

A SUMMARY OF POPULATION CHANGES IN HUNTLEY 1661 - 1800

Introduction

The research into the population of Huntley which started in 1975, has now reached a point beyond which further study of the period before 1800 would be unprofitable due to limitation of other data. Nevertheless, numerous sources were found during the study. Undoubtedly, other sources do exist, but detailed analysis of what remains could not be justified as the time required to extract the data would be out of proportion to the additional information it would provide. It is also unlikely that it would have any significant effect of the findings already obtained.

Full details of documents consulted have been listed separately. It will be seen that the study has embraced not only the parish records of Huntley, but also some of those of adjacent parishes. Other ecclesiastical records, including poor law records, fiscal returns and estate papers have provided valuable evidence of residence in the parish. The accuracy of these records can sometimes be questioned and problems associated with their use have been discussed in Gloucestershire Historical Studies VIII (1977) (1). Although parish records are available from 1661, there are a number of statistical difficulties in using these earlier records, particularly the period between 1661 and 1679 which is known to be prone to under-registration. Despite some earlier reservations about the accuracy of information, the available data after 1700 does not raise too many causes for concern, but the reader should remember that some figures quoted are based on small samples. Where possible, the results obtained have been compared with other surveys in order to assess the validity of the result obtained. However, a similar result to that found in other areas does not prove the accuracy of the figure found for Huntley.

A considerable volume of information has emerged from the study and space does not permit the publication of all the available data. This paper, therefore, can be little more than a summary of the facts which have emerged, and the reader is, therefore, invited to interpret the tables and graphs included in the appendices.

Earlier essays (2) covered the problems associated with the study, the methods adopted and brief historical notes about the parish. It is comforting to note that estimates made in earlier essays do not need drastic modification, although it will be appreciated that some revision to these earlier figures has been necessary.

Population Growth

The calculation of the estimated population of Huntley covering the period 1551-1801 was discussed in Gloucestershire Historical Studies IX (1978)(3). It is, therefore unnecessary

to repeat all the details here, but for convenience, the important aspects are summarised below. At the turn of the 17th century, the population of Huntley stood at about 210, and consisted of 108 males and 102 females. During the early part of the 18th century, there was a steady increase in the size of the population which was probably helped by immigrants from nearby parishes. By 1721 the population had probably reached 286, its highest figure until the mid 1790s. After 1721 there was a rather sudden reversal of this trend which appears to have resulted in a population of 199 two decades later. It is possible that this decline was the result of a combination of factors, the most significant being a fall in the birth rate, an increase in death rate, and people leaving the village. Having reached the lowest point of the 18th century, a recovery started which resulted in a population in the region of 264 in 1761. The size of the population then remained very stable for the next 30 years after which there was an increase of about 50 people during the last decade of the century.

A summary of the population growth does not in itself tell the full story of the events and factors which were influencing the population. One significant characteristic which will influence growth of any community is the age of the inhabitants. Unfortunately, lack of suitable data prevents any accurate calculation of the age structure. In order to produce population pyramids, it was necessary to assume that a stable population existed. (We shall learn later that this was probably far from the real situation and it must, therefore, be assumed that immigrants were of a similar age and sex to those who left the village). The calculated age structure, based on births and a life expectancy table is illustrated in Appendix A. It will be seen that the pyramid for 1800 clearly illustrates the effect of the increased birth rate after 1781.

Due to the probable effect of migration, it is difficult to estimate the number of people who were married or widowed. The maximum number who were married at any one time cannot have exceeded the sum of the male, or female population, (whichever was less), who were of marriageable age. Taking the average age at marriage as 26 years, and assuming that all people above that age will or have been married, it is possible to estimate from the population pyramids that the proportion of people ever married will have been approximately 38% of the population in 1751, 47% in 1781 and 37% in 1800. The increased ratio in 1781 contributed to the increase in birth rate which, in turn, resulted in a larger proportion of the population being below marriageable age by 1800.

The age structure, marital status and age at marriage would all influence the growth rate of the population. The natural increase (births minus deaths) should, by itself, have resulted in a considerably larger population than can be found in the 1801 census returns, and it would therefore seem probable that migration restricted the overall growth rate.

The percentage growth in Huntley (Appendix B) was found to be significantly different from the national trend which again

suggests that some other factors were influencing the size of the population. A further measure, known as net reproduction rate, which is based on the number of girl babies born to married women, gives an indication of future growth rates; this likewise suggests instability of the population at various times.

Having established apparent changes in the total size of the population, and seen the possibility of migration influencing the growth rate, it is interesting to compare Huntley with the adjacent parishes. On making this comparison (Appendix C) it can be seen that the size of the population in most parishes varied to a greater or lesser extent.

The calculation of these figures is based largely on ecclesiastical returns which may suffer some inaccuracy or bias. It should be noted that this method of presentation can hide the true picture as for example in Huntley between 1721 and 1740. Six of the eight parishes showed a large increase in the last 20 years of the 18th century, but it must be pointed out that all the figures for 1779 were taken from Samuel Budder's (4) estimate which was not as accurate as the first civil census of 1801.

Births and Baptisms

The number of Baptisms recorded in Huntley show fluctuations from one period to another but these can be explained to some extent by the absence of entries in the register. Although it is possible that no baptisms took place in certain years, this is thought to be unlikely and estimates can, therefore, be made where entries are missing. The total number "missing" is probably not significant and, at worst, it is unlikely that the number of missing entries exceeded 60 baptisms over the 140 year period covered by the registers. It should, however, be remembered that not all births result in baptisms.

The number of baptisms over the period from 1660 until 1800 shows a progressive increase (Appendix D). Peak periods were 1701-10; 1751-60 and 1781-90. As mentioned above there was a period of apparent population decline between 1720 and 1740 and lower baptisms during this period would not seem unrealistic. Illegitimacy during this period of population decline was above the average for the total period under study.

After 1781, there was an unusually high baptism rate of 47.5 per thousand. This is probably the result of the suggested increase in the number of people in the 20-39 age group (Appendix A) with the associated increase in the number of couples marrying.

There is a general indication that illegitimacy increased throughout the period showing a steady increase from 3.2% of all baptisms in the decade ending 1680 to a peak of 12.7% between 1781-90. The overall rate of illegitimacy was 6% of all baptisms with the number of illegitimate boys who were baptised double the number of girls! The number of children conceived outside marriage shows an overall percentage of 8.5 (This figure includes the illegitimate births mentioned above)

Crude birth rates are not completely accurate guides to the real change in the level of fertility (5). Unfortunately,

lack of data makes the calculation of fertility rates impossible.

Some local historians have suggested that certain months of the year display higher than average births. It is not possible to establish the interval between birth and baptism so it may be dangerous in noting that most baptisms took place in January, February, March and October. In actual fact there is little to choose between the months in terms of absolute numbers.

The sex ratio of baptisms show a curious picture from 1661 to 1710 during which period was apparently an excess of girls over boys in every decade. (It is usual to find a ratio of about 105 boys to every 100 girls). After 1710 most decades show a ratio in favour of the male population. High adverse sex ratios usually suggest under-registration (6). However, the small numbers applicable to Huntley will, of course, produce quite wide fluctuations when expressed as percentages. During the analysis of baptisms, it became apparent that about 9% of all recorded baptisms which took place were of children born outside the parish. By far the greatest number (over one third) apparently residing in Taynton with a further third coming from Westbury, Longhope and Churcham. The balance of baptisms was distributed among eleven other parishes. The only explanation which can be offered is the proximity of residence to the church in Huntley.

Marriage

An analysis of marriages in Huntley illustrates the extent of population movement between parishes. It appears more likely that the bride would marry in her own parish than in the parish of the bridegroom. Between 1681 and 1751 there was a tendency for couples from outside the parish to marry in Huntley although after the Hardwick Marriage Act of 1753 this practice ceased.

As with other calculated rates, the crude rate for marriages shows fluctuations throughout the period. A rate somewhere in the region of 8 per thousand can probably be considered typical for any population, and although the number of marriages does vary the overall rate was 7.1 per thousand and is probably not unrealistic for a small population.

The age at which people marry is an important factor influencing the future growth of populations. The lower the age at marriage the greater the likelihood of high birth rates and larger families. Lack of data restricted the number of people who could be included in the analysis and it was surprising to find more data available for the 17th century than for the 18th. Bearing in mind the small numbers included in the analysis, it is possible that the most popular age for marriage between 1661 and 1700 was 24 years for men and 21 for women with the arithmetic mean a little above these figures at 25.9 and 24.8 respectively. Between 1701 and 1750 there was a tendency for both men and women to marry later at about 29. The latter half of the 18th century saw a generally lower average age at marriage for men, although the popular age for marriage was still high at 28 years.

By comparing the marriage and baptism registers it is possible to deduce that nearly 20% of all brides were pregnant at the time of marriage. In order to arrive at this figure, it is necessary to exclude those women who left the village after the wedding; the figure obtained may therefore be a little high.

The age at marriage will influence the duration of the marriage and one would, therefore, expect that the period would be longer for those married between 1661 and 1700. It is, therefore, not surprising to find that marriages during this period lasted on average 21 years, with a record 59 years in one case. With later marriages during the 18th century the duration of marriage was correspondingly shorter at about 17 years. The latter half of the 18th century has been ignored because of the larger number of uncompleted marriages which may have distorted the result. No analysis has been made of how many widows and widowers re-marry, but it is known that one marriage in ten involved a widow or widower.

Family and Social Structure

The number of children resulting from marriages showed a slight decline up to 1750 because of later marriage, although the decline is not significant. Because of a greater likelihood of uncompleted periods of marriage, it was felt desirable to exclude any analysis for later periods. Couples who married between 1661 and 1700 and who had completed their families while still resident in Huntley had an average 2.7 children while those marrying between 1701 and 1750 had 2.57 children. The interval between births shows a tendency to increase after the birth of the first child and although the interval between marriage and baptism of the first child was about 15 months, during the second half of the 17th century, the period before the second child was baptised was found to have been 42 months; a further 37 months elapsed before the third child was baptised. These periods seem to be unexpectedly long but it should be remembered that date of baptism may not resemble the date of birth. During the period 1700 to 1749, the baptism interval between marriage and the first three children was respectively seventeen months, twenty-six months and thirty months, with the last half of the 18th century displaying intervals of fifteen months, thirty months and thirty-six months.

The average size of a family in Huntley (whether complete or not) during the second half of the 17th century was 4.83 people. Although the number of families increased during the 18th century, the average family size was found to be smaller at about 4.40 people. A few families were found to be quite large by present day standards, but in the period up until 1750 only 25% of families consisted of more than four children while the analysis for later periods shows that only 14% of families had more than four children. However, the latter figure is influenced by the increased marriage rate towards the end of the 18th century where the sample would have included a higher proportion of young married couples who had not completed their families.

The size of the average household, which would include any aged parents living as part of the family unit, showed an increase and was probably the result of a housing shortage as the relative

increase in population was greater than the increase in housing. In 1676 the average household consisted of 3.87 people (7). By 1717 this figure had increased to 5.37 (8), and while during the population decline the situation probably improved, the figure was still found to be about five people by 1776 (9), despite an increase in available houses. During the next 25 years, available houses increased in the same ratio as the population so that although there was no improvement in the general situation, increased housing did prevent things getting worse.

Migration

It would be easy to explain any variation in the statistics by assuming they resulted from migratory movement of the population. While there is a great deal of evidence to suggest that migration did take place on a relatively large scale, the total picture is inconclusive. Perhaps the strongest indication can be obtained by comparing the marriage register with the baptism and burial registers. On the assumption that lack of evidence of the baptism of any children or the death of either husband or wife gives an indication of emigration, it is possible to estimate that 60% of couples who married probably left the village shortly after marrying. This analysis also indicates that 28% of people from outside the village, who married in Huntley, settled in the parish after the wedding. It also appears that over the period 1661 to 1800 there was a net loss due to migration of 41 men and 101 women. This may not appear to be a significant fact but these figures do represent an average of 3% of the men and nearly 8% of the women leaving the village for reasons associated with marriage each decade.

During the 110 years up until 1770 there were 717 baptisms in the village of whom 23% subsequently died unmarried, leaving a potential 554 people who might be expected to marry in the village if no migration took place. In actual fact only 12% of these married in the village.

The tendency for people to leave the village seems to have become more common after about 1730. This might not be unexpected with the growth of industry but as mentioned above it is virtually impossible to prove that migration did take place. Migration was certainly not a one-way process in Huntley. At any point in time nearly 15% of men and a little over 19% of women were likely to have moved into the village within the preceding ten year period. During the next ten year period 23% of men and 28% of women would leave. This trend prevented any large scale growth in population which may have resulted from the excess of births over deaths.

Mortality

The burial rate curiously fluctuated for alternate decades while displaying an overall downward trend. The highest burial rate of 33.2 per thousand is found between 1701 and 1710 during which period Gloucestershire experienced a number of severe winters (10). An analysis by month of the burials does not show any real change in the general pattern or seasonal variations and as no documentary evidence can be found to connect deaths with these

conditions or any other factors. The reasons for this increased rate must remain a mystery. There was another period of high burial rate between 1721-30 which presumably made its contribution to the population decline at that time.

The very low number of deaths between 1731 and 1740 and again between 1761 and 1770 cannot be explained by documentary evidence. There is reason to believe that there may have been some under-registration of burials as the number of burials which can be predicted from life-tables which have been constructed, is in excess of the actual. The life-tables were, of course, based on an assumed stable population and do not, therefore, take account of migration which could influence the final result.

However, taking the predicted rate of burials from the life-tables, the burial rates appear more like the rates calculated by Deanne and Cole (11) so it would seem reasonable to assume that there was some under-registration during this period.

Infant mortality can be calculated by two methods either as a proportion of baptisms or as a proportion of burials. Although the absolute figures are small and any ratio calculated tends to exaggerate the rate of change, infant burials do, nevertheless, represent quite a high proportion of all burials. The highest periods are found between 1741 and 1750 when over 23% of burials were infants and between 1761 and 1770 when the figure was again high at 22%. During the period 1741-50 the high rate of infant mortality represented 15% of all baptisms. A similar percentage can also be found for 1721-30.

Lack of information in the parish registers makes it difficult to calculate the average age at death or life expectancy as only 32% of females and 51% of males have any indication of age at burial. Due to the small numbers, it has been necessary to generalise for the whole of the period under study which is not the most satisfactory solution. The life tables, for example, show the average age at death to be 38 for men and 32 for women if infant burials are excluded from the calculation.

The sex ratio of burials fluctuates considerably from one decade to another with extremes at certain periods, 1731-40 being one case where the ratio was found to be 231 males to 100 females. Extremes such as these do tend to suggest under-registration, but the overall ratio for the whole period is the same as baptisms at 102 males to 100 females, which is the figure one could reasonably expect.

There are a number of burials in the parish of non-parishioners; the highest number being tramps. Most of the other burials in this category are of people from adjacent parishes, and may have resulted from the proximity of residence to Huntley parish church as suggested for baptisms.

Conclusions

The most interesting fact to emerge from the study is the apparent high rates of migration which took place. Although not proven every record consulted indicates that people did leave the village in fairly large numbers, while other people moved in from adjacent parishes, and sometimes from further afield. The strongest indication is obtained from the baptism register. Even with the possibility of under-registration, it is unlikely that 88% of people baptised were subsequently omitted from the marriage registers. The study shows that women were more likely to marry in their own parish than men, so even assuming that all men married outside the parish, it is extremely unlikely that under-registration would be anywhere near the remaining 40%.

The net increase in population which one expects from the examination of the baptism and burial registers did not materialise. Again, it is unlikely that so many people escaped mention in the parish registers.

Perhaps we should ask why people left the village. Here further difficulties are encountered. Although the number of houses did not show any real increase, it is difficult to say whether this was the result of limited demand because people were emigrating or whether shortage of houses forced people to emigrate. It is tempting to suggest the latter because the average size of households increased from 3.87 to 5.37 and, thereafter, remained stable. It was at this latter point that there was a greater tendency for people to leave the village. It has proved extremely difficult to obtain enough information about the age structure of the population. This factor has a significant impact on the structure and subsequent characteristics of the population, the most important is probably the rate of growth. It has been demonstrated that the overall net increase was about 50% while the actual growth could have been much higher. Although it has been suggested that there was a tendency for later marriage in the 18th century, (thereby limiting growth), the baptism and net reproduction rate do not always confirm this picture. Despite the increase in population, the average family size was smaller than expected. Chambers (12) noted that poor families were often small and some writers also suggest that later marriage is often an indication of relative poverty within a parish.

Illegitimacy apparently increased, but this may have been the earlier result of reluctance of the rector to baptise these children while on the other hand it may have been associated with the tendency of later marriage. Whatever the cause, it is difficult to explain why there should have been twice as many illegitimate boys than girls.

The overall picture is, therefore, far from clear. Many factors exist which can be interpreted in a number of ways. Limitations in the data have forced the use of estimates, sometimes based on samples which, from a statistical point of view were too small to guarantee any significant level of confidence.

However, in most cases the picture presented is believed to be an accurate summary of the situation which existed. The result of the study can, therefore, be taken as a general guide to the population in Huntley.

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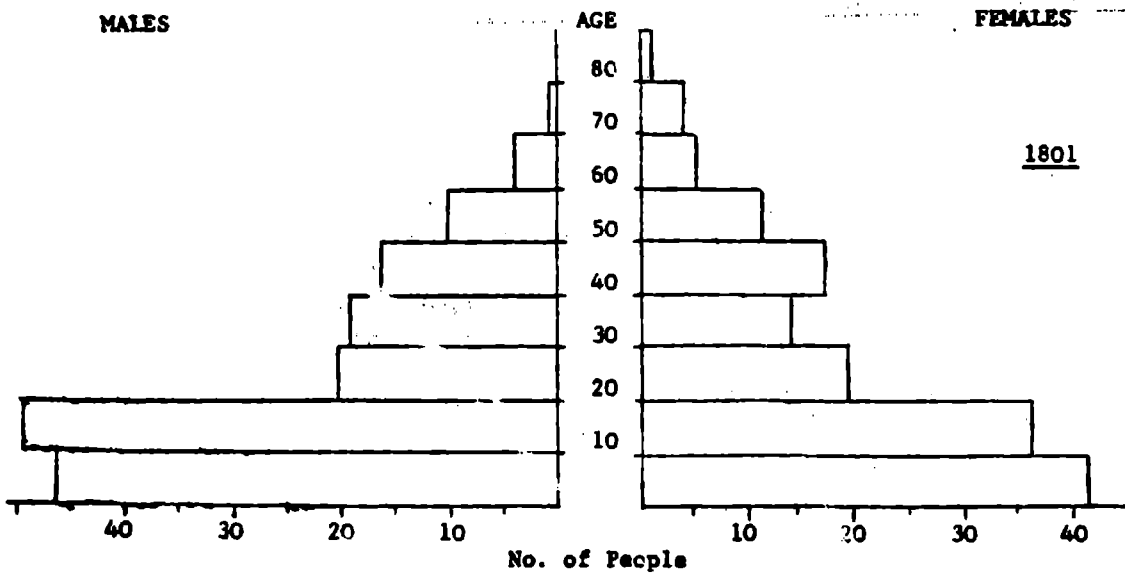
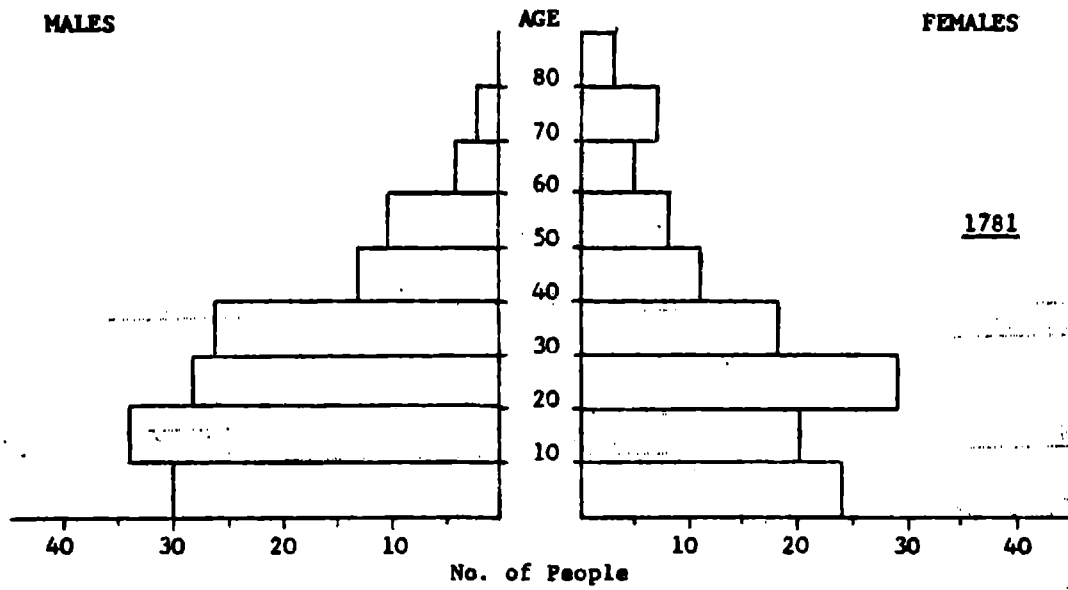
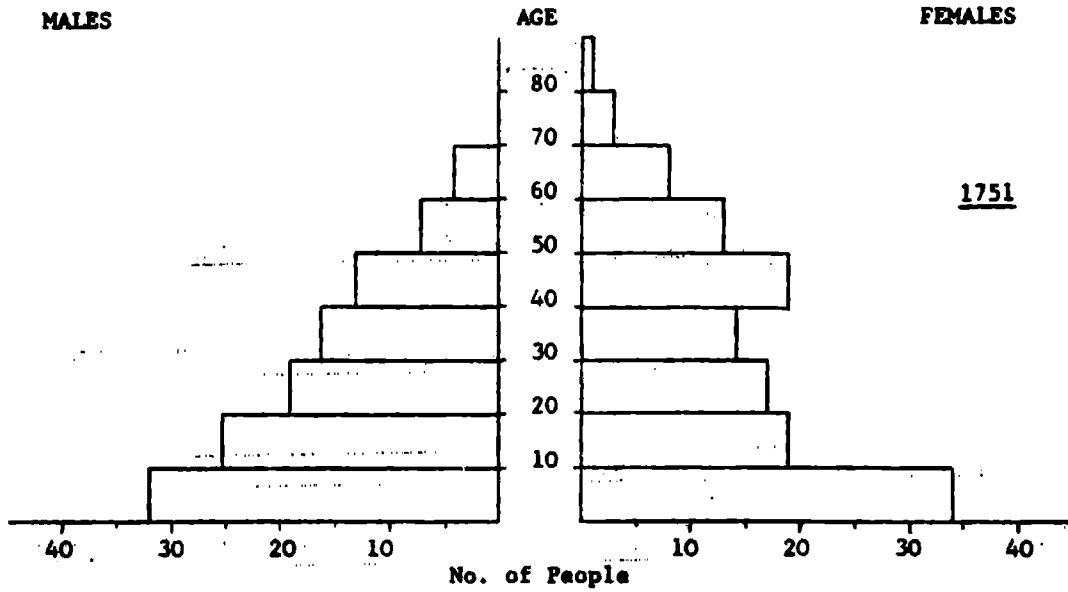
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POPULATION PYRAMIDS 1751, 1781, and 1801



POPULATION GROWTH - 1661 - 1800

DECADE	% GROWTH P.A.		HUNTLEY
	NATIONAL	HUNTLEY	N. R. R.
1671-80			0.74
1681-90			1.03
1691-1700	1.2*	0.7	1.26
1701-10	0.3	1.4	1.29
1711-20	0.1	1.9	0.67
1721-30	0.1	(1.5)	0.49
1731-40	0.2	(1.8)	0.76
1741-50	0.4	2.3	1.37
1751-60	0.4	0.8	1.07
1761-70	0.6	0.1	0.70
1771-80	0.5		0.71
1781-90	1.1	(0.1)	1.36
1791-1800	1.1	1.9	1.40

NOTES: () = Population decline.

N.R.R. = Net Reproduction Rate.

National Growth Rate taken from various sources quoted by Neil Tranter in Population Since The Industrial Revolution, the case of England and Wales (1973) Page 41.

1695 - 1700

RELATIVE POPULATION CHANGE
IN ADJACENT PARISHES

PARISH	POP. EST. 1551.	POPULATION RELATIVE TO - 1551						CENSUS 1801
		1603	1650	1676	1712	1779	1801	
HUNTLEY	200	126	113	95	119	134	157	313
BLAISDON	166	100	109	126	126	83	91	152
CHURCHAM	565	87	63	83	60	55	58	327
LONGHOPE	220	112	152	139	170	158	214	470
NEWENT	1190	77	114	132	93	131	198	2354
TAYNTON	235	43	164	111	69	110	161	378
TIBBERTON	134	60	122	124	112	172	190	254
WESTBURY	1164	128	116	114	102	112	142	1651

1551 = 100

The above table shows the relative change in population size using 1551 as base equal to 100. A figure of 134 as shown for Huntley in 1779 indicates a growth of 34% while 95 shown for 1676 indicates a population 95% of the level found for 1551 viz. 190.

BAPTISMS BY LEGITIMACY IN
HUNTLEY - 1661 - 1800

DECADE	ILLEGIT- IMATE BIRTHS	LEGIT- IMATE BIRTHS	TOTAL	ILLEGIT- IMATE AS % OF TOTAL
1661-70	-	43	43	-
1671-80	1	30	31	3.2
1681-90	2	60	62	3.2
1691-1700	1	69	70	1.4
1701-10	-	80	80	-
1711-20	3	60	63	4.8
1721-30	4	55	59	6.8
1731-40	4	59	63	6.3
1741-50	4	79	83	4.8
1751-60	6	87	93	6.4
1761-70	6	64	70	8.6
1771-80	7	59	66	10.6
1781-90	16	110	126	12.7
1791-1800	10	106	116	8.6
TOTAL:	64	961	1025	6.2
AVERAGE:	4.57	68.64	73.21	

APPENDIX E

ANALYSIS OF BAPTISMS,
MARRIAGES AND BURIALS
IN HUNTLEY - 1661 - 1800

DECADE	RECORDED BAPTISMS			MARRIAGES OF PARISHIONERS			RECORDED BURIALS		
	M	F	T	M	F	T	M	F	T
1661-70	18	25	43	16	20	36	22	28	50
1671-80	14	17	31	3	5	8	12	14	26
1681-90	30	32	62	10	14	24	32	29	61
1691-1700	31	39	70	10	11	21	22	25	47
1701-10	36	44	80	6	10	16	33	31	64
1711-20	35	28	63	20	23	43	28	29	57
1721-30	35	24	59	18	23	41	44	46	90
1731-40	35	28	63	2	10	12	30	13	43
1741-50	42	41	83	12	13	25	29	27	56
1751-60	45	48	93	8	11	19	22	23	45
1761-70	39	31	70	13	18	31	20	25	45
1771-80	34	32	66	15	24	39	28	18	46
1781-90	66	60	126	20	22	42	22	37	59
1791-1800	57	59	116	13	20	33	29	23	52
TOTAL:	517	508	1025	166	224	390	373	368	741
AVERAGE:	36.9	36.3	73.2	11.9	16.0	27.9	26.6	26.3	52.9

M = MALES
F = FEMALES
T = TOTAL

ESTIMATED POPULATION IN HUNTLEY
1671 - 1801

