

ART. XIII.—*Some population problems relating to
Cumberland and Westmorland in the 18th century.*
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THOUGH at first the interests of the statistician may appear to be far removed from the pursuits of the antiquary, it becomes evident on reflection that any study of communities, in Cumberland and Westmorland as elsewhere, and in the past as in the present, must take account of numbers. It is important for us to know, so far as we can, how many people lived in these counties, how they were distributed, and how, from time to time, they increased or decreased. We cannot, it is true, expect certainty on such matters before the 19th century; but with regard to the 18th, and, to some extent, earlier centuries, we may estimate probabilities and, by considering them, we may the better understand social and other changes in Cumberland and Westmorland. The purpose of this paper is to suggest what light may be expected from a study of parish registers.¹ These have, as is well known, their defects; but to some extent those can be overcome and, in any event, the registers being almost all the evidence available, we have no choice between

¹ To obviate repeated reference, it may be stated here that all the parish registers coming down to 1812 which have been published on behalf of the Parish Register Section of this Society have been used as well as two published otherwise, namely Mary E. Noble, *The Registers of the Parish of Askham* (London and Derby, 1904) and Rev. J. Thornley, *The Ancient Church Registers of the Parish of Kirkoswald* (Workington, 1901). In addition, the registers of the following parishes have been examined: Bootle, Corney, Drigg, Eskdale, Muncaster, Thwaites, Ulpha, Waberthwaite, Whitbeck, Witherslack, Nether Wastdale and Wastdale Head, and the author desires to record his gratitude for his courteous and hospitable reception by the then incumbents, Rev. J. B. Airton, Rev. A. G. W. Dixon, Rev. F. A. R. Hevey, Rev. M. K. Hodges, Rev. E. A. Owens, Rev. F. Parminter, Rev. J. M. Pedder, Rev. B. S. W. Simpson, Rev. S. J. Squires, and Rev. J. S. Whineray. He should also acknowledge the receipt of a grant towards the expenses made from the Douglas Knoop Research Fund by the University of Sheffield. He has had the benefit of helpful comment by his colleague, Mr D. G. M. Dossier of the University of Sheffield, and Dr J. D. Marshall.

abandoning the enquiry or making the best use we can of them so far as they will take us.

I.

Our first task, in order to trace population changes during the 18th century, is to arrive at some idea of how many inhabitants the two counties had in 1700; and we may start with a calculation according to the method used by an expert, Rickman, and indicated in the preface to the fourth Census, 1831. He there sets out a table giving numbers which, if used to multiply the average numbers of baptisms, burials and marriages, yield an estimate of total population.² Taking from the first

County	1796-1800			1806-1810			1816-1820			1826-1830		
	Bap.	Bur.	Mar.									
Cumberland	. 38	54	145	34	52	132	32	54	151	32	54	163
Westmorland	. 35	50	142	31	53	137	33	52	149	32	56	162
Lancaster	. 34	47	114	28	49	115	31	51	116	34	46	115

Bap. = Baptisms. Bur. = Burials. Mar. = Marriages.

Census, 1801, the average number of baptisms for Cumberland, which amounted to 1581 for the decade ending in 1700, and using Rickman's multiplier, which was 38, we arrive at the figure of 60,078 as the population of the county at the beginning of the 18th century. This result may be compared with another, arrived at by adding up the figures for each parish given by Thomas Denton, Recorder of Carlisle, in his survey made about 1688.³ The total comes to 67,185. Two points should be noted about the difference, of 7,107, between these two. First, the data of 1801 were obtained from 131 parishes and chapelries, no return having been received from four parishes, so that the total of 60,078 is probably on the low side. Secondly, since Denton's figure for each parish ends in either 5 or 0, his survey is probably based on the number of families and assumes 5 persons to each

² "Corrected Table of the Annual Proportion of Baptisms, Burials and Marriages to the Population of England; calculated upon an average . . . in the Five Years preceding the several Enumerations".

³ It has not been possible to examine the MS. The figures are printed in Daniel and Samuel Lyson's *Magna Britannia* iv Cumberland (1816).

family on the average. That is, perhaps, on the high side, and if we assume an average family of $4\frac{1}{2}$ persons, the result would be 60,466. On the whole, and without relying unduly on the calculation indicated above, we may perhaps reasonably conclude that Cumberland in 1700 had somewhere between 60,000 and 65,000 inhabitants.

Its population in 1801 was returned at 117,230. During the 18th century, therefore, there had been an increase of between 52,000 and 57,000, or about 80% at the least. In order, however, to avoid whatever possibility of exaggeration may be latent in the method of calculation adopted, it may be prudent to take Denton's figure for 1688 and the Census figure for 1801 and say that in this period of 113 years the Cumberland population increased by just over 50,000, or about 74.5%.

For Westmorland we have no equivalent of Denton's survey but there is one check, of a kind, on a calculation based on baptismal figures. The data collected from 60 parishes and chapelries⁴ give 786 as the average yearly number of christenings about 1700, and, using Rickman's multiplier for the county, namely 35, we arrive at a figure of 27,510 for the population in 1700, though something should, no doubt, be added to that on account of the 19 parishes from which no returns were received. In default of any better check, the number of houses in the county in 1690 may be used; that, multiplied by $4\frac{1}{2}$, would give, in round numbers, 30,000 as the population towards the end of the 17th century.⁵ In 1801 it was 40,805, so that the increase in about 110 years was, on this computation, approximately 36%.

Two observations may be made on the estimates so far ventured. First, there is the marked difference between the two counties, which, perhaps, reflects a difference in economic development. Westmorland, except for its

⁴ *Abstract of the Answers and Returns . . . pursuant to 41 George III; Parish Registers*, p. 324.

⁵ Gregory King put the number of houses in Westmorland in 1690 at 6,691; Houghton put it at 6,501.

textile industries, largely domestic, was almost entirely agricultural and pastoral. It had, in 1801, only four towns with populations over 1,000, namely Appleby, Kirkby Stephen, Kirkby Lonsdale and Kendal. Kirkby Lonsdale had just over 1,280 but the only really populous place was Kendal, with 7,978. Cumberland, on the other hand, with mining, metallurgical and other industries and shipping, had Penrith with more than 3,000 inhabitants, Maryport and Cockermouth just under 3,000, Carlisle with 10,221, Workington with 5,716 and especially Whitehaven. In 1633, we are told,⁶ that town "consisted of nine or ten thatched cottages . . . in 1693 there were 450 families here, consisting of 2,272 inhabitants . . . now upwards of 16,400."

The second observation is that the rate of increase in Cumberland was greater than that in England and Wales as a whole. The conventional estimate for 1695 is about 5½ millions; the 1801 Census, corrected, showed the population as just over 9 millions, a growth of 63.6%. If we take Cumberland and Westmorland together, the increase was about the same, a little over 65%.

II.

This growth was far from uniform geographically and the phenomenal increase in some places, such as Whitehaven, was very probably offset in part by a decrease in others. A comparison of the Denton survey with the 1801 Census shows a fall, amounting in the aggregate to more than 5,000 persons,⁷ in 36 Cumberland parishes. These can be grouped in four areas: (a) the west Cumberland region stretching from the neighbourhood of Millom to that of St. Bees and Egremont;⁸ (b) the Carlisle region;⁹

⁶ *Hutchinson* ii 49.

⁷ If, as is possible, Denton assumed five persons to an average family, perhaps this aggregate should be reduced by 500 or more.

⁸ Bootle, Corney, Waberthwaite, Whicham, Whitbeck, Arlecdon, Drigg, Hale, Irby, Isel, Lamplugh, Muncaster, Ponsonby, Plumland, St. John's, Torpenhow and Uldale.

⁹ Crosby, Grinsdale, Holm Cultram, Kirkandrews on Eden, Kirkbride and Thursby.

(c) the Penrith region;¹⁰ and (d) the Alston region.¹¹ It is, therefore, possible that a decline in these 36 parishes, if decline there was, resulted from an emigration to industrially expanding centres not too far away.

Two questions arise directly, in connection with their registers, with regard to these 36 parishes; first, whether the registers do in fact indicate a fall in population, and, secondly, whether the fall was as great as the Denton figures suggest. No full answer is possible until the registers of all 36 parishes have been examined, but in the meanwhile evidence may be examined relating to four of them, Whicham, Whitbeck, Waberthwaite and Lampugh. For that purpose a multiplier is used but not that suggested by Rickman for the county in general. Instead there is here used a separate multiplier for each parish, arrived at by dividing the population figure for 1801 by the average annual number of baptisms during the decade 1790 to 1799. By that arithmetical process the following table is constructed.

Estimated Population.				
Years.	Whicham.	Whitbeck.	Waberthwaite.	Lampugh.
1680	287	—	437	—
1690	347	—	412	—
1700	343	238	445	399
1710	255	203	382	367
1720	248	183	277	270
1730	173	191	—	299
1740	230	191	—	348
1750	241	211	—	348
1760	205	156	—	322
1770	234	117	—	367
1780	290	164	—	377
1790	223	172	—	399
1800	230	179	151	535

The table shows for Whicham a decline between 1690 and 1800; for Whitbeck, a marked decline after 1700;

¹⁰ Edenhall, Greystoke, Hutton, Melmerby, Newton, Ousby and Great Salkeld.

¹¹ Castle Carrock, Croglin, Cumrew and Renwick.

for Waberthwaite, a very great decline between 1680 and 1800; and for Lamplugh a downward tendency between 1700 and 1780. There is other evidence to suggest that in the late 18th century two of these parishes were not flourishing. Waberthwaite, which had been fever-ridden, is said to have had a population of 134 in 1791¹² and the same author reported in Whitbeck "ten houses fallen to ruin within 20 years — Several uninhabited."¹³ Because of gaps in the register it is not possible to estimate the population of Lamplugh between 1660 and 1700, but the method hitherto used would lead to the conclusion that the parish was more populous in the first half of the 17th century than in the first half of the 18th. On the whole, and without basing too much on the multiplier method, we may conclude that population did decrease in these four parishes, though the estimates suggested for 1690 do not accord with Denton's figures.

There is ground for believing that in Westmorland, too, there were parishes which showed the same tendency. Calculations of the kind already described lead to the conclusion that in at least six of the parishes whose registers have been examined the number of inhabitants at the end of the 18th century, or at some point in the second half of that century, was smaller than it had been in the late 17th century. Askham may be estimated to have contained about 360 people in 1690, after which the number tended downwards until 1770, when it reached 373. Brougham possibly had about 200 inhabitants in the period 1680-1720; in 1801 it had only 167. Cliburn, similarly, with an estimated population of 200 to 250 in the late 17th century, had only 157 according to the first Census.¹⁴ In Crosby Garrett the difference was smaller, between an estimated 251 in 1690 and 245 in 1801.¹⁵

¹² *Hutchinson* i 563.

¹³ *Ibid.* i 553.

¹⁴ Its estimated population works out as follows: in 1610, 476; in 1620, 551; in 1630, 476; in 1640, 628; in 1650, 444.

¹⁵ Its estimated population in 1750 works out at 123. It is said to have contained 30 families, i.e. about 135 people, in 1747.

Crosby Ravensworth, which may have had over 1,000 inhabitants in 1690, had 789 in 1801. In Crosthwaite cum Lyth, as in Crosby Garrett, there was perhaps less difference — 554 inhabitants in 1680 and 509 in 1801 — but it is possible that its population in 1670 was over 600.

III.

The considerations so far advanced make it likely that, despite losses in some parishes, Cumberland and Westmorland shared in what has been called the "demographic upsurge" of the 18th century and may, indeed, have been typical of the country as a whole. It has now to be considered whether they were typical in a particular respect, i.e. whether there was any marked difference, in their case, between the two halves of that century. In England and Wales as a whole, it is believed, population grew much more rapidly after 1750 than before, rising from about 6 millions to about 9, an increase, in round figures, of 50%, whereas the rise between 1695 and 1750 had been about 27%.

It might be thought that an answer to this question could be sought by applying a multiplier to the figures, based on parish registers, given in an appendix to the 1801 Census. It seems preferable, however, to have recourse to that method only when no other is possible,¹⁶ and in this instance there is another way, applicable to a fairly large part of Cumberland and, to a lesser extent, to Westmorland. The method is to compare Denton's figures for 1688 and those of the Census for 1801 with an enumeration, contained in a manuscript of Chancellor John Waugh's, of families in 1747 (near enough for our purposes to 1750) in each parish of the diocese of Carlisle as it then was. The enumeration does not, therefore, in-

¹⁶ It sometimes gives obviously impossible results. For instance, the average number of baptisms in 60 Westmorland parishes and chapelries in the decade 1790-99, calculated from the figures in the Parish Register Abstract, 1801 Census, was 1,204. This, by Rickman's multiplier, would give 42,140 as the aggregate population of those parishes at a time when the population of the whole county was only about 40,805.

clude those parts of the two counties, such as the areas of Whitehaven, Millom, Kirkby Lonsdale and Kendal, which were then in the diocese of Chester. It does include 71 Cumberland parishes, whose population in 1747, assuming $4\frac{1}{2}$ persons to a family, comes to 48,501. The population of the same parishes in 1801 was 71,087 and the increase, therefore, was 22,586, or over 46.6%.

The Waugh survey can also be used for part of the neighbouring county, the Deanery of Westmorland. The 24 parishes for which evidence is available are estimated to have contained 14,846 persons in 1747 and are recorded as having 15,924 inhabitants in 1801. Thus the increase, 1,078, was only about 7.3%. For the county as a whole it may have been a good deal more. Kendal, for instance, was growing rapidly in the late 18th century; its population is said to have increased from 7,571 to 8,089, a rise of 6.8%, between January 1784 and July 1795.¹⁷

Provisionally, then, it may be concluded that during the second half of the 18th century a considerable part of Cumberland was increasing in population at least as rapidly as the country in general,¹⁸ but that the Deanery of Westmorland, and probably the whole county, lagged behind. It remains to be considered what happened in the first half of that century, or at any rate what happened in Cumberland, for as yet there seems to be no way to answer the question very confidently for Westmorland.

With regard to Cumberland an estimate may be reached by comparing, for the 71 parishes mentioned, the figures in Denton's survey of 1688 with those in Waugh's for 1747; but to make the figures properly comparable Denton's should probably be reduced by one-tenth, to accord with an average of $4\frac{1}{2}$ instead of 5 persons

¹⁷ Eden, *State of the Poor* iii 750-1; J. Housman, *Topographical Description of Cumberland, etc.* (Carlisle, 1800) 235.

¹⁸ This was not so according to E. C. K. Gonner (*Common Land and Enclosure*, p. 448) who estimated the increase of the Cumberland population between 1750 and 1800 at 34.6%, as compared with 48% in Derbyshire, 53.6% in Nottinghamshire, 65.8% in Cheshire, 73% in the West Riding and 97% in Lancashire. The Westmorland population, according to him, increased by 7.8% in the same period.

per family. That done, the result is: population of the 71 parishes in 1688 — 39,093; in 1747 — 48,501. The increase, of 9,408, is about 24.1%. On this basis, then, it would appear that this part of Cumberland was growing in population at a rate about equal to one half (or, to be precise, 51.7%) of the rate of increase after 1750. Without relying too much on the figures just suggested, we may reasonably conclude that the rise in the Cumberland population was a good deal more marked in the second than in the first half of the 18th century.

IV.

Assuming that the account so far given is right, if not in detail at least with regard to the general tendency, we may consider how far, and in what ways, the trend can be explained. That is a matter on which, in regard to England and Wales in general, there is much difference of opinion.¹⁹ It is, of course, agreed that the immediate determinants are the birth rate and the death rate, and the problem is partly which of those two had the greater influence and partly what factors explain changes in the birth and death rates themselves. There is also the question whether we are to regard the rise in population during the 18th century mainly as a cause or as a consequence of economic development. Until recently the received opinion was in the main that a major cause of the rise in population was a fall in the rate of mortality, attributable to a decline in gin drinking, to improved medical knowledge and practice, dispensaries, hospitals and sanitation and to better food supplies through changes in agriculture and the means of transport. Very recently, however,

¹⁹ The most important publications for our purpose are the following: G. T. Griffith, *Population Problems of the Age of Malthus* (Cambridge, 1926); T. H. Marshall, "The Population Problem during the Industrial Revolution" (*Econ. Journal*, 1929); D. V. Glass, "The Population Controversy in Eighteenth-Century England" (*Population Studies*, July 1952); H. J. Habakkuk, "English Population in the Eighteenth Century" (*Econ. Hist. Rev.*, 1953); T. McKeown and R. G. Brown, "Medical Evidence related to English Population Changes in the Eighteenth Century" (*Population Studies*, November 1955).

there has been a tendency to allow more importance to the birth rate and to the influence of economic development making more employment possible, with, perhaps, a rise in real income.

It is not proposed in this paper, based on a study of parish registers which is as yet far from complete, to set up any theses on such controversial points but rather to consider some matters relating to them, and, first of all, the question of birth and death rates. Clearly no actual birth or death rate can ordinarily be proved, since, in the vast majority of cases, the actual population before 1801 is not known. The best that can be done is to express baptisms and burials as proportions of estimated populations.

As an example, we may take the Westmorland chapelry of Bolton, whose population may be estimated at 167 for 1700 and 251 for 1750. In 1801 the actual population was 324. The mean population during the first half of the 18th century may be set at 209 and for the second half at 288. In the former period the average number of christenings yearly was 28.1 per thousand of the estimated population, and the burials 21 per thousand. In the latter period, baptisms work out at 27.7 per thousand and burials at 15.8 per thousand. In two ways certainly this chapelry may be held to reflect the general development. First, population rose during the century; second, though it did not rise more rapidly after 1750 than before, the death rate tended to fall markedly.

Other instances of this kind could be produced but, until many more registers have been analysed, no estimated birth and death rates for the two counties as a whole can be suggested, with confidence. Even when an estimate becomes possible caution will be necessary in making inferences. A rising birth rate, for instance, need not, of itself, mean a rising population; it could mean additions to existing families already large and, a little later, high infant or child mortality.²⁰ "It is not uncommon",

²⁰ Cf. McKeown and Brown, *op. cit.* 129.

Adam Smith wrote, "in the Highlands of Scotland for a mother who has borne twenty children not to have two alive"²¹ and to some extent the same unhappy condition may have existed among the poor in our area. With regard to death rates the investigation, when completed, may very well confirm the general view that mortality was, relatively to population, lower after 1750 than before; but, if that should be proved, there is a further problem, the reason for the fall.

V.

Common sense would suggest that, on that point, we must be concerned a good deal, though not exclusively, with epidemics. There is no doubt that Cumberland and Westmorland suffered severely at times, and the parish registers show grim evidence of "the pestilence that walketh in darkness and the destruction that wasteth by noonday." In Penrith, with a population of something over 2,000 probably, no fewer than 992 persons were buried in the three years 1596-98, and there was heavy mortality in Appleby, Kendal, Carlisle, Crosby Garrett, Crosby Ravensworth, Kirkoswald, Edenhall and Newton Reigny. In Millom in 1623-24, when the population was perhaps 1,100 or 1,200, there were 149 burials, and there was high mortality at the same time in Kendal, Bridekirk, Crosby Garrett, Lowther and Newton Reigny. Bridekirk had a visitation of the plague in 1647. The worst outbreak in the 18th century was perhaps that of 1728-29, traceable not only in the registers in our area (e.g. in Barton, Bootle, Lamplugh, Millom, Whicham and Penrith) but also in parishes in Furness, the West Riding, Cheshire and Anglesey.²²

The epidemic of 1728-29 was by no means the last, and, in any event, smallpox and various kinds of fever

²¹ *Wealth of Nations*, Bk. I c. viii.

²² G. P. Jones, "The Population of Broughton in Furness in the 18th Century", CW2 liii 142-143; G. Nesta Evans, *Religion and Politics in Mid-Eighteenth Century Anglesey*, 17-18.

were often prevalent, such as that noted in the late 18th century in Waberthwaite:

An epidemical fever has prevailed here of late years, which has proved fatal to many, even to two or three of a family, and that at distant periods of time. The contagion may, in some manner, be attributed to negligence and slovingliness (*sic*), for it is supposed to continue in the beds, as different servants coming to live in a house where others have had the disorder, have taken the distemper and died. Dr Joshua Dixon, of Whitehaven, has taken abundant pains on this occasion; and, it is presumed, the infection is entirely destroyed.²³

The plague, however, had disappeared in the course of the 17th century and its absence may well have been one of the factors making a rise in population in the 18th century possible.

That such epidemics should not have tended to retard population growth is hardly credible, but it is not possible to isolate their influence satisfactorily, and we may, moreover, have to distinguish between short and long run effects. As an instance there may be cited the Millom epidemic of 1623-24.²⁴ The average number of baptisms in the five years before the outbreak was 32.2; what it was in 1625-28 cannot be determined, but for the five years 1629-33 it was 36.4. Thereafter it tended downwards generally through the 17th century. By about 1645-50 one might expect a low point, consequent on the loss of potential parents in the children who died in 1623-24, and the decline about the middle of the century is understandable; what is not explained is that there was no recovery after that point.

As another example Penrith and the plague of 1597-98 may be taken. In the first place, it must be remembered that of the 992 persons who died in the years 1596-98 about 120 at least would probably have died even if there

²³ *Hutchinson* i 563.

²⁴ According to Dr Thomas Short (*Comparative History of the Increase and Decrease of Mankind, etc.*, London, 1767, 82), "1621, 22 and 23 all wet, rainy, scarce, dear Years. In 21 the Small-Pox were epidemic in all Ages. In 22 and 23 an epidemic Fever . . . and in 23 and 24 little short of the Plague."

had been no plague. Secondly, if the population be estimated in the way previously described, it would appear to have been only about 50 less in 1600 than it had been before 1590.²⁵ Thirdly, there is the fact that the plague does not seem to have led to a fall in the number of marriages. The yearly average between 1590 and 1596 was 20.4; in 1598 the number was 28 and in 1599 it soared to 59. This is perhaps to be explained by young people, whose parents died in the plague, being able to set up house earlier than they had expected. The yearly average of baptisms did, indeed, fall markedly in the decade following the plague, and population tended downwards until 1640; but, though the cause, in part, was almost certainly the loss of potential parents in the plague, in part it may have been high mortality in 1623 and, perhaps, depression in the woollen textile manufacture between 1620 and 1624.²⁶

VI.

With the exception of Penrith, the places whose registers have so far been analysed have been rural, though not necessarily non-industrial, areas, and there is at least one good reason for further investigation of parishes of the same sort as well as urban parishes, namely to test, so far as is possible, the traditional belief in the relative healthiness and prolific capacity of the countryside. English demographic studies arose, in large part, in the days of Graunt and Petty out of a study of metropolitan bills of mortality, but Dr Thomas Short²⁷ as early as 1750 pointed out that such urban studies might lead to wrong conclusions about the country in general, and

²⁵ Possibly, once the terror had passed, immigrants to some extent replaced the casualties. Of 434 surnames occurring in the registers between 1556 and 1595, 162, or 37.3%, recur between 1600 and 1609, during which 45 new surnames appear. In the period 1600-29 there were 346 surnames, of which 174, or 50.3%, recur between 1630 and 1639.

²⁶ Lipson, *Economic History of England* iii 305-306; Clapham, *Concise Economic History of Britain to 1750*, 251-252.

²⁷ G. P. Jones, "Thomas Short, an Eighteenth-Century Writer on Population" (*Yorkshire Bulletin of Economic and Social Research*, January 1957).

he attempted to widen the field of enquiry considerably by gathering information from a large number of parish registers, relating to places as far apart as Colton in Furness and Upminster in Essex. He concluded that his own times were less healthy and prolific than the period between 1558 and 1650 and that towns in general were less so than the countryside. His method of assessing places and periods was to compare their ratios of baptisms to burials, calculated over periods of seven or ten years; and he attributed the lower ratio in the towns to dirt, overcrowding, disease, luxury and vice.²⁸

Some indication of how Cumberland and Westmorland shaped according to Short's criterion may be obtained from the following table, giving the baptism-burial ratio for Penrith and fourteen other places:

	1700 to 1750.	1750 to 1800.
Penrith	. 1.006 to 1	1.19 to 1
Askham	. 1.2	1.32
Barton	. 1.23	1.66
Bolton	. 1.3	1.8
Bridekirk	. 1.5	1.7
Brougham	. 1.2	1.8
Cliburn	. 1.1	1.4
Crosby Garrett	. 0.9	1.2
Crosby Ravensworth	. 1.2	1.56
Crosthwaite cum Lyth	. 0.9	1.5
Great Orton	. 1.2	1.56
Kirkoswald	. 1.34	1.4
Lamplugh	. 1.3	1.9
Newton Reigny	. 1.05	1.55
Whicham	. 1.3	1.7
Whitbeck	. 1.0	1.8

Two things stand out in this table: first, that the ratio in all fifteen places rose in the second half of the 18th century, and, second, that it was lower in Penrith than

²⁸ Among the diseases, those causing infantile mortality were important: "Of the Citizens children 49% die under 5 Years old; in Towns 33 to 37; in the Country not above 20 to 25, including all Diseases and Casualties" (*New Observations on City, Town and Country Bills of Mortality*, London, 1750, 144).

in the more rural areas.²⁹ In Kendal, it may be noted, during the years 1783 to 1792, it was lower still, namely 0.88 baptisms to one burial. It should, however, be noted also that a relatively high ratio of baptisms to burials need not mean a rising population. Lamplugh, Whicham and Whitbeck are examples to the contrary. No doubt an excess of births over deaths would mean a natural increase, but in certain circumstances, e.g. lack of employment, some or all of that increase might be lost by emigration to other parishes.

The conclusion that Penrith was less healthy than rural parishes would appear (but perhaps only appear) to be confirmed by another calculation, relating to the average age of persons buried. That can be found from 1771 or 1772 onwards because it then became common to include the age in the burial entry. In Newton Reigny, for instance, the age was entered of all persons, except some infants, buried there between 1772 and 1779. The total burials, infants included, amounted to 110, and the average age, counting infants as zero, was 45 years 5 months. In Penrith, between 1771 and 1799, the age was noted of 441 deceased persons and the average was 36 years 7 months.³⁰ It would be wrong, however, to lay too much stress on such calculations, for two reasons: first, most registers include the names of people whose age is neither stated nor indicated; and, secondly, a higher average age at death does not necessarily mean that such a parish was less healthy but, possibly, that its inhabitants included a greater proportion of older people.

The same difficulty, incomplete information, in the burial entries, makes it impossible to be sure about a difference between town and country with regard to infant and child mortality. There is some evidence to suggest that the situation was not, in favourable circumstances,

²⁹ Except for Crosby Garrett and Crosthwaite cum Lyth. In both parishes the burials outnumbered the baptisms during the four decades from 1700 to 1740.

³⁰ In Kirkoswald the average was 41 years; in Brough, 43 years 2 weeks; in Skelton, 50 years 7 months; in Crosby Ravensworth, 56 years 1 month.

as bad as one might expect. In Newton Reigny, in whose registers the information is fairly complete, the number of infants buried between 1772 and 1799 was 16, equal to about 9.7% of the baptisms during the period. This is markedly below the average for the country as a whole even as late as 1900. The number of children dying before reaching five years of age was 19, equal to 11.5% of the baptisms. By contrast, in Penrith the infant burials between 1772 and 1799 worked out at approximately 16% of the baptisms.

VII.

One point on which the investigation of parish registers, when completed, may be expected to throw some light is the vexed question of land enclosure and depopulation. It has, so far, been possible to examine this problem only with regard to one Cumberland parish, Skelton, which was enclosed partly by Act of Parliament in 1767-68 and partly by private agreement in 1777-87.³¹ Its registers, though extant from 1580, are too imperfect to make possible an estimate of its population during the first half of the 18th century. The parish is said to have contained 113 families, i.e. from 510 to 565 people, in 1747, and thereafter its population may be estimated to have been as follows:

In 1760 . 548	In 1780 . 545	In 1801 (Census) . 729
1770 . 601	1790 . 708	1811 . 756

These figures show a fall in population between 1770 and 1780 and according to Hutchinson³² there was a fall also between 1786 and 1792:

In 1786, there were 135 families in this parish, 678 inhabitants. In 1792, there were 126 families and 631 inhabitants, all of the established church. The decrease of population may be attributed to two recent causes, the inclosure of common lands, which occasioned many cottagers to quit the country, who followed

³¹ W. F. Tate, "A Hand List of Enclosure Acts and Awards", CW2 xliii.

³² I 514 n.

an idle or wandering life, and increased the number of strollers and vagrants; and the uncommon progress of manufactories which induced multitudes to engage their children therein.

In the year when the first enclosure award was made, 1768, the number of baptisms was 21, and for the next seven years it was lower, the average being 12; but it rose again to 26 in 1776. In the years following the second award there was no significant fall in baptisms. On the whole, therefore, there may be some ground for connecting the 1767 enclosure of the commons with rural depopulation but none for so connecting the second. In any event, despite enclosures, the inhabitants of Skelton were more numerous in 1800 than they had been in 1760.

The other part of Hutchinson's explanation, industrial expansion and child employment, applied presumably not to Skelton but to other places, including Penrith perhaps, to which parents and children removed. That there was some net emigration from the parish is likely, for the natural increase, i.e. excess of baptisms over burials, between 1760 and 1799 amounted to 256, whereas, if the estimate given above is near the mark, the actual increase in population was 182. It may be supposed that emigrants from the parish, if any there were, would be single persons or young married people and their children, and there is some corroboration of that in the relatively high average age of persons buried between 1773 and 1799, namely 50 years and 7 months, which suggests that the proportion of old people among the inhabitants was fairly high. On this and other important matters, however, judgment must be tentative until much more progress has been made in the laborious, if rewarding, task of examining the parish registers of our two counties.