Exemplar Baptisms Data: Colyton*

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Introduction

This document describes some of the preliminary analysis which it would be useful to do on any of the baptisms data for the 404 parishes used in E.A. Wrigley and R.S. Schofield's book *The Population History of England 1541-1871: a Reconstruction*.[2] The parish of Colyton in Devon is used as the exemplar. Colyton was one of the first English parishes that was subjected to the serious analysis of its parish register data.[3] This paper focuses on describing the baptisms data rather than trying to relate them to other data sets, and follows closely the suggestions made in the booklet *Parish Register Aggregate Analyses*.[4]

The baptisms data

The baptisms data for Colyton are contained in the spreadsheet 'Colyton' in the folder for the county of Devon. Within the spreadsheet they are in the worksheets 'bap_year', 'bap_10', 'bap_50' and 'bap_orig'. The data for baptismal registration in Colyton cover the years 1538-1837, but there are certain years for which the data were deemed to be defective by the original researchers. These years are 1540-1543, 1554, 1645-1649 and 1723. For these years, the worksheets 'bap_year', 'bap_10' and 'bap_50' contain the corrected totals of events, and the worksheet 'bap_orig' contains the original data as taken from the register.

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2 E.A. Wrigley and R.S. Schofield, *The Population History of England 1541-1871: a Reconstruction* (Cambridge, 1989).

3 See, for example, E.A. Wrigley, 'Family limitation in pre-industrial England', *Economic History Review* 19 (1966), pp. 82-109; E.A. Wrigley, 'The changing occupational structure of Colyton over two centuries', *Local Population Studies* 18 (1977), pp. 9-21. Both these papers make extensive use of the Colyton baptism register. For a wide-ranging study of the social and demographic evolution of the parish, see P.M. Sharpe, *Population and Society in an East Devon Parish: Reproducing Colyton 1540-1840* (Exeter, 2002).

4 R.S. Schofield and A. Hinde, *Parish Register Aggregate Analyses*, 2nd edn (Alton, 2020).

It would be worth looking at the original data for years that have been corrected and comparing them with the corrected data. The methods used to make the corrections 'were designed to give reasonable results over a large number of parishes, and often represented a compromise between many conflicting considerations', so they may not be ideal for any individual parish.[5] In the case of Colyton's baptisms, the original and corrected data for the years that have been corrected are shown in Table 1.

Table 1 Original and corrected baptisms data for years that have been corrected: Colyton

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1540	4	2	4	3	0(2)	0(2)	0(3)	0(2)	0(3)	0(3)	0(3)	0(2)
1541	0(3)	0(5)	0(3)	0(3)	0(2)	2	2	2	2	2	8	0
1542	3	0(4)	0(2)	0(4)	3(4)	2(3)	0(2)	0(2)	0(4)	0(1)	0(5)	0(2)
1543	0(3)	0(5)	0(4)	1	3	1	2	2	2	3	3	5
1554	4	2	4	2	5	1	6	0(2)	1(2)	0(4)	0(2)	1(2)
1645	5	1(5)	1(6)	1(6)	0(5)	1(5)	0(4)	3(5)	1(4)	4	0	4
1646	10	3	7	2	0(6)	0(4)	3(4)	1(4)	1(4)	4(5)	0(5)	0(5)
1647	1(5)	0(5)	8	3	2	6	2	3	4	3	2	0
1648	4	1(5)	1(5)	1(5)	2(3)	3	2(3)	2(3)	1(3)	3(5)	0(3)	1(3)
1649	1(4)	6	1	3	5	2	2	6	4	3	2	2
1723	1	0(2)	0(3)	1(2)	2(3)	0(3)	0(2)	0(2)	0(3)	0(3)	0(3)	3

Note: The original totals are shown outside the parentheses. The corrected totals are in parentheses where corrections were made.

Source: Parish registers of Colyton, Devon.

Inspection of Table 1 reveals that most of the corrections involve adding baptisms to months, or runs of months, where the number of baptisms actually recorded was suspiciously low or zero. The process by which this was done is described by E.A. Wrigley and R.S. Schofield in *The Population History of England 1541-1871: a*

5 Schofield and Hinde, *Parish Register Aggregate Analyses*, p. 9.

Reconstruction.[6] It involved establishing the underlying trend in the number of baptisms over several years either side of the year(s) of defective registration.[7] This gave an estimated number of baptisms that should have taken place in each of the months for which registration was defective if the evolution of the numbers of baptisms over time had followed the trend. However, since baptisms were not evenly distributed across the months of the year, Wrigley and Schofield 'generated a set of monthly frequencies from all the parishes that were fully registered to use as a guide to [seasonal] periodical variation occurring during defective periods'.[8] The estimated values from the trend were then adjusted to allow for this seasonal variation and the results were rounded to the nearest whole baptism. A check was then made to see whether the sum of the corrected rounded monthly values came to the same total as the sum of the corrected unrounded monthly values and, if it did not, the difference 'was randomly distributed among the months comprising the defective period with a probability of selection proportionate to the number of events recorded for that month'.[9]

Seasonal indices

The spreadsheet 'Colyton' includes a worksheet 'bap_50' which is reproduced in Table 2. Baptisms were more common in the winter and spring months than in the summer. If we can assume that baptisms took place soon after births, then conceptions would, on average, have taken place around nine months before baptism.[10] Babies baptised in January would have been conceived in April, those born in February would have been conceived in May, and so on. The peak months for conception were therefore May to July, and conceptions were least common in October and November.

The biggest single value in Table 2 occurs for September in the first period. However, we should be cautious about interpreting this, as the first period only includes 12 years so the variations observed may be due to random fluctuations. In *Parish Register Aggregate Analyses*, the suggestion is made to 'apply a statistical test to evaluate the probability of a chance occurrence of an observed pattern … before

6 Wrigley and Schofield, *Population History of England*, pp. 30-2 and 705-7.
7 Wrigley and Schofield, *Population History of England*, p. 31.
8 Wrigley and Schofield, *Population History of England*, p. 31.
9 Wrigley and Schofield, *Population History of England*, p. 31.
10 The assumption that baptisms occurred soon after births is a good one for the sixteenth and seventeenth centuries, but becomes less reliable in the nineteenth century: see B.M. Berry and R.S. Schofield, 'Age at baptism in pre-industrial England', *Population Studies* 25 (1971), pp. 453-63.

Table 2 Indices of the seasonality of baptisms: Colyton 1538-1837

Period	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1538-1549	122	127	122	107	76	76	61	85	148	101	120	58
1550-1599	108	126	126	116	95	71	77	92	94	115	102	81
1600-1649	104	130	130	121	100	85	67	82	100	93	89	102
1650-1699	96	117	118	129	118	96	99	85	86	75	87	95
1700-1749	95	126	133	131	108	99	77	75	90	83	86	99
1750-1799	126	119	102	110	117	97	86	84	94	69	98	99
1800-1837	122	125	114	97	92	118	88	75	101	76	93	101

Note: The numbers in this table give the number of baptisms in that month in the relevant period as a percentage of the 'uniform daily rate', which is the number of baptisms we should expect in that month in the relevant period if baptisms were uniformly distributed across the calendar year. The details of the method of calculation are given in R.S. Schofield and A. Hinde, *Parish Register Aggregate Analyses*, 2nd edn (Alton, 2020), p. 14.

Source: Parish registers of Colyton, Devon.

embarking on finding any explanations'.[11] One test suggested there is the Kolmogorov-Smirnov test, which 'can be used to evaluate a single distribution against the hypothesis of "no seasonality" '.[12]

We can illustrate the use of the Kolmogorov-Smirnov test using the baptisms data from Colyton for the period 1550-1599. To perform the test we need to calculate the following for each month of the year during the period:

(1) the probability that a baptism would happen on or before the last day of each month using the actual distribution;
(2) the probability that a baptism would happen on or before the last day of each month under the null hypothesis of 'no seasonality';
(3) the total number of baptisms in the period.

11 Schofield and Hinde, *Parish Register Aggregate Analyses*, p. 14.
12 Schofield and Hinde, *Parish Register Aggregate Analyses*, p. 14.

We can calculate (1) and (3) from the worksheet 'bap_10' by adding up across the five decades of the 1550s, 1560s, 1570s, 1580s and 1590s (see Table 3). The total number of baptisms in the period is 1,913. There were 175 in January, 186 in February, 204 in March and so on. The number of baptisms occurring before the end of January is just 175, the number of baptisms in January. The number of baptisms occurring before the end of February is 175 + 186 = 361, the number of baptisms in January plus the number of baptisms in February. We can calculate the number of baptisms occurring before the end of each subsequent month in a similar manner. Finally, we calculate the probability of a baptism occurring before the end of each month by dividing these numbers by 1,913 (the total number of baptisms). All these calculations are shown in Table 3.

To calculate (2) we need first to distribute the observed number of baptisms across the months of the year assuming a uniform distribution. If the average year has 365.25 days, and there are a total of 1,913 baptisms, then the number of baptisms in each month is equal to 1,913 x (the number of days in the month divided by 365.25). For January, this will be 1,913 x 31/365.25 = 162; for February it will be 1,913 x 28.25/365.25 = 148 (rounding to the nearest whole number in each case). We then calculate the number of baptisms occurring before the end of each month by cumulating these monthly totals up to and including the month in question, and compute the probabilities by dividing these cumulative numbers by 1,913.

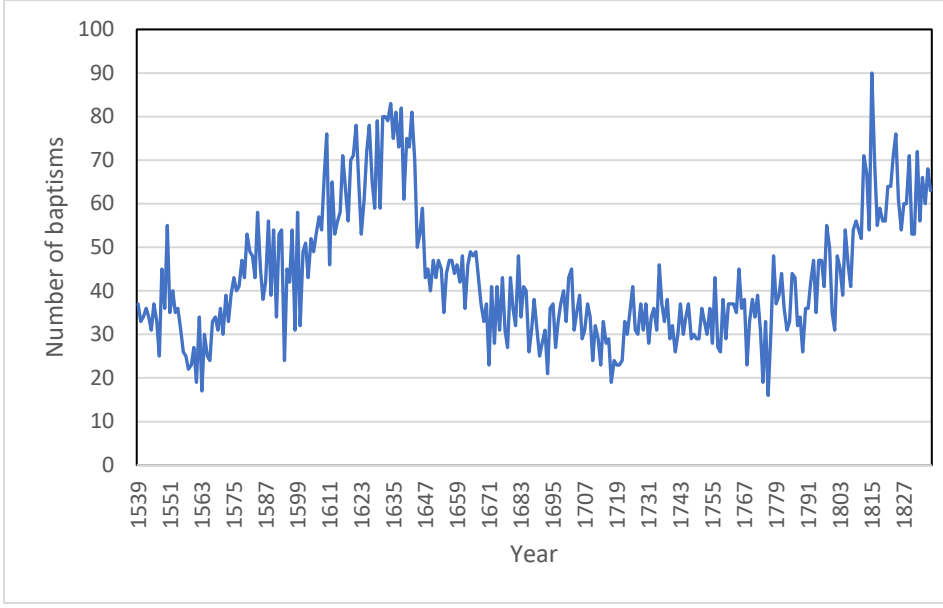
The final stage in the application of the Kolmogorov-Smirnov test is to calculate the difference between the two probabilities for each month using the observed data and the null hypothesis of 'no seasonality'. These differences are shown in the last row of Table 3. For January the difference is 0.007, for February 0.027, and so on. The largest difference occurs for April at 0.062. Are any of these differences statistically significant? Another way of putting this is to ask: what is the chance that we would obtain differences between the observed data and the 'no seasonality' distribution as big or greater than these if the long-run seasonal pattern really were uniform and the differences were just generated by random fluctuations? The Kolmogorov-Smirnov test enables us to quantify this. The test looks at the month with the largest difference in the two probabilities. If this largest difference is greater than 1.36 divided by the square root of the total number of baptisms used in the calculation, then the chance of getting a difference as large as this were baptisms uniformly distributed across the year is less than 1 in 20. If the largest difference is greater than 1.63 divided by the square root of the total number of baptisms used in the calculation, then this chance is less than 1 in 100. Using the results in Table 3, the largest difference in the probabilities is for April at 0.062. If we divide 1.63 by the square root of 1,913 we obtain 0.037. Since 0.062 is greater than 0.037 we conclude that the chance of obtaining the data we have if the null

Table 3 **Application of the Kolmogorov-Smirnov test to the baptism data for Colyton 1550-1599**

Quantity calculated	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Observed number of baptisms	175	186	204	183	154	111	125	149	147	187	160	132
Observed number by the last day of each month	175	361	565	748	902	1,013	1,138	1,287	1,434	1,621	1,781	1,913
Number of baptisms assuming uniform distribution	162	148	162	157	162	157	162	162	157	162	157	162
Number by the last day of each month assuming uniform distribution	162	310	472	629	792	949	1,111	1,274	1,431	1,593	1,750	1,913
Probability of baptism happening by the last day of each month using observed data	0.092	0.189	0.295	0.391	0.472	0.530	0.595	0.673	0.750	0.847	0.931	1.000
Probability of baptism happening by the last day of each month assuming uniform distribution	0.085	0.162	0.247	0.329	0.414	0.496	0.581	0.667	0.748	0.833	0.915	1.000
Difference between probabilities	0.007	0.027	0.048	0.062	0.057	0.033	0.014	0.007	0.002	0.014	0.016	0.000

Note: The numbers presented here have been rounded to the nearest whole number for baptisms, and to three decimal places for probabilities.

Figure 1 Annual baptism totals: Colyton 1539-1837



Source: Parish registers of Colyton, Devon.

hypothesis were true is less than 1 in 100. Therefore it is highly likely that the number of baptisms in Colyton really did vary systematically from season to season during the period 1550-1599. Similar calculations could be done for the other periods.

Trend in baptisms over time

A most useful initial piece of analysis is to plot the corrected annual totals of baptisms for the period in question, in this case 1538-1837. However it seems sensible to omit the year 1538 as the register started part of the way through that year. The annual baptismal totals for the years 1539-1837 are shown for Colyton in Figure 1.

The number of baptisms increases steadily from the 1560s to the 1640s. It then declines precipitously by just under 50 per cent before declining further and levelling off in the 1670s for about a century. In the 1770s the annual number of baptisms starts to increase again, reaching a peak in the second decade of the nineteenth century.

In *Parish Register Aggregate Analyses* the authors suggest that

> [s]ince, for many purposes, what is at issue is not the absolute size of a fluctuation in a series, but its magnitude relative to the number of events normally being registered at that time, it is helpful to graph using a logarithmic vertical scale. This has the advantage of making equal proportionate fluctuations in the series diverge by the same vertical distance from the prevailing level of the series regardless of how high or low the latter many be. In this way the eye can pick out the major fluctuations quite easily.[13]

The Colyton baptism series is plotted on a logarithmic scale in Figure 2. The variation across time follows broadly the same pattern as in Figure 1. However the fluctuations from year to year in the periods when the number of baptisms was large (such as 1610-1650 and 1800 onwards) are reduced in magnitude compared with Figure 1, whereas the year-on-year variability in years when the number of baptisms was smaller (such as 1670-1780) is enhanced.

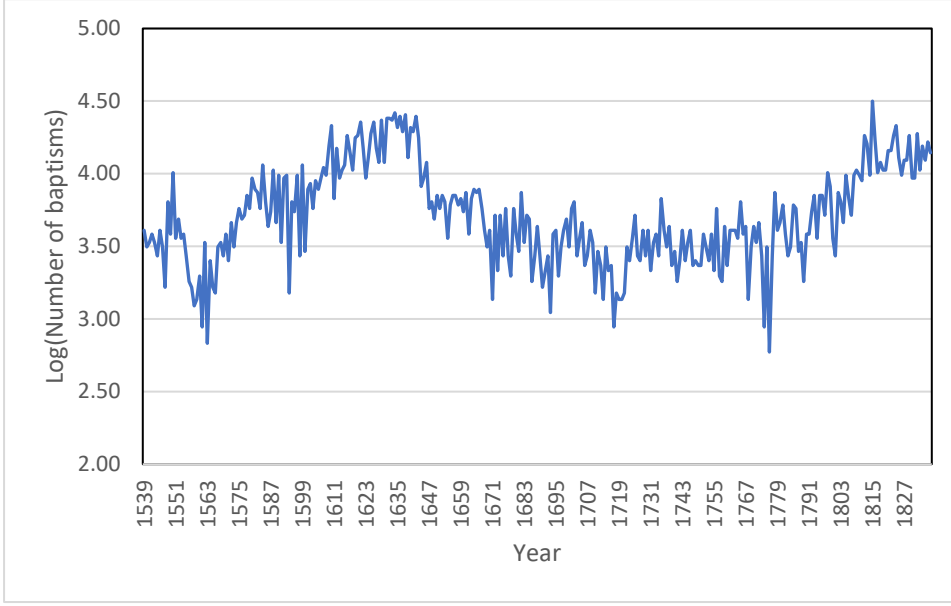
The fluctuations in the number of baptisms from year to year make it harder to visualise the underlying trend. One way to extract the trend is to calculate a *moving average*. The moving average for a given year is calculated by using the average of the number of baptisms in a range of years centred on the year in question. In *Parish Register Aggregate Analyses* an 11-year moving average is suggested consisting of the given year and the five years either side, that is a 'window' of 11 years.[14] The longer the window used, he smoother the resulting series. There is a balance to be struck between using a window long enough to remove 'random' fluctuations and highlight the underlying trend, but not using a window so long that it hides medium-term changes that might be of substantive interest. There is also the problem that it is not possible to compute a moving average for the years at either end of the series. With an 11-year moving average we 'lose' five years at either end; with a 25-year moving average we lose 12 years at either end.

Figure 3 shows the original baptism series for Colyton with an 11-year and a 25-year moving average superimposed. The 25-year moving average smooths away all short-term and medium-term fluctuations, leaving only the long-run trend of a rise in the annual number of baptisms from the 1550s to the 1620s followed by a decline, a bottoming-out around 1710-1719 and then an increase from about 1780 to about 1820. The 11-year moving average reveals the same pattern, but also highlights some nuances, such as the pause in the increasing trend during the 1590s

13 Schofield and Hinde, *Parish Register Aggregate Analyses*, pp. 14-15.

14 Schofield and Hinde, *Parish Register Aggregate Analyses*, p. 15.

Figure 2 **Annual baptism totals: Colyton 1539-1837 plotted on a logarithmic scale**



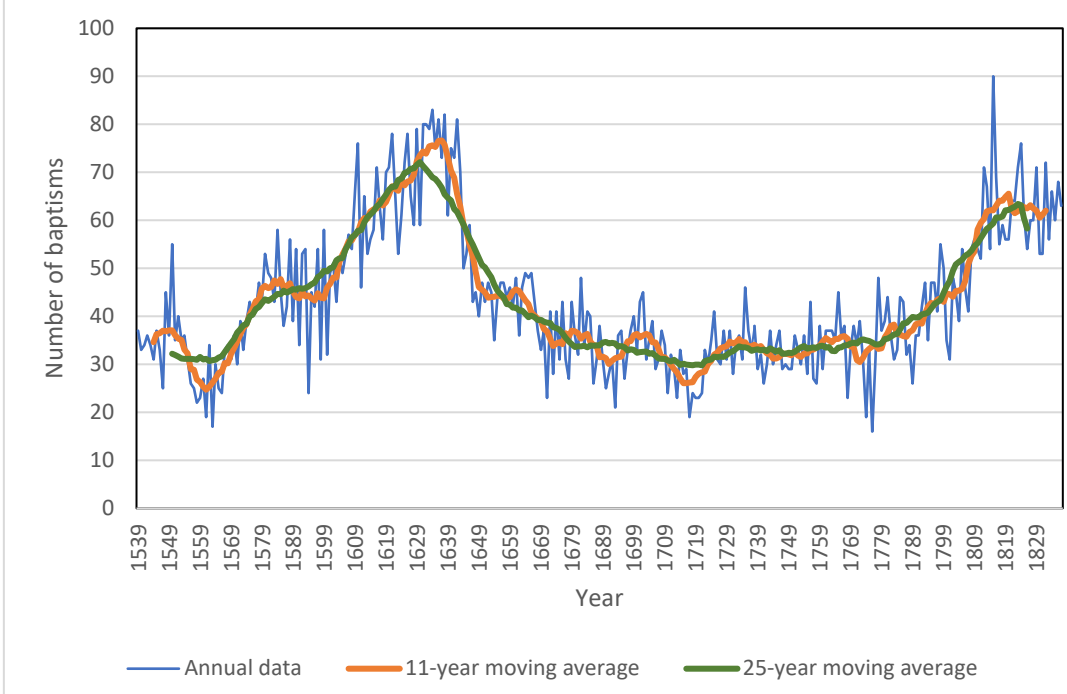
Note: The logarithm used here is the natural logarithm, or the logarithm to the base *e*.

Source: Parish registers of Colyton, Devon.

Overall, it seems that the 11-year moving average is a good compromise in this example.

This analysis suggests that there must have been a number of phases within Colyton's population history that are reflected in these patterns, but it does not provide definitive answers as to what might have characterised these phases. One possibility is that there was population growth until around 1640, then some dramatic population decline in the 1640s which was followed by stability until 1780 and then the resumption of growth. Another is that there was a major increase in nonconformity in Colyton around the time of the English Civil War, which resulted in a big decline in the proportion of births leading to baptisms in the Church of England. One purpose of this kind of preliminary descriptive analysis is to indicate where the efforts needed to explain these patterns should be directed.

Figure 3 **Colyton baptisms 1539-1837: original data and moving averages**

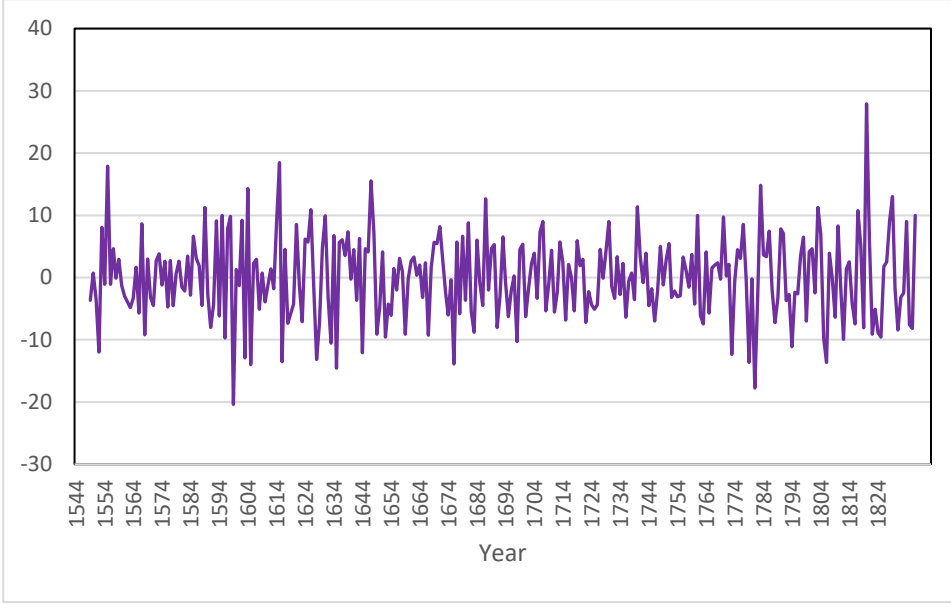


Source: Parish registers of Colyton, Devon.

Figure 4 plots difference between the original figures in the series and the 11-year moving average. This is a measure of the size of the fluctuations in the annual data. The fluctuations appear to be rather larger between around 1580 and 1650 and after 1770 than in the intervening period, although it is hard to assess this visually and, as it turns out, a visual inspection of Figure 4 can be slightly misleading. This is revealed by a comparison of the variability by quarter-century, effected by calculating the mean absolute percentage deviation from trend, something which is achieved by adding together the individual annual percentage deviations from trend in each quarter-century, treating negative deviations as if they were positive, and dividing by the total number of years for which the adding up has been done.[15] Table 4 shows the outcome. The variability of the baptism series is actually lower between 1600 and 1674 than during the periods either side. The explanation for

15 Schofield and Hinde, *Parish Register Aggregate Analyses*, p. 15.

Figure 4 **Deviation of annual data from 11-year moving average: Colyton baptisms 1544-1832**



Source: Parish registers of Colyton, Devon.

the difference between the numerical results in Table 4 and the visual inspection of Figure 3 is that, between 1600 and 1674, although there were individual years with large deviations, which loom large visually in Figure 3, there were also a higher proportion of years with small deviations than there were in the periods either side, and these small deviations reduce the mean percentage deviation.

Comparison with other parishes and regions and with national trends

We can compare the figures in Table 4 with similar figures for the baptisms in other parishes or other regions. For example, the corresponding mean absolute percentage deviation for the baptisms in certain parishes in Morley wapentake in the West Riding of Yorkshire in the quarter century 1550-1574 was 7.2 per cent; in the following quarter-century it was 8.8 per cent and in the quarter-century 1600-

1624 it was 6.5 per cent.[16] In Leeds parish in the period 1600-1624 the mean absolute percentage deviation was 8.5 per cent.[17] Both Morley wapentake and Leeds parish were substantially larger than Colyton: Morley wapentake had around 500 baptisms per year in the 1540s and around 1,000 in the 1630s. Leeds parish had about 200 baptisms per year in the 1580s rising to over 400 in the 1630s. Generally speaking, we should expect the percentage variability over time in the number of baptisms to be lower in larger populations, and this is what we find. It is interesting to note, though, that the rank ordering of the mean absolute percentage deviation in the three quarter-centuries 1550-1574, 1575-1599 and 1600-1624 is the same in Morley wapentake and Colyton.

Table 4 **Mean absolute percentage deviation from 11-year moving average trend by quarter-century: Colyton baptisms 1550-1824**

Quarter century	Mean absolute percentage deviation from 11-year moving average trend
1550-1574	13.5
1575-1599	14.9
1600-1624	10.8
1625-1649	10.2
1650-1674	10.4
1675-1699	14.6
1700-1724	13.5
1725-1749	11.0
1750-1774	13.4
1775-1799	15.7
1800-1824	13.2

Source: Parish registers of Colyton, Devon.

16 The data for Morley wapentake are contained in M. Drake, 'An elementary exercise in parish register demography', *Economic History Review* 14 (1962), pp. 427-45, here at pp. 438-41.

17 Leeds parish was close to, but not part of, Morley wapentake: for the Leeds data see Drake, 'An elementary exercise', pp. 438-41.

Table 5 **Years in which the greatest percentage deviations from a 25-year moving average are observed for the national birth rate compared with corresponding deviations in the Colyton baptism series**

	Year	Annual percentage deviation above or below moving average	
		National birth rate	Colyton baptisms
Above	1564-1565	18.4	-42
	1562-1563	18.0	-13
	1640-1641	11.5	11
	1550-1551	11.0	13
	1588-1589	10.5	12
	1642-1643	10.3	26
	1655-1656	10.3	-2
	1686-1687	10.1	-3
	1599-1600	9.7	-2
	1620-1621	9.6	15
Below	1557-1558	-25.8	-20
	1559-1560	-22.6	-15
	1728-1729	-18.7	-27
	1597-1598	-17.7	-21
	1649-1650	-17.0	-22
	1658-1659	-16.7	2
	1623-1624	-13.5	-19
	1556-1557	-12.8	-24
	1710-1711	-12.7	4
	1741-1742	-12.4	-21

Sources: Parish registers of Colyton, Devon; E.A. Wrigley and R.S. Schofield, *The Population History of England 1541-1871: a Reconstruction* (Cambridge, 1989), p. 324.

In *The Population History of England*, Wrigley and Schofield identified the 20 years in which the annual percentage deviation of the national birth rate above or below a moving average was the greatest.[18] There is a complication here, in that, when they drew up this list, Wrigley and Schofield used years running from 1 July – 30 June, as these were felt to be more appropriate for comparison with fluctuations in the standard of living, so that to effect a valid comparison we need to compute the numbers of baptisms for Colyton for years defined in a similar way. This is straightforward to do using the original baptisms data.[19] Table 5 shows the ten years for which the percentage deviations above and below the national 25-year moving average birth rate were greatest, and gives the corresponding percentage deviations for the baptism series for Colyton (using a 25-year moving average).

Some readers will be familiar with some of the years for which the greatest deficiencies of births were observed: 1556-1557, 1557-1558 and 1559-1560 were years within the greatest demographic crisis of the early modern period. The year 1728-1729 was in the middle of the second greatest such crisis.[20] Other notably difficult years were 1597-1598 and 1623-1624.[21]

However, even a cursory inspection of the top panel of Table 5 reveals that there was very little correspondence between the excess or deficit in Colyton and in England as a whole in years when the national excess of births was greatest. Indeed in five of these years, Colyton had an excess of baptisms, and in the other five Colyton had a deficit. There is a much closer correspondence between Colyton's experience and the national experience in the years in which births were, nationally, furthest below trend. In eight of these years Colyton also had a substantial deficit of baptisms.[22]

Finally in this section we can compare the pattern of baptisms over time in Colyton with that in England as a whole. Here we use the estimated number of baptisms in England and Wales rather than the estimated number of births, so that

18 Wrigley and Schofield, *Population History of England*, p. 324. .

19 All the calculations carried out in the paper are reproduced in the Excel spreadsheet 'Colyton PLUS baptisms' in the worksheet 'bap_year', save the calculations for the Kolmogorov-Smirnov test, which are in the worksheet 'bap_10'. Readers are invited to follow the calculations by using for formulae embedded in these spreadsheets.

20 On the crisis of 1727-1731 in Bedfordshire and Surrey respectively, see P. Schoon, 'The Bedfordshire demographic crisis of 1727-1731: some evidence of differentiated socially selective mortality', *Local Population Studies* 107 (2021), pp. 40-67; and S. Jones, 'The 1727-1731 demographic crisis in non-metropolitan Surrey', *Local Population Studies* 108 (2022), pp. 68-78.

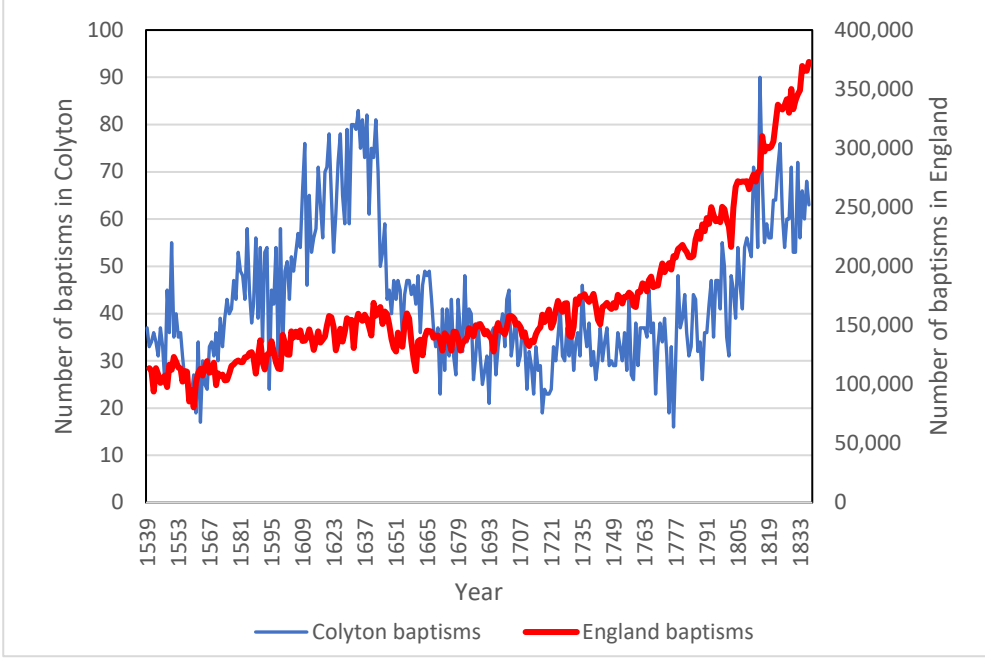
21 See A.B. Appleby, *Famine in Tudor and Stuart England* (Liverpool, 1978).

22 It should be borne in mind that here we are comparing deviations in the number of *baptisms* in Colyton with deviations in the number of *births* at the national level. If there were changes over time in the proportion of births being baptised in Colyton this would distort the comparison.

we are comparing like with like. Figure 5 shows the number of baptisms in Colyton each year from 1539 to 1837 plotted on the left-hand axis and the number of baptisms in England and Wales, plotted on the right-hand axis. Figure 6 shows the Colyton and whole of England series plotted on a logarithmic scale. For convenience, we have used two different scales, one for Colyton on the left-hand axis and a second for England as a whole on the right-hand axis.

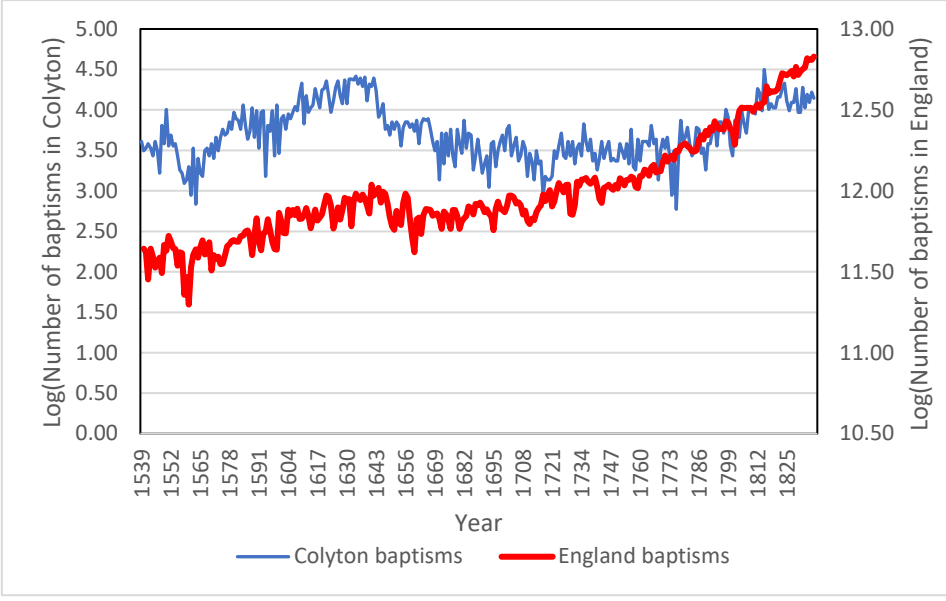
It is convenient to interpret these in two periods: 1539 to about 1700, and around 1700 to 1837 and to take the more recent period first. During the

Figure 5 **Annual baptism totals: Colyton 1539-1837 and estimated annual baptism totals: England 1539-1837**



Source: Parish registers of Colyton, Devon; E.A. Wrigley and R.S. Schofield, *The Population History of England 1541-1871: a Reconstruction* (Cambridge, 1989), pp. 537-44.

Figure 6 **Annual baptism totals: Colyton 1539-1837 and estimated annual baptism totals: England 1539-1837 plotted on a logarithmic scale**



Source: Parish registers of Colyton, Devon; E.A. Wrigley and R.S. Schofield, *The Population History of England 1541-1871: a Reconstruction* (Cambridge, 1989), pp. 537-44.

eighteenth and early nineteenth centuries the number of baptisms in England rose from about 150,000 to over 350,000. In Colyton the increase was of a similar order of magnitude but slightly less dramatic, from around 35 per year to around 65 per year, and took place later, not beginning until the second half of the eighteenth century. It is clear that most of the increase in the national total of baptisms derived from increasing population (more women being in the population to produce children), but that some was due to an increased number of children per woman.[23] For Colyton we do not have reliable population data before 1801, but we know that the population of the parish increased from 1,641 in 1801 to 1,774 in 1811,

23 See A. Hinde, *England's Population: a History since the Domesday Survey* (London, 2003), pp. 177-91.

1,945 in 1821, 2,182 in 131 and 2,451 in 1841.[24] The increase in population from 1801 to 1831 was thus almost 33 per cent, and the increase in the number of baptisms over the same period was about 35 per cent. It is therefore possible that the entire increase in the number of baptisms in Colyton over this 30-year period was due to the rise in the population of the village.

In the earlier period the trends in baptisms in Colyton were rather different from those in England and a whole. Baptisms rose in both Colyton and England between the 1560s and the 1630s before falling. The rise and subsequent fall were proportionately greater in Colyton than in England as a whole. After the Civil War the number of baptisms in Colyton continued to decline until the second decade of the eighteenth century, whereas in England an increase resumed with the Restoration. The difference in the temporal pattern between Colyton and England as a whole can only be understood by looking at the specific context of Colyton, for example whether there were likely to have been changes in the completeness of registration in the parish, or whether the base population in Colyton might have shown trends different from those in the country as a whole. A major reason for making the comparison between Colyton and the whole of England is to highlight features of the Colyton experience which were different from that in the country as a whole.

Conclusion

This short paper has illustrated the baptisms data in the file 'Colyton' and suggested some initial analyses which should be done before using the data to address more substantive questions about, for example, the association between demographic change and economic and social change in the parish. The analyses are generally straightforward and they are contained in the spreadsheet 'Colyton PLUS baptisms', which readers of this paper could study for further details. The spreadsheet 'Colyton PLUS' also includes the data for Morley wapentake, Leeds parish, and the national series for England which are used in this paper.

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24 Census of Great Britain, 1851, *Population tables, I. Number of the inhabitants in 1801, 1811, 1821, 1831, 1841 and 1851. Vol. I*, British Parliamentary Papers 1852-53 LXXXV (C. 1631), p. 40.