

MULTIPLE BIRTHS IN SHROPSHIRE, 1601-1800

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Editors' Note: It is with great regret that we have to announce the death of the author of this article.

Mr. Lloyd was a part-time Tutor for the Birmingham Extra-Mural Board in Shropshire; his death will be a great loss to local population studies in that area. We are publishing his article on twins posthumously, firstly because it is about a subject which interests many people, but secondly, and more importantly, because it shows how a local population historian can make a significant contribution to a comparatively neglected field of demography.

The work described in this paper was an offshoot of the aggregative analysis of certain Shropshire parish registers which was undertaken in co-operation with the Cambridge Group for the History of Population and Social Structure. In the course of this work it was suggested that it might be interesting to investigate the frequency of multiple births, which has also, of course, a bearing on the problem of fertility. Four areas were selected for examination, two representative of urban communities and two of predominantly rural character. These were:

- (1) The parish of St. Chad, Shrewsbury, the largest and most populous of the five ancient parishes of the town;
- (2) the parish of Oswestry, in the north-west of the county;
- (3) the parish of Much Wenlock, twelve miles south-east of Shrewsbury;
- (4) the three contiguous parishes of Alberbury, Cardeston and Ford, on the western edge of the county.

The period covered by the enquiry was dictated by the availability of parish registers.

TABLE A
Numbers and percentages of twins baptised in six Shropshire parishes,
compared with total baptisms, 1601 - 1900

	1601 - 50			1651 - 1700			1701 - 50			1751 - 1800			1601 - 1800		
	Twins	Total Baps.	%	Twins	Total Baps.	%	Twins	Total Baps.	%	Twins	Total Baps.	%	Twins	Total Baps.	%
Shrewsbury:															
R. Chad	38	3394	1.2	55	5442	1.0	77	5769	1.3	58	6730	0.9	228	21335	1.1
Oswestry	68	4666	1.5	67	4186	1.6	72	5641	1.3	63	5737	1.1	268	20130	1.3
Much Wenlock	17	1664	1.0	24	2120	1.1	19	2886	0.7	33	3326	1.0	104	9986	1.0
Alberbury (Cardaston) Ford	14	1248	1.1	15	2016	0.7	23	2124	1.1	16	3258	0.5	69	8648	0.9
	137	10862	1.3	161	13764	1.2	191	16420	1.2	170	19051	0.9	668	60097	1.1

The procedure adopted was simply to go through the baptismal registers of the parishes concerned (1), noting the occurrences of multiple births, which, so far as these six parishes are concerned, almost invariably mean twins. I have found only one possible instance of the birth of triplets. This occurs in a somewhat cryptic entry in the register of St. Chad, Shrewsbury.

"1651 Dec. 22. 3 children of Thomas Griffithes,
sharmon, and 2 C. buried (2).

This would appear to record the baptism of triplets, of whom two were buried on the same day.

In only a minority of entries is the term "twins" employed; sometimes, at Shrewsbury and Oswestry in the early 17th century, it appears in the rather charming form of "twindells." But although many pairs of twins are not specifically so described, there can be little doubt that they were in fact twins. The usual form of entry is a date followed by "John and Margaret, son and daughter of James and Mary Smith" or "Mary and Martha, daughters of Thomas and Jane Williams"; often with the added information that they were born the same day or a day or two previous to their baptism.

Frequency

Dealing first with the frequency of twin births, the numbers recorded are given in Table A, together with the percentages of total baptisms for ease of comparison. In each 50-year period and in all areas, the proportion hovers around 1.0 per cent. Taking the six parishes as a whole, the maximum is 1.3 per cent., the minimum 0.9 per cent., and the average 1.1 per cent. The data, then, are reasonably consistent among themselves. Obviously it would be absurd to attempt to deduce any general conclusions from such limited data, but it may be worth pointing out (a) that the figures seem to indicate some small falling-off in the frequency of twins during the two hundred years covered by this enquiry; and (b) that there may be some slight indication that more twins are born in an urban environment than in essentially rural surroundings. (3).

But these data refer only to the six Shropshire parishes chosen for examination, and to bring out any wider significance they may possess, they need to be set beside comparable statistics from other areas. And here we meet a difficulty. Widespread search and enquiry for such material had produced only very meagre results, and comparable

historical data seem to be non-existent. An appeal to the Registrar-General brought as helpful a response as possible, but even he and his staff could not refer me to what, apparently, does not exist. The earliest statistics I have found date from the mid-19th century, and even these are little more than fragmentary. They relate to the three years 1845, 1846 and 1852, and are to be found in the Registrar-General's annual reports for those years. After 1852 he seems to have lost interest in twins, and did not record them again until 1938, since when the records are complete. These 19th century figures are summarised in the following table:

TABLE B

Frequency of twins in England and Wales and in Shropshire
1845, 1846, 1852 (4)

	Total Births	Twins	
		No.	%
England and Wales	1,740,158	16,125	0.93
Shropshire	20,219	185	0.92

In the period from 1938 to the present, the Registrar-General has not published separate figures for the counties, but I have calculated the proportion of twins (live births) to the total number of live births in England and Wales for the twenty years from 1940 to 1959. During that period there were 14,131,159 live births and 160,584 pairs of twins, which gives a percentage of 1.14 (5). This may perhaps be taken as a standard of frequency for England and Wales in the 20th century, and it is very similar to the proportions previously arrived at. In the United States the average frequency is said to be 1.15 per cent., but it varies from one country to another: in Belgium it is given as 1.79 per cent., in Finland as 1.65 per cent., and in Japan as only 0.69 per cent. (6).

Classification by Sex

Two kinds of twins are recognised by biologists. They are variously known as (1) identical, monozygotic, or monovular; and (2) non-identical, dizygotic, or binovular. Identical twins result from the splitting into two of a single ovum after fertilisation; they are always of the same sex and usually show a close resemblance to each other.

TABLE C

Twins baptised in six Shropshire parishes, classified by sex, 1661-1800

(Twins whose sex is not recorded have been omitted)

Parishes	1601-50				1651-1700				1701-50				1751-1800				1801-1800			
	MM	MF	FF	T	MM	MF	FF	T	MM	MF	FF	T	MM	MF	FF	T	MM	MF	FF	T
Shrewsbury St. Chad	17	9	9	35	22	16	15	53	18	37	22	77	19	17	22	58	76	79	68	223
Oswestry	19	31	18	68	16	28	19	63	20	22	28	70	23	20	17	60	78	101	82	261
Much Wenlock	5	2	9	16	9	7	6	22	3	9	7	19	13	8	12	33	36	29	36	101
Alberbury, etc.	6	1	7	14	6	4	3	13	6	9	9	23	4	5	7	16	22	19	25	66
	47	43	43	133	53	55	43	151	47	77	85	159	59	50	58	167	212	228	211	651

TABLE D

Twins classified by sex, 1601-1800: Percentages

	1601-50			1651-1700			1701-50			1751-1800			1801-1800		
	MM	MF	FF	MM	MF	FF	MM	MF	FF	MM	MF	FF	MM	MF	FF
Shrewsbury: St. Chad	48.6	25.7	25.7	41.5	30.2	28.3	23.4	48.1	38.6	32.8	29.3	37.9	34.1	35.4	30.5
Oswestry	27.9	45.6	26.5	25.4	44.4	30.2	28.6	31.4	40.0	38.3	33.3	28.3	29.9	38.7	31.4
Much Wenlock	31.3	12.5	56.3	40.5	31.8	27.3	15.8	47.4	36.8	39.4	24.2	36.4	35.6	28.7	35.6
Alberbury, etc.	42.3	7.1	50.0	46.2	30.8	23.1	26.1	39.1	34.8	25.0	31.3	43.8	33.3	28.8	37.9
	35.2	32.3	32.3	35.1	36.4	28.5	24.9	40.7	34.4	35.3	29.9	34.7	32.6	35.0	32.4

Non-identical or binovular twins are the product of two ova fertilised at the same time; they may be of the same or different sexes, and they are no more alike than other members of the same family. (7) In the present enquiry the distinction between monovular and binovular twins obviously cannot be maintained for lack of evidence. All that can be said is that boy-girl twins must necessarily be binovular.

But this material can be classified in another way, by distinguishing three kinds of twins - boy-boy, boy-girl and girl-girl. The results of this operation are presented in Tables C and D. From these it will be seen that in the six Shropshire parishes taken as a whole, the three classes of twins are roughly equal, with a small predominance of boy-girl pairs. This agrees with the American figures for the period 1890-1900. (8), and with those for England and Wales in the twenty years 1940-59. (9). It may be worth pointing out that in the Shropshire data the proportion of boy-girl pairs is distinctly lower than the average in both Much Wenlock and the Alberbury area. This looks unusual, but whether it has any significance cannot be decided until more comparative statistics are available. (10)

The 19th century figures given in the Registrar-General's reports may be summarised as follows:-

TABLE E

Twins born in England and Wales and in Shropshire, 1845, 1846 and 1852, classified by sex

	Twins born	MM		MF		FF	
		No	%	No	%	No.	%
England & Wales	16,125	5,169	32.2	5,938	36.8	5,018	31.1
Shropshire	185	59	31.9	64	34.6	62	33.5

20th century data from the Registrar-General's annual statistical digests show that the comparable figures for England and Wales, together with those from the U.S.A., 1890-1900, are as follows:-

TABLE F

	Total twin births	MM		MF		FF	
		No	%	No	%	No	%
England and Wales, 1940-- 59	177,033	52,085	32.4	58,258	36.3	50,241	31.3
U.S.A., 1890-1900	717,912	234,500	32.7	264,100	36.8	219,312	30.5

Inheritance

There is a widely-held view - probably justified - that the tendency to bear twins is hereditary. But the way in which this tendency is inherited - whether through the father, or the mother, or both - is uncertain (11), and so far as I have been able to ascertain the problem has never been investigated statistically. I have made some attempt to see whether the Shropshire data throw any light on the matter by trying to trace the antecedents of the parents of twins, but with no positive result. Something in the nature of the family reconstitution techniques described by Dr. E.A. Wrigley (12) seems to be necessary in an investigation of this kind, and the material at my disposal was not amenable to such treatment.

It was possible, however, to obtain some evidence bearing upon another point related to that of inheritance - namely, the tendency of some parents to produce more than one pair of twins. It was found that in the six Shropshire parishes, during the entire period 1601-1800, twenty couples had two pairs of twins, and three couples had three pairs each. The figures are set out in Table G. Here, it seemed, was a promising field for the investigation of inheritance, and an attempt was made to trace the genetic background of both fathers and mothers, but again it was unsuccessful. These particular registers do not provide the information required in such an enquiry.

TABLE G

Six Shropshire parishes: Two or more pairs of twins born to same parents, 1601-1800

	Pairs of twins baptised	Born of same parents			
		Two pairs No.	%	Three pairs No.	%
Shrewsbury: St. Chad	228	7	3.1	-	-
Oswestry	268	10	3.7	2	0.7
Much Wenlock	104	2	1.9	1	1.0
Alberbury etc.	68	1	1.4	-	-
	668	20	3.0	3	0.4

Other Aspects

There are other aspects of the subject which would be worth pursuing statistically but which I have not been able to undertake. There is the question of the survival of twins; it is generally recognised that the children of multiple births are less viable than those of single births, and they are particularly vulnerable during the actual process of birth. I have no accurate figures on survival, but there is no doubt about the large proportion of the twins whose baptism is recorded in these six registers who died within a few days of birth.

Another point on which there is, so far as I can find, no historical evidence, is the relationship between multiple births and the age of the mother. There are some recent American statistics on this, showing that twin births become more frequent as the age of the mother advances, reaching a peak when she is between 35 and 39 (13). Since 1938 similar evidence for England and Wales has been recorded annually by the Registrar-General, and presents an approximately similar picture. I have been unable to deal with this point in the six Shropshire parishes because deficiencies in the registers prevent one from ascertaining the ages of the mothers. (14)

Summary and Conclusion

To summarise the results of this enquiry, it would appear, first, that

the frequency of twin births in the six Shropshire parishes investigated remained more or less stable at a little over 1.0 per cent. of all births during the two hundred years covered by this enquiry; and that this percentage frequency agrees closely with the frequencies recorded both in England and Wales and in the United States during the 19th and 20th centuries. Secondly, when twins are classified by sex, it appears that in the six Shropshire parishes the proportion of boy-girl pairs exceeds the proportion of boy-boy and girl-girl pairs by something like 2 to 4 per cent; and this also is in general agreement with the 19th and 20th century figures from both England and Wales and the U.S.A.

In some ways this has been a disappointing enquiry, partly because of the incomplete information provided by the parish registers, and partly because of the absence of comparative historical data. It is my hope that one or two other workers in the field of historical demography may think it worth while to pursue the subject in their own areas. I am sure they would find it productive of interesting results.

NOTES AND REFERENCES

1. The printed registers, published by the Shropshire Parish Register Society, were used, except at Much Wenlock, where a MS transcript was employed. At Oswestry and Much Wenlock I was helped in searching the registers by members of historical research groups meeting under the auspices of the Department of Extra-Mural Studies of the University of Birmingham.
2. Printed register, p. 229.
3. Both these conclusions are amply supported by the figures in the tables. The risk that such figures could have arisen by chance from a situation where there was no falling off in the frequency of twins and no difference between urban and rural parishes in less than one in a hundred. (Editors' Note)
4. Data from Registrar-General's Annual Reports for 1845 (pp. 156, 161), 1846 (pp. 92, 97) and 1852 (p. 83).
5. Registrar-General's Statistical Review, England and Wales, Part 2, 1940 - 59, Tables B, DD.

6. H.H. Newton in Ency. Brit., 1947 Edtn., s.v. Twins.
7. C.D. Darlington, Genetics and Man, Penguin Books, 1966, pp. 242 ff.; H.H. Newton, loc. cit.; M.F. Myles, Textbook for Midwives, 5th edtn., 1964, pp. 355-59.
8. A.M. Srb, R.D. Owen and R.S. Edgar, General Genetics, 2nd edtn., San Francisco and London, 1965, p. 537.
9. Percentages calculated from data given in Registrar-General's Statistical Review, England and Wales, Part 2, 1940-59, Table DD.
10. It would indeed be dangerous to accept this difference as established beyond reasonable doubt. The risk that this result could have arisen by chance from a situation in which there was actually no difference in the proportion of boy-girl pairs as between the areas is about one in twenty. (Editor's note)
11. H.H. Newton, loc.cit.; R.A. Fisher in Ency. Brit., 14th edtn., 1929, s.v. Twins and Twinning.
12. E.A. Wrigley (ed.). Introduction to English Historical Demography, London, 1966, pp. 96-159.
13. U.S. Deskbook of Facts and Statistics, 1964-65, p. 54: H.H. Newton, loc. cit.
14. If the average age of women at marriage fell in these parishes during the eighteenth century, then this relationship between the frequency of multiple births and the age of the mother might explain the observed decline in the number of multiple births in these parishes in the eighteenth century.

In the same way the greater frequency of twins observed in the urban parishes might possibly be a reflection of a higher average age of marriage in these parishes as against the rural parishes. (Editor's Note).