; at the fifteen year point, all cohorts of labourers had had more children than average. For instance, the labourers' wives in the 1850-54 marriage cohort had had on average 6.67 maternities, compared with the mean for the whole cohort of 6.41 for the first 15 years.

In contrast, the numbers of births in families fathered by men concerned with the retail trades were nearly always larger than average (the only exception being the 1850-54 cohort at the ten and fifteen year points). Could this represent some sort of response to a relatively secure environment - in contrast to the experience of labourers? Certainly in the period under review, the physical growth of Ashford could have encouraged a more buoyant trading climate.

However, if instead of looking at individual cohorts throughout their reproductive experience, we examine the numbers of births achieved in the first five years only of marriage for each cohort, then an interesting pattern emerges; apparently labourers' wives were getting more fertile in the first five years, while the retailers' wives were becoming slightly less fertile (Table III) during the period being studied (though the trend is not a smooth one and in the case of the retail group, the minimum figure occurs among those married in the period 1850-54).
TABLE III

NUMBER OF BIRTHS WITHIN FIRST FIVE YEARS OF MARRIAGE BY OCCUPATIONAL GROUP OF FATHER

<table>
<thead>
<tr>
<th>Wives of:</th>
<th>Cohort</th>
<th>1840-44</th>
<th>1845-49</th>
<th>1850-54</th>
<th>1855-59</th>
<th>1860-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labourers</td>
<td></td>
<td>2.15</td>
<td>2.21</td>
<td>2.16</td>
<td>2.29</td>
<td>2.50</td>
</tr>
<tr>
<td>Retailers</td>
<td></td>
<td>2.67</td>
<td>2.73</td>
<td>2.27</td>
<td>2.45</td>
<td>2.44</td>
</tr>
</tbody>
</table>

On the evidence, it seems unlikely that these variations can be ascribed to changes in the age at marriage since over the period 1840-64 the average age at which labourers' wives married rose from 22.7 to 23.3, while that of retailers' wives fell from 24.2 to 23.7, though again the change is not a regular one (Table IV). Surprising too, perhaps, is the fact that the retailers' wives were apparently more fertile in their first five years of marriage despite being on average rather older at marriage than the labourers' wives.

Differentials in the quality of birth registration as between the two groups may have some part to play here, with the labouring parents being less punctilious about registering every birth, but at the moment this can only be conjecture. It is possible that the changes in numbers of children born in the first five years of marriage (as shown in Table IV) may be linked to changes in the proportion of couples in each of the two groups conceiving their first child pre-maritally (thereby increasing the number of potential births in the first five years).

TABLE IV

AGE AT MARRIAGE OF THE WIVES OF LABOURERS AND RETAILERS, BY MARRIAGE COHORTS

<table>
<thead>
<tr>
<th>Wives of:</th>
<th>Cohort</th>
<th>1840-44</th>
<th>1845-49</th>
<th>1850-54</th>
<th>1855-59</th>
<th>1860-64</th>
</tr>
</thead>
<tbody>
<tr>
<td>Labourers</td>
<td></td>
<td>22.7</td>
<td>22.4</td>
<td>23.2</td>
<td>22.8</td>
<td>23.3</td>
</tr>
<tr>
<td>Retailers</td>
<td></td>
<td>24.2</td>
<td>26.1</td>
<td>24.1</td>
<td>23.7</td>
<td>23.7</td>
</tr>
</tbody>
</table>

Among labourer's families this proportion increased from 38.5% to 56.0% during the period 1840-1859, while that among retailers fell from 33% to 9.1%. On the other hand, better economic and medical
conditions towards the end of the period were probably responsible for a higher number of successful births to labourers, while it might also be argued that the families concerned with retailing were already anticipating the fall in fertility which was to become general in the later years of the century.

Clearly this sort of study, far from elucidating all the dynamics of population growth among the various sections of the community, poses further questions of both a demographic and a social nature. However it is by undertaking small-scale investigations such as this one that we can amplify the assertions made for society at large at different stages in our history.

NOTES

1. This article arises out of the research project 'Ashford 1840-1870: A Socio-Demographic Study', financed by the SSRC and undertaken in the Centre for Research in the Social Sciences at the University of Kent, in collaboration with Professor K.M. Drake of the Open University.

2. This idea is elaborated and formalised in P.C. Glick 'The Life Cycle of the Family' published in J.J. Spengler and O.D.Duncan (eds) 'Demographic Analysis' p. 471.


4. Of the 1156 brides whose age at marriage is known, only 19 or 1.6% were aged 45 or over.

5. P. Laslett The World We have Lost Methuen 1965 p. 139.

6. E.A. Wrigley Population and History World University Library 1969 p. 92. This figure is an average for a large number of cases and should not be taken as necessarily typical of every small community.

Editor's Note: This article is the first published study to make use of the civil registers, in conjunction with the enumerators' books of the censuses of 1841, 1851 and 1861. The former commence in 1837 and are generally thought to have achieved considerably greater accuracy than the parish registers but for many years it has not proved possible to analyse them in any detail because of the regulations governing access. (See L.P.S. 9 Editorial).

SOME FACTORS AFFECTING THE PATTERN OF PRE-MARITAL CONCEPTION

a) Age of mother

Instead of giving her exact age in the marriage register, it was quite common for a bride to state merely that she was over or under 21.
As a result, in the 631 marriages which have been traced to maternities, the age of the bride was given in only 329, just over half. However, census material for 1841, 1851 and 1861 has furnished the ages at those dates of a further 205 mothers, whose age at marriage can therefore, be ascertained sufficiently accurately to assign them to the 5 year age groups of Table II.

The distribution of time between marriage and first birth, by the age of the mother, is set out in Table II. Pre-nuptial conception seems to be more common among the younger age groups: of brides aged between 15 and 19, as many as 52% had a maternity within 8½ months of marriage (and 46.3% of this group were delivered within 3 months of the ceremony). The index of pre-nuptial conception drops away with increasing age at marriage: 37% for brides aged 20-24, 28% for the 25-39 age group, and 24% for those aged 30-34. Numbers are rather small in the over 35 age group, so perhaps too much importance should not be given to the high index of 40% (6 brides pregnant out of 15).

b) Literacy of mother

It is often asserted that level of education is a factor in the rates of illegitimacy and pre-nuptial pregnancy. It is very difficult to assess levels of educational attainment of the mass of people in the past, but as a rough and ready guide the ability to sign one's name can be quite helpful.

In the period under consideration 261 women had maternities between 8½ and 18 months after marriage (i.e. intra-maritally conceived births, not including first births from second pregnancies, most of which would occur after 18 months.) Of these 261 mothers, 35 (13.4%) were unable to sign their name in the marriage registers. In contrast, of the 248 brides actually pregnant at marriage, 67, or as many as 27%, could not write their names. Literacy figures should be treated with some caution, however, since those who could not write may have been able to read, while others who could manage a signature may have been illiterate in every other way. Also, despite the striking contrast between the two percentage figures given above, they relate to too few cases for any statistically significant conclusion to be drawn. Nevertheless, the figures do seem to suggest some connection between the inability to sign a name and the incidence of pre-maritally conceived births, but this can only be confirmed (or denied) by further work along the same lines in other communities.
c) Social class of mother

In the context of pre-nuptial pregnancy, it was thought more profitable to explore the social background of the bride than that of the groom, since, until she was married, the girl's social status and behaviour would to a large extent be determined by her family environment. However, no attempt was made to assign all the brides to one class or another (in the sense of the Registrar General's definition of socio-economic groups) since the numbers in some classes would be very small, and in any case the boundaries between classes are very difficult to draw. Accordingly, two groups only were chosen - the daughters of labourers and the daughters of professional men and landowners. These were selected because they represent the extremes of the social scale, and neither suffers from ambiguities of definition. Of the 631 brides traced to maternities, 247 (39.1%) were daughters of labourers, and 48 (7.6%) were daughters of professional men and landowners. The experience of these two groups is set out in Table V, together with the figures for all 631 brides for comparison.

**TABLE V**

**INTERVAL BETWEEN MARRIAGE AND FIRST MATERNITY - TWO SOCIAL GROUPS COMPARED**

<table>
<thead>
<tr>
<th>Social Class</th>
<th>Interval (months) to first maternity (Cumulative percentage)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0 - 2</td>
</tr>
<tr>
<td>Daughters of Labourers</td>
<td>21.5</td>
</tr>
<tr>
<td>Daughters of Professional men and Landowners</td>
<td>14.6</td>
</tr>
<tr>
<td>Average of all brides in the study</td>
<td>18.4</td>
</tr>
</tbody>
</table>
The evidence of Table V appears to support the hypothesis that brides from the labouring class produce children at an earlier stage in their marriage than those from the professional class. When compared with the average experience of the whole group, the percentage of maternities at each stage in the first two years of marriage is for the former group consistently higher, and for the latter consistently lower than the average, although unfortunately, because of the small numbers involved, the differences are not statistically significant, and may only indicate a general trend.

The Growth of the Family: A Comparison of Marriage Cohorts

There are two ways of looking at a family's rate of growth; either by working out the average interval between successive births to a single family, social class or marriage cohort, or by ascertaining the average number of children born within specified intervals to specified marriage cohorts. For the purposes of this study, the second approach was adopted: it shares with the first method the advantage of comparisons over time between different groups, but in addition it enables a study of the variations in the rates of family growth over time. For instance, looking at all the marriages traced to subsequent maternities during the period 1840 to 1864 we can say that, on average, a couple would have 2.34 children in the first five years of marriage, 4.42 at the end of the second five years, 6.15 at the end of the third and 7.41 when they had been married for 20 years. These figures are for marriages which were still fertile at the end of each 5 year period: they relate to live births only and do not take infant or subsequent mortality into account: but they give a general idea of the falling off of fertility with increasing duration of marriage: 2.34 births in the first five years, 2.09 births in the second 5 years, 1.73 in the third 5 years and 1.26 births in the fourth 5 year period (15-19 years after marriage).

The method adopted in arriving at the various figures relating to family increase, was to look at individual marriages within five year cohorts, and ascertain from the listing of births the number of children born to each couple within five, ten, fifteen or twenty years of marriage. Before a figure could be reached for any couple for any period in their marriage, it was necessary to have evidence, both that the wife was still fertile, and that they lived in Ashford to the end of that five year period (i.e. a further birth beyond the end of the period, or an appearance in a later census or other record). Failing this it was normally assumed that either one or both of the
partners had died or that the couple had moved away from Ashford - in which case, to avoid under representation of the number of births, their reproductive experience in that period was ignored, unless their last registered birth took place within two years of the end of the period, and could, therefore, be considered to be the final birth in that particular period (the average interval between births being usually between 24 and 26 months). This procedure was used in order to retain enough cases of couples known to be fertile. It does, however, introduce a bias towards fertility into the figures, since the couples whose last birth was at the end of the five year period were included, whereas those whose last birth took place earlier in the period (and who would therefore have produced on average fewer children during that period) were excluded.

Since the period is so short (allowing the study of only five consecutive five year cohorts) and the numbers involved relatively small, it is not really possible to reach any definitive conclusions about long term trends. However, there seems to be some evidence that the rate of family formation increased towards the end of the period being studied, especially as the age at marriage remained more or less constant (between 1845 and 1864, the average age at first marriage of males remained steady at 25.4 though that of their wives fell slightly from 23.9 to 23.4). Table VI compares the number of births experienced by various marriage cohorts at two dates, ten years apart. It suggests that in the late 1860's couples who had completed 5, 10 or 15 years of marriage had produced on average more children than their counterparts ten years earlier. The differences could, however, be accounted for by a greater completeness of birth registration by the later date. In the absence of 1871 census material, this remains to be tested, although some initial work has already shown that birth registration did not improve here between the late 1840's and the late 1850's.

**TABLE VI**

**AVERAGE NUMBER OF BIRTHS UP TO THE FIVE-YEAR PERIODS 1855-69 AND 1865-69 BY THE DURATION OF THE MARRIAGES PRODUCING THEM**

<table>
<thead>
<tr>
<th>Period during which a 5, 10 or 15 year period of marriage was concluded</th>
<th>Length of Marriage (yrs)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5</td>
</tr>
<tr>
<td>1855-1859</td>
<td>2.17(60)</td>
</tr>
<tr>
<td>1865-1869</td>
<td>2.40(93)</td>
</tr>
</tbody>
</table>

**Note:** Figures in brackets refer to number of cases
Looking more closely at the situation at 1865-1869 by duration of marriage (i.e. a marriage celebrated between 1855 and 1859 counts as a ten year marriage, and a marriage celebrated between 1860 and 1864 as a 5 year one) the gradual falling off of fertility throughout marriage can be demonstrated by calculating the average number of births to each cohort during the previous five years (Table VII). During this particular five year period (in which each cohort was exposed to similar external social and economic conditions) couples who had been married for five years only were more fertile by 0.86 of a child than those couples married for twenty years.

**TABLE VII**

**AVERAGE NUMBER OF BIRTHS IN THE 5 YEAR PERIOD 1860/64 to 1865/69**

<table>
<thead>
<tr>
<th>Marriage Cohort</th>
<th>Time Since Marriage (yrs)</th>
<th>Average Number Of Births</th>
<th>Cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1845-49</td>
<td>15 - 19</td>
<td>1.54</td>
<td>9</td>
</tr>
<tr>
<td>1850-54</td>
<td>10 - 14</td>
<td>2.05</td>
<td>27</td>
</tr>
<tr>
<td>1855-59</td>
<td>5 - 9</td>
<td>2.21</td>
<td>47</td>
</tr>
<tr>
<td>1860-64</td>
<td>0 - 4</td>
<td>2.40</td>
<td>97</td>
</tr>
</tbody>
</table>

The reproductive experience of couples married for over sixteen years seems quite remarkable by modern standards. It should, of course, be emphasised here that these figures are not necessarily representative of the whole population or indeed of any of the marriage cohorts themselves, since by definition they refer only to those marriages which were still producing children at the end of each specified period.

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HOUSE REPOPULATION FROM THE CENSUS RETURNS
OF 1841 and 1851
Adrian Henstock

Adrian Henstock is the Nottinghamshire County Archivist. He has led many local history classes in Nottingham and Derbyshire, though it was with his class at Ashbourne that he pioneered the methods described in this article.

Introduction (1)
The census enumerators' returns of 1841 and 1851 are a well-known source of population statistics, but their greatly enhanced usefulness when used in conjunction with another well-known basic historical source - the tithe apportionments and maps of the 1830's, '40's, and '50's - is often overlooked. A new dimension can be given to census studies by correlating the details of each census household in a given community with the house in which it lived as shown on the tithe map, in fact to 'repopulate' the houses with the families who lived in them. Such projects have been carried out by a number of individual local historians for different purposes, but it is felt that their potential which is theoretically capable of universal application throughout England and Wales, is not as widely recognised as they merit. This article will deal with the value, feasibility, and methods of carrying out such projects, for which the name 'house repopulation' is suggested, and which lends itself particularly well to group work. The author's experience has been with an adult education class but any similar group, including classes in secondary schools, could master the techniques involved.

The sources

The two sources are so well known that a brief description of them will suffice here. The Census returns, which cover the entire country, list each person living on a specific evening of the years 1841 and 1851, household by household and also provide valuable additional information of ages, relationships, occupations, and places of birth of the person listed (although the 1841 Census is slightly less detailed). The returns are arranged by parish or township, and subdivided into 'enumeration districts' (2). The tithe apportionments (often known as 'awards') and their accompanying maps, for which nearly 12,000 were drawn up for townships in England and Wales in the fifty years following the Tithe Commutation Act of 1836, were created as a means of apportioning money payments in lieu of
tithes on each unit of property within a township. The apportionments consist of surveys or schedules describing each unit either by its field-name or by its function, e.g. 'house and garden', 'public house, stables, and offices', 'malthouse and outbuildings', etc., and these features are identified on the detailed map attached to each apportionment by a series of numbers. In addition the names of the owners and occupants of each property unit, the area, the land use if agricultural, and the tithe rent-charge are also stated. Most tithe apportionments were drawn in the twenty years following the 1836 Act, but, as pointed out below, a great many parishes and townships did not need to adopt the Act and consequently apportionments were never made. (3)

Value of house repopulation

Providing a high degree of correlation can be achieved between the two sources, the value of undertaking a house repopulation project for a particular community is considerable. Any census study will achieve a whole new perspective and meaning when the households can be linked with buildings on a map, especially in small towns and rural areas where many of the actual buildings still exist, and this can be of value to historians, geographers, demographers, and architectural historians alike. The value of the project to the demographer or local historian working on a sociological analysis of the 1841 or 1851 census returns will be discussed here. (4)

The most important attribute of a house repopulation project is that it gives a geographical and spatial basis to census analysis. Once each household is linked with a particular building, distribution maps can be drawn to illustrate a wide variety of different topics, plotted onto tracings or photocopies of the tithe map. Much significant demographic information can be mapped in this fashion, such as the distribution of households or families of any given size, related to the types of buildings in which they lived. The distribution and density of population within different areas of a town is an essential study which cannot be carried out with any degree of reasonable precision without the cartographic basis provided by a house repopulation project. This enables comparisons to be made between, the numbers of persons living on the main streets, the side streets, and in terraced yards behind the main streets of towns; also the numbers living in tenement blocks or in overcrowded courts can be ascertained, though this may be difficult. The geographical distribution of population within certain age groups can also reveal
areas populated predominantly by members of one group. Other maps can be compiled to show the distribution of retail shops for food, clothing, and other goods, of public houses, and of industrial premises. One of the most revealing exercises in a town is to plot the distribution of persons at the upper and lower ends of the social spectrum respectively; a map of the houses occupied by the gentry, clergy, professional men, persons of private means and those households with more than two resident servants, for example, may well provide a telling picture of social polarization expressed in a topographical sense.\(^{(5)}\) Equally illuminating may be a distribution map of, say, labourers, charwomen, paupers, (female) domestic textile outworkers, lodging houses and persons born in Ireland. A map depicting the distribution of the latter categories compiled by the author's group for the small market town of Ashbourne in Derbyshire in 1851 illustrated that the categories complemented each other in a remarkable manner and hardly any examples were found outside a handful of specific streets and yards. The distribution of households employing one, two, three or more resident domestic servants is a useful indication of wealth and social status, and the distribution of persons engaged in any number of specific trades or professions can provide significant economic conclusions. For example it can be instructive to plot the homes of domestic lace workers and framework-knitters in appropriate communities in the East Midlands, and a map marking the homes of cotton-spinners, cotton doublets, and mill-hands etc., in textile factory villages may reveal the existence of rows of workers' cottages which the tithe apportionment may confirm as being owned by the factory master. It is not claimed that all such maps will reveal significant facts, but a great proportion will do so.

A secondary use of a house repopulation project is that it can provide supplementary information on those elusive qualities, the personal wealth and social status of the persons described in the census returns. The problems of classifying persons into functional or social groups are well-known\(^{(6)}\) and arise partly from inadequacies in the occupational descriptions given by the enumerators (is a 'maltster' or a 'cotton-spinner' a master or a workman?); but once households are linked with the houses in which they lived, then another valuable yardstick for measuring their wealth and social status becomes available. The 'maltster' in his substantial house on the main-street of a market town becomes immediately distinguishable from the 'maltster' living in the terraced cottage in the yard behind. Even if the houses do not survive to the present day, often their
size and position as shown on the map will provide a clue as to the type of property it would have been.

A further indication of wealth is provided by the ownership columns of the tithe apportionments, as it becomes possible to discover whether the head of the Census household is the owner or the occupier of the house in which he lives, and also whether he owns any other property in the township or parish.

For work in classes and groups the immediate visual appeal of a house repopulation project is of tremendous value, and can provide an effective antidote to the tedium of compiling the no-less important statistical evidence from the census returns alone. Even at its lowest level, merely to identify the family who lived in a particular house 120 years ago will satisfy the basic antiquarian curiosity of many less-advanced students and perhaps prompt them into further enquiry.

Limitations of the sources

House repopulation unfortunately cannot be carried out for all places, as much depends on the availability of the basic sources and the amount of detail they reveal.

The census returns provide a comprehensive coverage of the whole country and are arranged in a standard format, but variation can be found in the details of the addresses of each household, which can crucially affect the success of a house repopulation project. The returns may state street numbers in cities or large towns, but for smaller towns and rural areas it is rare to find such details. Occasionally an enumerator would describe the address of everyone in Weston simply as 'Weston', but fortunately this is exceptional, outside very small townships or village centres. The names of outlying farms or prominent residences will almost certainly be stated, but difficulties begin when trying to identify the houses of families living along the main village street or the populous but un-numbered street in a small town.

The viability of the whole project depends on the arrangement of the households in the census sheets reflecting the route taken by the enumerator on the night of the census as he walked from house to house collecting the individual forms completed by the head of each household. In towns or village streets it is highly probable that he walked up one side of a street and then down the other, or possibly
up one side only, turning the corner and down one side of the next street, leaving the other sides to other enumerators. Each enumeration district of the census is, however, preceded by a detailed description of the area covered, usually indicating which sides of streets are included. But if the enumerator has not followed his instructions and has arranged his households in some other fashion, then the project will probably be difficult, though it is unlikely to be totally impossible for the whole enumeration district.

The tithe records present more serious problems. To begin with, there will be no tithe award or map for many parishes, especially the ones which had already formed part of monastic estates and were consequently tithe-free, or those where tithes were converted into real estate under the provisions of one of the innumerable local Parliamentary enclosure acts of the late 18th and early 19th centuries. It is a useful general rule to bear in mind that if an enclosure award exists there will usually be no tithe apportionment, and vice versa, although there are notable exceptions. In counties where the common-field system either did not exist or was subjected to early enclosure, such as Cornwall, Devon, Kent, or Shropshire, something like a 100% coverage by tithe apportionment may be possible, but in the East Midland counties where Parliamentary enclosure was the rule, tithe apportionments are somewhat rarer. Northamptonshire has only a 23\% coverage by tithe apportionments, together with a 52\% coverage by enclosure awards. In Leicestershire the equivalent figures are 31\% and 38\%.\(^{7}\) Some parishes may have tithe apportionments which for various reasons do not cover the whole parish, sometimes only relating to one or two fields; perhaps the most infuriating are those which are almost complete but leave a number of neat blank shapes scattered over the map indicating small pockets of tithe-free property not subject to the apportionment. However, it is well worth remembering that even where a tithe apportionment is deficient, any similarly detailed survey and map from estate, parish, or other sources would be of use.

Where an appropriate tithe or similar map and survey does exist, the second major factor to be taken into consideration is its date, i.e. how close it is to census years of 1841 and 1851. The essential details of the tithe survey necessary for correlation are the names of the occupants of each property, and consequently the nearer are the dates of the two records the higher is the chance of exact correlation. Generally however, in villages and small towns, probably few changes in occupancy will have taken place between, say, 1846 and 1841 or 1851.
A third possible limitation of the tithe documents is the scale and accuracy of the maps. Only where the details drawn of the property are clearly distinguishable is a house repopulation project viable. In the main, however, the standard of accuracy of such maps is very high (although only those sealed by the Tithe Commissioners are certified as being accurate) and the scale is large enough to define the exact extent of each occupancy unit and the outline of each building. In the cases of market towns or the large villages, a second map of the built-up centre was sometimes compiled on a larger scale in addition to the one of the whole township. An examination of the tithe maps available for Nottinghamshire, for example, has revealed that the detail of nearly all the maps relating to townships with a population in 1841 of under 2,000 is sufficient for house repopulation, as well as those of the market towns and urban villages of Newark (c.10,200 pop.), Mansfield (c.9,800), Southwell (c.3,500), East Retford (c.2,700), Bingham (c.2,000), Arnold (c.4,500), Bulwell (c.3,100), and Selston (c.2,000). This leaves only nine Nottinghamshire settlements with populations of over 2,000 where the tithe records are either non-existent or deficient, and these include the Borough of Nottingham and four of its most populous suburbs. Even in these areas, however, house repopulation may be possible using the evidence of street numbers if given in the census returns.\(^8\)

In some instances it may be found that the urban parts of a town may spill over into adjacent townships, in which case one may have to use two or more different tithe maps, as was necessary with the author's project in Ashbourne, Derbyshire. Ashbourne in 1851 was a market town with an urban population of approximately 3,500 people, and the urban area covered no less than four different townships, each with tithe apportionments and maps dated between 1846 and 1849. The township of Ashbourne itself, which included about two-thirds of the urban area, had a detailed large-scale tithe map, and house repopulation was carried out with something like 80\% success. The figure was lower for the urban portions of the remaining townships which had less detailed maps.\(^9\)

Procedures

Assuming that both census and tithe records are adequate, what procedures should be adopted for making the actual correlation? The first stage is to rearrange the details of the tithe apportionment into an order roughly comparable with the order of the census
households. Most tithe schedules list properties by alphabetical order of owners, so that the names of the occupants of adjacent properties together with their map numbers may appear scattered over all the pages of the schedule. On the other hand, the tithe maps number their property units in a systematic (if occasionally somewhat irregular) pattern, and adjacent properties along a main street, for example, will usually bear consecutive numbers. Therefore it is necessary to re-sort the names of the occupants in the tithe schedule into numerical order of the tithe map number in order to avoid tedious searching each time the name of a particular occupant or the number of a property needs to be retrieved. This is best achieved by making a form or card for each property and working through the tithe schedule copying down all the relevant details for each entry onto a separate form in this order - tithe number, name(s) of occupant(s), name(s) of owner(s), and description of property. For example one form might bear this information:

Tithe Map No. 97: **Occupant**: Smith, John, and 3 others,
**Owner**: Wright James,
**Description**: 4 houses, outbuildings, yard, etc.

These property forms can then be sorted into consecutive order of tithe number, e.g. 95, 96, 97, 98, etc., so that they follow the order of the numbers on the map, and the occupants can be easily matched to the properties which they occupied by comparing them with the map. An example of details from five consecutive property forms, together with the relevant section of the tithe map, is shown on page

It now remains to link the census households with these properties, and this is achieved by working systematically through the properties on one side of a street or road on the map, checking the name of the occupant from the property forms by reference to the tithe number, and identifying where possible a household head of that name in an appropriate place on the census sheets. The property form should then be marked with the census page reference and enumerator's number (see note (1) on page of that particular household, and, conversely the census household should be marked (on the copy of the census sheet) with the tithe number of the relevant property. Depending on circumstance it may be found that no more than one in every four or even six households can be placed with certainty at first (for example, the occupants of a row of terraced houses may be described as 'John Smith and 3 others'), but having once established these 'hooks', the remainder can be pinned up in between. A pattern should emerge in the order of the census households
reflecting the enumerator's original route along the road or street; once this has been ascertained the number of uncorrelated households in the census between each identified one should be divided into the available number of houses as shown on the map, and the households marked with a 'possible' tithe number of the property forms. Exact attribution to one of two properties may be impossible in some cases, but to have narrowed the choice down to two is an achievement in itself and sufficient for many purposes. Also, the number of households may not agree with the number of available dwellings, and here the correlation will have to be interpolated. Certain or highly probable correlations should be marked just with a number, e.g. '95'; likely possibles with one query, e.g. '96?', and dubious ones with two queries, e.g. '97??'. Where two adjacent households or properties cannot be distinguished then the number of both should be written as, e.g. '96/97?'. Where an enumerator for the 1851 census has followed his instructions carefully he should have distinguished each house from the next by a longer line drawn across the page than the line used to divide each household, but in the author's experience this convention was widely ignored. Where it was used, however, it could greatly assist the success of the project.

External evidence and information from other sources can often be an invaluable aid to correct identification and should be used wherever possible. Features such as named houses, yards, terraces, or public houses which still exist at the present day are an obvious example. The names and addresses given in contemporary commercial directories can be a useful link between the date of the tithe apportionment and the census returns, and electoral registers, rate books or any contemporary estate surveys or rentals will also fill the same role. It is necessary to bear in mind that the outline of a building shown on the map represents a unit of ownership, and that the block may be subdivided in practice into two or more separate dwellings. The first editions of the Ordnance Survey 25 inch-to-one-mile maps (usually surveyed in the 1870's or 80's) may indicate these sub-divisions, and old engravings or photographs can be invaluable for showing the appearance of now-demolished properties. If the buildings still exist then some field-work may be necessary to establish how many families could have been accommodated in them in 1841 or 1851. Bundles of title deeds for individual houses which name the occupants in the 1840's and 1850's will also be of obvious value.

However, perhaps the greatest aids to identification are a mixture of
intuition and common sense. The latter will suggest that the un-
identifiable census family of a butler or gardener named immediately
after an identifiable gentry family is probably occupying part of the
latter's large house. Similarly the trades or occupations of
unidentifiable household heads may link up with property similarly
described in the tithe schedules: the victualler will probably be
occupying the public house, the schoolmaster the school, the alms
person the almshouses, and the maltster the 'house and malthouse'.
Even if the occupants' names do not agree, then a person in the
right place with the same surname, or, if the property is a commercial
one, the same trade, will also be highly suggestive of continuity. (11)
Status can also be a guide - one would not expect the gentleman to
live in the terraced house or the labourer in the mansion - although
one must guard against becoming involved in a circular argument if
one is intending to use the results as evidence of social status.

In house repopulation work it is always necessary to bear in mind the
ever-present possibility of misinterpretation arising out of circumstantial
evidence, or out of the deficiencies or even mistakes in the sources
themselves. The census schedules that have been preserved were
compiled by the enumerators from the individual returns made by
each household head, and there is always the possibility that the
enumerator did not copy them exactly in the order in which they were
collected; two adjacent households may be transposed or a missed
one may appear at the end of the list. (12)

Because of these possibilities the final result of a house repopulation
project must be regarded as no more than an approximation to the
true position that existed on the census night. However, it is
reasonable to assume that, if all the available evidence has been
carefully assessed, the majority of the other correlations will be
strong possibilities and that the overall picture will have sufficient
validity on which to base broad conclusions.

Once the correlation is completed to the best of one's ability, the
census details should be added to the relevant property forms, which
can then be used as the basis for compiling distribution maps, etc.
Tracings or photocopies of the tithe map can be marked with a
variety of different symbols - dots, triangles, crosses, etc., as
necessary.
<table>
<thead>
<tr>
<th>No. of Householder's Schedule</th>
<th>Name of Street Place or Road and Name or No. of House</th>
<th>Name &amp; Surname of Each Person who abode in the house on the Night of the 9th March 1851</th>
<th>Relation to Head of Family</th>
</tr>
</thead>
<tbody>
<tr>
<td>69</td>
<td>High Street</td>
<td>John Spencer [Details of his family and 2 servants have been omitted for clarity]</td>
<td>Head</td>
</tr>
<tr>
<td>70</td>
<td>&quot; &quot;</td>
<td>James Wright [Details of family and 2 servants omitted]</td>
<td>Head</td>
</tr>
<tr>
<td>71</td>
<td>&quot; &quot;</td>
<td>William Cook [Details of family omitted]</td>
<td>Head</td>
</tr>
<tr>
<td>72</td>
<td>&quot; &quot;</td>
<td>Jane Ash [No family]</td>
<td>Head</td>
</tr>
<tr>
<td>73</td>
<td>&quot; &quot;</td>
<td>John Smith [Details of family omitted]</td>
<td>Head</td>
</tr>
<tr>
<td>74</td>
<td>&quot; &quot;</td>
<td>Richard Hunt [Details of family omitted]</td>
<td>Head</td>
</tr>
<tr>
<td>75</td>
<td>&quot; &quot;</td>
<td>Ellen James [Details of 1 servant omitted]</td>
<td>Head</td>
</tr>
<tr>
<td>Condition</td>
<td>Age of Males</td>
<td>Age of Females</td>
<td>Rank, Profession or Occupation</td>
</tr>
<tr>
<td>-----------</td>
<td>--------------</td>
<td>----------------</td>
<td>--------------------------------</td>
</tr>
<tr>
<td>M</td>
<td>53</td>
<td></td>
<td>Clergyman of Church of England</td>
</tr>
<tr>
<td>M</td>
<td>42</td>
<td></td>
<td>Grocer</td>
</tr>
<tr>
<td>M</td>
<td>33</td>
<td></td>
<td>Ostler</td>
</tr>
<tr>
<td>W</td>
<td>78</td>
<td></td>
<td>Pauper</td>
</tr>
<tr>
<td>M</td>
<td>31</td>
<td></td>
<td>Labourer</td>
</tr>
<tr>
<td>M</td>
<td>47</td>
<td></td>
<td>Blacksmith</td>
</tr>
<tr>
<td>U</td>
<td>69</td>
<td></td>
<td>Annuitant</td>
</tr>
</tbody>
</table>
**DOCUMENT 1**

Entries from five consecutive property forms recording details taken from the tithe apportionment schedule, 1848.

<table>
<thead>
<tr>
<th>Tithe No.</th>
<th>Occupant</th>
<th>Owner</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>95</td>
<td>Green, Joseph</td>
<td>James, Ellen</td>
<td>Paddock</td>
</tr>
<tr>
<td>96</td>
<td>James, Ellen</td>
<td>&quot;</td>
<td>House and garden</td>
</tr>
<tr>
<td>97</td>
<td>Smith, John and 3 others</td>
<td>&quot;</td>
<td>Four houses, outbuildings, yard, etc.</td>
</tr>
<tr>
<td>98</td>
<td>Wright, James</td>
<td>&quot;</td>
<td>House and shop</td>
</tr>
<tr>
<td>99</td>
<td>Spencer, John</td>
<td>Taylor, Thomas</td>
<td>House and garden</td>
</tr>
</tbody>
</table>

**DOCUMENT 2**

Extract from the tithe map relating to the details described above, 1848.
Example

As an example of the procedure of house repopulation, compare the extracts from five consecutive property forms with the relevant sections of the tithe map and the census returns given on pages Commence at the first of the property forms, in this case with tithe no. 95, and work numerically along the street. The following points should be noted:

(1) The numbers given in the left-hand column of the census sheet are purely the enumerator's reference number for each household and have no further significance. They are not house numbers, nor are they identifiable with the tithe map numbers.

(2) As property no. 95, a paddock, does not represent a dwelling house, therefore one will not expect to find the name of the occupant, Joseph Green, in the census at that point - he may live some distance away; for the purposes of correlation, therefore, his name should be ignored in this particular context.

(3) Tithe no. 96 can be correlated with census reference no. 75 as the names of the occupants agree. Additional circumstantial evidence is that it is appropriate for an elderly spinster of private means with one servant to be living in a large house which she owns, fronting the main street.

(4) Tithe no. 98 can be correlated with census reference no. 70. It is appropriate that a grocer with his family and two servants would live in a large house with shop, which he owns, fronting the main street.

(5) Tithe no. 99 can be correlated with census reference no. 69. It is appropriate that a clergyman with two servants would live in a large house fronting the main street, but note that in this case he is only the tenant of the property, not the owner.

(6) Tithe no. 97 appears from the tithe map and schedule as a group of four houses in a yard behind no. 98. Reference to the site on the ground today and to the Ordnance Survey 25-inch-to-one-mile map (first edition) of the 1880's indicates these to be a row of terraced cottages. The only occupant named is John Smith, whose name matches census reference no. 73. As there are four households listed in the census between those of James Wright (no. 70) and Ellen James.
(no.75), one of which is that of John Smith, then it is reasonable to assume that the households of Smith, Cook, Ash, and Hunt occupy the four houses named on the tithe schedule. The occupations of these four household heads are also appropriate to the type of property. Note that the row is owned by the grocer behind whose house they are situated.

(7) The enumerator walked along this side of High Street from south to north, and this is reflected in the order of the households on the census sheets, but the tithe map is numbered in the opposite direction. This may or may not be the case in other communities.

(8) Note how difficult it would have been to locate the homes of the households named on the census sheets without the key provided by the tithe map and schedule. If one was lucky the enumerator might have indicated that the four terraced cottages were in 'Wright's Yard', but by no means all enumerators went into such detail.

Further studies

House repopulation can also provide a basis for extended studies of other aspects of local history, supplementing the census and tithe data by information from other sources. One of the most valuable projects is to use contemporary local newspapers to provide a different viewpoint of the society whose members fill the pages of the census enumerators' books. Detailed though the census returns are, no amount of statistical analysis will reveal exactly who were the influential personalities in a community - the social elite and the leaders of local society - whose identities can only be discovered from other sources such as newspapers. The Ashbourne group referred to above inaugurated a project designed to elicit this information, accumulating biographical details of the most prominent personalities in a card-catalogue. A card was allotted to each figure, and on each was noted details of the subject and his family, household, birthplace, etc., from the census forms, of his place of residence and property ownership from the tithe records, and references to his appearances in public life from the local newspaper, which was examined in detail for the two years either side of the census day. This information was subsequently enlarged by references from other sources such as commercial directories, Guardians' minutes, gas company minutes, membership lists of various local societies, etc.
As a result a small group of personalities emerged who were prominent in public life in the town, and about whom brief biographies could be written; in some cases it was possible to glean information as to their character and opinion from the newspaper reports of their public speeches. Admittedly such detail was available principally for certain members of the upper and middle classes, although at the other end of the scale, the newspapers also reported the names of misdoers and their crimes. In these cases it was sometimes possible to write 'probation reports' on the miscreants by gleaning details of their social background and physical home environment from the census and tithe records.

The Ashbourne group's project is probably the first such study to use the house repopulation technique to illuminate the demographic and general history of a community in the period c.1840-c.1860, based on the nucleus of the 1851 census returns and extended by use of other sources as enumerated above. The results of this work are to be published as a book on early Victorian Ashbourne, in 1973 or 1974, which will include examples of the distribution maps compiled in the course of the house repopulation project and the fruits of the biographical study already mentioned.

NOTES

(1) This paper is adapted from the author's 'Group Projects in Local History: House repopulation in the Mid-Nineteenth Century' in Bulletin of Local History, East Midlands Region, VI, (1971), pp. 11-20. Grateful thanks are due to Mr. Christopher Charlton for several helpful suggestions during the revision of the paper.

(2) M. Beresford: The unprinted census returns of 1841, 1851 and 1861 for England and Wales, 1966.


(5) A map illustrating the distribution of household heads of private means and of households with resident servants at Ashbourne, Derbyshire, in 1851, compiled by members of the author's group, appears in A. Rogers: *This was their world*, 1972, p. 73.

(6) For a discussion of the problems see Rogers, *op. cit.*, chapter V, especially pp. 105-108.


(8) One of the three ancient parishes which formed the Borough of Nottingham, two were purely urban areas with neither enclosure nor tithe awards, and the other has three enclosure awards and a tithe apportionment and map of insufficient detail. There are enclosure awards for the four suburbs of Lenton, Radford, Sneinton, and Basford but no tithe apportionments.

(9) Sections of the tithe map and schedule together with pages from the census and a commercial directory relating to Ashbourne are reproduced in Rogers, *op. cit.*, pp. 69-72.

(10) As an alternative the names of the occupants can be sorted into alphabetical order, in which case it will be necessary to reverse the working procedure described below, i.e. one must work from the census households to the tithe occupants and then to the tithe map. This method has certain advantages but on balance the first system is to be preferred.

(11) Continuity of surnames can be a misleading indicator in some cases: much depends on the rarity of the surname in that particular community. Also there are rare instances of persons moving to houses next door.

(12) For a fuller discussion of the deficiencies of the census returns, see Tillott, *op. cit.*
PATTERNS OF MARRIAGE SEASONALITY
IN RURAL FRANCE

Philip Ogden

Philip Ogden is doing research in geography at St. Anthony's College, Oxford and is interested chiefly in the rural population of France.

In view of the recent articles\(^1\) and comments\(^2\) in Local Population Studies on the seasonality of marriages in certain English parishes, it may be of interest to readers to hear of similar work which has been carried out recently on this topic in France as part of a wider study of the changing role of marriage in local migratory patterns.

There are indeed many aspects of the study of marriage which can be of great importance to the understanding of the dynamics of local population changes and the nature of patterns of social change. Thus, the study of marriages can have not only the pure demographic approach of studies of nuptiality rates, age at marriage and so forth, but also changing social contacts, attitudes and values can often accurately be determined by looking at marriage horizons and marriage between members of different social or occupational groups. Similarly, the seasonality of marriage is one important aspect of such a study and it is the aim here to illustrate how, over the recent period 1860-1970, and at both the local and national scale, the seasonal pattern of marriages has undergone a series of fundamental changes: and how, by isolating any one period, this pattern can provide a wealth of detail about the rhythm of local social life.

Sources and measurement

The sources used for this study are, at the local scale, the Marriage Registers of a sample of 70 communes (parishes) consulted for the period 1860-1970. At the national scale, information on the monthly distribution of marriages is contained in the Annuaire Statistiques issued by the National Statistical Office. As Mr. Bradley has pointed out, it is very important to measure and graph accurately the information gathered, particularly at the local level where one may be
dealing with very small numbers. Thus, it is much more convenient to make comparisons between periods and places if frequencies are presented in terms of percentages and if, of course, one is duly reticent about implying significant patterns from very small samples. A further point is that it may also introduce considerable exaggeration into the pattern to use the month as a basis of measurement, given that months are of unequal length. This can be particularly important where, as often happens, one day of the week is particularly favoured for marriage (for example, in this study 79% of the marriages considered occurred on a Saturday in 1970, compared with 3.5% for the same area in the 1860s). Thus, in any one year there may be five Saturdays in one month and so this could influence the pattern at the local scale: a completely regular pattern of, say, four marriages every Saturday throughout the year in a parish would, grouped simply by month, show maxima in January, April, July, September and December in 1972, but this would clearly bear no relation to seasonal changes. Although this bias would tend to even itself out over a number of years, it is important to remember this if, for example, one is dealing with one large parish in a single year. Moreover, it is also important in any case to allow for the fact that there are differing numbers of days in a month. Two solutions are presented here: where the information is available, weekly totals may be used (as in Figs. 2 and 3) which is both accurate and provides a sensitive indicator of changes in seasonality: where the information is available only by month, then the quickest way is simply to work out an average number per day for each month. This can then be compared with the average per day for the whole year as illustrated in Fig. 1a. While these methods are, of course, best used on large totals, it is as well to remember the problems involved in using the month as a base.

The changing national pattern of seasonality

Although the basic interest in this study is to look at local patterns, it is important to look briefly at the evolution of marriage seasonality for France as a whole, as this may provide a useful context for later discussion. We see from Fig. 1A that for 1875 the months which exceeded the daily average for the year were January, February, April, June, October and November, whilst in 1969 the situation is greatly altered: the maxima occurring in this case in April, June, July, August and September. Thus the winter maximum of a hundred years ago has been replaced by the summer maximum of today. These changes are clearly linked to the general transition of French
Table 1: Total Population of Sample Communes

<table>
<thead>
<tr>
<th>Area</th>
<th>1876</th>
<th>1968</th>
<th>% Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Area 1</td>
<td>14136</td>
<td>5645</td>
<td>-60.07</td>
</tr>
<tr>
<td>Area 2</td>
<td>42920</td>
<td>19148</td>
<td>-55.39</td>
</tr>
<tr>
<td>Area 3</td>
<td>19017</td>
<td>9788</td>
<td>-48.53</td>
</tr>
<tr>
<td>Total</td>
<td>76073</td>
<td>34581</td>
<td>-54.54</td>
</tr>
</tbody>
</table>
FIG. 2  REGIONAL VARIATIONS IN MARRIAGE SEASONALITY 1860s

- AREA 1
- AREA 2
- AREA 3

% OF TOTAL

J  F  M  A  M  J  J  A  S  O  N  D

WEEKS DURING THE YEAR
society from predominantly rural and agricultural to predominately urban. A simple measure of this for comparison is given by Fig.1B which shows the increasing total population of France and the declining rural proportion, the decline being from 67.5% in 1876 to under 30% at the present moment. Thus, whereas a hundred years ago the summer months were the time of intense activity on the farm with little time for marriage, the present pattern reflects rather the choice of summer as a time of holidays and reliable weather. A further interesting feature of the reversal of these patterns is the changing role of religion: in the 19th century the months of March and December were the minimum months, linked closely to religious festivals during which periods marriage was variously forbidden or discouraged. At the present time neither March nor December is the minimum month. Thus we can see that even at the national scale the study of seasonality can bring out important patterns; and that, differing from the suggestion of Mr. Bradley that in his area seasonal patterns tended to be subdued at the start of the nineteenth century, for France as a whole, and as we shall see for local areas, there were very considerable differences, which were gradually replaced by other patterns depending on different factors but of no less variety.

**Influences on the local pattern**

Having set out the national context of seasonality of marriage, it is a further aim of this paper to look more closely at a local level at the precise nature of the inter-relationships between the rural economy and the spacing of marriage, bringing out particularly as dominant themes religion, the role of seasonal emigration within the general organisation of agriculture, and the influence of rural depopulation upon social structure. Let us take as an example here three very different but adjacent areas to the west of the Rhone Valley on the fringe of the Central Massif: area 1 is an area of high plateau and past-oral economy in the massif proper; area 2 forms part of the highly dissected and poor Northern Cevennes; and area 3 a lowland area of Mediterranean climate where the main speciality is the vine and, formerly, the silk worm. Figure 2 shows the pattern of seasonality for these three areas during the period 1863–67 and shows that, while the overall pattern of maxima and minima resembles closely the graph already described for France as a whole, there are significant differences at particular times of the year in the 3 regions under study.

-58-
FIG. 3 CHANGES IN MARRIAGE SEASONALITY 1860-1970

- 1966-70
- 1863-67

% OF TOTAL

WEEKS DURING THE YEAR
FIG. 4  TOTAL NUMBER OF MARRIAGES IN STUDY AREA 1860-1970

NUMBER OF MARRIAGES

1850  1900  1950

FIVE-YEAR PERIODS
Firstly we see a very vigorous avoidance of the period between the end of February and the start of April, and of the last few weeks of the year: this provides very eloquent testimony to the role of religion in the social life of this largely Catholic area: the influence of the parish priest was always very great and particularly so in area 1, more isolated and backward that the others. It is of further interest, moreover, to note that it is in area three that there existed a small Protestant minority and one can thus attribute the slightly greater frequency of marriage during the minimum periods to precisely this phenomenon. Thus religious differences can have very significant effects on local patterns of this sort.

A second, and very important, aspect of this study is to reveal how intimately the rhythm of social life was tied to the nature of the economic system. We are thus concerned to explain the differences shown on the graph between the three areas, particularly in the period from the beginning of May to the end of June. Three related aspects help to provide this explanation: the nature of the rural economy, the population density and the importance of seasonal emigration. In the high plateau area (Area 1), of dominantly pastoral economy and population densities adequately adjusted to the area's economic potential, this period came at the end of a very long winter when there was still ample time for social events such as marriage. In the lowland area (Area 3), on the other hand, this was a period of intense economic activity linked to the raising of silk worms which were a vital resource for an otherwise impoverished peasant population. Thus, during most of May and early June almost the total workforce was engaged in collecting the mulberry leaves or in the business of raising the worms, which was a very intensive and time-consuming operation. There was clearly little time for marriage, and it is indeed the third week of May which is the lowest period of all.

It is in the second of the areas chosen, the Northern Cévennes, that the influence of overpopulation and seasonal migration are particularly apparent. This was an area of extremely high population densities in relation to its very poor economic base. As in many other areas of France, seasonal emigration became a vital element in the local economy, as a response both to the demand for labour elsewhere and to the local surplus population: the emigration of, for example, builders' labourers from the Auvergne and the Limousin to Paris is very well known and, equally the descent from the Alps to the surrounding plains has frequently been discussed. In the area under study, however, the emigration was more localised and took place in
spring and summer. Thus, in May and June, Area 2 saw the
departure of hundreds of men and women to work in the silk-growing
areas lower down, which provided them with their only source of
cash income. This had a major effect on the rhythm of social life.
There were, moreover, a host of very complex seasonal migrations
from all these areas, which helped to restrict the frequency of
marriage all through the summer: not only did the demands of
harvest at home restrict the pattern of social activity but also many
workers migrated temporarily for hay-cutting and the wheat harvest.
Later, towards the end of the summer, the grape harvest attracted
numerous migrants, again especially from the overpopulated
Cévennes. It was thus at the end of these intense periods of
activity on the land and after the return of the temporary migrants
that these village communities had again enough time for such
exacting social activities as marriage.

Changes in the local pattern

That there were considerable variations between areas in the mid-
nineteenth century in the seasonality of marriage has thus been
illustrated: marriage was definitely confined to the winter months of
relative inactivity in the farming calendar, but there were considerable
variations according to the details of the local economy and seasonal
migrations. A final aim of this paper is to indicate the value, as
has already been done in outline for France as a whole, of the
analysis of temporal changes in the pattern to illustrate the response
at the local level to patterns of social change. Here we take the
period 1863-1970 as this has been a time of very profound changes
which have greatly altered the nature of the peasant economy, and in
particular entailed massive depopulation, a decline in agriculture and
the almost total disappearance of temporary migrations.

Many of the village populations in the study area have declined by up
to 75% over the century which has in turn meant the decline in the
number of marriages as illustrated in Fig. 4.\(^{(4)}\) What this has
meant for the rhythm of local social life is shown by Fig. 3 which
reveals, for the three areas combined, an almost total reversal of
the earlier pattern: the summer now becomes the very clearly
favoured period with winter, particularly the earlier months of the
year, characterised by very low frequencies. From the religious
point of view, while there is still a certain decline during March,
this is much less well marked than previously and the former
avoidance of December has largely disappeared, reflecting the
decline of the hold which the Catholic church formerly had on the peasant population. The seasonality of marriage is no longer linked to the intricacies of the agricultural calendar but much more to individual preference to marry during the summer; the pattern of rural life has thus been modified in a very basic way. The former maxima of January and November are replaced by those of July and August. It is interesting to note that we may link the latter peaks also in part to a new form of temporary migration: that of the young people who have moved to cities to live and who return home to marry. Rural depopulation has entailed, therefore, not only a diminution in the actual numbers living in the area, but to a complete overthrowing of the former social pattern and social values.

Conclusion

It has been shown, then, that the study of the seasonality of marriage can be of great use in trying to gauge the nature of social activity in local areas and its changing pattern over time. Because marriage is such an important and continuing element in rural life, information of this type may very often provide a source of information incomparable in its accuracy and continuity. While careful analysis of individual parishes must always pay attention to local details and to elements of chance, it is still possible to extract useful conclusions about village life for wider areas. Here, the specific effects of seasonal emigration and rural depopulation have been highlighted, but one could very profitably go on to examine in detail many other aspects: for example, the impact of crop failures (or in this case the silk-worm disease) on the delaying of marriage. Moreover, work of this nature can very profitably be combined with other aspects, for example, changing marriage horizons and age at marriage and so forth in order to build up a general picture of the role of marriage in both the short-term and long-term social and demographic life of rural areas.

REFERENCES


4. Note here the way in which the First and Second World Wars involved considerable decline in the number of marriages and then sudden increase masking the otherwise continuous trend of decline from the end of the nineteenth century onwards.


Smallpox: A Difference of Opinion

Editor's note: The review which follows is reprinted from the Economic History Review by kind permission of the author and the editors. L.P.S. has not reprinted a review article before nor invited a response from the person whose work is being reviewed, but in this case, the prospect of starting a useful debate in which any of our readers interested in smallpox could participate, seemed to justify a departure from normal practice.


This pamphlet essentially consists of translated copies of the memoirs written by Bernoulli and d'Alembert in 1760 as part of their controversy over the advisability of being inoculated against smallpox. Bernoulli's memoir is the more important of the two, if only because he, unlike d'Alembert, displayed a correct understanding of probability theory. Bernoulli also attempted to present some evidence on questions such as smallpox mortality rates, and even though his evidence is mostly impressionistic, it has some value to the medical and demographic historians, whereas d'Alembert has virtually nothing to say on this topic. Both protagonists agreed on the overall benefit to be derived from inoculation in diminishing smallpox mortality; their disagreement lay over whether mathematical rational considerations should weigh more heavily with individuals contemplating inoculation than the psychological fears of the immediate risk involved in such a preventative measure (the parallel with the current debate about the use of the contraceptive pill is too striking to ignore). Bradley in his introduction suggests that Bernoulli's memoir should be of use "to the demographer because it gives an impression of the degree of smallpox mortality in the mid eighteenth century". Unfortunately, it is impossible to know how valid some of Bernoulli's impressions are. We do know that two of his key assumptions in his mathematical calculations are factually incorrect: it is not true that "provided one has not already had smallpox, one always runs the same risk of catching it" (this may have been true of large eighteenth-century towns but it was not true of people living in the countryside), and nor is it true
"that the risk of dying of smallpox, when one is attacked by it ...(is) the same for all ages" (it is known to vary markedly with age). He probably reached these erroneous conclusions because his experience was confined to large towns and the only statistical evidence available to him was for places like London, Vienna, Berlin and Breslau. It was on the basis of such evidence that he reached his conclusions about the degree of smallpox mortality. Such mortality is known to vary between urban and extreme rural areas – for example, extremely isolated areas such as the Orkney Islands and Iceland had massive smallpox mortalities due to the absence of a pool of antibodies built up through previous epidemics. Also the statistics that Bernoulli refers to are of completely unknown quality; work that I have just completed on the reliability of parish registers as a source of demographic data (to be published in Population Studies) suggests that statistics for places such as London could be completely worthless on account of the gross unreliability of basic information. Similarly, Bradley in his otherwise excellent introduction states that "inspection of parish registers reveals many parishes, including some of the smaller towns, where serious epidemics of any kind were few, or even non-existent, over the whole of the eighteenth century." Given what we know about the nature of smallpox as a disease, it is impossible for any area of the country to escape its attention without exposing itself to the risk of the kind of massive mortality touched on above. The lack of evidence of epidemics in some parishes would lead me to suspect the reliability of the source of demographic information – and there are at least two contemporary descriptions of the existence of private smallpox burial-grounds which were used in the eighteenth century to deposit corpses without the usual Anglican burial rites and registration processes. There are other reasons why parish register data could be very unreliable which cannot be discussed here, but there is one general lesson to be drawn from Bernoulli's memoir in this respect: demographers of the eighteenth century tended to be dependent on the evidence available to them, and this invariably was for large towns in which only about a fifth of the population lived. Historians should beware of the mistakes made by Bernoulli and should not commit the historical fallacy of assuming that surviving statistical evidence is necessarily representative of the actual situation. However, in spite of these flaws in Bernoulli's argument, I can recommend Bradley's presentation of them in an excellently produced pamphlet at an attractive price.

Bedford College, London

P.E. Razzell
Leslie Bradley comments

It may seem ungracious to raise objections to Dr. Razzell's kind review of my work, but I am sure that he himself, in the interests of historical debate, would not wish me to pass over views which he expresses in it and which I believe to be erroneous.

In my introduction to the Bernoulli and d'Alembert Memoirs, after setting them in their historical context, I develop two themes. The first is that in his memoir, Bernoulli makes what is, so far as I have been able to find, the first attempt at a mathematical theory of the propagation of an infectious disease, the fore-runner of the highly sophisticated modern models of N.T.J. Bailey and others. Now any mathematical theory must start from basic postulates, assumptions which, though not corresponding precisely to conditions in a complex natural situation, are simple enough to treat mathematically and yet sufficiently accurate to form the basis of a useful theory. This is what Bernoulli did and it is what Bailey and the other modern mathematical statisticians do. Bernoulli never pretended that the assumptions to which Razzell objects were precisely accurate. What he did maintain was that they accord reasonably well with the known facts (and I quote the opinion of Dr. K. Dietz, a medical statistician, that this is indeed so); and, having developed his mathematical theory, he showed that it led to a conclusion about the overall degree of smallpox mortality which agreed with the then generally accepted observations, namely that "smallpox carries off a thirteenth or a fourteenth part of every generation". Moreover, he was well aware that the mortality figures which he quoted were derived from the larger towns and that his theory applied to what we now call an endemic situation, that is one in which smallpox was continually present to a substantial extent, as opposed to the epidemic, or severe isolated outbreak.

My second theme is the relation of the estimates of smallpox mortality which Bernoulli quotes, and which were generally accepted by his contemporaries, to the present discussion on the steep rise in the population of England in the second half of the eighteenth century. On the one hand, it has been argued that the predominant factor in this rise was a marked decline in mortality due, it is suggested, to improvements in hygiene and medicine; on the other, that the predominant factor was a rise in fertility. Razzell supports the former view, but goes much further. In an article in the Economic History Review [1] he claims that the diminution in smallpox
mortality alone due to the increased use of inoculation was the major factor, and he goes so far as to say "Inoculation against smallpox could theoretically explain the whole of the increase in population, and until other explanations are convincingly documented, it is an explanation which must stand as the best one available". It is this extreme view of the degree of smallpox mortality which he is defending in the above review, and to do this he has to make two points. First he has to show that Bernoulli's estimates of endemic smallpox mortality were seriously inaccurate. So far as one can gather from the review, the attack on the estimates quoted by Bernoulli depends on Razzell's high estimate of the degree of unreliability of the parish registers. But the article in Population Studies which he mentions (2), and in which he sets out to demonstrate this, has serious flaws, not the least of which is his initial assumption that "baptism has always been performed by the Anglican church in the parish of residence". Anyone who has attempted a family reconstitution knows that this is just not so; where the mother came from another parish, it was frequently the custom to take the first child, and sometimes later children, to the mother's old parish or baptism. We shall need much better evidence than this. But even if we double Bernoulli's estimate that endemic smallpox killed one in thirteen of every generation, it is still not enough. Razzell states: "In order for inoculation against smallpox to account for the whole of the population increase, smallpox mortality before inoculation must have been about 310 deaths per 1,000 born" (3); that is, about one in three. And again: "For the time being it will be sufficient to note that recorded smallpox deaths accounted for between 11.6 and 50 per cent of all those born and dying and that actual smallpox mortality was possibly twice as large as that actually recorded" (4). In order to justify these very high over-all mortality figures, Razzell now has to show that in the villages and small towns in which four fifths of the population lived, and in which, if it occurred, smallpox would be epidemic (5), mortality from smallpox was very high indeed, averaged over the whole country and for a considerable period of time. He is able to quote recorded instances of such high mortalities, and he assumes that they are typical. But, as I point out in my introduction, inspection of parish registers reveals many parishes, including some of the small towns, where serious epidemics of any sort, smallpox or otherwise, were few or even non-existent over the whole of the eighteenth century (6). Razzell's reply is that "the lack of evidence of epidemics in some parishes would lead me to suspect the reliability of the sources ....... and there are at least two contemporary descriptions of the existence
of private burial grounds which were used in the eighteenth century to deposit corpses without the usual Anglican rites and registration processes". But two out of some 15,000 parishes is hardly convincing, and I know of no evidence to suggest that such burial grounds were common. Indeed, I suggest that the evidence is that, in general, villages and small towns managed to preserve normal registration and even churchyard burial under quite serious epidemic conditions. I happen to be working at the moment on the famous outbreak of plague at Eyam, Derbyshire, in 1666. In spite of a very high mortality and the closing of the churchyard for burials, the evidence suggests that burial registration continued to be carefully carried out and reasonably accurate. For the majority of villages and small towns it is, I maintain, highly unlikely that the degree of under-registration would conceal epidemics of such severity and frequency as Razzell's theory demands.

Were Razzell's high mortality or my low mortality parishes the more typical? At present this is an open question. Can Dr. Razzell, or L.P.S. readers who have been studying eighteenth century parish registers, produce more conclusive evidence? We need lists of parishes:

(a) in which high smallpox mortality is recorded or can reasonably be inferred.
(b) in which no serious epidemics can be seen to have occurred.
(c) in which burial registration appears to have broken down on account of high epidemic mortality.

For good measure, it would be useful to have lists of recorded inoculation. Was it really as widespread as Razzell suggests or was it, like so many of the factors which demographers have to consider, subject to wide regional differences?

Until we have this evidence, I am inclined to believe that Bernoulli's estimates are nearer to the mark than the high figures which Razzell suggests. Bernoulli lived in a period of intense scientific activity with a growing emphasis on careful observation. His sources of information, as he himself points out, were faulty, but can we really pretend that our information about his period is any better?

L. Bradley
NOTES


(5) An attack of smallpox, from which the patient recovers, confers virtual immunity against the disease, through the formation of antibodies. If smallpox were introduced into a community in which it had never before occurred, none of the population would be immune, the disease might well attack the whole, or almost the whole, of the community and mortality could be severe. Those who recovered would be immune, and a further introduction of the disease within a limited time would affect a smaller proportion of the inhabitants. If the community were isolated and no outbreak occurred until the previously affected generation had died out, the "pool of antibodies" would be gone and the community would again be very vulnerable. In point of fact there were, in England, a number of large towns in which smallpox was endemic and few villages would be so isolated that the pool of antibodies would disappear. I consider Razzell's reference to the Orkneys and Iceland misleading.

(6) Further evidence that heavy epidemics were not as widespread as Razzell suggest will be found in the article "Crisis Mortality" by Dr. R.S. Schofield in Local Population Studies No. 9.
MISCELLANY

The Compton Census - Peterborough

Our attention was drawn by the Rev. David Bond of Peterborough to a deposit in the Northamptonshire Record Office and, by kind permission of the County Archivist, we are able to print this transcript. The deposit consists of copies of:

1. The letter from the Archbishop of Canterbury to the Bishop of London (Bishop Compton) instituting the Census, with details of the questions to be asked.

2. A letter from the Bishop of London to the Bishop of Peterborough, instructing him to make the enquiry in his diocese, together with a note saying how he proposes to proceed.

3. The return sent in by the Archdeacons (the beginning only of which is transcribed here).

The Archdeacons' return is of particular interest because it contains a memorandum which makes it clear that incumbents had sometimes returned the total number of inhabitants, sometimes the number of communicants (i.e. those above the age of 16), sometimes the number of families. This is of importance because, all too often, it is assumed that the returns are of communicants and need to be inflated by a multiplier, often taken to be 1\(\frac{2}{3}\), to give actual populations. Clearly, in this diocese, the practice varied from incumbent to incumbent, even in the same deanery, and the same has been found to be true in other dioceses. Unfortunately, we rarely have an archdeacon's explanatory memorandum! Hence the population estimates derived from the Compton Census must be treated with caution unless there is evidence to show which procedure was adopted in the particular parish.

1.

Lambeth House, Jan 17.1675/6

I have thought fit for some reasons that newly conserne the Church to pray and require your Lordship, and by you the rest of my Bretheren the Bps of this Province that forthwith upon receipt hereof you send Letters directed to the Archdeacons and Commissary of your respective Dioceses, willing and streightley charging them as well by conference with the ministers as the church wardens of
each parish or such others as may best give them the most punctuall satisfaction they particularly informe themselves as to the severall information therein that they are able they presently after their next visitation of Easter ended transmitt thereirow account thereupon in writing unto thereirow respective Diocesans and they unto your Lordsp by you to be communicated unto me with your Ldsp first conveniency: And to the end that they may be the more circumspect and suddaine in the execution of this affaire I think it not unnecessary that there be some advertisement intimated unto then how that even they themselves and their jurisdications are in some measure herein alsoe concerned. So not doubting of yr Ldsp care in the premisses I bid yr Ldsp heartily farewell and am My Lord Yr Lds

Affectionate ffriend and Bro.
Gilb. Cant.

The Inquirys

1. What number of persons are there by common account and estimation inhabiting within each parish subject unto your jurisdiction.

2. Wt number of Popish Recusants or persons suspected for such recusancy are there residing amongst the inhabitants aforesaid.

3. Wt number of other disenters are there in each parish of what sect soever wch either obstinately refuse or wholly absent themselves from the communion of the Church of England at such times as by law they are required.

for the R Rd ffather in God
Henry Lord Bishop of
London

2. White hall Jan.21. 1675
R Revd and my very good Lord.

I have received the inclosed Commands from his Grace the Lord Arch Bp of Canterbury to communicate to your Ldsp I do hereby committ them to your care and by the returne of your account to be sent to me with all convenient speed. Thus wishing Yr Ldsp all

-72-
health and happiness
I rest

My Lord
Your most faithfull servant
and Brother
H. London

The course I have been directed was to order my Chancell and Archdeacons to appoint their officials to copy out the Heads of Enquiry for each parson in their respective precincts and appoynt their apparitors to deliver them at the warning of ye next visitation

ffor the R Revd ffather in God
the Lord Bishop of Peterbury

3. 1676 An account at the Archdeacons Easter Visitation Apr 10-19 upon 3 Enquiries sent out by the Apparitours before the visit. according to an order sent for my L Archb by the B of London to my L B. of Peterb. and by him to the Archdeacon.

Beackley Dea

<table>
<thead>
<tr>
<th>Families</th>
<th>Psns young &amp; olde</th>
<th>Popish Recusants</th>
<th>Obstinate separatists</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aynhoe</td>
<td>345</td>
<td>1</td>
<td>15</td>
</tr>
<tr>
<td>Ashton in ye wals</td>
<td>100</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Bradwin</td>
<td>18</td>
<td>90</td>
<td>0</td>
</tr>
<tr>
<td>Blakesley</td>
<td>100</td>
<td>400</td>
<td>0</td>
</tr>
<tr>
<td>Beackley</td>
<td>1068</td>
<td>3</td>
<td>11 whereof 3 are infants</td>
</tr>
<tr>
<td>Byfield</td>
<td>556</td>
<td>0</td>
<td>9</td>
</tr>
</tbody>
</table>

etc

-73-
Mem[dam] that from many towns the account excluded all under 16 and so I let the number stand here unless it was expressly said in the bills or appeared by the number of familyes that the children were excluded and then I added half so many more (viz for 2 I counted 3) To a family I account 4 persons one with another. This account was sent to my L.B. of Peterb

Apr 25 1676

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AND LOCAL HISTORY

Catalogues issued frequently

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Strood Green, Betchworth
Surrey, RH3 7JD
CORRESPONDENCE

Bridal Pregnancy

Dear Sirs,

The following extract from a Russian periodical may interest, and possibly amuse, some British local historians and demographers. "Premarital relations are increasingly becoming a prologue to marriage. If our statistics concerned themselves with the percentage of first babies born in the first eight months of married life, they would uncover a great deal that is unexpected. Inasmuch as our statistics have nothing to say on this matter, I shall cite data from abroad. In Slovenia, one of the republics of Yugoslavia, of the total number of first babies born within the first 6 years of married life, 42% (!) were born in the first eight months" V.I. Perevedentsev, in Literaturnaia gazeta, 21 April 1971, translated in Soviet Sociology, 10, 1972, p.380). The article does not refer to the data on the historical incidences of bridal pregnancy in England; and the 'unexpected' comment suggests that Russian local historians have not yet got around to studying bridal pregnancy in earlier centuries in Russia.

Following my papers (Population Studies, 1966, 1970) on the English experience, as calculated from parish registers, I have been collecting additional and comparative references to this social occurrence and its historical incidences. For instance one I noticed recently Glostrap parish, Denmark (Scandinavian Economic History Review 20, 1972, 22-3). In relation to other countries (including Scotland and Ireland), references sometimes crop up in local histories that are not immediately available to me, or in more unexpected sources where I would not think of looking. If in the course of his general reading any reader should come across such a reference, I should be most grateful for a note.

Yours sincerely,

P.E.H. Hair
The School of History,
The University of Liverpool,
8 Abercromby Square,
Liverpool L69 3BX
Pre-1841 Enumerator's Schedules

Dear Sir,

With reference to your lists of these in L.P.S. I have come across one for Clowne, Derbyshire. The details are:-

<table>
<thead>
<tr>
<th>Place</th>
<th>Date</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clowne</td>
<td>1801</td>
<td>Parish Register (In Clowne Rectory)</td>
</tr>
</tbody>
</table>

Yours faithfully,

J.C. Harvey,
Hurst House,
Centre for Adult Education,
Abercrombie St., Chesterfield

Calendar of Middlesex County Records: A Reprint

Dear Sir,

I have read with interest Mr. Hair's article on 'Homicide, infanticide and child assault in late Tudor Middlesex' in Local Population Studies No. 9. Your readers may be interested to know that Volume 1 of the calendar of the Middlesex County Records, edited by J.C. Jefferson and published in 1886, on which his article was based, is being reprinted by the Greater London Council and will again be available in book shops on 25 May. Volume 2 of the series is also out of print and plans are in hand to re-issue it during the next twelve months.

Yours faithfully,

Miss E.D. Mercer,
Head Archivist,
Greater London Record Office,
The County Hall,
London SE1 7PB
LOCAL RESEARCH IN PROGRESS

The Editors believe that one of the functions of *Local Population Studies* should be to enable readers to make contact with others working in the same field as themselves. They cordially invite readers to submit brief details of work which they have in progress.

Mr. G. L. Bishop (15 St. Gerard's Road, Solihull, Warwickshire) and a group in Hampton-in-Arden, Warwickshire, are making a study of that parish using Parish Registers, Surveys of the Manor, Manorial Court Rolls, Wills and Inventories and other available material.

Professor R. Lawton of the Department of Geography, University of Liverpool is directing a project on the Social Geography of the Merseyside conurbation. The aim is to gain a broad view of social and demographic developments in the 19th century, when Merseyside was experiencing very rapid growth. The project is based on the census enumerators handbooks, the published census reports and the Registrar General's returns, with supplementary information from both national and local sources.

Mr. A. Gaydon wishes us to make known that he is no longer working on Shropshire Parish Registers (See *L.P.S.*, 8, page 74).

WORK COMPLETED FOR THE CAMBRIDGE GROUP

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<td></td>
<td>M.C.W. Hunter</td>
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<td></td>
<td>Crawley</td>
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<td>Bolney</td>
<td>M.C.W. Hunter</td>
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<tr>
<td></td>
<td>Brede</td>
<td>Miss V.C. Roope</td>
<td>4 Falmer Close,</td>
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<td></td>
<td></td>
<td></td>
<td>Southdown Road,</td>
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<td></td>
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<td>Eastbourne</td>
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<td></td>
<td>Cowfold</td>
<td>M.C.W. Hunter</td>
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<td></td>
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<td>Miss M. Wright</td>
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<td>Cuckfield</td>
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<td>Eastbourne</td>
<td>Miss M. Martin</td>
<td>Leafglen, Arundel Road, Eastbourne</td>
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<tr>
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<td>D. Turner</td>
<td>Christ's Hospital, Horsham</td>
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<td>and class</td>
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<td>Felpham</td>
<td>A. H. Noble</td>
<td>1 Vale Court, London, W. 9</td>
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<td>Frant</td>
<td>Mrs. J. E. Jones</td>
<td>33 Quarry Hill, Tonbridge, Kent</td>
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<td>M. C. W. Hunter</td>
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<td>W. E. Gryspeerdt</td>
<td>73 Meads Street, Eastbourne</td>
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<td>Harting</td>
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<td>K. N. Middlewick</td>
<td>24 Friars Oak Rd., Hassocks, Sussex</td>
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<tr>
<td>Northiam</td>
<td>Miss W. L. Davis</td>
<td>Quinneys, Northiam, Rye, Sussex</td>
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<td>M. L. Beeson</td>
<td>Bishop Otter College, Chichester</td>
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<td>and students</td>
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<td>W. E. Gryspeerdt</td>
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<td>Salehurst</td>
<td>Miss W. L. Davis</td>
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<td>Woodmancote</td>
<td>M. C. W. Hunter</td>
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<td>D. Turner and</td>
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<td>G. Lea</td>
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<td>Broadwater</td>
<td>G. Lea</td>
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<td>Bury</td>
<td>G. Lea</td>
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<tr>
<td>Cuckfield</td>
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<td>22 South Street, Cuckfield</td>
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<td>East Preston</td>
<td>G. Lea</td>
<td></td>
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</table>
Ford: G. Lea
Frant: Mrs. J. E. Jones
Goring: G. Lea
Horsham: G. Lea
Heathfield: G. Lea
Iden: Lt. Col. P. White

The Paper Mill, Hawkhurst, Kent

Midhurst: G. Lea
Pulborough: G. Lea
Rusper: G. Lea
Steyning: G. Lea
Telscombe: G. Lea
Ticehurst: G. Lea
Uckfield: G. Lea
West Grinstead: G. Lea

Listings
Chichester 1740, 1762*

Reconstitution

WARWICKSHIRE

Aggregative

Alcester: Dr. A. Gooder & Extra-Mural Group

Oak Tree Cottage,
Shaw's Lane,
Five Ways, Hatton,
Warwickshire

Budbrooke: Dr. A. Gooder
and Group

Butlers Marston: Mrs. J. Lane

47 Newbold Terrace,
Leamington Spa,
Warwickshire

Chilvers Coton: Dr. A. Gooder & Extra-Mural Group

-79-
<table>
<thead>
<tr>
<th>Location</th>
<th>Contact Person</th>
<th>Address</th>
</tr>
</thead>
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<tr>
<td>Coleshill</td>
<td>Mrs. H. B. C. Stokes</td>
<td>Little Mead, Nether Whitacre, Coleshill, Birmingham</td>
</tr>
<tr>
<td>(1545-1740 only)</td>
<td></td>
<td></td>
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<tr>
<td>Curdworth</td>
<td>Mr. D. T. Roberts</td>
<td>5 St. Nicholas Walk, Curdworth, Sutton Coldfield, Warwicks.</td>
</tr>
<tr>
<td>Dunchurch</td>
<td>Dr. A. Gooder &amp; Extra-Mural Group</td>
<td></td>
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<tr>
<td>Edgbaston</td>
<td>Mrs. J. Woodall</td>
<td>Bower Close, 11 Sharmans Road, Solihull, Warwicks.</td>
</tr>
<tr>
<td>Harbury</td>
<td>Mrs. P. Ford (deceased)</td>
<td>26 Church Hill, Leamington Spa, Warwickshire</td>
</tr>
<tr>
<td>Kenilworth</td>
<td>Mrs. P. A. Puddifoot</td>
<td>1 Waller Close, Leek Wootton, Warwickshire</td>
</tr>
<tr>
<td>Kingsbury</td>
<td>Dr. A. Gooder &amp; Extra-Mural Group</td>
<td></td>
</tr>
<tr>
<td>Knowle</td>
<td>Mrs. J. Woodall</td>
<td></td>
</tr>
<tr>
<td>Mancetter</td>
<td>Mr. C. W. Turner</td>
<td>30 Telford Avenue, Lillington, Leamington Spa, Warwickshire</td>
</tr>
<tr>
<td>Monks Kirby</td>
<td>Mrs. P. Ford (deceased)</td>
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<tr>
<td>Napton-on-the-Hill</td>
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<td>Polesworth</td>
<td>Dr. A. Gooder &amp; Group</td>
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<td>Rowington</td>
<td>Mrs. J. Woodall</td>
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<tr>
<td>Sheldon</td>
<td>Mrs. M. Varley</td>
<td>20 Foxcote Drive, Shirley, Solihull, Warwickshire</td>
</tr>
<tr>
<td>Solihull</td>
<td>Mrs. M. Varley</td>
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<tr>
<td>Tamworth-in-Arden</td>
<td>Mrs. J. Woodall</td>
<td></td>
</tr>
</tbody>
</table>
Tredington Mrs. P. Ford (deceased)

Literacy
Aldermister Mrs. J. Woodall
Budbrooke Mrs. J. Woodall
Bulkington Mrs. J. Woodall
Hampton Lucy Mrs. P. A. Puddifoot
Rowington Mrs. J. Woodall
Warmington Mrs. J. Woodall
Wolfhamcote Mrs. J. Woodall

Reconstitution
Alcester Mrs. P. Ford (deceased)

Listings
Chilvers Coton (1684)
Coventry (1530)

Erratum
In L.P.S. 9 we unfortunately reversed the positions of pages 76 and 77 with the result that certain parishes appearing on page 77, beginning with East Bergholt and ending with Laxfield, were classed as literacy studies instead of aggregatives. The only literacy studies on these two pages in fact were those of Blundeston, Boulge and Clare at the bottom of page 76, the list being continued on page 78.
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