

University of Southampton

MIGRATION IN GLOUCESTERSHIRE 1662-1865.

A GEOGRAPHICAL EVALUATION OF THE DOCUMENTARY  
EVIDENCE RELATED TO THE ADMINISTRATION OF THE  
LAW OF SETTLEMENT AND REMOVAL.

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UNIVERSITY OF SOUTHAMPTON

ABSTRACT

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MIGRATION IN GLOUCESTERSHIRE 1662-1865.  
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LAW OF SETTLEMENT AND REMOVAL

by David Gowing

The study of migration, in the two hundred years before birth-place data was recorded in the 1841 Census, has depended primarily on the analysis of Parish Registers, supplemented by local tax, militia, apprenticeship and ecclesiastical listings. The only other national source, the documents generated by the administration of the Poor Law, from 1662 to 1865, has largely been ignored.

This thesis is concerned with two inter-related themes. Firstly, an evaluation of the Settlement Certificates, Examinations and Removal Orders generated by the administration of the Poor Law, and secondly, their potential for establishing geographical patterns of migration. The spatial focus for this study is the Gloucestershire woollen cloth parishes which exhibited a strong centripetal pattern of movement until the 1830's, but this analysis has been set against similar studies from other areas. However, an evaluation also requires that the evidence from the Poor Law documents is compared with that from Parish Registers and early Enumerators Books, as the only two contemporary sources providing similar information. This empirical evidence is examined within the framework of a total migration model to emphasise that migration is a sub-system of a wider environment. Hypotheses, derived from the study of migration processes, are tested to evaluate their applicability in this particular historical context and to illuminate the reality of migration in Gloucestershire at this time.

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## Chapter 1

### Introduction : Migration and the Poor Law in Pre-Industrial England

"It is often more difficult for a poor man to pass the artificial boundary of a parish, than an arm of the sea or a ridge of high mountains, natural boundaries which sometimes separate very distinctly different rates of wages in other countries."

Adam Smith (1776)  
'The Wealth of Nations', 112.

Clark has asserted that the study of migration in the period before the decennial census recorded birth-place data, must rely heavily on the documents of ecclesiastical administration (1). Clark claims that, for the present, the evidence of Ecclesiastical Court Depositions remains the most valuable source for such studies (2), though he admits that there is a bias in them towards "the respectable man and against the younger, .... that female witnesses are under-represented (3) and that few are available after 1730 (4). During the last decade, the Cambridge Group for the History of Population and Social Structure has raised to the level of academic respectability the analysis of Parish Registers (5). Wrigley contends "we do not move in 1801 (the first Census) or in 1837 (the first vital statistics) from darkness into light in population history. The dark ages of population history ended in 1538, not in 1837." (6). "From 1538 for a period of three hundred years Parish Registers are the prime source of knowledge about population changes in this country" (7). Their bias against dissenters and recusants is implicit in their origins, though the significance of this under registration is not serious until the eighteenth century and only then in certain geographical localities. More serious lacunae are characteristic of the early nineteenth century Registers, especially in the growing urban areas (8). Chambers describes the Registers as the "short and simple annals of the poor" (9), but in fact, they are not limited to this one group however large in number. The only major source which, by definition, can be called the annals of the poor is that created by the documents pertaining to the administration of the Poor Law. The unhindered movement of people

or jobs is central to economic prosperity and political stability, but these processes have not been fully understood and the fear of social unrest has been uppermost in framing laws which would directly affect the movement of people. The Law of Settlement and Removal of 1662 represents the most notorious example of such legislation (10). Its legal antecedents were established in the unsettled political atmosphere of fourteenth and fifteenth century England (11). The endemic poverty of the majority of the population (12) was met by alms or punitive laws (13). The differing nature of permanent poverty through infirmity, temporary poverty which drives a labourer to seek employment elsewhere and that which characterised vagrancy (14), was ill defined. It had been a Christian responsibility to give alms and thus the Church provided the administrative framework for their collection and the subsequent establishment of a poor rate. The codification of existing provision in 1601 placed this responsibility at the level of the parish (15) and only the Union Chargeability Act of 1865 fundamentally altered this frame of reference (16).

The Settlement Certificates, Examinations and Removal Orders resulting from this Law (Appendices 1.I - 1.III) (17) provide a major national source for the study of population movement still largely untapped by geographers. (18). They cover a period of nearly two hundred years at a time when England was in transition from a 'pre-industrial society' (19) to the industrial, urbanised society which became characteristic of the second half of the nineteenth century; it was a period in which labour was the most important factor in production and the economy and man were at the mercy of natural forces (20). They mark the movements of a substantial sector of the population by age, sex and occupations in a variety of geographical locations. It is the geographical evaluation of this body of source material for migration studies which is the main object of this present study.

"The variety of practical interpretations that characterise the English Poor Law from the Act of 1662 and its subsequent modification by statute or judicial interpretation which attempted to replace the decadent situation which ensued the breakdown of the authority of Privy Council in local administration and which lasted even after the deification of centralisation and uniformity of the 1834 Act, do not concern the geographer" (21).

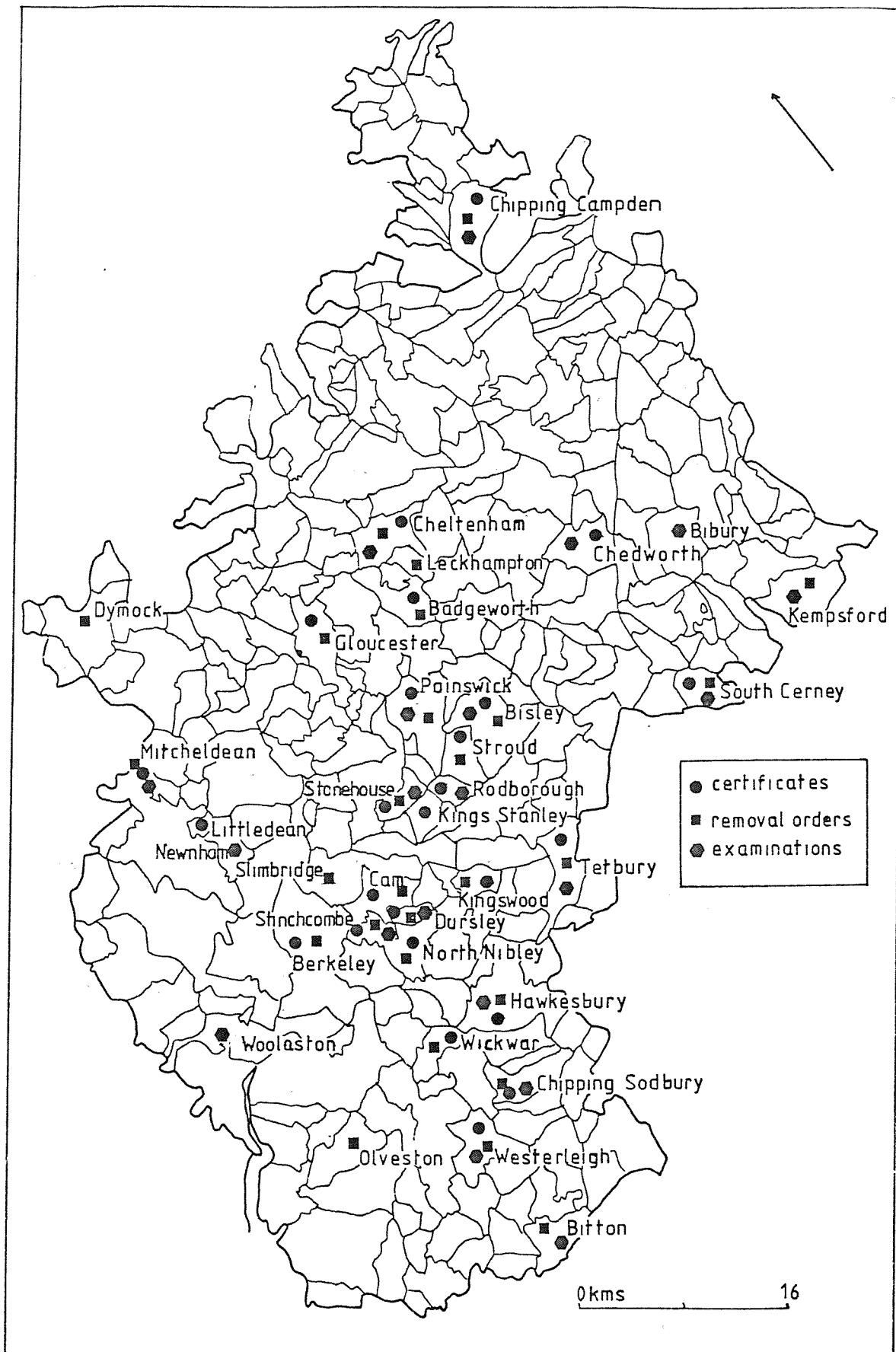
This caveat needs emphasising, for the original formulation of the law and its subsequent administration did not have the needs of geographers in mind. The constitutional battles between central and local government, the real differences between the statute book and the local administration of the law, the changing attitudes to

poverty which eventually produced a welfare state, the level of literacy or degrees of poverty revealed by the documents are fields of study for others. It is the spatial implication of this law with which the geographer is concerned. Baker et al. have suggested that a "basic problem confronting historical geographers today is how to integrate traditionally empirical techniques which must eventually reach out for a theoretical framework and the theoretical analysis which must in turn reach out to embrace the complexities of the real world. Some of the difficulties lie in the characteristics of the source materials available to an historical geographer and some lie in the nature of the theories which have so far been developed"(22).

Chapter 2 examines the multi-disciplinary nature of migration studies and a total migration model is proposed to provide the conceptual and theoretical framework for this study. Emphasis is placed not only on the patterns of migration, with which traditionally the geographer has been concerned, but also upon migration processes. Ideally, the hypotheses that research has generated should be vigorously tested in the real world, but as Chapter 3 shows, the nature of the data derived from Settlement papers enforces an adoption of the first approach identified by Baker et al. above. In these circumstances it is vital to establish the usefulness of the Poor Law documents for migration studies. Chapter 3 describes the legal environment within which movements occurred. It outlines the main provisions of the Poor Law, its subsequent modification during the period 1662 - 1865 and the main characteristics of the three main categories of documents engendered by its administration.

It is a matter of conjecture how many of these documents survive nationally (23), but the volume of the documents and their patchy distribution preclude a satisfactory study at that scale. It is, therefore, necessary to use a sample drawn from a specific region. Gloucestershire is used as the main testing ground for the evaluation of the documents and for an examination of the patterns of migration within the conceptual framework of the total migration model. Although a substantial collection of documents survive in the county (24), their distribution in space and time is frustratingly uneven (Fig. 1). The Forest of Dean was extra-parochial at this time and it is only in some of the peripheral parishes, such as Mitcheldean, Littledean and Newnham-on-Severn, that documents exist. The Vale of Severn is better represented with documents in agricultural and industrial districts and in both villages and towns. Even so, Gloucester itself is poorly covered and no documents survive for Tewkesbury. In the Cotswolds, only the market towns are well represented, and in the small area

Fig 1 MAJOR COLLECTIONS OF SETTLEMENT DOCUMENTS IN GLOUCESTERSHIRE



of the Oxford Vale in the county collections have survived at South Cerney and Kempsford. The largest group of surviving documents relate to the woollen cloth parishes which lay across the Cotswold Escarpment from Painswick to Kingswood in the valleys of the Frome, Ewelme and Little Avon.

The administrative county has no validity as the unity of study because it does not reflect the level of data collection and its boundaries are rarely meaningful in relation to population movements and the functional regions which such movements reflect. During the period of this study, not only are county boundaries altered and parishes transferred to and from neighbouring counties, but an entirely new county, the Gloucestershire Registration County, is also created (25). Eversley, Drake and Sogner in their analysis of demographic patterns from Parish Registers use a region of contiguous parishes (26) so that the effects of migration would be minimised (27). This assumption that the bulk of both temporary and permanent migration was short distance can be tested in the woollen cloth parishes of Gloucestershire. These parishes which are essentially contiguous remain throughout the period a recognisable functional unit, exhibiting a strong pattern of centripetal movement. Tann's identification of the sites of woollen cloth mills in the period 1750 to 1820 (Fig. 2) is used as the basis for defining the core area of study, but this approach excludes the wider area of domestic employment which was an integral part of the spatial structure of the industry before the nineteenth century. The adoption of an alternative criterion, employment, is subject to similar limitations. Figure 3 is based on the distribution of male cloth workers in the Registration County in 1851 and the evidence from the 1608 Muster Roll (28). The increasing concentration of the industry into the Stroud and Dursley Registration Districts, where 87 percent of the male employees were to be found in 1851, expresses a close correspondence to the pattern established by Tann. Furthermore Tann's maps of the changing distribution of mills in 1840, 1849 and 1867 (29) reinforces the view that a functional region, by definition, must be subject to changes in its areal extent over such a long period of time.

Chapter 4 draws on contemporary accounts to describe the main economic and population patterns in the county during the period 1662 to 1865. The spatial variations in these characteristics may provide an insight into the processes underpinning the patterns of migration in the cloth parishes which are analysed in Chapter 5.

The need to group parishes into a meaningful unit for analysis may result in the discovery of patterns of migration which are only

Fig. 2

CLOTH MILLS IN GLOUCESTERSHIRE 1750 - 1820

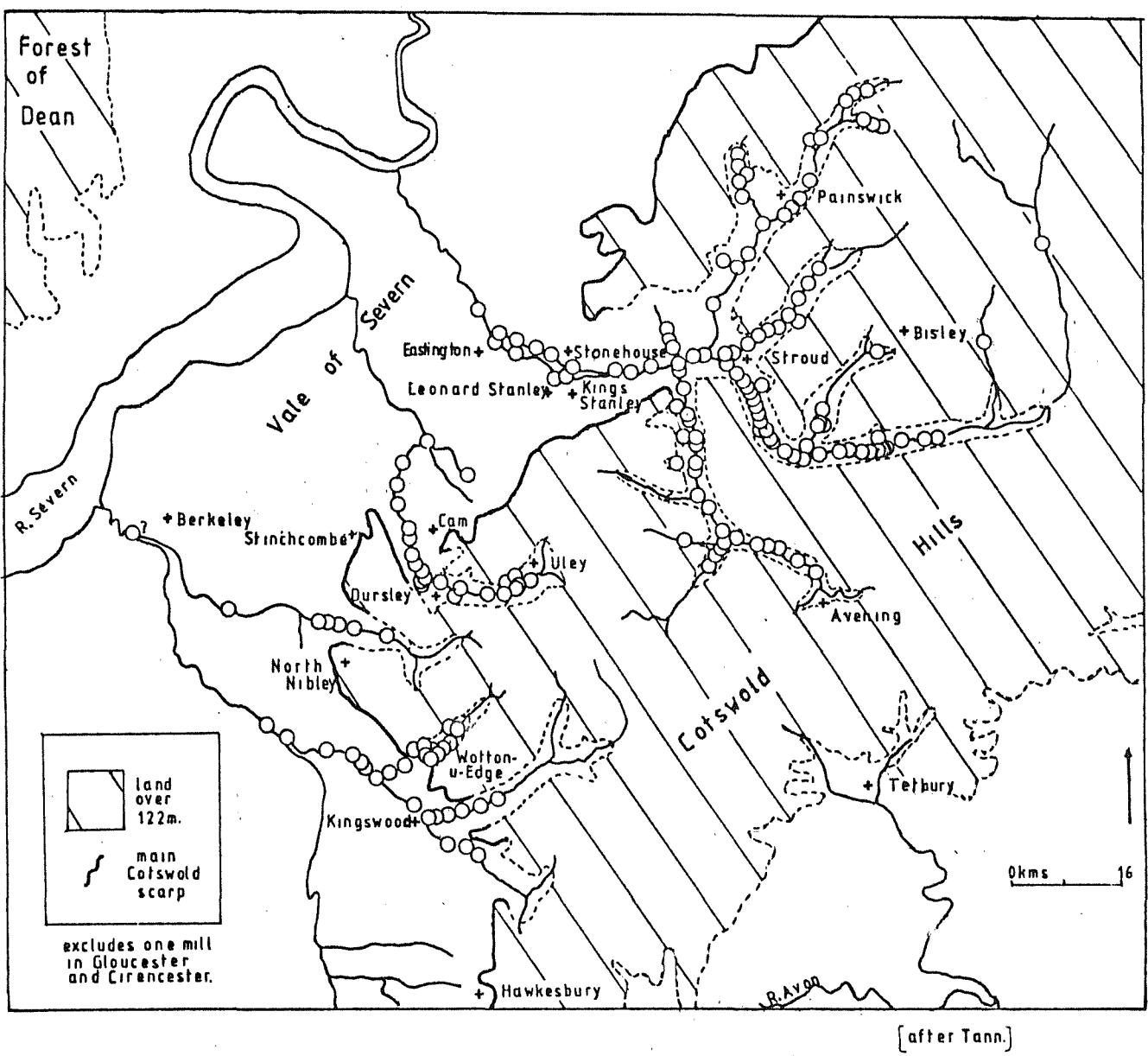
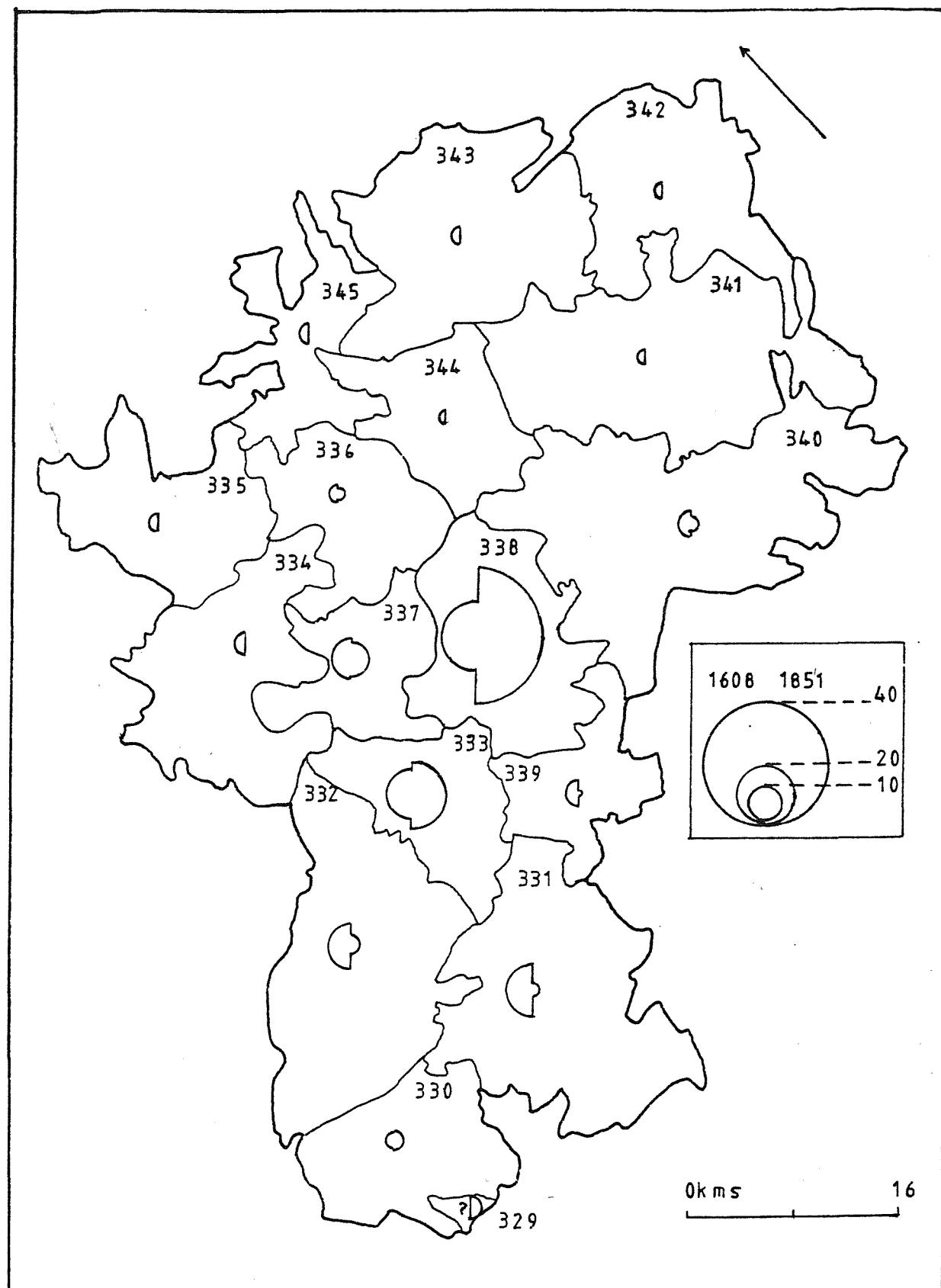


Fig. 3. MALE WOOLLEN CLOTH WORKERS .GLOUCESTERSHIRE  
REGISTRATION COUNTY IN 1608 AND 1851.



valid for that one region. In consequence, comparisons must be made with the evidence from other situations. This is attempted in Chapter 6 in two main ways. Firstly, Settlement Certificates, and, to a lesser degree, Removal Orders are analysed for other economic regions in Gloucestershire, and in other selected areas of England. Secondly, patterns of migration are reconstructed from Parish Registers and mid-nineteenth century Censuses for selected cloth parishes. The examination of other data sources for migration study is essential for the evaluation of Poor Law documents and an examination of Ashton's hypothesis that the patterns they reveal only reinforce the essentially short distance movements of that period (30). The study is rounded off by a final assessment (Chapter 7) of the Settlement Certificates, Examinations and Removal Orders as sources for the study of migration in the period before the national Censuses' inclusion of birth place data in 1841 and 1851.

1. This is not to deny the importance of other sources. Burghs rolls and apprenticeship bonds in particular provide significant sources, but as Patten notes they are urban-centric and highly selective by age, sex and income.  
 Patten, J. (1973) Rural-urban migration in pre-industrial England (Research Papers; School of Geography, Oxford), No.6, 13  
 Muster rolls, periodic tax lists, local censuses, manorial court records, wills, quarter session papers and corporation archives provide further lay sources.
2. Clark, P. (1972), 'The migrant in Kentish towns 1580-1640', in Clark, P. and Slack, P. (eds.) Crisis and order in English towns 1500-1750 (London : Routledge and Kegan Paul), 121.
3. Ibid., 120.
4. Idem(1974) Poverty and Social Policy 1750-1870 (Great Britain 1750-1950; Arts 401; Milton Keynes; Open University), block IV, units 12-16, 16.
5. In particular, Wrigley, E.A. (1966) An introduction to English historical demography (London : Weidenfeld and Nicolson), 238 establishes the methodological base for many recent studies.
6. Ibid. XI.
7. Ibid., 102.
8. Krause, J.T. (1965), 'Changing adequacy of English registration 1690-1837', in Glass, D.V. and Eversley, D.E.C. (eds.) Population in history (London : Arnold), 386.  
 Drake, M. (1961-2) 'An elementary exercise in parish register demography', Econ. Hist. Rev. XIV, 427-445.
9. Chambers, J.D. (1953), 'The course of population change', in Glass, D.V. and Eversley, D.E.C. (eds.) op.cit., 327-334.
10. 14 Car II, (1662).
11. 12 Richard II, (1388); Henry VII, (1495); 19 Henry VII, (1504); 22 Henry VIII, (1531); 27 Henry VIII, (1536); 1 Edward VI, (1547); 5 and 6 Edward VI, (1551); 2 and 3 Philip and Mary, (1555); 5 Eliz. I, (1563); 14 Eliz. I, (1572); 18 Eliz. I, (1576); 39 Eliz. I, (1598); 43 Eliz. I, (1601).
12. Coleman, D.C. (1955-6), 'Labour in the English economy of the seventeenth century', in Carus-Wilson, E.M. (ed.) (1962) (2 vols.; Essays in economic history; London : Arnold), vol. 2, 293.  
 Coleman estimates that between one quarter and one half of the

population were chronically below the contemporary poverty line. Gregory King in his 'Natural and political observations', c.1688 estimated the total population of England as 5,500,000 of which 2,825,000 'decreased' the wealth of the kingdom. See Laslett, P. (1965) The World we have lost (London : Methuen), 30-33.

Deane, P and Cole, W.A. (eds.) (1969) British economic growth 1688-1959, (2nd. ed; Cambridge University Press), 3. These authors are critical of King's sub-divisions in a period when economic specialisation was insufficiently developed, but estimate that 70 percent to 80 percent of the population was engaged primarily in agriculture, though for many it was a secondary occupation. More significant in terms of the Poor Law is their estimate that average wage levels were approximately £9 per annum. Taylor, G. (1969) The problem of poverty 1660-1834, (London : Longman),<sup>8</sup> uses Gregory King's figures of cottagers and paupers; vagrants, gypsies and thieves; labouring people and out-servants to calculate that 1,850,000 out of the total population were in a state of actual poverty. Trade depression, harvest failure and the like, exacerbated the economic condition of the artisan, small shopkeeper, apprentice and serviceman so that a population of 3,300,000 might be adversely affected. This implies 60 percent of the population could have been seeking relief.

Bowden, W. (1965) Industrial society in England towards the end of the eighteenth century (New York : Cass), quotes the Rev. John Howlett's belief that nearly one third in rural areas, but less than one sixteenth of the population in urban parishes, required constant or occasional aid.

Ashton, T.S. (1954) The eighteenth century (Ashton, T.S. (series ed.) 5 vols. Economic history of England; London : Methuen), vol. 3, 202-7. Ashton stresses not only the seasonal nature of employment induced by the vagaries of the weather, imperfect demand for goods and cash flows, but also the casual methods of hiring and working, the system of truck as contributory factors to this endemic poverty.

13. This should not cloud the attempts to prevent poverty by 27 Henry VIII, C. 25 (1536) and 18 Eliz. I, (1576) which urged work to be found for sturdy beggars and which became an essential ingredient in the seventeenth century acts establishing workhouses, houses of industry, village stocks and pauper apprenticeships.

14. In the sixteenth and seventeenth centuries, rogues and vagabonds were a constant and increasing worry to magistrates and periodically

harsh laws were invoked against them. Whipping, imprisonment and branding were sanctions as was forced removal. The London Bridewell became the model for all houses of correction established by the Act of 1576 in which vagabonds were to be found work. Unfortunately, the distinction between these penal institutions and workhouses for the honest pauper became blurred in many areas. Similarly, the removal of vagrants to their birthplace or place where resident for at least three years, became the underlying principle of the Act of 1662, which affected the honest poor. Vagrancy Orders issued in this period identified the parishes through which the vagrant would be passed by the constables, en route to their place of legal settlement. These orders have been excluded from this present study.

15. The Acts of 27 Henry VII, C. 25 (1536), 39 Eliz. I, C. 3 (1598) and 43 Eliz. I, C. 2 (1601) had taken the ecclesiastical parish as the basic unit of Poor Law administration, but the larger parishes, especially in the north of England, contained several townships and it is these which became the actual units of administration and for which provision was made in the 1662 Act. Mills, D.R. (1959), 'The Poor Laws and the distribution of population c.1600-1860, with special reference to Lincolnshire', Trans. Inst. Br. Geogr. 26, 185 and 195, tends to use parish and township as synonyms. In much of southern England this assumption is valid.
16. 28 and 29 Vic. (1865).
17. This law produced endless litigation to establish claims of settlement and to test the validity of the Removal Orders that had been issued. Appeals against removal figures in the eighteenth century Quarter Session papers. The Order Rolls for the county of Gloucester date from 1728 and contain many Removal Orders and Examinations. The Order Books date from 1672 (with a short gap from 1692-1701) and included settlement appeals. An initial survey of the former suggests that there is much duplication of documents already found in the parish collections and no attempt has been made to explore fully this source. See Grey, I.E. and Gaydon, A.T. Gloucestershire Quarter Sessions Archives 1660-1889 (Gloucester County Council) 1958. The minutes of vestries, churchwarden and overseers accounts are less valuable within the context of this study. Bastardy Orders are special categories of documents which are not dealt with here.

It is important to remember that the bulk of the documents analysed refer to people who were not even paupers but were honest workpeople of very limited means who were trying to obtain a better standard of living through migration.

18. Pelham, R.A. (1937) 'The immigrant population of Birmingham, 1686-1726', Birmingham Archaeological Society Transactions, LXI, 45-80.
19. Randall, H.A. (1971) Some aspects of Population geography in certain rural areas of England during the eighteenth and early nineteenth centuries, (unpub. Ph.D. thesis, University of Newcastle).
20. Sjoberg, G. (1960) The pre-industrial city (New York : Collier MacMillan), 118 uses this phrase to describe the economic and technological bases of society and allows cross cultural and cross temporal comparisons. This theme is also developed in an English context in Laslett, P. (1965) The world we have lost (London : Methuen) and in Chambers, J.D. (1972) Population, economy and society in pre-industrial England. (Oxford University Press).
21. See also Coleman, D.C. op.cit., 291-308 and Wrigley, E.A. (1967) 'A simple model of London's importance in changing English society and economy 1650-1750', Past and Present. 37, 44-70.
22. Coleman, D.C. op.cit., 299.
23. Hampson, E.M. (1926-28) 'Settlement and removal in Cambridgeshire 1662-1834', Cambridge Historical Journal, II, 273.
24. Baker, A.R.H., Hamshere, J.D. and Langton, J. (eds.) (1970) Geographical interpretations of historical sources (Newton Abbot: David and Charles), 14.
25. Tate, W.E. (1969) The parish chest (Cambridge University Press), 202, suggests that on the basis of the 5,000 Settlement documents extant in Bedfordshire the national total could approximate to 400,000.
26. These are mostly lodged with the County Archivist in Gloucester, the County Archivist in Bristol (now part of Avon) and at the Gloucester City Library. The Gloucester City Records are now the responsibility of the County Archivist since the 1974 local government re-organisation created yet another Gloucestershire. In a few cases the documents remain with their original custodians, the parish priests. Substantial collections were found in Bitton, Cam, Newnham on Severn and Painswick.

25. The administrative county used in this study is that created by the major re-organisation of 7 and 8 Vic. C. 61, (1844). The Registration County owed its origin to the Civil Registration Act of 1837 (6 and 7 W. IV, C. 86) for births and deaths and 6 and 7 W. IV, C. 85, (1836) which dealt with marriages. The units of registration largely coincided with the units adopted for the administration of the unions of parishes established by the Poor Law Amendment Act of 1834 (4 and 5 W. IV. C. 76).

26. Eversley, D.E.C. (1957) 'A survey of population in an area of Worcestershire from 1660-1850 on the basis of parish records', Population Studies X, 394-419.  
 Drake, M. loc. cit.  
 Sogner, S. (1963) 'Aspects of the demographic situation in seventeen parishes in Shropshire, 1711-1760. An exercise based on parish registers,' Population Studies XVII, 2. 126-147.

27. The unreliability of limited data from single small parishes is also minimised if a contiguous group of parishes is used. See Eversley, D.E.C. (1965) in Glass, D.W. & Eversley, D.E.C. (eds.) op. cit., 57.  
 See Laslett, P. and Harrison, J. (1963) Clayworth and Cogenhoe in Bell, H.E. and Allard, R.C. (eds.) Historical Essays 1600-1750 (Black : London), 177.

28. Smyth, J. (1608) Men and Armour for Gloucestershire (Stinchcombe) (reprinted 1902) This document was produced for the county at the request of the Government for all men capable of bearing arms. Similar requests punctuate the reign of Elizabeth and the early Stuarts. A full analysis of this occupational listing by parishes has yet to be undertaken, though an important study at the level of the hundred was made in 1934 by Tawney, A.J. and Tawney, R.H. (1934-35), 'An occupational census of the seventeenth century', Econ. Hist. Rev. V, 25-64.  
 See also Perry, R. (1945), 'The Gloucestershire woollen industry 1600-1690', Bristol and Gloucestershire Archaeological Society Transactions 66, 49-137. Perry uses this listing at the parish level but only in relation to the woollen industry.  
 Tann, J. (1964) Some aspects of the development of the Gloucestershire woollen industry (unpub. Ph.D. thesis University of Leicester), 99 notes that the number of weavers listed by Smyth must represent a minimum figure as frequently these men were weak stooping persons.  
 Wyatt, J.N. (1974), 'Occupations and physique 1608', Gloucestershire Historical Studies VI. 9. provides a corroborative analysis

from this muster roll for the hundreds of Bisley, Longtree and Whitstone that shows weavers and labourers to be the groups least likely to provide the pikemen and musketeers who required physical strength.

29. Figure 2 is based on Tann, J. (1967) Gloucestershire Woollen Mills (Green, E.R.R. series ed. Industrial Archaeology of the British Isles; Newton Abbot : David and Charles), Fig. 2. The author's permission has been obtained for its inclusion in this thesis and it is used as the basis for the functional region adopted as the core area of study. It deliberately excludes the isolated mills at Cirencester and Gubberley and the one at Alkington. The latter is contiguous with the region but as a tything of the large parish of Berkeley it cannot be separated for the purposes of this study. Stinchcombe is omitted despite the mention of a decline in the cloth industry in this parish in the marginal notes of the 1851 Census because no mills existed within its limits. Like many other parishes, beyond the chosen area, it was a source of labour for the mills of the cloth parishes.

30. Ashton, T.S. op. cit., 15.

## Chapter 2

### The Process of Migration

"The reasons for moving given by migrants are their personal reaction to what may be fundamental changes in the environment which they may not understand or correctly interpret."

Bogue, D.J. (1969)  
'Principles of Demography', 754.

#### 1. Migration. Problems of definition

The literature on migration is voluminous but fragmented, because it covers an area of interest to a variety of disciplines. The scale of investigation has ranged from the intra-urban to the inter-continental, and the techniques employed have been equally varied (1). Geographers have concerned themselves with the patterns of population distribution, and viewed migration as the agency by which change occurs. Norris complains that geographers have been too content to map patterns at particular points in time and have failed to examine the agency, the process, necessarily involved; he admits that the quantitative and behavioural revolutions have stimulated a more dynamic approach in the subject, thereby bringing it closer to cognate fields of study which to date, have been the main sources of migration theory (2).

Jackson reviewing such studies in sociology is equally critical of 'snapshot studies', which treat migration as a once only phenomenon and lead to over emphasis on one part of a migrant's career (3). The total context within which migration occurs and the factors related to this overall context which influence decisions, at particular points in time, are a necessary part of any theory of migration (4). Lee notes that, until recently, there has been little development in migration theory since Ravenstein's work in the 1880's, a deficiency which his paper is designed to rectify (5). In it, lip service is paid to the behavioural aspects of migration, but it is essentially in the Ravenstein tradition of macro-economic theory (6) and, in Randall's view, totally ignores the spatial implications of migration theory (7). Garbett and Kapferer raise further criticisms of migration studies which geographers could well heed. The emphasis on particular facets of the migration process, such as the distance

travelled, the volume of movement and the number of intervening opportunities between origin and destination, may lead to mono-causal explanations. Furthermore, the use of Census data as the major source not only creates a tendency to develop explanations around phenomena which are relatively easy to quantify (8), but also conditions the definition of migration. Census data, in the United Kingdom, is only available at the individual level within the constraints of the hundred year rule (9). By definition, aggregate Census data record only those movements which cross an administrative division whether it be at the parish, district or county level (10). Norris, in regarding migration as a special form of spatial interaction, identifies migration as any household move (11). This has the virtue of emphasising the need for micro-studies, though as Roseman points out the household may or may not be the decision making unit in effecting a residential shift. More people in a household are usually affected by the decision than actively participate in its making (12). The use of Poor Law documents and Enumerators' Returns in this study, provides data collected at the household level where an inter-parochial move has been effected. The use of areally defined units has a two-fold effect. Firstly, it filters out intra-parochial moves which may contain a particular category of migrant. Secondly, the recorded volume of movement varies with the size, shape and relative disposition of the administrative units. The greater the area, the larger the community and the greater will be the number of moves classified as non-migratory (13). In relation to studies of the Poor Law, Lipson suggests that the Settlement regulations took on a disproportionate significance because the unit of administration was the parish (14); yet even by 1662, the parish was no longer a logical division of local government due to the growth of trade and town life (15). If there had been unions of parishes in 1662, the number of documents generated would have been far fewer and on these grounds alone any statements concerning the volume of migration as represented by Poor Law documents seem meaningless. Bogue notes that there can only be an imprecise link between the volume of migration that actually occurred and that identified by data collected on the basis of administrative units. Actual movements are not identified (16). Similarly, the use of larger units, such as unions of parishes, would have the effect not only of reducing the measured volume of migration but also of increasing the mean distance of those migration events that are recorded (17). Even a superficial comparison of the parishes of the

Vale of Berkeley and Gloucester with those on the Cotswolds shows that the parishes are generally smaller in the former areas. In consequence the very localised intra-urban parochial movement in Gloucester should reveal a greater incidence of migration than that recorded for nearby rural parishes. The distribution of population within an area also affects the incidence of migration, if the latter is defined as inter-area movement. Deane and Cole in their survey of British economic growth speculate that the apparently different pattern of population growth between Lancashire and Yorkshire and between Warwickshire and Staffordshire in the eighteenth century may be partly attributed to real differences, not only in industrial development and settlement form, but also to the accidents of geography. In Lancashire and Warwickshire, where population was concentrated in a few major urban centres close to neighbouring counties, migration played a more significant role than natural increase in their growth. The converse is thought to be true of Yorkshire and Staffordshire (18).

Wolpert and Roseman by introducing wider issues help to define the essentials of migration. Wolpert sees mobility as encompassing areal movement but also occupational and social movement (19). Roseman adopts Cavalli-Sforza's two-fold typology of human movement which introduces the parameters of permanence and periodicity (20). The first main category includes reciprocal movements which focus on the home and involve specific interval journeys to work and other stopping places largely conducted within a regular time span of one week (21). In this context, the daily movement into town and the reverse flow of townsfolk to neighbouring villages identified by Howells and other Poor Law assistant commissioners (22), the harvest labour allowed in the 1662 Act (23) or the Mop Fair hirings, as well as the more frequent visits to market, are all relevant. In contrast, the second category identifies the essentially one way, relatively permanent, shifts of residence which are normally regarded as migration. Even so, Mitchell's seminal work on labour circulation in East Africa shows that these two categories are not mutually exclusive (24). He implicitly rejects the ethnocentricity of much migration research conceived within the context of urbanisation of the Western World (25). Mitchell emphasises long term cyclic movements which can be paralleled by the effects generated by the Law of Settlement and Removal. All too frequently, aged or infirm migrants were returned to their place of legal settlement, a practice to which the irremovability clauses in the mid nineteenth century Poor Law acts bear witness (26).

This section has explored some of the difficulties that arise from the partial nature of the studies derived from a variety of disciplines and their varying definitions of migration. For this study Lee's definition has much to commend it, concentrating as it does on a permanent or semi-permanent change of residence, though the nature of the historical data available makes it impossible to adopt his second and fourth criteria that no restriction is placed upon the distance of the move or that it can be classified as internal or international in form. However, his third criterion which includes both voluntary and involuntary movement is useful (27). Generalisations about migration patterns made on the basis of aggregate behaviour, but supplemented by individual profiles abstracted from Poor Law Examinations may provide valuable insights into migration processes in a way which general models, such as those of Lee and Ravenstein, cannot. It is now appropriate to examine those models, irrespective of their discipline of origin, which attempt to relate pattern to process and which may provide the historical geographer with a framework for understanding the nature of the migration process in England during the eighteenth and early nineteenth centuries.

## II. Migration Theory

In order to test the usefulness of Settlement papers for the study of migration, it is necessary to establish a migration model that encompasses not only a taxonomy of migration but provides an insight into the underlying processes. Such a model serves as both a theoretical framework to illuminate empirical observation and as the means by which theory, largely developed in a twentieth century context, can be tested. This section explores the nature of recent migration theory before the construction of a model and the consequent identification of the data sources needed for its operationalisation.

Recent Migration Theory. Ravenstein's Laws of Migration (Appendix 2) have provided a fruitful source for economic models of migration, in spite of their obvious time and place specificity. These later studies concentrate either on measuring inter-regional flows by a gravity analogue (28) or on its ramification in intervening opportunity and more mathematical probabilistic theories (29). Wolpert leads a forceful attack on the deficiencies of these mechanistic models. "Greater selectivity to determine unique weights for areas and unique distance functions for sub-groups of in-and-out-migrants" underpin the difficulties which the persistent curve-fitters meet in generalising their plots of migration distances. The inadequacy of census data

and surrogate measures derived from it emphasise the gap between micro and macro models and the consequent need for a behavioural approach to model construction" (30). Wolpert develops a model around what he regards as the central concepts of migration behaviour - place utility, life cycle and search behaviour. In particular, the effect of occupation, income, race and age are integrated into the model as parameters which reveal a significant degree of homogeneity in terms of the differential rates of migration, distance and direction (31). In the short run, the characteristics of the places of origin and destination are regarded as relatively constant, but for longer term forecasts exogenous measures of economic trends are thought necessary (32).

Lee identifies four essentials which he believes underpin every act of migration (33). These are factors associated with the area of origin and destination, intervening obstacles and personal factors. In spite of individual random occurrences, Lee notes observed regularities which form the basis of a series of hypotheses related to the volume of migration, the development of stream and counter-stream and the characteristics of the migrants themselves (Appendix 3). It is to be expected that in applying this general schema, in a historical context, the lack of appropriate data to test some of the hypotheses will pose major problems (34). Even so, it would not be on these grounds that the model is found wanting. The rather superficial treatment of the behavioural aspects of migration is one of its two major weaknesses.

It reduces the analysis of migration differentials to a simple typology of low and high quality migrants, responding respectively to negative stimuli at the origin and positive stimuli at the destination. This 'push-pull' framework has dominated economic models of migration since the time of Ravenstein who had conceived of the attractive force of the centres of absorption generating 'betterment migration'. In contrast, the 'push' mechanism was derived from "heavy taxation, oppressive laws, uncongenial social surroundings, and compulsion" (35). In a historical context, Pelham's work using Settlement Certificates to investigate in-migration into Birmingham is couched in similar terms. The migrants are 'pushed' off the marginal land of the Welsh moors, Pennines, the South West and the Midland Plateau because of poor socio-economic opportunities and 'pulled' towards Birmingham (36). These migrants, "for the most part artisans drawn largely from the regions of plain living and high thinking where environmental conditions were unpropitious enough to induce the adventurously minded

to seek an easier living elsewhere" (37) would most certainly be Lee's 'high quality migrants', though Pelham's argument reveals one of the difficulties implicit in the 'push-pull' model. It draws attention to the factors which might initially induce an individual to migrate, but provides no insight into the migratory process (38). In effect nothing is explained, for many 'pulls' are perceived relief from the 'pushes' (39) and all motives are subsumed under "the assumption of the maximisation of want-satisfactions, so that the complex decision to migrate is reduced to a kind of mechanical balance of external and personal forces" (40). The second major weakness of the 'push-pull' model is that "it focuses too much attention on the migrant's relationship to either their areas of origin or destination .... migratory behaviour should be understood in terms of the location of the migrant within a field of relationships" (41).

The 'push-pull' model initially appears attractive to the geographer because of its spatial implications, but it also suffers from giving the impression that migration is a linear, once and for all movement, a pattern and not a process. It is this deficiency which the contribution of behavioural scientists is attempting to rectify. Linearity is replaced by an integrative systems approach. This implies more than just a recognition of return migration and counter-currents, but emphasises their role in providing some of the stimuli in the mean information field of the potential migrant. Mabogunje has articulated the conceptual base of a systems approach to rural-urban migration in the Underdeveloped World, though he believes the approach is equally relevant to the comparable shift in population in the past experience of the Developed World (42). His model defines the attributes and relationships of the interacting elements and, as a system, emphasises the essential self-modifying nature of the rural-urban migration sub-system within the total environmental system.

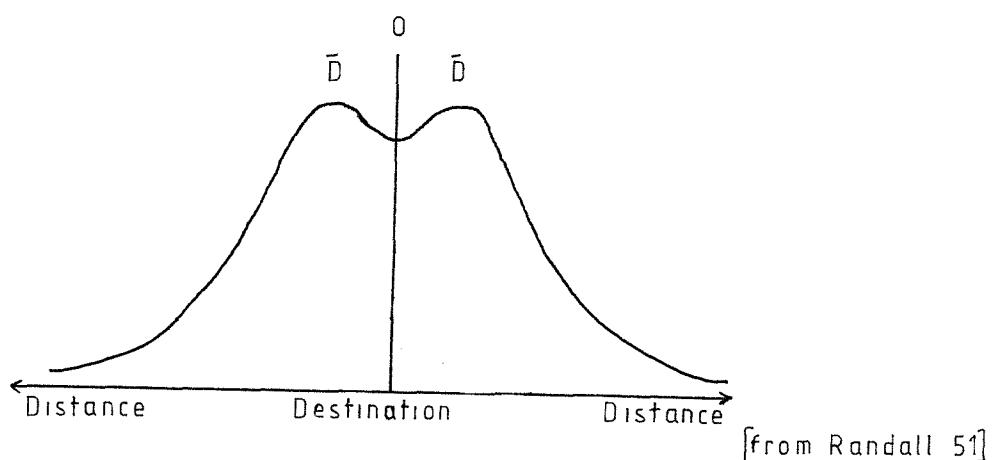
A Central Place Analogue. Some researchers have seen distance as a crucial factor. Olsson in particular has explored the implications of the gravity model in its relationship to central place theory (43). This provides the basis for Randall's attempt to derive a spatial theory of migration as an analogue to the classic central place model of Christaller. The central place, the central good and the complementary region are matched by the concepts of the migration centre, migration opportunity and migration field as the basic operational elements of the model (44). Four major relationships are derived from this understanding of space :

1. The cost of obtaining a migration opportunity is a function of the distance of the migrant initially from the location of that opportunity.
2. Each migrant will act in an entirely rational way and accept the nearest opportunity.
3. For each migration centre there is an inner and outer zone of migration; thus, there is a definable range of migration.
4. The number of migration opportunities offered by any migration centre is a function of the size of the population of that place.

Randall's analogy, however, is pressed too hard especially in his analysis of migration (consumer) costs. He notes that the outward limits of migration could be viewed as equivalent to the range of a good as both are expressions of consumer choice, but he is cautious in linking an inner threshold of migration to the range of a good. In central place theory the latter relates to a decision taken by the producer and not by the consumer. Randall sees migration costs as an aggregate of terminal costs and transport costs in which the former plays the more significant role. The spatial implications of this statement is the creation of a model of probable migration in which there would be an inner zone of fewer migrants than predicted by the usual linear function and where the migration **climax** would be located at the mean of the distance ( $\bar{D}$ ) from the origin (see Fig. 4).

Figure 4

Probability curve of out-migration from a centre O.



For any one centre this point may be regarded as the outer edge of the commuter zone. Terminal costs, however, are not viewed as necessarily economic in origin and Randall's definition includes those social and psychological costs which are implicit in the control sub-systems in Figure 6. This provides a conceptual, rather than an operational model in which an increase in the non-economic

elements in terminal costs reduces the probability of migration. However, in the context of the first relationship proposed in this central place analogue, the emphasis would appear to be on economic costs, defined by time or money. In these circumstances, it could be argued that Randall's initial assumption which emphasises terminal costs requires reassessment. In the context of eighteenth century Poor Law migrants it can be argued that terminal costs would be less significant than travel costs in an economic model. This does not destroy the concept of a probability curve of out-migration (Figure 4) but suggests that there is no inner zone of few migrants. Historical support for Randall's hypothesis might be seen in Patten's work in East Anglia and that of Chalkin and Clark in Kent, where fewer immigrants are noted from within five miles of the city compared with a zone eleven to fifteen miles away. The evidence is open to more than one interpretation.

"This pattern may be attributable in part to the increasing area contained within concentric circles drawn around Canterbury at such intervals. It may also represent a slight anomaly within the distance-decay relationships. How much of this pattern was due to the fact that people close by were in daily or weekly contact with the town as out-workers, produce suppliers or even daily commuting journeymen and were therefore not induced to migrate permanently is not known" (45).

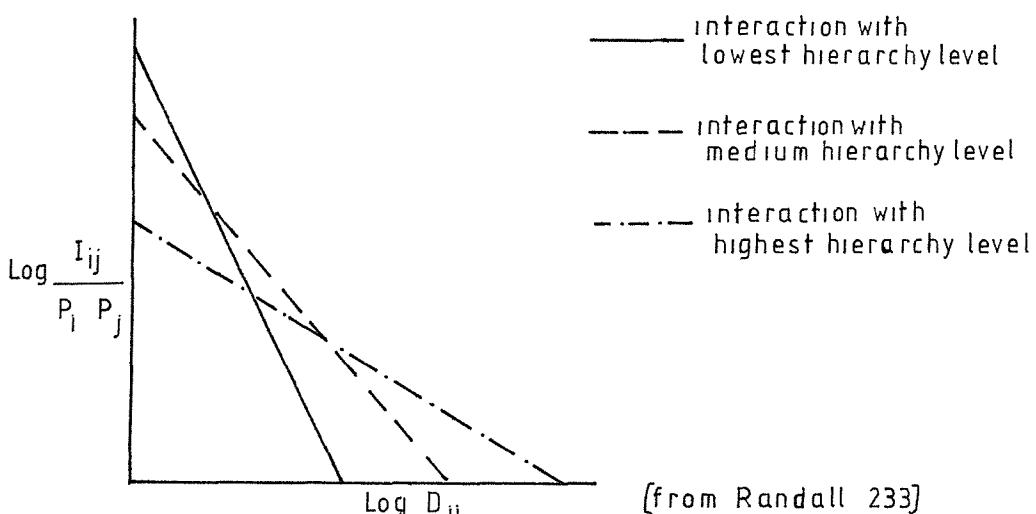
The evidence for Gloucestershire, presented in Chapters 5 and 6, provides no support for Randall's view, nor for his contention that the potential population in each zone is the main cause of the increase in migrants away from a centre in the first three or four zones up to 12 kilometres (46). A further explanation may lie in the actual size of the parish of origin where intra-parochial moves replace inter-parochial ones. Actual movement and recorded migration are not the same.

Hägerstrand notes that deterministic theories which connect migration and distance, whether measured by linear distance, time, financial cost or intervening opportunities can only roughly describe empirical data (47). Randall is aware that no allowance has been made for the non-rational aspects of human behaviour in his model. It would therefore seem a mistake to treat distance as an independent variable as it explains nothing. It can act only as a surrogate subsuming all those factors which affect the decision to migrate (48).

One further aspect of the central place model needs consideration. Central place theory assumes complete rationality in consumer behaviour and a resultant pattern of movement which minimises consumer costs. It also identifies a rigid hierarchy of service centres in which the

range and number of services increases with hierachal position. Accepting these constraints, Olsson argues that "a migrant would never move from a place A to a place B, if there is a larger place C at a shorter distance from A" (49); and by implication, suggests that the potential migrant will only be able to satisfy his needs in a centre larger than the one in which he is already living (50). Two further implications may be seen in terms of the distance decay function. Firstly, the interaction slope can be expected to flatten the higher the centre is in the hierarchy (51). Secondly, larger places increase their relative importance as destinations with the size of the origin, so that migrants from small places move shorter distances than migrants from larger places (52). See Figure 5.

Figure 5      Relationship between hierachal level and distance.



[from Randall 233]

Hägerstrand would appear to provide empirical support for the hypothesis of movement upwards in the settlement hierarchy. In his study of part of Scania, in the period 1935-39, gains in population were made from the surrounding rural hinterland and losses to the more remote and superior urban centres.

"The pattern can be followed by other Swedish migrational studies. The modification, however, occurs that a bigger town gains both from the nearest neighbourhoods as well as from smaller towns and agglomerations in the surrounding area. The losses go to superior centres, if such exist .... the urge of the population towards the more central places can be followed right down to movements from outlying parts to the more central localities within a single commune" (53).

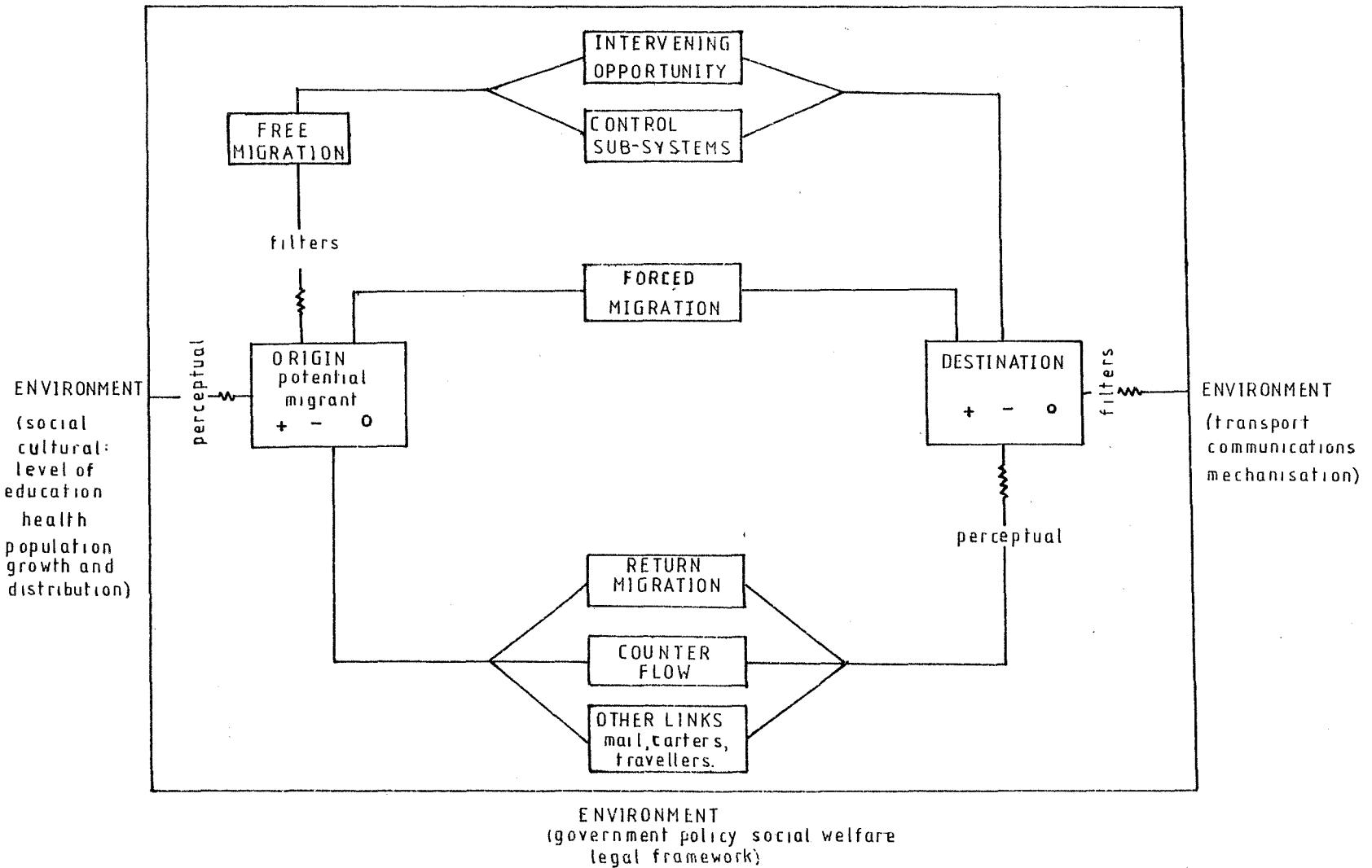
Hägerstrand names this process 'chain-migration' and it bears some similarity to the 'universal shifting or displacement of the population' identified by Ravenstein (Appendix 2, laws 2a and 2b) and 'the exceedingly complex wave-like motion' of Redford (54). It is

impossible to equate the two processes exactly as the earlier work is not couched in a specific central place framework. As an example of 'migration by stages' Redford identifies the movement of 2,000 villagers into Frome and a further thousand townsfolk from Shepton Mallet to the same centre, which was at the same time losing population to larger unidentified centres (55).

A Total Migration Model. The model which is proposed for this study draws mainly on the work of Mabogunje and to a lesser degree from that of Lee and Norris. Figure 6 is a graphic representation of its major elements. An origin and destination are defined, but as Norris points out they do not, of necessity, have a specific spatial location. Like Mabogunje, he recognises the interest researchers are paying to the collection of data from individual households, so that the origin and destination may have categorical constraints rather than spatial ones, i.e. groups of households may be aggregated on a non-contiguous basis (56). Origins and destinations are perceived by the potential migrant as having relative utility (57). Wolpert conceives of a threshold of net utility which can be expressed as a positive or negative yardstick by which the migrant evaluates his success or failure in the specific economic and social system of which he is a part. Inevitably, aspirations tend to adjust to the attainable and satisfaction leads to a lower level of attainment, whereas dissatisfaction acts as a stimulus to search behaviour; thus he becomes a potential migrant (58). As Lee recognises, there are an infinite number of factors within the area of origin which attract or repel people and others to which they are indifferent (+, -, and 0 in Fig. 6). The set of pluses and minuses are differentially defined for every potential migrant and change over time as the personal aspiration level varies with the stage reached in the life-cycle (59). However, most people are affected by some factors in much the same way, and it is therefore possible to suggest hypotheses which provide for the 'necessary conditions' for migration, even if they do not create 'sufficient conditions' to trigger the individual response (60). Potential destinations cannot be evaluated with the same degree of knowledge as the origin and their relative utility or attractiveness is based on a perceptual mix of optimism, ignorance and limited information. In Figure 6 this is represented by the return migration stream, the existence of a counter stream and the flow of information from friends, relatives and occupational groups (61). Mabogunje hypothesises that in the absence of this feedback the destination of migrants would be random

Fig 6. A TOTAL MIGRATION MODEL

ENVIRONMENT (economic conditions : wages consumer preference, marketing practice, degree of commercialisation)



and the number of migrants from any village to a city would be proportional to that city's size. Order and organisation are absent in these circumstances. Information in the system is crucial to the establishment of organisation in the greater differentiation of migration streams and patterns (62). Negative feedback, in the form of return migrants and a counter stream, provides an essential part of the self-regulatory nature of the system.

There are, however, other mechanisms which affect migration. Forced migration should be distinguished from the essentially free process that is normally implied in most studies. Lee identifies political expulsions, such as that of the Germans from Poland and East Prussia in 1945 and the Irish exodus a century earlier to Britain and America, as examples of the former (63). Norris extends the category to the members of household who do not actively make the decision to migrate, as well as to those forced to move by environmental changes induced by planning decisions (64). In the case of the Settlement Laws it would appear that forced migrants form a significant group. It includes not only those people removed to their place of settlement, but also the dependents of certificated migrants. It is for this reason and because one is largely concerned with labour migration that the Certificate and not the number of individuals to which it refers, is used in the subsequent analysis.

The free flow of migrants is regulated by a series of control sub-systems which include the psychological barrier of inertia exercised by the familiar world, family loyalties and pressures, community values and attitudes, the availability of economic opportunities, costs incurred in finding alternative housing and employment, topographical and other physical barriers and the laws relating to property, land, inheritance and in this particular study, to settlement or pass laws. The effectiveness of the Law of Settlement and Removal in influencing migration will be examined in Chapters 5 and 6.

Figure 6 identifies one special form of control between two given points, the origin and potential destination, in which distance is invoked as a crucial factor. Norris believes that intervening opportunities are undoubtedly the most important factors for explaining distance-decay regularities in migration (65). The number of opportunities increase with distance but the perceptual

surface of such opportunities decreases and becomes fragmented so that the mental map is not so much a continuous surface as an archipelago of isolated known worlds. In this context Patten suggests that the declining number of long distance apprentice migrants to Norwich from Yorkshire in the seventeenth century, may be attributed to the development of the home area, as well as the decline the East Anglian industry (66). Similarly Lawton's analysis of population movements in the West Midlands between 1841 and 1861 shows that the Potteries tended to be supplied by short distance migrants, but had a higher percentage of migrants from Cheshire, Lancashire and North Wales than the West Midlands as a whole. This pattern also occurs in East Warwickshire, which attracted more than the regional percentage of migrants from Northamptonshire and Leicestershire (67). As Stouffer notes "The relation between mobility and distance is not direct but depends on an auxiliary relationship that expresses the cumulated (intervening) opportunities as a function of distance" (68). Unfortunately, this does not advance our understanding of the causes or variables associated with migration. Like the gravity model, it is descriptive, substituting opportunity for distance. Willis sees Stouffer's model as suffering from circularity in that opportunities are defined in terms of the function he is measuring. (69). This does not, of course, invalidate the concept, it only recognises the difficulty in making it operational.

The discussion in this section reveals the need to identify how information about migration opportunities was transmitted in the period with which this study is concerned. In Chapter 5 the Poor Law data will be reviewed against the central place model to see if it is useful for this purpose. Notwithstanding this approach, it would seem wise to regard short and long distance migrants as responding to differing information mechanisms and differing stimuli (70). Clark in his analysis of Ecclesiastical Court Depositions for three Kentish towns, in the period 1580-1640, emphasises the role in short distance, 'betterment migration' of the extended family and kinship ties and the maintenance of rural ties. 'Subsistence migrants' however, relied on a more haphazard network of barns and victualling houses, itinerant craftsmen, drovers and harvesters for their information (71). Patten distinguishes 'undynamic mobility' from 'dynamic migration' to emphasise these two different mechanisms (72). Local migration (mobility) which would affect every settlement

in the urban hierarchy, is seen as an extension of the daily and weekly movement of villagers into the towns where craft industry, building work and labouring opportunities existed, as well as the markets (73). Similarly, townsfolk who had been country dwellers returned periodically for harvest, festivals and family meetings (74). It is only between the larger cities that large scale migration would take place and the volume and length of such movement can be expressed as some function of city size (75). Clark characterises 'betterment migration' in pre-industrial England as a constant intercourse between town and country ranging over a 10 - 15 mile hinterland (76). Patten, however, comments on the bias in Clark's study in using data from small town experience and suggests that the pattern established for large towns, in this period, was the direct opposite to Clark's hypothesis, that 'betterment migration' was essentially rural to urban and short distance, and that 'subsistence migration' was urban to urban and long distance (77). It would be interesting to test these hypotheses in the period covered by the Settlement Laws, but as both Clark and Patten realise there is a major difficulty. It arises from the imprecision of occupational styles and the consequent problem of defining occupational groups (78). This typology of 'betterment-subsistence migration' cast in a 'push-pull' framework makes anything more than a tentative statement hazardous. It may also be true that as both these authors were dealing with urban migration a further bias may have been introduced into their conclusions.

The last major feature of the model (Fig. 6) is the relationship of the migration system to its wider environment. In one sense, this has already been recognised in searching for the complex of economic and personal factors which affect individual decision making, but this reveals only a one way relationship. It is relevant to ask not only why people moved, but how many did so, to where and how far they went from home; it is also necessary to discover the effects these moves had on the origin, the destination and the migrants themselves. Wrigley's admirable study of the symbiotic relationship between London and the rest of England in the period 1650-1750 clearly shows how migration plays a significant part in the growth of the city as well as in the social and economic transition of the rest of the country (79). A system comprises of matter and energy. In its potential form energy represents the stimulus acting on the individual, and in its kinetic form it can be seen as the cost, direction and distance of migration,

and the role the migrant plays as a source of information (80). This exchange of matter and energy between the migration system and the environment in which it functions is characteristic of an open system (81). One of the features of such a system is the growth in the volume of migration, but also the degree of interaction between that growth and the constituent parts of the system which brings about change in both the system and the environment (82). Migration, therefore, has a direct effect on the demographic pattern at the origin and the destination, with a consequent implication for future migration. Similarly, migration will induce changes in inter-regional communication but will also respond to changes in transport systems, thereby setting up a whole series of changes in the structure of the central place sub-system. Mabogunje summarises these relationships with an analogy from physical geography.

"Just as the flow of water acts as a major sculpturing agent in the physical geography of any area in the world, the flow of persons (migration), of goods and services (trade and transportation) and of ideas (communication) is a crucial agency in shaping the human geography of a country. More than this there is the fact that growth in such 'flow phenomena' creates form" (83).

Summary. It is obvious that the implications of a total migration model go far beyond the investigation attempted in this thesis. However, it does provide the necessary conceptual framework. The limitations of the Settlement papers prevent all but the simplest description of the system's constituent parts and the energy exchange (migration rates) between them. The complexity of the system has been stressed to guard against any tendency for simple mono-causal explanations. In identifying the direction, distance and destination of Poor Law migrants, it concentrates on aggregate behaviour, but use is made of these documents to gain some understanding of the 'sufficient conditions' which prompted individuals to move. Before this is attempted it is necessary to establish both the legal and socio-economic environments which generated these documents and within which Poor Law migration took place.

1. Garbett, G.K. and Kapferer, B. (1970), 'The critical orientation in the study of labour migration', New Atlantis 1, 179.  
Roseman, C.C. (1971), 'Migration as a spatial and temporal process', Ann. Ass. Am. Geogr. 61, 589.
2. Norris, R.E. (1972), 'Migration as spatial interaction', Journal of Geography LXXI, 294.
3. Jackson, J.A. (1969), 'Migration - an introduction', in Jackson, J.A. (ed.) Migration (2 vols.; Sociological Studies; Cambridge University Press), vol. 2, 4.
4. Garbett and Kapferer, op. cit., 180.
5. Lee, E.E. (1966), 'A theory of migration', Demography 3, 48.
6. Ravenstein, E.G. (1885), 'On the laws of migration', Jl. R. Statist. Soc. XLVIII, 126-227. (see Appendix 2)  
Idem (1889), LIII, 241-301.
7. Randall, H.A. (1971) Some aspects of population geography in certain rural areas of England during the eighteenth and early nineteenth centuries, (unpub. Ph.D. thesis, University of Newcastle), 39. This criticism of Lee seems ill-founded as it ignores Lee op. cit., 49 where the author states his intention to develop a general schema into which a variety of spatial movements can be placed.
8. Garbett and Kapferer, op. cit., 179.
9. The preservation of personal anonymity prevents post 1871 enumeration data being made available at the Public Record Office. It is only from 1841 that birth place data has been recorded. In 1841 a simple division was adopted to indicate whether the individual was born in the county in which the parish was situated or outside that county. In 1851 the returns specified the actual place of birth.
10. It is this data which has been explored by several historical geographers.  
Darby, H.C. (1943), 'The movement of population to and from Cambridgeshire between 1851-1861', Geogr. J. 101-2, 118-125.  
Lawton, R. (1955), 'The population of Liverpool in the mid-nineteenth century', Transactions of the Historic Society of Lancashire and Cheshire 107, 89-120.  
Idem (1958) 'Population movements in the West Midlands, 1841-1861', Geography 43, 164-77.

Idem (1967), 'Depopulation in nineteenth century England', in Steel, R.W. and Lawton, R. (eds.) (Liverpool essays in geography (London : Longman), 227-255.

Smith, C.T. (1951), 'The movement of population in England and Wales in 1851 and 1861', Geogr. J. CXVII, 200-10.

11. Norris, op. cit., 294-5.

12. Roseman, op. cit., 590-1.

Lee, op. cit., 51.

Norris, op. cit., 300 classifies such dependents as part of a wider group of forced migrants which encompasses those people displaced by planning decisions, refugees, professional athletes, military personnel and business executives.

13. Willis, K.G. (1974) Problems in migration analysis (Farnborough : Saxon House), 5.

Bogue, D.J. (1969) Principles of demography (New York : Wiley), 756.

Friedlander, D. and Roshier, R.J. (1967), 'A study of internal migration in England and Wales', Population Studies 20, 45.

Kulldorf, G. (1955) Migration probabilities (Lund Studies in geography; series B, Lund), no. 14. Kulldorf examines how the size and form of administrative units influence migration statistics. In Sweden one third of the total changes in residence are lost if only inter-areal movements are considered - quoted by Hagerstrand, T. (1957) in Hannenberg, D. et. al. Migration and area (Lund Studies in geography ; series B, Lund), no. 13, 28.

Ravenstein, (1885) op. cit., 168.

14. Lipson, E. (1948) The age of mercantilism (3 vols.; 5th ed.; Economic history of England; London : Black), vol. 3, 457.

15. Marshall, D. (1926) The English poor in the eighteenth century (London : Routledge and Kegan Paul), 3-6.

22 Geo. III, C. 83 (1782). Gilbert's Act. This was permissive allowing for the establishment of unions of parishes to relieve the non-able poor.

9 Geo. I C. 7 (1723) had similarly allowed unions to establish workhouses if such provision was beyond the resources of the individual parish.

Webb, S. and Webb, B. (1927) The old Poor Law (3 vols. 2 parts; English local government; English Poor Law history; London : Longman), part 1, 100 et. seq. contains a fuller study of the

antecedent pressures for the adoption of a larger unit of administration. It was argued forcefully by men like Chadwick, that given the short distance nature of migration, larger units would reduce the legal and administrative burdens now imposed on the parishes and thus stimulate mobility. See Chadwick's evidence - Minutes of evidence to the select committee on settlement and poor removal B.P.P. 1847, XI, 233 et. passim.

16. Bogue, loc. cit.
17. Ibid.
18. Ibid.  
Deane, P. and Cole, W.A. (1964) British economic growth 1688-1959 (Cambridge University Press), 121.
19. Wolpert, J. (1965), 'Behavioural aspects of the decision to migrate', Papers and Proceedings of the Regional Science Association XV, 160.
20. Roseman, loc. cit.
21. Idem
22. Reports to the Poor Law Board on the operation of the Laws of Settlement and Removal of the Poor. B.P.P. 1850, XXVII, 125-144.  
Howell's report has been analysed by Mills, D.R. (1970), 'The geographical effects of the Laws of Settlement in Nottinghamshire', East Midland Geographer 5, 182-191. (especially 188).
23. See Chapter 3, pages 47 and 50.
24. Mitchell, J.C. (1969), 'Structural plurality, urbanisation and labour circulation in Southern Rhodesia', in Jackson, op. cit., 156-180.
25. This theme is explicitly dealt with by Garbett and Kapferer, op. cit., 180 and Lee, op. cit., 49 and Mabogunje, A.G. (1970), 'A systems approach to a theory of rural-urban migration', Geographical Analysis 2, 1.
26. 9 and 10 Vic., C. 66. (1846) and 24 and 25 Vic., C. 55. (1861) and 28 and 29 Vic., C. 79. (1865).
27. Lee, loc. cit.
28. These may be contrasted with the empirical tradition of British historical geography (see note 10 above)  
distance - gravity formulation  
Morrill, R.L. (1963), 'Distribution of migration distances', Papers and Proceedings of the Regional Science Association 11, 75-84.  
Nelson, P. (1959), 'Migration, real income and information',

Journal of Regional Science 1, 43-75.

Olsson, G. (1965), 'Distance and human interaction. A migration study', Geogr. Annlr. 47b, 3-43.

Stewart, C. (1960), 'Migration, population and distance', American Sociological Review 25, 347-56.

Stewart, J. (1947), 'Empirical mathematical rules concerning the distribution and equilibrium of population', Geogrl. Rev. 37, 401-35.

29. Intervening opportunity statements

Stouffer, S.A. (1940), 'Intervening opportunities! A theory relating mobility and distance', American Sociological Review 5, 845-67.

Idem (1960), 'Intervening opportunities and competing migrants', Journal of the Regional Science Association 2, 1-26.

Bright, M.L. and Thomas, D.S. (1941), 'Inter state migration and intervening opportunity', American Sociological Review 6, 773-83.

Anderson, T.R. (1955), 'Inter metropolitan migration. A comparison of the hypotheses of Zipf and Stouffer', American Sociological Review, 20, 287-91.

Probability Theory Statements

Hägerstrand, (1957) loc. cit.

Kulldorf, loc. cit.

Marble, D.F. and Nystuen, J.D. (1963), 'An approach to the direct measurement of community mean information fields', Papers and proceedings of the Regional Science Association 11, 99-109.

Morrill, R.G. and Pitts, E.R. (1967), 'Marriage, migration and the mean information field. A study in uniqueness and generality', Ann. Ass. Am. Geogr. 57, 401-22.

Porter, R. (1956), 'An approach to migration through its mechanism', Geogr. Annlr. 38, 317-43.

30. Wolpert, op. cit., 15 and 159. Inevitably the complexity of the inputs defied the data actually available and the model is in this sense non-operational. See also Morrill, op. cit., 76 who suggests one simple function cannot adequately relate distance to migration as the latter subsumes a wide variety of processes and movement.

31. Bogue, op. cit., 752.

32. Wolpert, op. cit., 167.

33. Lee, op. cit., 50.

34. Randall, loc. cit., comments that Lee's schema was developed mainly in terms of international migration to America. However, in the context of a general schema Randall's point is of little consequence.

35. Ravenstein, (1885) op. cit., 184 and 198-9.

36. Pelham, R.A. (1937), 'The immigrant population of Birmingham 1686-1726', Birmingham Archaeological Society Transactions LXI, 56.

37. Ibid. 63-4.

Taylor, A.J. (1960), 'Progress and poverty in Britain 1750-1850. A reappraisal', History 45, 21 believes migration is selective by age and by those who are of independent spirit.

38. Garbett and Kapferer, op. cit., 182.

39. Norris, op. cit., 299.

40. Taylor, R.C. (1969), 'Migration and motivation', in Jackson, op. cit. 99.

41. Garbett and Kapferer, op. cit., 184.

42. Mabogunje, loc. cit.

43. Olsson, loc. cit.

44. Randall, op. cit., 41-54.

45. Patten, J. (1973) Rural-urban migration in pre-industrial England (Research papers, School of Geography, Oxford), no. 6, 41.

46. Randall, op. cit., 255.

47. Hägerstrand, (1957) op. cit., 150.

48. Morrill and Pitts, op. cit., 401.

Willis, op. cit., 88.

49. Olsson, op. cit., 36.

Randall, op. cit., 54.

50. Olsson, loc. cit.

51. Ibid. 29.

Randall, op. cit., 144 and 233.

52. Olsson, op. cit., 29.

53. Hägerstrand, (1957) op. cit., 67-9. His work on Asby in the same work provides a similar conclusion, see p. 110.

54. Redford, A. (1926) Labour migration in England 1800-1850 (2nd ed. (1964) ; Manchester University Press), 186.

Chaloner, W.H. in his preface to the second edition credits Redford with the elaboration of this concept (see p. IX), but also notes the work of Danson, J.T. and Wilton, T.W. (1859), on 'The population of Lancashire and Cheshire and its local distribution during the fifty years 1801-51', Transactions of Historical Society of Lancashire and Cheshire XI, 48-9, from which the following quotation is taken

"The increase in population, by immigration, here in view, has been principally derived by each district from those in its own immediate vicinity, and that

this has caused a further but less immigration from other and more distant districts into those immediately surrounding the increasing place ..... if this be the case, each district which is brought into a condition to offer and make known remarkable facilities for the profitable employment of labour, may be held to occasion, as it were, a succession of waves of population pressing after each other from a considerable distance and gradually increasing in volume up to the point of attraction. Every place of considerable increase no doubt draws a portion from longer distances ..... but it is conceived that the increase derived from places comparatively near is always much greater than that from a distance".

55. Ibid. 66. Redford's use of the concept of 'migration by stages' is different from the individual step-wise movements to which Hagerstrand, loc. cit. and Ravenstein, op. cit., 183, refer. It is comparable to Ravenstein's second law (Appendix 2) and Hagerstrand's 'chain migration'. In quoting the evidence in the 1838 Report on the Operation of the Poor Law Amendment Act, Redford sows the seeds of ambiguity in subsequent researchers minds that he is proposing individual step-wise migration. See Grigg, D.B. (1977), 'E.G. Ravenstein and the "Laws of Migration" ', Journal of Historical Geography, 3, 47. Redford's emphasis is on migration by stages. Grigg tends to blur the distinction between these two processes (see P. 42 and 47).

56. Norris, op. cit., 296.  
Mabogunje, op. cit., 5.  
The nature of the settlement data employed in this thesis ensures that a spatial categorisation is explicit in the use of the model.

57. We have to make the assumption that man is intently rational and though limited in his ability to perceive, calculate and predict i.e. he is constrained by imperfect knowledge. However, he is able to differentiate between alternative courses of action according to their relative or expected utility (see Wolpert, op. cit., 161).

58. Wolpert, loc. cit.

59. Lee, loc. cit.

60. Mitchell, J.C. (1959), 'The causes of labour migration', Bulletin of the Inter African Labour Institute 6, 32, quoted by Gugler, J. 'Theory of rural-urban migration', in Jackson, op. cit., 140-2. Mitchell adopts a necessary two stage explanation of migration to avoid an over simplistic cause-effect rationale. Economic factors appear to be the 'necessary condition'

for migration, but their presence does not determine that it will actually take place. Some event, in the personal life, of a migrant is required as a trigger (the 'sufficient condition'). In this way, Mitchell, separates the rate and incidence of labour migration. A complete understanding of the personal and economic conditions affecting the individual is a necessary pre-requisite for migration studies. Mitchell states that the personal factors are, by definition, unique, and act independently of the underlying economic conditions which determine the rate of migration. Gugler admits the value of Mitchell's work in pointing to the paramount importance of economic forces in stimulating labour migration (in sub-Saharan Africa) but is critical that all non-economic forces are grouped into a residual category of personal factors and he dislikes the illogical distinction so created. Economic forces are frequently personal and they may not be the 'necessary condition'. What is required is a view that the role of migration is the result of the aggregate of collective forces, be they economic or not. The incidence of migration, why one man migrates and another does not, appear then as determined by the differential impact these collective forces have on different individuals (Gugler, op. cit., 142-3).

"Migration is not therefore a direct response to the objective economic circumstances which might be incorporated, for example, within a normative transportation model" (Wolpert, op. cit., 161). Mabogunje, op. cit., 5 and 11 makes an interesting point that migration data usually identify those people that have actually moved and fails to investigate the universe of potential migrants. Migration differentials implicitly indicate a propensity to migrate, but few studies carry this to its logical conclusion. Taylor, however, has developed a typology of migrants and non-migrants in his study of Durham miners (Taylor, op. cit., 108)

61. A great deal has been written about the role and nature of mean information fields in the study of migration. See

Hägerstrand, (1957) op. cit., 127-132.

Morrill and Pitts, loc. cit.

Nelson, op. cit., 49-62, in which friends and family provide not only information but a real income.

Allen, J.P. (1972), 'Migration fields of French Canadian immigrants to Southern Maine', Geogrl. Rev. 62, 376.

Lee, op. cit. 54-55.

Marble and Nystuen, op. cit., 100-105.

Patten, op. cit., 37.

Porter, op. cit., 322.

Taylor, op. cit., 110-111, notes that migration runs in some families rather than others.

Roseman, op. cit., 593.

It is important to note that these authorities use differing terminology to identify the processes by which information is gathered. Roseman uses the term 'direct contact space' (p. 590) and 'activity space' (p. 593) to define the area over which reciprocal movements occur between the nodes of workplace, shops, places of entertainment and friends; places that are regularly visited over a period of time from the home (centre of gravity). 'Indirect contact space' is generally beyond the directly searchable 'activity space' and requires a different information gathering process (p. 593). Wolpert uses 'action space' as a synonym for mean information field (p. 163-4) which encompasses both search behaviours identified by Roseman.

Roseman's typology leads to a separation of partial from total displacement as two forms of movement. The former involves a change in the centre of gravity, but the location of some of the nodes is unchanged. The latter requires a move to a new area. In this study, where much of the movement is shown to be local, it could be regarded as partial displacement although it is impossible to substantiate this idea from the data available. Actually, Roseman would regard this as a misuse of her categories in that a change of job is not regarded as a key variable in a partial move (p. 594). The relevance of the typology lies in the probability that 'indirect contact space' is less likely to provide accurate information and thus there is a greater likelihood of dissatisfaction with a new area which results in a further partial displacement after a short interval of time (Roseman, op. cit., 595). An analysis of Poor Law Examinations might provide some insight into this mechanism. This would reinforce the view of Mitchell, Roseman, Jackson and Wolpert that migration profiles are necessary for isolating migration processes and counteracting the view of migration as a static, once only act. Bogue, op. cit., 754; Gugler, op. cit., 141 and Taylor, op. cit., 99 point to the danger of accepting a migrant's statement of the motives behind their migration and the limitations of inferring

from them a study of objective structural determinants. Hågerstrand, (1957) *op. cit.*, 132 defines two migrant types based on differing search behaviour. The 'active group' seeks methodically for a suitable destination guaranteeing future prosperity, whereas the 'passive group' depend on impulses emanating from persons of acquaintance, mainly those who had made a fortunate move. The 'active group' depends on 'direct activity space' and it is this group which Mabogunje sees as crucial in migration studies (Mabogunje, *op. cit.*, 13). It might be attractive to cast certificated migrants in this role, but there is no way in an historical context of distinguishing the manner by which potential migrants received information. There is also a great danger of over-categorisation. Information came in a variety of ways to a potential migrant. The major implication of the differing search behaviours is that long and short distance movement be treated as separate phenomena responding to different mechanisms. This point is dealt with in the section dealing with distance as a migration barrier (see page 26 et. seq.).

62. Mabogunje, *op. cit.*, 12-13.  
Patten, *loc. cit.*  
Allen, *op. cit.*, 368.  
Pelham, *op. cit.*, 50.
63. Lee, *op. cit.*, 56.
64. Roseman, *op. cit.*, 591. See note 12 above.
65. Norris, *op. cit.*, 301. However, Norris is wrong to consider step-wise moves and chronic movers in this category of movement. Following an initial move, a new information field is created by the migrant from which a further stimulus to move may be generated. In this sense, it is incorrect to see the first destination as an intervening opportunity as conceived by Stouffer *op. cit.*, 71, who uses the concept to predict flows between two points given a knowledge of the intervening opportunities which are defined as the total number of migrants from all points residing there and at the destination. It provides an alternative to distance in a gravity model. Subsequently, the concept was re-cast in terms of competing migrants. The attraction of a particular place X, from place Y, will depend, at least to some extent, on how many potential migrants are closer to Y than are the potential migrants at X (Stouffer, (1960) *op. cit.*, 97).

66. Patten, op. cit., 38.
67. Lawton, (1958) op. cit., 174.
68. Stouffer, (1940) loc. cit.
69. Willis, op. cit., 89.
70. Patten, op. cit., 25.
71. Clark, P. (1972) 'The migrant in Kentish Towns 1580-1640', in Clark, P. and Slack, P. (eds.) Crisis and order in English towns 1500-1750 (London : Routledge and Kegan Paul), 139-140, 147-149.
72. Patten, op. cit., 23-24, is well aware of the danger of over defining these categories.
73. Ibid., 25.  
see also Laslett, P. (1965) The world we have lost (London : Methuen), 13.
74. Clark, op. cit., 136-137.
75. Patten, op. cit., 25-26.
76. Clark, op. cit., 149.
77. Patten, op. cit., 9-10. Later Patten categorises settlement migrants as subsistence migration (p. 42).
78. Clark, op. cit., 128.  
Patten, op. cit., 9-10.
79. Wrigley, E.A. (1967) 'A simple model of London's importance in changing English society and economy 1650-1750', in Urban development (1973) (Milton Keynes : Open University), Unit 1, 1-35.  
See Figure 14 and p. 35 in particular.  
See also Fisher, F.J. (1934-5), 'The development of the London food market 1540-1640', Econ. Hist. Rev. V, 51.  
Idem(1948), 'The development of London, as a centre of conspicuous consumption in the sixteenth and seventeenth centuries', Royal Historical Society Transactions 30, 37-50.
80. Mabogunje, op. cit., 10-12.
81. Ibid., 14. This has no special significance for this study, but methodologically it is significant in constructing a total migration model. It illustrates the principle of equifinality i.e. 'The state of the system at any given time is not determined so much by initial conditions, as by the nature of the process or the system's parameters. In consequence the same results may spring from different origins, or, conversely different results may be produced by the same causes. In either case it is the nature of the process which is determinate, since open systems are basically independent of their initial conditions. This

principle is of considerable importance in studying rural-urban migration in different parts of the world since there is a tendency to regard this movement as a special kind different from elsewhere in the world". As long as the parameters of a particular system are recognised, cross-temporal and cross-cultural comparisons of the migration process may provide insight into one particular system, through the examination of another system. (see note 25)

82. Compare Lee's hypothesis I in Appendix 3.
83. Mabogunje, op. cit. 15.

## Chapter 3

### The Legal Environment

"The Law of Settlement was complicated, doubtful, absurd ..... in short the law was at its most asinine, and its administration was even worse ..... parishes had embarked on a game of beggar-my-neighbour".

George, D. (1953)  
'London life in the eighteenth century', 136.

#### 1. The Law of Settlement and Removal

"It shall and may be lawful upon complaint made by the Churchwarden or overseers of the Poor of any Parish to any Justice of the Peace within forty days after any such person or Persons coming to settle as aforesaid in any Tenement under the yearly value of Ten pounds for any two Justices of the Peace where any person or persons that are likely to be chargeable to the Parish shall come to inhabit by their warrant to remove and convey such persons to such Parish where he or they were last legally settled as a native Householder Sojourner Apprentice or Servant for the space of forty days at the least unless he or they give sufficient security for the discharge of the Said Parish to be allowed by the Said Justices" (14 Car. II, C. 12).

It is this provision of the 1662 Act and the spirit it embodies which characterises the administration of the laws affecting the poor for at least 200 years. Like many laws of the period it did not herald a new approach to a problem but may be regarded as an attempt to consolidate and codify existing practice and to remove defects from the existing law (1). The wanderer had always been looked upon with suspicion in English society for the association with a place had been a vital component of the protection and responsibilities of a feudal society. The breakdown of that social system, the growth of a money economy, of rural industry and labour shortages exacerbated by recurrent visitations of the plague and other diseases not only created an army of wandering beggars and footpads, but an increased movement of honest labour. The over-riding fear of social disorder was embodied in the severity of the Vagrancy Laws. As early as 1388 provision was made for the removal of vagrants (2) and in 1547 this principle was applied to the infirm (3). The problem became greater rather than less in the sixteenth century. As

population increased, private charity became inadequate in the emerging Protestant state and the engrossment and enclosure of the land increased the number of landless peasants. The economic fluctuations in an economy over dependent upon the production of grain and wool, the inflation of the late sixteenth century, the seasonal nature of much employment, bad harvests, low productivity and income conspired to ensure poverty as the normal condition of the majority of the population and created conditions where "labour mobility would seem a likely concomitant of involuntary under-employment" (4). The removal of vagrants and the infirm feature in all the Poor Law legislation of the sixteenth century (5). An act against 'Erecting and Maintaining Cottages' (6) was directed against newcomers. But Coode's observation that

"not a trace is to be discovered in all this period of any suggestion that the independent and unoffending poor should be confined to any locality or prevented from circulating as their interests or inclinations might lead them" (7)

is not unjustified. However, the harassment of the early seventeenth century became enshrined in the Act of 1662. It was to be a law of removal rather than one of settlement. From that date until 1795 (8) a newcomer was liable to removal even on suspicion of becoming a burden to the poor rate of the parish in which he had chosen to live, unless he carried a Bond of Indemnity or later a Certificate (9), which acknowledged the responsibility of the parish from which he had come and thereby prevented his removal until he became actually chargeable. The belief that "a warrant was usually granted as a matter of course" (10) is far too sweeping as it was normal for an examination to take place before the magistrates to identify the parish of legal settlement. The threat of removal implies that it is possible to decide which parish should bear the legal and financial responsibility for a pauper's return and subsequent maintenance. The need to define legal settlement arose because of a lack of definition in the Act of 1601 and the increasing burden of the maintenance of the poor following the economic and social dislocation of the Civil War. A settlement could be acquired by giving sufficient security to indemnify a parish against the possibility of requiring relief, by a payment of a £10 annual rent or the simple expedient of 40 days residence. The first and second conditions need to be viewed against a rent of £1 a year for a labourer's cottage and £2 - £3 for that of a mechanic or tradesman (11). The latter should be viewed against the zeal of overseers whose responsibility

to their parishes was the minimisation of the cost of maintaining the poor. Subsequently, to prevent the residential qualifications being effected, the arrival of a newcomer had to be accompanied by a notice in writing (12) and later its publication in the pulpit (13). Further amendments (14) gave the superficial appearance of creating more categories by which a settlement could be gained, but in fact, specification meant a narrowing of the conditions, so that it became increasingly difficult to change one's legal place of residence (15). Lipson suggests that the

"stringency of the settlement regulations becomes more comprehensible when viewed in the light of the municipal attitude towards strangers in general, for it is evident that a system which confined the right to carry on a trade to the freeman of a borough, served as a practical bar to settlement in the borough" (16).

Oxley is much too sanguine in believing that this Act was a fair compromise between the interest of the townships and the poor (17).

The logical outcome of a situation of increasing difficulty in acquiring a settlement and the existence of wide powers of removal was a staunching of the flow of migrants to such an extent that parliamentary interference was required.

"Foreasmuch as many poor Persons chargeable to the Parish Township or Place where they live meerly for want of work would in any other place where sufficient Employment is to be had maintaine themselves and families without being burthensome to any Parish Township or Place but not being able to give such security as will or may be expected and requirred upon their coming to settle themselves in any other place and the Certificates that have been usually given in such cases having been often times construed into a notice in Handwriting they are for the most part confined to live in their owne Parishes Townships or Places and not permitted to inhabitt elsewhere though their labour is wanted in many other Places where the Increase of Manufactures would employ more handes. Be it therefore enacted .... that if any Person or Persons whatsoever that from and after (1 May 1697) shall come into any Parish or any other Place there to inhabitt and reside shall at the same time procure bring and deliver to the Church wardens and Overseers of the Poor of the Parish or Place where any such Person shall come to inhabitt or to any or either of them a certificate under the Handes and Seales of the Church wardens and Overseers of the Poor of any other Parish Township or Place or the major part of them or under the Handes and Seales of the Overseers of the Poor of any other Places where there are no Church wardens to be attested respectively by two or more credible witnesses thereby owning and acknowledging the Person or Persons mentioned in the said Certificate to be an Inhabitant or Inhabitants legally settled in that Parish Township or Place every such certificate having been allowed and subscribed by two or more of the Justices of the Peace of the County City Liberty Borough or Town Corporate

wherein the Parish or Place from whence any such Certificate shall come dothe he shall oblige the said Parish or Place to receive and provide for the Person mentioned in the said Certificate together with his or her Family as Inhabitantes of that Parish whenever she or they shall happen to become chargeable to or be forced to ask Relief of the Parish Township or Place to which such Certificate was given and then and not before it shall and may be lawfull for any such Person and his or her children though borne in that Parish not having otherwise acquired a legal settlement there to be removed conveyed and settled in the Parish or Place from whence such Certificate was brought" 8 and 9 William III, C. 30 (1697).

The Certificate was "an attempt to meet, though in a very hesitant and restricted way, the growing demand for mobility and labour" (18). Their importance in the administration of the system raised the ironic comment from Adam Smith that "certificates ought always to be required by the parish where any poor man comes to reside, and they ought very seldom to be granted by that which he proposed to leave" (20). Similarly Removal Orders contain this internal inconsistency of objectives, that is, a settled poor and a mobile labour force (21). It has already been suggested that the Law had adversely influenced migration, in which case, it is reasonable to hypothesise, as Pelham has done, that its amendment in 1697 had the effect of increasing the numbers coming from further afield (22). This is one hypothesis which will be examined more fully in Chapter 6. Its corollary is that the Act of 1795, which prevented a removal unless the migrant was shown to be actually chargeable, would further encourage mobility.

The 1834 Poor Law Amendment Act might be regarded as the single most important act of the nineteenth century in this field of social legislation. However, it did not significantly affect that part of the Law related to settlement and removal. The particular evil it set out to curb, that of out-door relief, grew unabated. On Lady Day 1846, 82,249 persons were receiving non-resident relief (23). Unions of parishes had been created by the 1834 Act, but the unit of settlement and the cost of supporting the poor remained at the parish level, though since the Act of 1795 the cost of removal fell on the parish of residence. To minimise out-door relief, reduce removals and encourage a greater circulation of labour, an Act was passed in 1846 which was to stop the system of out-door relief to the non-resident poor who would now be subjected to a Removal Order or the work house. The Act further provided that if a person had become chargeable through temporary sickness or infirmity, was in the first

year of widowhood or had resided for five years previously in in the parish without seeking relief, then that person could not be removed nor could a warrant be issued for that purpose (24). The cost of maintenance would fall on the parish of residence and as the Law was thought by the Poor Law Board not to be retrospective in relation to those who had been in receipt of relief before the Act, the 'open' parishes faced financial crises in supporting the extra poor, which had until that time, received non-resident relief from their place of legal settlement. No doubt, the return of the aged or the infirm to country parishes after a useful life in an urban parish underpinned this clause. Subsequently, the courts decided that the Act should be retrospective and as a consequence a flood of applicants, who would have previously feared removal, applied for relief in the towns and their costs soared. It also exacerbated the problem of accommodation in rural areas where, in certain circumstances landlords could control the availability of accommodation in 'close' parishes (25). It invited the expulsion of migrants with less than five years residence and those who had received non-resident relief in the same period. Within a year another Act was passed to counteract these unexpected outcomes of the first. The Unions and not the parishes, would bear the financial responsibility for the wandering poor and those who had sought temporary non-resident relief in the year prior to the 1846 Act, if they would otherwise have been exempt from removal under the five year rule (26). The discontent with the evils of the Settlement Laws led to a Select Committee Report in 1847. Chadwick, one of the major protagonists for reform, re-iterated much of the evidence he had given to the Royal Commission in 1833 on the effects of the 'close' parishes preventing migration, the rate burden this threw on other parishes and the essential short distance nature of migration. To him, union rating and union settlement were desirable interim measures until such time as the concept of settlement could be abandoned. (27). In 1848 a further Act confirmed and extended the financial liability of the union to the wandering poor and those who sought relief, but who were irremoveable under the five year rule (28). Major reports were made to the Poor Law Board in 1850 and 1851 in which the evils of the settlement system were exhaustively exposed. Further Acts in 1861 and 1865 reduced the irremovability clause to three years and then one year, and in the latter Act, the union became the unit of settlement (29). It is this Act which marks the end of the system of settlement and removal instituted in 1662, (30). The documents created by this system are described in the following section (31).

### III. Potential of the documentary evidence of the Law of Settlement and Removal for migration studies.

The introduction to this thesis suggested that, in the period before the nineteenth century Censuses, the documents relating to the administration of the Law of Settlement and Removal provide a largely untapped, but significant source for the study of population movement. In this section the potential value of the three main categories of document to historical geographers will be considered.

Settlement Certificates. The 1662 Law has been shown to be one of removal rather than settlement. The stringency of its measures was such that it was thought necessary in 1697 to make a major modification of those provisions which apparently constrained migration. Certificates had been authorised by the 1662 Act, but were restricted to the temporary and largely seasonal movement of married men without their families. These Certificates differed from the Bonds of Indemnity which were common in the preceding period (32). The Bonds had required a surety of money to 'save a parish harmless' (33), but the sum involved (often £40) like the £10 residential qualification required for a settlement after 1662, was beyond the means of most of society. In 1712 Matthew Iles who was legally settled in Kingswood, Wiltshire, therefore used his broadloom as surety to the parish of Cam, in Gloucestershire (34). Hampson notes that, if the temporary Certificates granted from 1662 were designed to counteract the unequal provision of work and the possible hardship that unemployment would bring to individual parishes, then it was unnecessary in a rural county like Cambridgeshire (35). The Webbs and Nicholls point to a strong metropolitan influence in the framing of the Law, for it was in London that vagrancy and potential disorder appeared most real (36). In this context the temporary Certificate seems a sop to rural interests. Nevertheless, in the period 1662-1697, the practice of issuing Certificates to migrants desiring a permanent move reflected the needs of parish authorities to circumvent the legislation of 1662 and facilitate mobility (37). It is this practice which the Act of 1697 codifies. Under it, holders of Certificates could not be removed from the parish in which they chose to reside until they actually became chargeable. Equally significant was that the provision extended the system to the whole of the labouring population. This contrasted with the Bonds of Indemnity which had favoured the more prosperous artisan and tradesman (38). The early Certificates had no standard format but normally gave the name of the migrant, the

parish of settlement, the parish <sup>in</sup> which residence was desired and the date. Marital status, dependents, age and occupation were occasionally given (39). Early Certificates were often addressed 'to whom it may concern' or 'to all Christian people', but after 1697 they were usually in the form of a contract specific to the two named parishes (Appendix 1.1) (40). It was clearly in the interests of potential migrants to obtain a Certificate if fear of removal was a dominant consideration. Parishes, however, were under no obligation to provide them. Marshall believes that most people moved without carrying one (41), so that however substantial a collection of documents survive it represents an unknown fraction of the number issued and of total movement.

The few studies of these documents suggest that the greatest number are to be found for the mid eighteenth century (42). Table 1 shows that this is true of Gloucestershire, though a secondary peak occurs during the first twenty years of the century. One would expect that more recent documents are more likely to survive but the varying attitudes of the clergy as custodians of the parish chest add to the chance factors which guard against this simple supposition. The survival rate of Certificates is very uneven. In Gloucestershire many parishes have no extant documents, the majority have less than one per year, though Stroud approaches an average of five. Randall's work on Kettering and Reigate suggests an annual average of four documents in the period 1696-1795. His analysis of 6,500 Essex Certificates produces an annual figure ranging from one in some parishes to five in others (43). Hampson's work in Cambridgeshire puts the survival figure between three and four (44). Thomas estimates that a county town may have 5 Certificates annually, a textile town 3 or 4, but a rural parish 1 every three or four years (45). Pelham's analysis of the Birmingham register in which the annual average was 17, provides one with a reminder that movement to an urban place of this status was of a very different order from that associated with small towns like Stroud or rural Gloucestershire parishes such as Badgworth or Slimbridge (46).

These survival rates raise several questions which may affect the value of Certificates for migration studies. Firstly, the extant documents represent a sample of unknown size and bias. Oxley and Marshall have suggested that they represent an unimpeachable witness in any contested case and this argues for a very high survival rate (47). Oxley and Thomas believe that they were freely granted (48)

which would suggest that they may prove to be representative of the migrant population. On the other hand, Pelham contends that the absence of migrants into Birmingham, in the late seventeenth century, from the Vale of Gloucester and other major cereal producing areas between the Chilterns and the Cotswolds, resulted from the refusal of landlords to issue Certificates. The failure of the Act of 1697 to make their issue mandatory can be interpreted as the action of the powerful land-owning lobby in Parliament (49). The lack of extant Certificates can be interpreted in alternative ways. Certainly, in areas of expanding job opportunities, in regions of prosperous rural industry, like the Gloucestershire cloth parishes at this time (50), or in the towns (51), there would seem to be little need for them. The parish officers in these places were unlikely to operate a restrictive policy against the labour they required, while the migrant would not tempt fate by asking for one from his parish of legal settlement. The preamble to the Act of 1697 makes it clear that Certificates had been misinterpreted as the notice in writing required by the Act of 1685 and this had led to summary removal. The Webbs note that only in rural districts with stagnant employment and almost stationary populations was local opinion hostile to the newcomer (52). Consequently, Randall suggests that it is only larger settlements which can be studied through these documents, as smaller centres, with limited employment opportunities would be unattractive and few Certificates would be collected (53). This may accord with a central place model of migration, but the evidence of Certificates in Gloucestershire cannot be interpreted so simply. The lack of documents after 1795 reflects the legislation that made migrants 'de facto' Certificate holders until they actually became chargeable.

The second question relates to their value in recording patterns of migration. Thomas believes that they are of great importance in this respect (54), but the identification of origin and destination on the Certificate, and for that matter in the nineteenth century Enumerators' Returns, may represent only part of the process. The specificity of Certificates can only be regarded as support for Thomas' view if they had been issued at the time of movement, but it appears that many were issued retrospectively to provide support for a migrant who had fallen on hard times. This procedure may even have been encouraged by some parish officers. There would always be a possibility that a new legal settlement might be acquired or that the place of

legal settlement remained unidentified. Even if a parish should be asked to honour its obligation it might prove cheaper temporarily to support its parishioners in another place on non-resident relief rather than accept the cost of removal and more permanent unemployment at home. It is possible to gain some idea of the use of retrospective Certificates where Examinations and Removal Orders for the same migrant have survived (55). An analysis of the Gloucestershire cloth parishes shows that 26 preceded an examination or the issuing of a Removal Order, 49 were issued at a much later date, whilst 56 lie retrospectively within an arbitrary six weeks of the examination or the Removal Order. The significance of retrospective Certificates to a study of migration is that whereas a migrant bearing a Certificate might only be permitted a known short move between two parishes, retrospective Certificates may indicate longer movement and yet mask the series of moves of which only the origin and the destination are recorded. It also raises the question of whether the certificate system encouraged mobility by counteracting the severity of the 1662 legislation, a view shared by Hampson, Pelham, Tate and Styles (56), or whether, as Marshall suggests their specificity restricted movement (57). In this context, it should be noted that, until 1795, the parish of legal settlement bore the cost of removal. Ashton suggests that a distance of 10-15 miles represents the upper limits of the Certificate, in which case, the patterns revealed by this data only reinforce the essentially short-distance movement of the time (58).

Examinations. If a migrant was thought to be likely to require support from the rates, was actually chargeable, or could provide evidence related to the settlement of another migrant, then an examination was conducted before the Justices of the Peace. The examination centred on the need to define the place of legal settlement of the migrant and did not of necessity lead to the issue of a Removal Order. A great deal of interesting biographical information is contained in the resulting transcript and demographers and genealogists have found them a complement to Parish Registers in attempting family reconstitutions. Their interest to historical geographers lies in the details they contain of step-wise moves taken over a period of several years (Appendix 1.2), though one cannot regard such details as brief personal histories. The Justices were only concerned with details which had a bearing on the place of legal settlement. Nevertheless, information on the periods and length of service or apprentice-

ship, where such service was effected, birthplace, parents names and legal settlement all provide details not normally found on the Certificates. Occasionally, the motive for migration is stated providing a salutary reminder of the behavioural nature of the migration process. The survival of Examinations in Gloucestershire is even more variable than that for Certificates. Stonehouse has a particularly good collection of 189 documents, Bisley has 128 but Stroud only 13. Obviously these documents are of maximum value if they can be matched with the relevant Certificate or Removal Order and thus provide the fullest picture of Poor Law migration.

Removal Orders. It is this group of documents which Coode regarded as the outward signs of "the most effectual and extensive invasion of the rights of Englishmen which had ever been attempted since the Conquest" (59). Since Removal Orders were not an innovation in 1662, it was their extension to include the able-bodied working man, who might require support from the rates, which was new. Two copies were issued, one for each of the parishes involved in the forced migration and in detail closely resemble the Certificate (Appendix 1.3). In addition to the date of issue, many carried a note indicating whether the Order had been executed or the reason such as illness or advanced pregnancy which had resulted in its temporary suspension. The existence of the two documents, the original and its copy, creates both 'removals from' and 'removals to', the former normally occurring in greater numbers and may be regarded as mirror images of 'Certificates to'. 'Removals to' can be equated with 'certificates from' though both these groups occur less frequently in parish collections, (60). Clark believes that there were fewer Removal Orders than Settlement Certificates (61). Thomas' study of Essex, Berkshire and Oxfordshire had been based on 7,118 Certificates and 3,304 Removal Orders (62). Randall analysed 547 Certificates but only 185 Removal Orders for Kettering (63). Oxley draws on 226 Certificates and 529 Removal Orders for the West Darby Hundred of Lancashire (64). The present study analyses 2,482 Certificates and 2,864 Removal Orders in Gloucestershire (65). Adam Smith believed "there was scarce a poor man ..... who has not in some part of his life felt himself most cruelly oppressed by this ill-contrived law of settlement" (66). If this is to be interpreted literally then far more substantial collections of Removal Orders could be expected than is the case. The Webbs estimated that between 50,000 and 100,000 removals were authorised annually, i.e. one or two per parish, (67). Yet, they also suggest that between 1750 and 1834

every farm labourer in Southern England was relieved frequently (68). Coode's analysis of returns for 1849 reveals that 13,867 Orders were issued affecting 43,112 people. His estimate suggests two or three Orders annually for every parish (69). Thomas calculates an annual frequency rate of 3-4 in the textile towns, but 1 every 3 or 4 years in rural parishes (70). Body derives a rate of one every two years in Dorset between 1760 and 1834 (71). In Gloucestershire, the rate is less than one per annum, though this is based on those 28 parishes for which at least 25 Removal Orders survive. For all parishes the figure would be very much lower. The absence of Removal Orders in any one Parish may be due to chance factors, but parochial attitudes as in the issuing of Certificates, may also be seen here. There may well be an inbuilt bias against the smaller, less prosperous rural parish.

Individually each Removal Order can be regarded as a personal migration failure, but in aggregate, the existence of large numbers at particular times, may indicate a period of economic difficulty. Table 2 suggests that for the Gloucestershire cloth parishes the periods 1771-80 and 1826-35 were periods of economic crisis. Thomas' work on the declining textile regions of East Anglia, Berkshire and fluctuating prosperity of the East London silk industry, supports the view that the Orders broadly coincide with periods of economic depression (72). Further support is found in Hampson's study of Cambridgeshire Quarter Session papers in which the volume of appeals against removal doubled in the decade following the Napoleonic wars (73). Body, however is more circumspect in his analysis of the removals issued from four Dorset towns in the period 1815-34. He notes that such Orders reflect likely chargeability and not mobility per se (74). The value of Removal Orders as economic indicators will be examined further in Chapter 5. It is also possible to emphasise their indication of an earlier free movement, but there may be a bias in the sub-groups which were most affected by this facet of the Law. Particular biases in age, sex and occupation will be analysed in Chapter 5, though this may throw more light on social history than on the historical geography of migration. It has been suggested that the Removal Orders can be regarded as a measure of the individual's inability to cope with the new environment, but the population of migrants who were removed changes in character after 1795. Before this amendment which terminated the certificate system, non-certificated migrants could be removed on the likelihood of becoming chargeable; afterwards only actual paupers

could be removed. In the nineteenth century those people subjected to removal would represent the least successful section of the working class, those most vulnerable to economic change. The issuing of Removal Orders continued after the demise of the parochial system in 1865 (see page 45), though in Gloucestershire as Table 2 shows, few Removal Orders have survived the 1840's. There is no indication of the flood of Removal Orders that might have been expected following the irremoveability clauses of the 1846 Act. The interval between voluntary migration and forced return could be as little as a day. Frequently, bridegrooms were apprehended on their wedding day. This act would also remove a female parishoner who would now take on her husband's place of legal settlement. The gap could be a 'lifetime'. The rural parish bitterly resented the return of the sick, injured or aged in exchange for their able-bodied youth. The evidence of related examination and Removal Orders gives further support to a view of migration as a cyclic rather than a linear process for many working people in pre-industrial England.

One major drawback of the Removal Order as a source for migration studies is that it may suggest a move where none had occurred. The difficulty of obtaining a settlement has already been considered and many adults did not acquire a settlement in their own right, for example by apprenticeship, service or parochial office. Children under seven took the settlement of their father, but if they did not subsequently acquire one, they then took the settlement into which their father had been born, this law of derivative settlement caused great personal hardship. Families were split and people transported to places where they were total strangers.

Summary. The examination of the documents resulting from the administration of the Law of Settlement and Removal suggests several major points that must be borne in mind in any subsequent analysis. Firstly, the documents record a minimum measure of migration. Secondly, it is not possible to infer the volume of movement as the relationship between the extant documents, the total number issued and actual migration cannot be established. This limitation seriously hinders the testing of hypothesis related to migration patterns and processes. Thirdly, the operation of the Law may have had a differential effect on the type of migrant identified, the distance travelled and the parishes recorded in the documents. The infinite variety of interpretations that local administrators placed on the laws makes inter-regional comparisons tentative.

However, the documents do provide information for many parishes

Table 1

## Settlement Certificates for selected parishes in Gloucestershire, Newark and Birmingham.

	Pre 1696	61-5	66-70	71-75	76-80	81-85	86-90	91-95	1696	1700	1701-05	1706-10	1711-15	1716-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	Post 1695	Total
6a	Bisley																													150 +	
	Kings Stanley																													56	
	Painswick																													214	
	Rodborough																													109	
	Stonehouse																													71	
	Stroud																													480	
6b	Can																													58	
	Dursley																													158	
	Hawkesbury																													46	
	Kingswood																													57	
1	North Nibley																													50	
	South Cerney																													49	
	Chedworth																													72 ++	
2b	Chipping Campden																													106	
	Tetbury																													107	
3a	Badgeworth																													31	
3b	Stinchcombe																													33	
3c	Berkeley																													113	
	Chipping Sodbury																													54	
4	Littledean																													34	
	Mitcheldean																													78	
5	Westerleigh																													74	
	Wickwar																													51	
7a	Cheltenham																													201	
7b	Gloucester																													25 +	
	Newark																													924	
	Birmingham																													715	

♦ undated document(s)

⊕ 1696 - 1700 split at April 30th 1697 and 1791 - 1795 split at June 22nd 1795.

Table 2

Removal Orders 'from' selected parishes in the Gloucestershire woollen cloth manufacturing region.

	1661-65	66-70	71-75	76-80	81-85	86-90	91-95	96-97	97-1700	01-05	06-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	95-1800	+	
6a	Bisley				1		1	3	4	3		1	10		10	10	2	4	2	1	6	12	9	6	5	12	5				
	Painswick			1		4	3	3	3	5	4	3	6	1	3	16	7	14	7	9	4	12	19	24	8	12	4	1			
	Stonehouse									1		1	1	1	1	6	2		3	4	5	6	2	4	7	6	3				
	Stroud				1	4		1	4		2	3	1	6	6	5	4	3	1	4	4	9	14	4	2	14	8	4			
6b	Cam											1							1	1		1	5	2		5	5				
	Dursley						1	2		2			5	3	4	6	2	21	17	10	3	13	22	9	21	7	9	9			
	Hawkesbury									2	2		4		2	3	1		1	2	2	1	3	1	3	7	2	5			
	Kingswood							1				1	1		3	2	7	7	4	2				2	4	1	1				
	North Nibley					1			2				1		1	4	11	4	5	3	6	10	9	8	3	2	1				
	Total				1	1	1	9	5	7	13	13	13	8	17	23	16	50	32	58	42	40	23	53	91	60	54	59	49	34	

+ 1696-1700 split at April 30th 1697 and 1791-1795 split at June 22nd 1795.

Table 2 continued

	1801-05	06-10	11-15	16-20	21-25	26-30	31-35	36-40	41-45	46-50	51-55	56-60	61-65	Total
Bisley	2	1	2	8	6	21	16	13	10					186
Painswick			6	16	19	30	28	14	13	5	1			305
Stonehouse	4	6	3	8	8	30								112
Stroud	2	8	3	12	4	42	24	7	19	3	2	1		231
Cam	2	2	2	13	8	38	17		7	1				111
Dursley	6	5	6	8	6	47	22	1						267
Hawkesbury	4	1	5	6	2	20	20	5	1	2				107
Kingswood	3	3	4	4	3	32	20	14	11	6				136
North Nibley	4	4	9	4	26	18	3	1		1				141
Total	23	30	35	84	60	286	165	57	61	16	3	2	2	1596

throughout England and Wales and embrace a substantial section of the population. Details of age, sex, occupation and civil status though incomplete, may provide insights into the migration process.

It is within these limits that the subsequent analysis must be placed. The patterns of migration distances and inter-regional flows, temporal changes in movement and migration differentials have to be examined within the context of the operation of the Law of Settlement and Removal. However, this evaluation can only be complete after comparisons have also been made with other contemporary sources for the study of migration.

1. This theme is developed by Nicholls, G. (1898) History of the English Poor Law, (London : King), 274 et. passim.
2. Styles, P.H. (1963), 'The evolution of the law of settlement', University of Birmingham Historical Journal IX, 1.
3. 12 Ric. II, c. 7. (1388). Removal was to the place of birth.
4. 1 and 2 Ed. VI, c. 3. (1547). This act removed the impotent poor to their place of birth or place where they had last been resident for a period of three years.
5. Coleman, D.C. (1955-6) 'Labour in the English economy of the seventeenth century', in Carus-Wilson (ed.) (1962) (2 vols.); Essays in economic history; London : Arnold), vol. 2, 304.
6. Ashton, T.S. (1955) The 18th Century (An economic history of England; Ashton, T.S. (series ed.); London : Methuen), 203-4.
7. This is not strictly true as 39 Eliz. I., c. 3. (1597) did not apply to the infirm.
8. 31 Eliz. I., c. 18. (1589). Its provisions were excluded from cities, corporate boroughs, market towns, areas of extractive industry and areas within one mile of the sea. It anticipates the preamble to the 1662 Act which has been described as 'a classic example of legislative mendacity' (Webb, S and Webb, B. (1927) The old Poor Law (3 vols., 2 parts; English Local Government; London : Longman), part 1, 325). Ostensibly, it attacks squatters who devoured the parish stock. It also heralded the tight control some vestries exercised over accommodation and which was aimed at restricting population growth in these 'close' parishes.
9. Coode, G.E. (1851) Report to the Poor Law Commissioners on the Law of Settlement and Removal, B.P.P. 1851, XXVI, 16.
10. 35 Geo. III, c. 101. (1795).
11. Nicholls, op. cit., 275, notes that the legislators had the problems of London uppermost in their minds but the 1662 Act made provision for the temporary migration of married householders to other parishes. 8 and 9 Wm. III, c. 30. (1697) extended this facility to permanent migrants irrespective of their marital status. Bonds of Indemnity which had their origins in 5 Eliz. I, c. 3. (1562-3) became less common.
12. One geographer who has analysed these laws misinterprets some of their provisions. See Mills, D.R. (1963) land ownership

and rural population with special reference to Leicestershire in the mid nineteenth century, (unpub. Ph.D. thesis, University of Leicester,) 194.

Idem 1959, 'The Poor Laws and distribution of population, c.1600-1860, with special reference to Lincolnshire', Trans. Inst. Br. Geogr. 26, 185. Unnecessary ambiguity is created in stating that under the 1662 Act persons "could legally settle only in another township if they had first obtained a certificate of settlement from their township of origin". This is a contradiction as a Certificate, by definition, prevented any change of settlement unless the holder rented a £10 tenement or served a parish office. This provision was not enacted until 1697 and obviously debarred the majority of the labouring population from acquiring a settlement. The temporary nature of certificated movement between 1662-1697 is also not made clear. Mills, (1963) op. cit., 200, notes an increase in the granting of Certificates after 1834, but there would seem to be no grounds for such a statement as the certificate system had been made redundant by 35 Geo. III, C. 101. (1795). Only pregnant spinsters, felons and vagrants were to be removed after this date on the grounds of the likelihood of becoming chargeable. Thus a Certificate is issued by Rendcombe for Sarah Miles, a pregnant spinster to move to Chedworth in 1821 and for Mary Iles to move from Coln St. Denis to Chedworth in 1834. (G.R.O. P77a OV3/1).

Oxley, G.H. (1966) The administration of the old poor law in the West Darby Hundred of Lancashire, (unpub. M.A. thesis, University of Liverpool), 397. Of 37 settlement Certificates surviving for the post 1795 period, 35 are for pregnant females.

10. Webb and Webb, op. cit., 327.

Randall, H.A. (1971) Some aspects of population geography in certain rural areas of England during the eighteenth and early nineteenth centuries, (Unpub. Ph.D. thesis, University of Newcastle), 138, is equally inaccurate in suggesting that examinations only took place when a migrant was chargeable and his place of legal settlement in doubt.

11. Coode, op. cit., 258, notes that in 1662, £10 represented one fifth more than the annual wages of a Midland labourer, twice that of one in Cumberland and four times greater than that of a Cornish miner.

Hampson, E.M. (1926-28), 'Settlement and removal in Cambridgeshire

1662-1834', Cambridge Historical Journal II, 275, estimates that it was not until the 1730's that this figure would come within the reach of a labourer. Webb and Webb, op. cit., 337, note that inflation had pushed up rents in London and other large cities to four shillings a week by the middle of the eighteenth century, thus on this criterion migration was unrestricted.

12. 1. Jac. II, C. 17. (1685).
13. 3 W. and M., C. 11. (1691). This and the 1685 Act made it virtually impossible for the 40 day residence qualification to be effected as the overseer would frequently proceed to initiate removal proceedings under the 1662 Act. Clandestine residence was no longer possible.
14. The 1691 Act created four new classes of settlement for which notice in writing was not required; apprenticeships (for single men), service, payment of the parish rate and holding a parish office. The majority of newcomers were unlikely to be able to meet the last two conditions.
15. 1 Jac. II, C. 17. (1685)  
3 W. and M., C. 11. (1691) prevented those in the armed forces of the King's service from acquiring a settlement.  
8 and 9 W. III, C. 30. (1697) ensured that only after a year's unbroken hiring could domestic servants or those in husbandry gain a settlement; whereas the temporary settlements of 1662 required the signature of one clergyman, one churchwarden and the overseer, after 1697 both churchwardens, the overseer and two Justices were required to sign the certificate.  
9 W. III, C. 11. (1697). see note 9 above.  
12 Anne, C. 18. (1714) denied an apprentice or servants a settlement at the place of residence of his certificated master.  
9 Geo. I, C. 7. (1723) the payment of highway and scavenger rates became invalid so that only by the occupation of an estate of less than £30 value could a settlement be effected.  
3 Geo. II, C. 29. (1730) insists that a Justice witnesses the signature of a witness.  
Coode, op. cit., 54 comments that the Acts of 1795, 1814, 1819, 1830 and 1834 continued the process of adding further restrictions on acquiring a settlement.
16. Lipson, E. (1948) The age of mercantilism (3 vols.; 5th ed.; Economic History of England; London : Black), vol. 3, 459.
17. Oxley, op. cit., 135.

18. Styles, op. cit., 49.
19. Hampson, op. cit., 285.
20. Smith, A. (1776) The wealth of nations (reprinted 1895; London : Routledge), III
21. Marshall, D. (1926) The English poor in the eighteenth century (London : Routledge and Kegan Paul), 174.
22. Pelham, R.A. (1937), 'The immigrant population of Birmingham, 1686-1726', Birmingham Archaeological Society Transactions LXI, 51.
23. Coode, op. cit., 71.
24. 9 and 10 Vic., c. 66 (1846).
25. Evidence of a Beckett, G.A. for East Anglia and Berkshire (1850) Reports to the Poor Law Board on the Laws of Settlement and Removal of the poor B.P.P. 1850, XXVII, 2-8. Similar views pervade the reports from the other regions and the 1851 report by Coode (see note 7). see also Dursley's petition to Parliament (GCL 115.73)
26. 10 and 11 Vic., c. 110. (1847).
27. Minutes of evidence. Report from the select committee on settlement and poor removal B.P.P. 1847, XI, 233.
28. 11 and 12 Vic., c. 110. (1848).
29. 24 and 25 Vic., c. 55. (1861), and 28 and 29 Vic., c. 79. (1865).
30. Actually it was only in 1948 that the unit of settlement became the whole country.
31. See Appendix I for typical format of these documents.
32. The use of Bonds continued after 1662 and even after 1697. 15 inter-parochial Bonds survive in the Chipping Sodbury collection (B.R.O. D2071. R.5) but only one post-dates 1697. Unlike Certificates, the majority of Bonds held individuals or groups of private people as surety. The Certificate can be regarded as a parish Bond. Many did not deal with migration but intra-parochial surety in business and bastardy cases. Where they are related to migration they are treated as Certificates in this study, though their number is insignificant.
33. Styles, op. cit., 40
34. The Cam collection is in the parish chest.
35. Hampson, op. cit., 275.
36. Webb and Webb, op. cit., 323-5. see 9 above.
37. Patten, J. (1976), 'Patterns of migration and movement of labour to three pre-industrial East Anglian towns', Journal of Historical Geography 2, 114. Patten in regarding Certificates

as temporary movements is obviously ignoring the period 1697-1795.

38. Styles, op. cit., 39, notes that the status and wealth of those entering bond increased throughout the seventeenth century.

39. Pelham, op. cit., 62, found only six percent of the Birmingham data included occupational information, a similar deficiency is apparent in the registers of Certificates for Kingstanley (G.R.O. P190/0V2/3); Dursley (G.C.L. 8200) and Stroud (G.R.O. P 320a/0V/3/5/1-2). The Kingstanley register dated 1724 contains 56 Certificates that for Dursley 139 and for Stroud 470, but none of these registers contain any occupational data. Of the Stroud documents only 13/149 contained such data.

Randall, op. cit., 201-6, shows 94/392 Kettering Certificates had occupational data and 96/415 in the case of Reigate. In a very general way, Randall's view that such detail reflects the occupation structure of the town is acceptable.

40. The 1691 Act required Overseers to keep a register of any requests for the granting of Certificates. It would seem that the practice became modified so that registers of incoming migrants became more significant. Such registers took the form of a listing of the details of each Certificate, though frequently these became truncated to the name of the migrant, parish of legal settlement and date of issue. One cannot guarantee that each entry was made at its time of receipt. For example in the case of Dursley the first date is 1707 and additions were made up to 1765, then from 1767-1834. Frequently the handwriting is uniform, suggesting block entries.

Usually Certificates were specific contracts between two parishes though in the case of Richard Alcott, a corder from Newland, a Certificate was issued in 1708 to both Thaxley and Littledean, though it is found in the latter collection (G.R.O. P110.0V/3/1) It was equally unusual for a Certificate to be couched in the terms of John Bray's issued in 1714 from Cirencester. Its destination was 'Stroud or any other parish' it is found in the Bisley collection (G.R.O. P.47/0V3/1/1)

41. Marshall, D. (1937), 'The old Poor Law 1662-1795', Econ. Hist. Rev. 8, 40.

Thomas, E.C. (1971) The treatment of poverty in Berkshire, Essex and Oxfordshire 1723-1834, (Unpub. Ph.D. thesis, University of London), 217 is less specific and suggests they were freely

granted after 1700.

Lipson, op. cit., 468 quotes a mid-eighteenth century pamphleteer who claimed that a Certificate 'is seldom denied now to any industrious person who applies for it on good reason'.

Coode's hostility to the system is undisguised in his report (B.P.P. 1851, XXVI, 41 and 59)

"When it is found that some poor must be allowed to circulate, for the benefit of the parishes themselves, the licence is so grudgingly granted as to frustrate its object and to become a greater oppression on the most deserving poor and only a licence to the worthless ..... a better contrivance to make good men desperate and bad men vagabonds could not easily be devised".

42. Hampson, E.M. (1934) The treatment of poverty in Cambridgeshire (Cambridge University Press), 147, identifies 1740-80 as the main period of use.  
 Jones, A.C. (1969) Eighteenth century migrants in Leicester, (unpub. B.A. thesis, University of Southampton), 26, places the maximum rate between 1755-60.  
 Oxley, op. cit., 158 and 166-7, places the peak at mid-century and the subsequent decline may represent less interest by the vestries in settlement regulations as the expected soaring rates did not materialise. He suggests there were no Certificates after 1795, though Table 3, p. 395 would seem to contradict this.

43. Randall, op. cit., 183, Table 7.4. draws on the 6,500 Certificates for Essex that had been transcribed under the guidance of the County Archivist E.G. Emmison.

44. Hampson, op. cit., (1926-8) 285.

45. Thomas, op. cit., 218.

46. Pelham, op. cit., 50.

47. Oxley, op. cit., 158  
 Marshall, op. cit., (1926) 178

48. Oxley, loc. cit.,  
 Thomas, op. cit., 217.

49. Pelham, op. cit., 54-5  
 Webb and Webb, op. cit., 330

Lipson, op. cit., 468, notes in the House of Commons Journal XXVIII, (1759), 599, the comment that a recommendation to compel parish officers to grant Certificates was ignored as such a measure was thought to be unnecessary.

50. Deane, P. and Cole, W.A. (1964) British economic growth 1688-1959 (Cambridge University Press), 105 et passim.

51. Grey, I. (1968) Cheltenham Settlement Examinations 1815-26 (Bristol and Gloucester Record Society), Vol. 7, XIV. Grey suggests that it is not only industrialisation and a greater humanitarian approach that made the Certificate redundant, but also the need for a more mobile labour force in time of war.

52. Webb and Webb, op. cit., 335.

53. Randall, op. cit., 136.

54. Thomas, op. cit., 218.

55. Styles, op. cit., 60, shows that for Painswick 40/159 Certificates were issued retrospectively. Of the 18 cases where Removal Orders and Certificates survive 14 are retrospective.

56. Hampson, op. cit., (1934) 147  
Pelham, op. cit., 51.  
Styles, op. cit., 49.  
Tate, W.E. (1969) The parish chest (3rd ed.); (Cambridge University press), 199.

57. Marshall, op. cit., (1926) 179.

58. Ashton, op. cit., 15.

59. Coode, op. cit., 15.

60. It is for this reason that 'removals to' are not simply re-allocated to parishes as 'removals from'. 'Certificates from' are extremely rare in Gloucestershire so that one rarely finds details of them or copies in the issuing parish.

61. Clark, P. (1974) Poverty and social policy 1750-1870 (Arts 401; Milton Keynes : Open University), Units 12-16, 16.  
Oxley, op. cit., 158, supports this view though this is not apparent in Table 3 p. 395.

62. Thomas, loc. cit..

63. Randall, op. cit., 137.

64. Oxley, op. cit., Table 4, p. 399 Oxley notes that in the Lancashire Quarter Session Papers, Removal Orders were issued which did not only concern themselves with appeals. Rarely do such Orders duplicate those found in the parishes, p. 157.

65. This excludes 'removals to' which occur in fewer numbers. 1085 have been identified in those Gloucestershire parishes for which there is at least 25 extant documents. This smaller figure partly reflects the fact that many Removal Orders were not executed.

66. Smith, op. cit., 162.

67. Webb and Webb, op. cit., 334. This seems to be an error as the

Webbs quote Coode's figure of 15,535 parishes, which suggests a rate of 3-6.

68. Ibid. 344.
69. Coode, op. cit., 88
70. Thomas, op. cit., 218.
71. Body, G. (1964) Poor Law in Dorsetshire 1760-1834 (Unpub. Ph.D. thesis University of Southampton), 127.
72. Thomas, op. cit., 244.
73. Hampson, op. cit., (1926-28) 276.
74. Body, op. cit., 128-9. He notes that in the post-1795 period the documents represent actual chargeability.

## Chapter 4

### Gloucestershire. The spatio-temporal setting

"Before the ideas and attitudes of our ancestors can be comprehended we must learn to recreate in our mind's eye, the material environments in which they lived and worked".

Prince, H.C. (1971)  
'Progress in Geography', 3, 28.

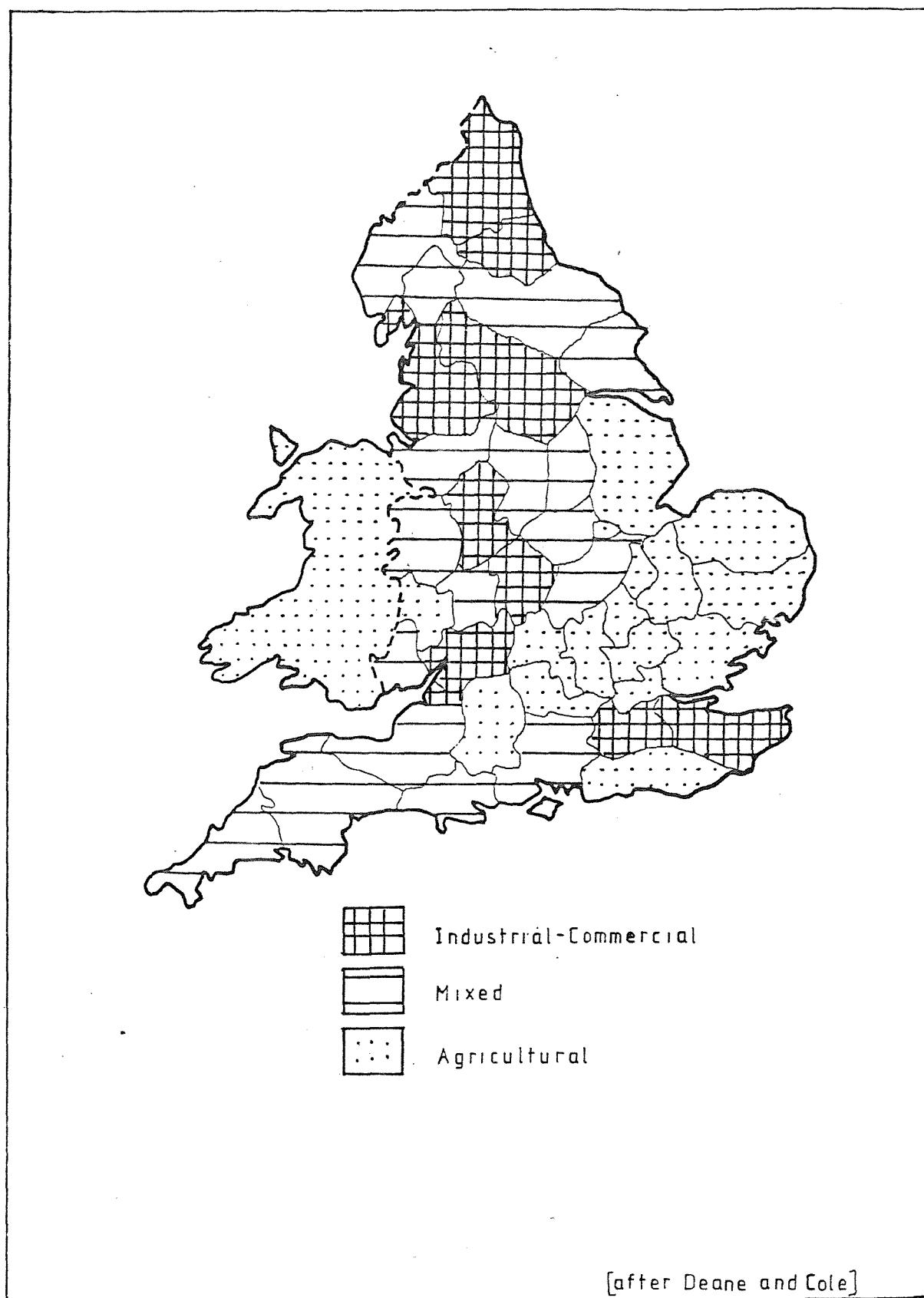
The hypotheses, related to migration theory in Chapter 2 and to the possible effects of the Law of Settlement and Removal in Chapter 3, can only be properly tested within a particular spatial and temporal context. It is the function of this chapter to establish this testing ground in Gloucestershire for the period 1662-1865. Wherever possible, contemporary sources will be used in the belief that such viewpoints come closest to representing the economic and social environment within which migration took place. Moreover, the changing distribution of population in the county which both reflects and modifies both social and economic patterns can only be fully comprehended within the macro-framework of national population change.

Deane and Cole divide the counties of England and Wales in the eighteenth century, into three major economic groups (Fig. 7). Gloucestershire falls within the industrial and commercial category, as defined by these authors on the basis of the 1811 Census occupational data (1). Of necessity, the decision to base their analysis at the level of the county, results in the masking of those variations in occupational structure and economy which are needed to understand the great bulk of the labour migration. It is these variations which are analysed below and lead to a suggested framework of economic regions within which population movement can be examined.

#### I. The economic setting

There are two major eighteenth century topographers for Gloucestershire. Sir Robert Atkyns, writing at the beginning of the period, produced a work concerned with churches and chantries, estates and esquires. All too frequently parishes are typified as 'good pasture and arable' or 'rich meadow, pasture and arable', which

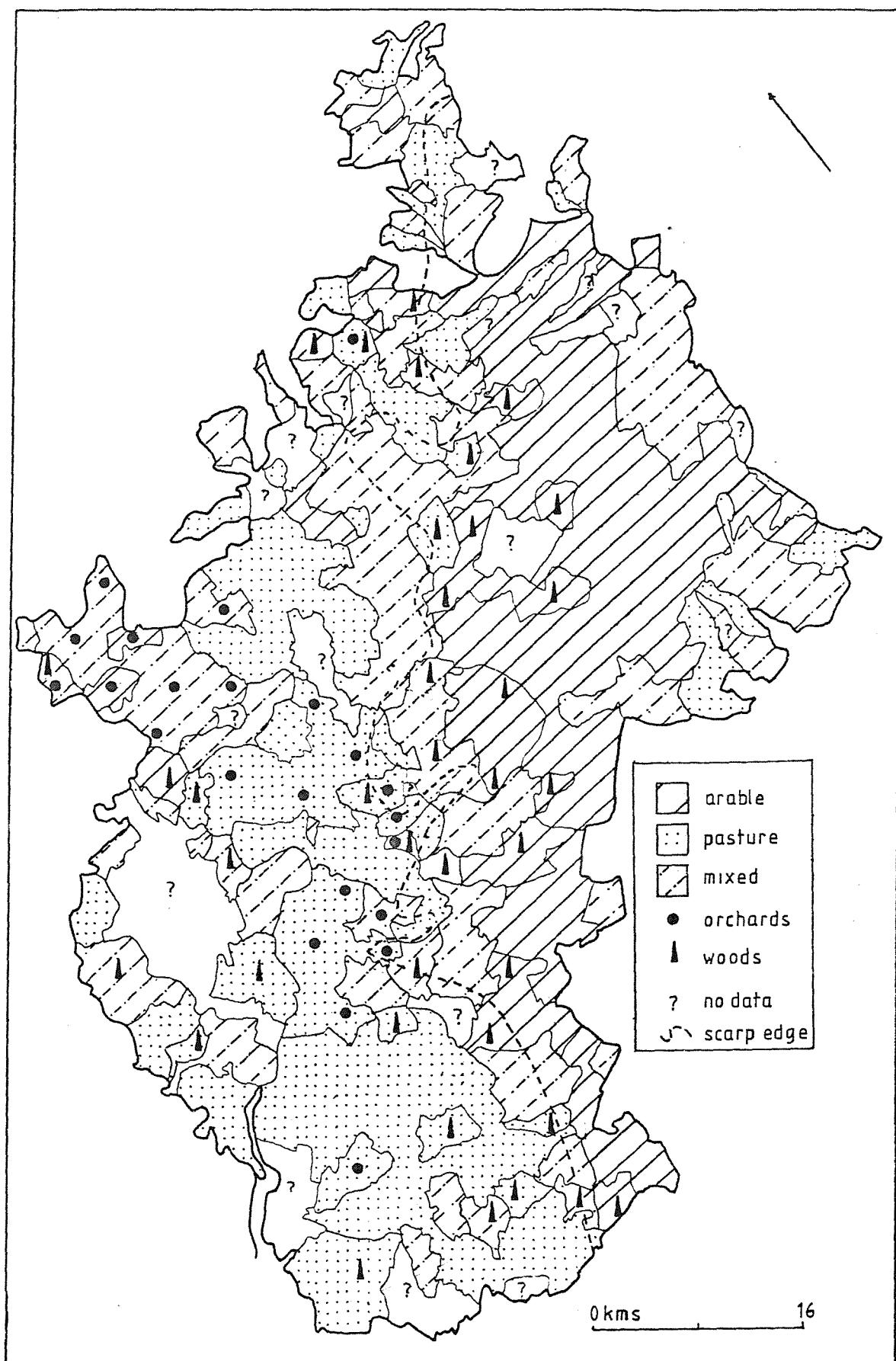
Fig. 7 ECONOMIC REGIONS OF ENGLAND AND WALES  
IN THE 18<sup>th</sup> CENTURY. [by county]



do <sup>not</sup> provide any real insight into variations in land use and economy within the county (2). In 1779, however, Samuel Rudder, a Gloucestershire printer, published a 'New history of Gloucestershire' (3); acknowledging a debt to Atkyns, but then correcting the errors, as he saw them, of that earlier work. He believed his volume to be an improvement in adopting for the county the threefold division of Cotswold, Vale and Forest of Dean; by the inclusion of an account of manufacturers and trade of the county and by providing a comparative estimate of population changes from the time of Atkyns' study to that of his own. It is on this work that much of the following contemporary description is based, though the Reports to the Board of Agriculture, the comments of William Marshall, the 1801 Crop Returns, early Censuses and the researches of more recent workers provide the necessary corroborative and complementary details.

A - Agriculture. Despite Rudder's simple three fold topographical design the content of his history can provide a series of insights not only into land use, but also into the state of enclosure, industry, population trends and distribution. Figure 8 interprets Rudder's view of the dominant land use in 1773. The Cotswold Escarpment divided the pastoral areas of the Lower Severn Vale and the Over-Severn Region from the predominantly arable region of the Cotswolds. The alluvial areas, liable to periodic flooding, along the Leadon, Severn and Oxford Clay Vales are included in the pasture lands. Sheep pastures are highlighted on the Cotswolds between Notgrove and Temple Guiting. In the Vale, between Berkeley and Gloucester, and on the red marls of the Herefordshire Border, the very important cider-apple country is clearly revealed. The topographical variety of the dissected Stroud area is reflected in the more varied patchwork of woodland and mixed arable and pasture, while the varied soils of the Vale around Tewkesbury also have a more equal distribution of pasture and arable land. Rudder makes two significant and related comments. Firstly, that "during the before-mentioned period .." (i.e. from 1712 up to 1773 when Rudder did his fieldwork) "agriculture has been much improved, particularly in the hill country .... but in the Vale most of those enclosures that in the former part of this period were cornfields, have been laid down to pasture" (4). Secondly, "yields on the Cotswolds can almost equal those of the Vale as a result of the prodigious improvements of the last forty years, in particular the introduction of sainfoin, clover and turnips in a course with cereals" (5). The validity of Rudder's observations can be tested

Fig 8 LAND USE IN GLOUCESTERSHIRE [after Rudder] C.1771.



against the reports of other well informed gentlemen and an analysis of the 1801 Crop Returns. William Marshall describes the Vale of Gloucester and Evesham as "a rich vale district, equally abundant in grass and corn. The Cotswold Hills as an upland arable district and the Vale of Berkeley as a grassland dairy country" (6). "The Cotswold farmers have either fallen into the Norfolk System of aration or have struck one out similar to it" (7). "Corn, turnips and cultivated herbage occupy nine tenths of its surface. Some little sheepwalk and cowdown still remain and the bottom and sides of some of the deeper vallies are in a state of meadow" (8). The Vale of Berkeley's significance in the medieval period as ploughland is fossilised in ridge and furrow, yet "excepting some common fields towards the upper angle there are not perhaps a thousand acres of arable land within the district" (9). It is this area which is constantly regarded as underproductive by the commentators of the late eighteenth and early nineteenth centuries. The low lying riverine parishes were levied at 2d/acre rate to maintain the river banks and sewers (drains)(10), but their poor maintenance is a recurrent theme (11). Caird comments that

"since the Board of Agriculture Reports forty years earlier the area has undergone no change in its detail, though very possibly the increased luxuriance of the hedgerows and continued abstraction of cheese and butter without any corresponding return of phosphate to the land, may have led to a perceptible decrease in its original produce. Water stagnates in the soil, the industry of the farmer is paralysed, the energy of the labour declined .... nothing seems to thrive but the gigantic trees"(12).

A contemporary view by John Bravendar is less damning. Tile drainage and pipe factories made an impact, though only one quarter of the Vale is drained (13). Further north in the Vale of Gloucester (from Matson to the Bredon Hills) the more varied pattern is of some large, all-grass farms near Gloucester and Tewkesbury, but pre-dominantly mixed farms engaged in producing corn and pulses, dairying and the breeding and fattening of livestock (14). A substantially similar view is expressed in the two county reports to the Board of Agriculture. Marshall in his review of these two reports notes Turner's omission of the water meadows of the Oxford Clay Vale (15), though Turner does confirm Rudder's description of the Over-Severn parishes (16), an area to which Marshall in his 'Rural Economy' gives scant attention. Marshall is severely critical of the second report by Rudge, though he does abstract one important statement from it, which further

substantiates the picture that Rudder paints.

"On the Cotswold many thousand acres are brought into cultivation, which before were productive of little more than furze, and a few scanty blades of grass. In the Vale, by the enclosure of common fields lands have been laid together and rescued from the immemorial custom or routine of crops - wheat, beans and fallow; and farmers have found to their great advantage that clover, vetches and turnips may be raised in the fallow year, which was before only attended with labour and expense" (17).

Figures 9 and 10 are based on the 1801 Crop Returns (18). The first shows the percentage of arable land in each of the parishes for which returns are available. However, care should be exercised in drawing the inference that non arable land reveals the area under pasture. This residual acreage must include permanent grass, meadows and temporary lays, but also woodland and to a lesser extent settlement. Only those parishes where at least 40 percent is under cereals and roots (the returns do not include rotation grass or clover) are regarded as dominantly arable. On this criterion, no parish west of the Escarpment or south of Cheltenham can be included and it is only on the Triassic Marls of the Hereford Border that even 30 percent of the land is in this category. The more mixed economy of the Northern Vale shows up clearly as does that of the broken country of the Cloth Parishes. The Cotswolds carry the largest areas of arable land, but within this region those parishes which contain extensive sheep pastures have a much lower percentage of arable land (19). The most striking element in the crop combination map (Fig. 10) is the distribution of those areas in which turnips appear as a significant crop (20). This further reinforces the picture of a changing agricultural economy and landscape on the Cotswolds, but this one crop's importance as an indicator of a 'New Husbandry' might be in danger of exaggeration because its extent is limited by its own soil requirements. Figure 10 confirms Marshall's observation that turnips rarely appear west of the Escarpment as a significant crop (21), whereas it had become <sup>a</sup>widely adopted part of the changes which commentators could hardly fail to notice on the Cotswolds. In fact, contemporary comment seemed to underplay the significant role still played by large areas of sheep pasture in the economy of the Cotswolds. It would be wrong to see these distributions as a simple response to physical factors. Bravendar notes that the "agricultural division will but little interfere with the geological", but he also qualified this by

Fig.9 ARABLE LAND IN GLOUCESTERSHIRE C1801

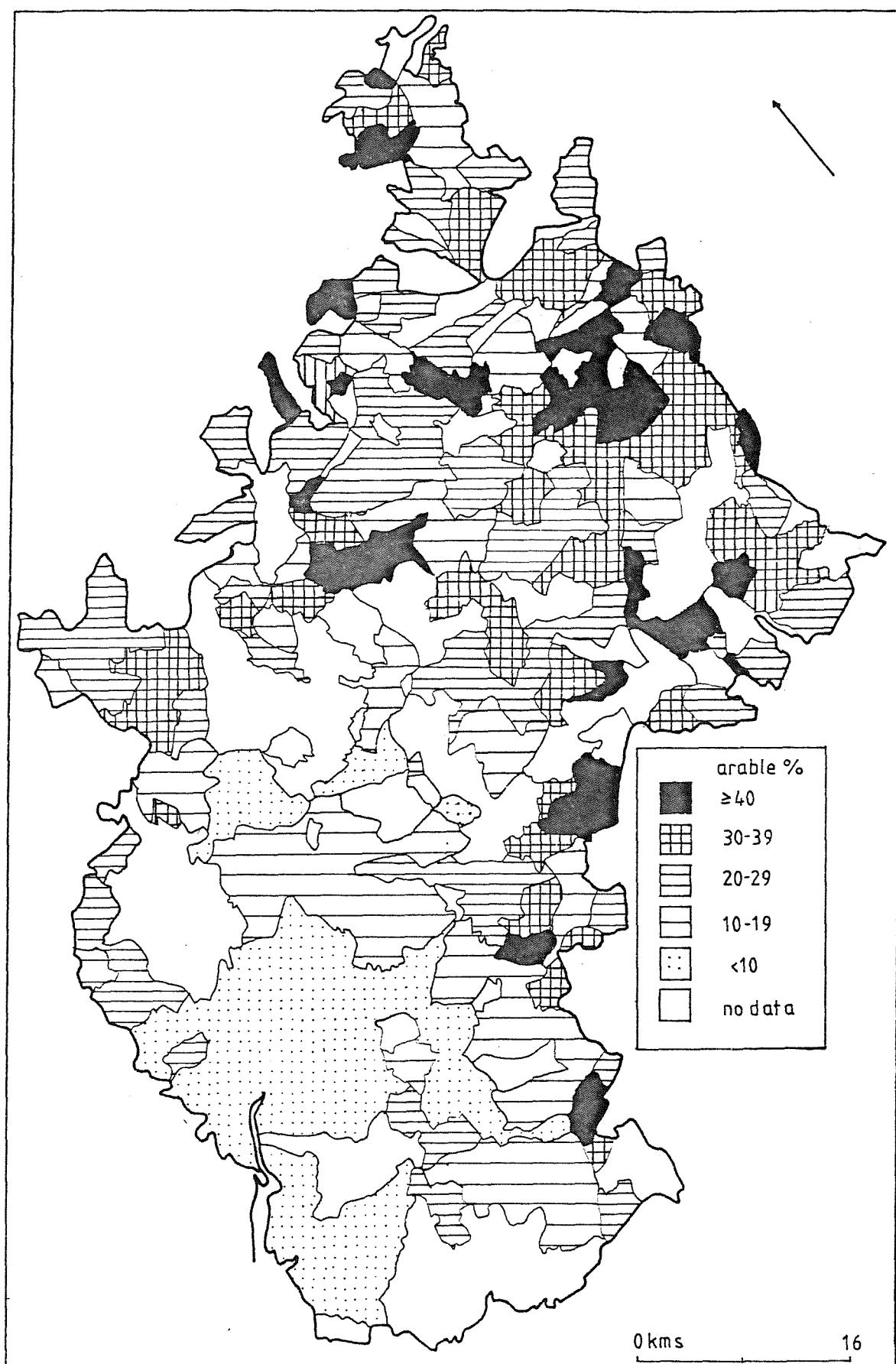
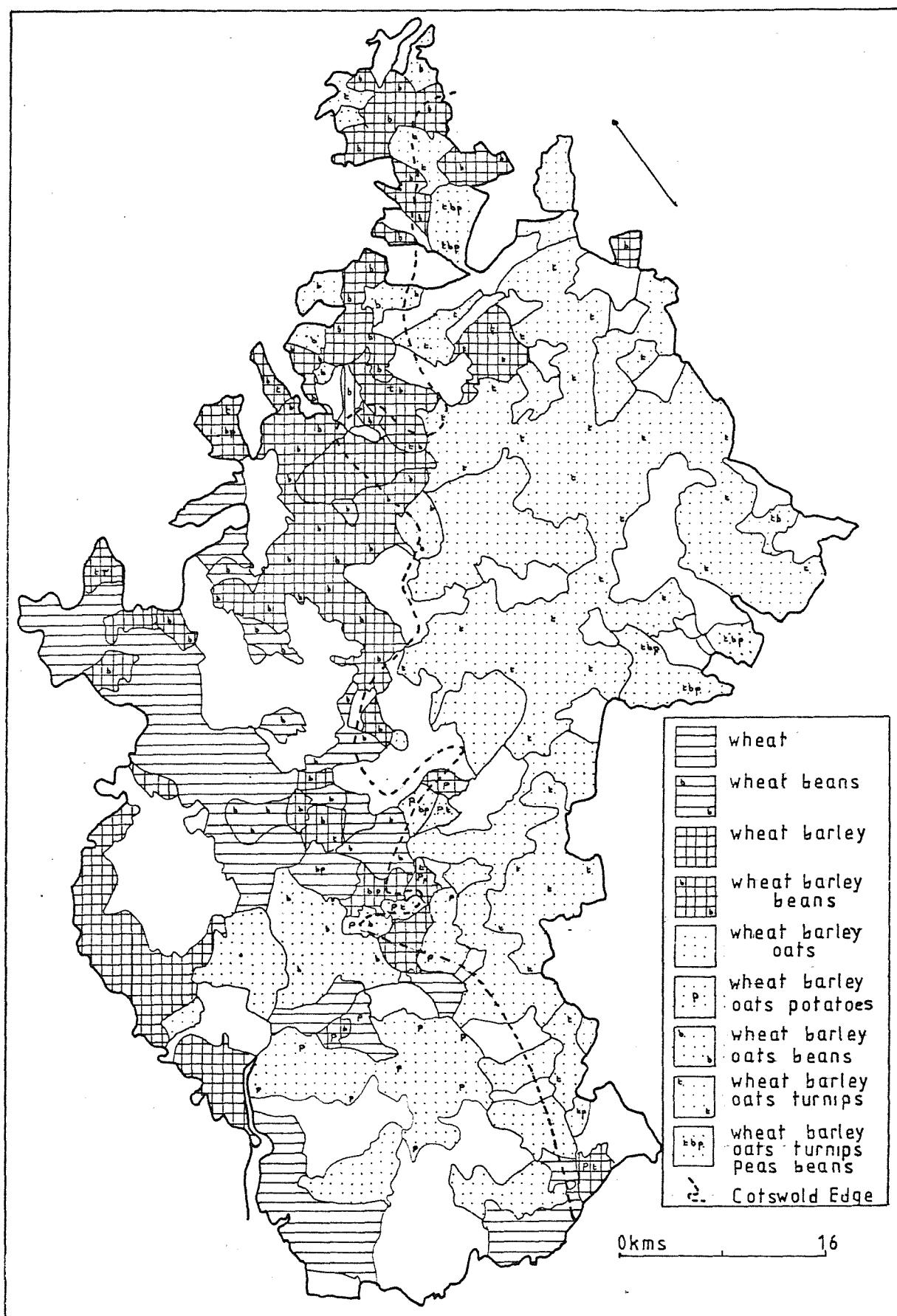


Fig 10 CROP COMBINATION REGIONS IN GLOUCESTERSHIRE (1801)



saying that "the wants and pursuits of the population" were also significant in explaining agricultural variations (22). The Vale had been enclosed very early for arable land, but three-field cultivation had not been widespread and the availability of highly valued water meadow and copyhold practices minimised the restrictive tendencies of the open field system. These factors encouraged a change to dairy farming and grazing with the development of the urban markets of Bristol and Gloucester and that of the densely populated rural Cloth Parishes (23). The rather similar Triassic lands of the Herefordshire Border and South Gloucestershire carried very different crop combinations, though not dissimilar proportions of these areas were under the plough. The proximity of the latter to the Bristol market is reflected in Figure 10 by the importance of potatoes in the combination and the area's significance as a market gardening area. Before the changes which had become so noticeable in the second half of the eighteenth century, the Cotswolds had been used for both sheepwalk or cowdown and arable in a largely unenclosed state. Further south around Tetbury, the Southwold had been enclosed at an early date to produce meat and dairy products for the Cloth Parishes of Gloucestershire and those in nearby Wiltshire. By 1760, less than 10 percent of this area remained to be enclosed (24). The inter-relationship between agricultural improvement and enclosure is the essence of Rudder's comments noted above. Turner was equally specific "Probably no part of the Kingdom has been more improved within the last forty years, than the Cotswold Hills".(25). It is, of course, in this period that the process of enclosure had greatly accelerated through private and later, general Acts of Parliament. Rudge notes that only 1 Act had been passed for the county in the reign of Queen Anne, 3 in that of George I, 11 in that of George II but 70 in that of George III (26). It is important to remember that under 20 percent of the county remained to be enclosed by act in the eighteenth century (27) and that this was predominantly in the high Cotswold area, northwards from Tetbury towards Stow-on-the-Wold and Northleach and to a lesser extent in the Vale around Tewkesbury. Walker subsequently notes that

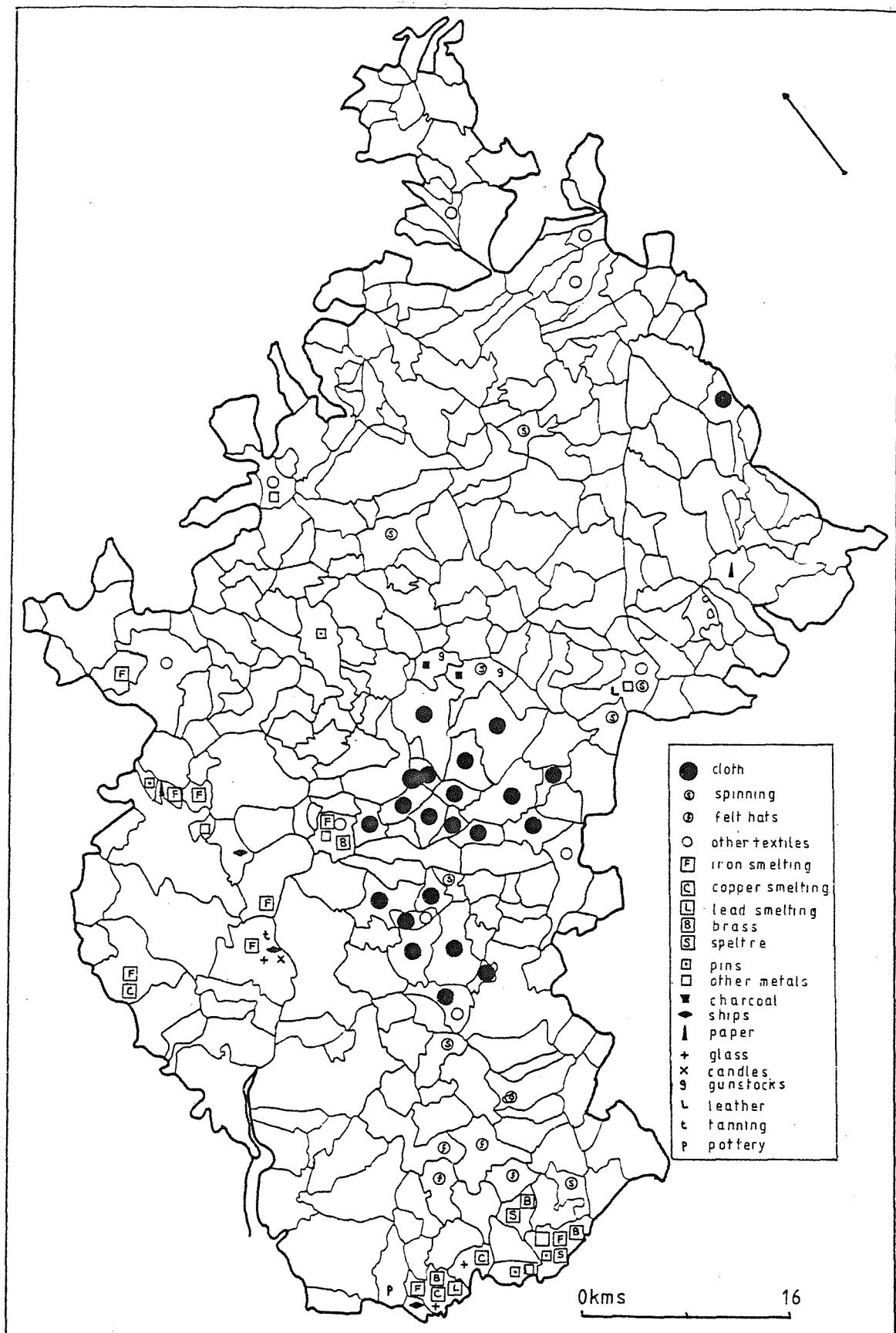
"The rapid elimination of many of the residual open fields of Gloucestershire between 1760 and 1800 had therefore ensured that by the latter date the contrast between Cotswold and Vale was no longer reflected in their degree of enclosure. It was, however, in consequence of eventual enclosure and the introduction of new crops on the

Cotswolds that fresh contrasts between the two areas were emerging at the turn of the century" (28).

B - Manufactures and Mines. Rudder's detailed observations in the early 1770's contrast sharply with those Atkyns made at the beginning of the eighteenth century and it would be unwise to attach any value to this earlier study in trying to establish the location of the main centres of non-agricultural employment. Only the 1608 Muster Roll (29) provides an opportunity for any analysis in the period before Rudder's 'History', but its value in relation to this study is minimal as it pre-dates by some 80 or 90 years the survival of any substantial collections of Poor Law documents. Defoe travelled through the area in the second decade of the eighteenth century, but his comments are confined mainly to the towns and much of the rural-based activity is ignored (30). Figure 11 reveals this pattern of rural industry, and shows that it was highly localised within the county, a fact mirrored in the population map drawn from Rudder's estimates (see below). The following sections deal with the distribution of industrial activities in the period of study, but make no attempt to describe or analyse, in any detail, the economic vicissitudes which occurred, as these are the proper concern of Chapter 5. It has already been noted that production was at the mercy of natural forces. The chance occurrence of minerals, the survival of major reserves of woodland under forest law west of the Severn; the existence of deeply incised streams in a limited section of the Cotswold Escarpment and in the Forest of Dean all emphasise that factors affecting production, rather than marketing, were significant in the location of the industries discussed below.

Textiles. The correspondence of the main cloth-producing areas noted by Tann in the distribution of mills 1750-1820 (Fig. 2) and that drawn from Rudder is very close (31). Only Kingswood (then in Wiltshire) Coaley, Charfield and Hawkesbury are omitted by Rudder, while both sources reveal the division of this area into two sub-regions. The first was centred on the basin of the Frome and the second around the basins of the Little Avon and the Ewelme. Between them lay the watershed parishes of Frocester, Nympsfield, Owlpen and Kingscote. Rudder identifies not only the main woollen-cloth parishes but also the larger tributary region which developed during the 'Domestic Phase' of the industry. Work for women and children in carding and spinning was very important in other parishes, not only in Gloucestershire but almost as far as Salisbury Plain (32).

Fig 11 MANUFACTURING IN GLOUCESTERSHIRE C.1771 [after Rudder]



Gloucestershire was only a part of the much more extensive cloth producing area in the West of England which stretched through Devon, Somerset, Dorset and Wiltshire (33). Tann's analysis of the 1608 Muster Roll shows that both Owlpen and Stinchcombe had over 80 percent of their male population engaged in cloth manufacturing though neither had any mills. Stinchcombe had its cloth fulled in North Nibley (34). The wider distribution of woollen cloth making in Gloucestershire in the early seventeenth century has already been established in Figure 3, but Rudder reveals that by the 1770's a high degree of concentration had occurred, thus re-emphasising the dynamic nature of the process of industrial location. In all the outliers of cloth manufacture at Wickwar, Tetbury, Cirencester and Great Barrington a decline was noted (35) and in the cases of Berkeley, Mitcheldean and Newent a complete absence of production (36). Kinzig and Beckinsale (37) in their analyses of the development and location of the Gloucestershire woollen industry, emphasise a 'Vale Phase' pre-dating the 'Hill Phase', though Perry and Tann prefer to think of these as simultaneous developments in which the 'Hill Phase' eventually gained dominance (38). Gloucester, Tewkesbury, Berkeley and Bristol had been significant centres of production in the thirteenth and fourteenth centuries, but the death knell of this urban pre-eminence had been sounded by the application of water power to the fulling process in the thirteenth century (39). This shift in the centre of gravity of production to the countryside pre-dates this study which comments more specifically on the halcyon days of the rural 'Domestic Phase' and subsequent changes in location. The industry had centred on the Cotswold Edge by the end of the fifteenth century. There, gild restrictions were avoided, whilst the springs issuing from the Great Oolite-Fullers Earth Junction, but especially those from the junction of the Cotswold Sands and the Upper Lias, were able to provide a reliable volume of water. These springs were particularly numerous in the sides of the deeply incised valleys of the Frome, Ewelme and Little Avon. This incision created relatively short, steep-profiled, swift streams (40). The tributaries exhibited these characteristics even more, and the Slad, Painswick and Woodchester valleys provided a great many sites for the ponds and wheels that drove the machinery of the fulling mills which had created the first phase of power mechanisation in the industry. The importance of these physical factors in creating this specific localisation of output is emphasised by Rudder who comments

on the uncertainty of summer water for fulling at both Tetbury and Northleach.

"It is destitute of water sufficient for driving the machinery used in that trade, this natural disadvantage is alone sufficient to account for the loss of manufacture. The town soon felt that loss and seems to have been declining ever since. Many houses are fallen down, many uninhabited and the greater part of the rest are going fast to decay"(41).

This comment about Northleach again emphasises the effect that changes in power had upon the location of cloth production. It is ironic that the medieval revolution in fulling, which had initiated the 'Domestic Phase', contained within it the seeds of its own destruction. The ownership of these finishing mills by the capitalist clothier would provide the essential nucleus for the addition of the other processes of manufacture in the latter part of the eighteenth century. The gig mill had been adopted in this area in the seventeenth century, but from the 1780's scribbling, carding engines and jennies were added before the turn of the century and shearing frames soon after. The flying shuttle made its appearance in Stroud in the 1790's, but the power loom was not introduced here until 1836, by which time the mule had replaced the jenny. These were years of prosperity for the mill owners, if not for all their employees. The period saw not only the building of new mills and the sharing of sites, but the extension of the older mills, especially in the 1820's (42) and the adoption of steam plants as supplementary sources of power (43). The related changes in machinery and factory enlargement resulted in major unemployment not only in the core area, as defined by the existence of mills, but also in the surrounding parishes, crises that should be reflected in the pattern of Poor Law migration which are dealt with in detail in Chapters 5 and 6.

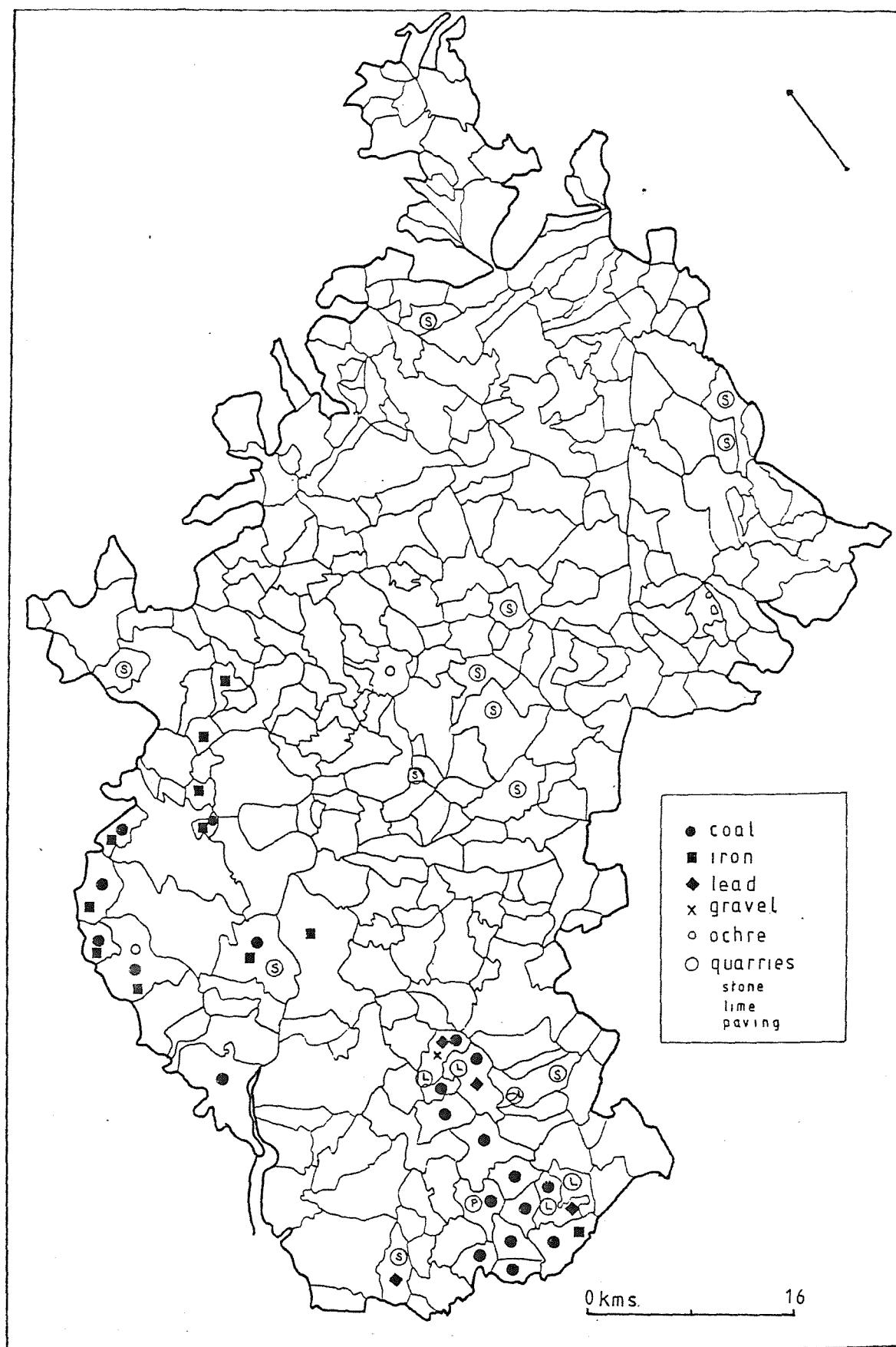
Woollen-cloth manufacture did not represent the only textile interest in the county. Rudder also comments on the stocking-frame knitting at Newent, Cirencester and Tewkesbury; the combing of worsted yarn for the Kidderminster, Coventry, Andover and Leicester markets at Gloucester, Cirencester, Tewkesbury and Tetbury; wool spinning at Hawling, the recent introduction of carpet manufacturing at Cirencester, which also had an output of harateens, and cheneys, lightstuffs for the London market and the manufacturing of rugs and blankets at Nailsworth, Dursley and North Nibley. In the north, Loughborough spun silk yarn for the industry in neighbouring Blockley and at

Weston sub Edge flax spinning was important in providing cloths for the cheese industry. In the southern part of the county Frampton Cotterell, Winterbourne, Westerleigh and Pucklechurch produced felt and beaver hats for the Bristol market. Throughout the period Tetbury and Cirencester were still important as wool-stapling centres. The varying fortunes of these sub-regions of the West of England cloth industry may provide evidence of the cause and movement of labour in search of more prosperous regions of employment (Chapter 5).

Mining and other Manufactures. The other great industries of the county in this period were tied specifically to physical resources. Rudder identifies the two significant areas of coal production, one in the Forest of Dean and the other in the Kingswood Forest (Fig. 12). In the former area he found the main pits to be in the parishes of Newland, Staunton, English Bicknor and Ruardean in the north and west of the major syncline, and at Tidenham and Lydney to the south, places where adits could be easily engineered. The core of the basin in the extra-parochial areas of West and East Dean is ignored by him, though adits existed in the deeply incised valleys. Coal at this time was required for domestic use (this was usually known as sea-coal), ore roasting, lime burning and forge work. A contemporary report by the Gaveller estimates that 31 out of 121 pits were idle and that the 662 free-miners produced 1,816 tons of coal in a week (44). This minute output of the national production reflected the organisation of the industry in this area in very small units (45) and the almost total absence of communications away from the Lower Wye and Severn rivers (46). By 1800, output had risen to 100,000 tons annually and by 1856 had reached 460,000 tons, of which 87,000 came from each of the two pits at Park End and Lightmoor (47). The use of coal for metallurgical coke had been delayed by the poor coking quality of local supplies, massive charcoal output from the Forest and the use of water power (48). Only in 1816 did the last charcoal-fired furnace at Redbrook close (49).

The iron industry of the Forest had antecedents in both the Roman occupation and in the Middle Ages. Ore was concentrated in the Crease limestone and was obtained therefore, around the rim of the coal basin. Figure 12 shows the mines Rudder saw in English Bicknor, Staunton, Ruardean, Little Dean, Huntley, Newland, Lydney and Tiberton; furnaces in Oxenhall (beyond the Forest) and Newland, and both furnaces and forges in Flaxley and Lydney (50). At this time a furnace charge of both ore and cinders, of which there seemed an infinite quantity,

Fig 12 MINING AND QUARRYING IN GLOUCESTERSHIRE [after Rudder] [1771]



produced a tough pig iron with a low phosphorous content in much demand by the iron masters of the Midlands for blending with their own local coldshot iron (51). Paul Foley, a Black Country ironmaster, had purchased the King's ironworks in the Forest in 1674 and by 1717 his family's dominance of this area was well established (52).

Of the nine furnaces in action between 1707 and 1712, the Foley's controlled six and produced some 75 percent of the total output of 5,000 tons. Local forges consumed half of the Forest's pig, the rest was dispatched through Ashelworth, Newnham and Gatcombe. Some 2,500 tons went to Birmingham and the Stour Valley, 1,440 tons to the Ironbridge area and smaller quantities to Shrewsbury and Pool Quay, Stratford-on-Avon and Redditch, Tredegar and Machen, Carmarthen and Blackpool in Pembrokeshire (53). This Severn link between the Black Country and the Forest represents the beginnings of a re-orientation of the iron industry in this area away from Bristol, though that city continued to dominate the wire and merchant bar output of the forges which consumed, in the early eighteenth century, 46 percent of the furnace output of the Forest (54). At this time other inter-regional links were being established. Lancashire ore was bought to the Forest because of its lower production costs and yet in the 1730's cinders for fluxing were being sent as return cargo (55). One cannot over-emphasise the significance of water transport in this period before the major road improvements of the late eighteenth century. Rudge comments

"The heavy expense of land carriage prevents any assistance from the pits before mentioned being derived by the inhabitants of Gloucester, except in times of great scarcity, arising from an obstruction of the navigation of the Severn by drought or frost. This valuable article of domestic economy is brought down for the supply of the City and its neighbourhood from Shropshire and Staffordshire" (56).

In the seventeenth century only the Meuse exceeded the Severn as a commercial artery. The Severn was free from both locks and tariffs and was navigable by larger vessels to Shrewsbury and by smaller vessels to Welshpool in the eighteenth century (57). The significance of these links is reflected in the origins of some of the long distance migrants recorded in the Poor Law papers for Newnham (58). The Forest of Dean was the premier iron smelting region in Great Britain in the early eighteenth century (59). Andrew Yarranton visited the area in 1677 and was most impressed with what he saw, estimating that 60,000 people were employed directly or indirectly by the Forest iron industry, though Mantoux views this with obvious scepticism (60). By 1856 the

eight furnaces in the area produced 24,132 tons of pig (61). Ore demand had revived in the early part of the nineteenth century in response to the new coke-iron industry and, whereas 27,537 tons were mined in 1842, the production had reached a peak of 192,080 tons by 1860 (62). By 1851, the registration districts of Westbury on Severn and Monmouth, in which East and West Dean were situated, had 707 and 906 coalminers, and 156 and 56 ironminers, respectively. In the neighbouring registration district of Lydney, there were but 23 coalminers and 6 ironminers. The manufacture of iron remained at a very modest level as only 270 operatives were engaged in this occupation in the three districts (63).

Within the Forest a copper smelting industry had grown up on the Wye at Redbrook in the late seventeenth century and was still in production in Rudder's time. In fact, Rudder's visit pre-dated by one year the establishment of the tin-plate works in the same place. There had been no local copper ore and it may have been as back-carriage that ore was bought from Cornwall to Chepstow and then up the Wye. Here, water, wood and coal were all present (64).

Lastly, it should be noted that the Forest had always been a major source of ship timber. Its rape for charcoal had led to the Dean Reafforestation Act in 1677 in order to conserve future supplies for naval and commercial ship-building. It had been the same fear that had prompted the Crown to sell its furnaces to Paul Foley. In the eighteenth century many small pills or creeks along the Wye and Severn were centres of a thriving ship-building industry. Newnham-on-Severn was particularly busy towards the end of the century, though by 1850 little survived (65). Throughout the seventeenth and eighteenth centuries this town, then on the main coach route west from Gloucester, tapped the resources of the Forest. It established ropewalks, nail-yards, candleworks and bark tanning operations (66). Its quays could accommodate vessels of 160 tons in the 1670's as well as the trows that worked the Severn system to Birmingham. It was also here that one of the few passages over the Severn had been established (67).

The Coalfield in south Gloucestershire was also within a forest, though in the legal rather than the botanical sense. It had been producing coal since the Middle Ages from the Lower Coal Measures along the exposed limb of the Kingswood Anticline, but the creation of liberties or claims by the lords of the neighbouring manors, in the post-Restoration period, heralded a more serious exploitation (68). Output had reached about 60,000 tons by the end of that century and

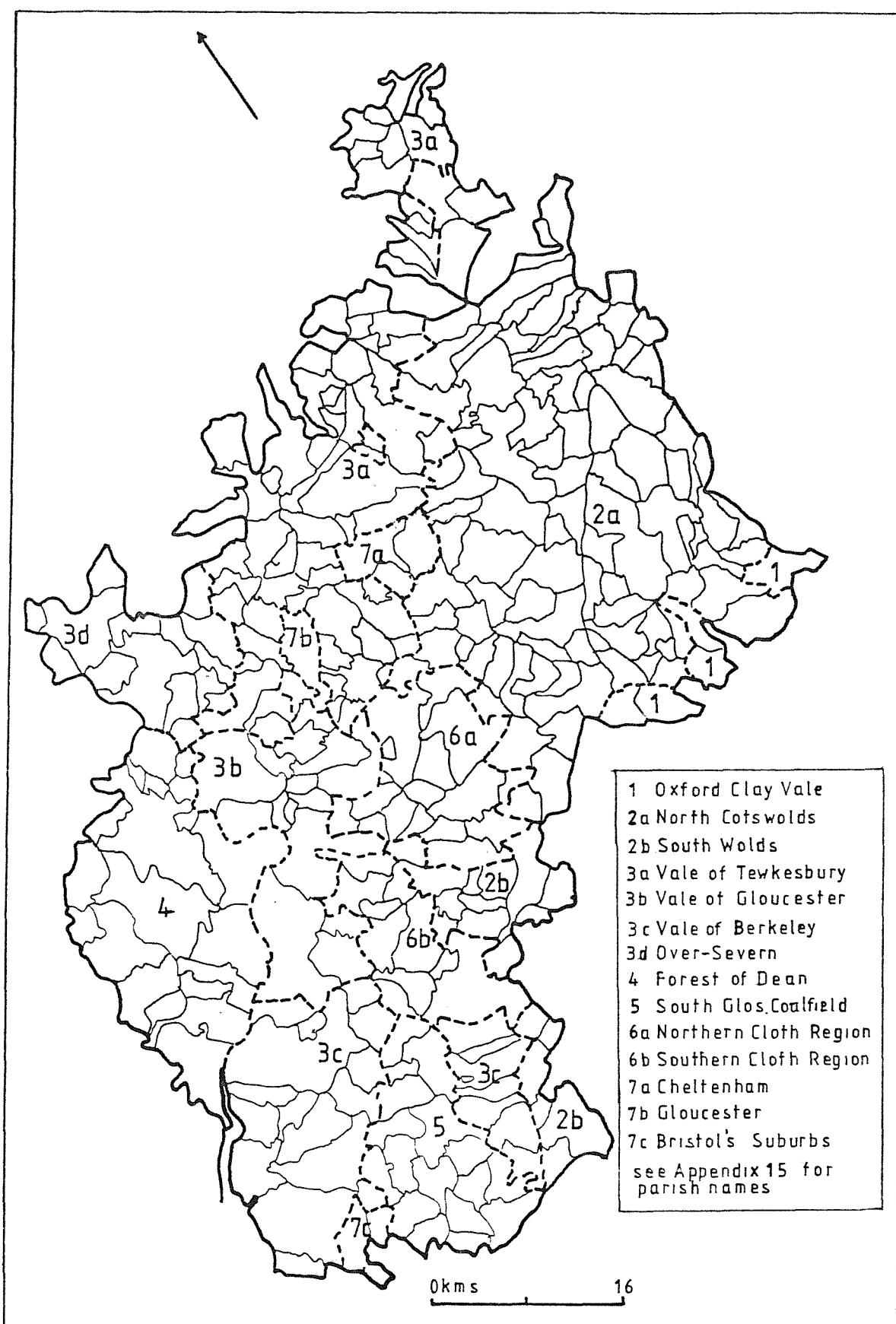
further doubled by the mid-eighteenth century (67). In the first phase of expansion in the seventeenth century pits were dug in St. George, which was becoming an eastern suburb of the City of Bristol, in Kingswood, Pucklechurch and Bitton (70). There were in the area some 500 miners employed in satisfying the Bristol market in 1700 (71). In relative terms, these two coalfields were insignificant in the rise of the British mining industry and though the nineteenth century saw an inevitable relative decline in these areas, their production continued to rise throughout the period under review. Walker rightly emphasises their role in the "very real, but commonly ignored industrial revolution of the Bristol region" (72). By Rudder's time the coalfield had spread north-eastwards into the main coal basin in the Upper Coal Measures as far as Wickwar, Iron Acton and Yate. Later the tramways constructed to St. Philips in Bristol and to the navigable Avon at Bitton (73) from Coalpit Heath, opened up the field which nearly doubled in output between 1800 and 1870 and reached a peak of production in the latter year (74). Rudder comments on the iron furnaces, rolling mills and pin works in Bitton which had been started in 1711 (75), but it was the production of non-ferrous metals for which the Avon Valley from Bristol to Bitton was especially famed. Lead and later calamine from the Mendips were smelted in this area, the latter in the eighteenth century complementing the expansion of the copper-smelting industry as necessary components of the demands of the Birmingham and Bristol brass industries. The Bristol Brass Wire Company was to become the largest of its kind in the mid-eighteenth century (76).

Summary. This brief summary of the Gloucestershire economy in the eighteenth and early nineteenth centuries gives substance to its classification as an industrial and commercial county by Deane and Cole. That such industry was essentially rural in location is unexceptional in 'pre-industrial' England. In most of the period only Bristol and Gloucester were significant urban places though Cheltenham's rapid expansion in the early nineteenth century suggests that it must be separated from the other market towns that served the immediate countryside. Rudder's 'three grand divisions' of Vale, Forest and Cotswold (77) provide the physical basis of the agricultural regions of the county that have been identified by contemporary observers. Figure 13 summarises these economic variations within the County and provides a convenient structure to examine population growth (Appendix 4) and movement.

## II. The Social Setting. 'Open' and 'Close' parishes

Historical geographers have quite rightly stressed the importance

Fig. 13 GLOUCESTERSHIRE ECONOMIC REGIONS C.1801



of physical and economic factors in explaining the patterns of population distribution, but the role of cultural, social and political factors may have been undervalued. In this particular study, attention is drawn to the relationship that might exist between landownership and population distribution, a relationship largely ignored by researchers until recently, though clearly suggested in eighteenth and nineteenth century treatises and reports on the Poor Law (78).

George Coode, in his report to the Poor Law Board on the Law of Settlement and Removal in 1851 noted that

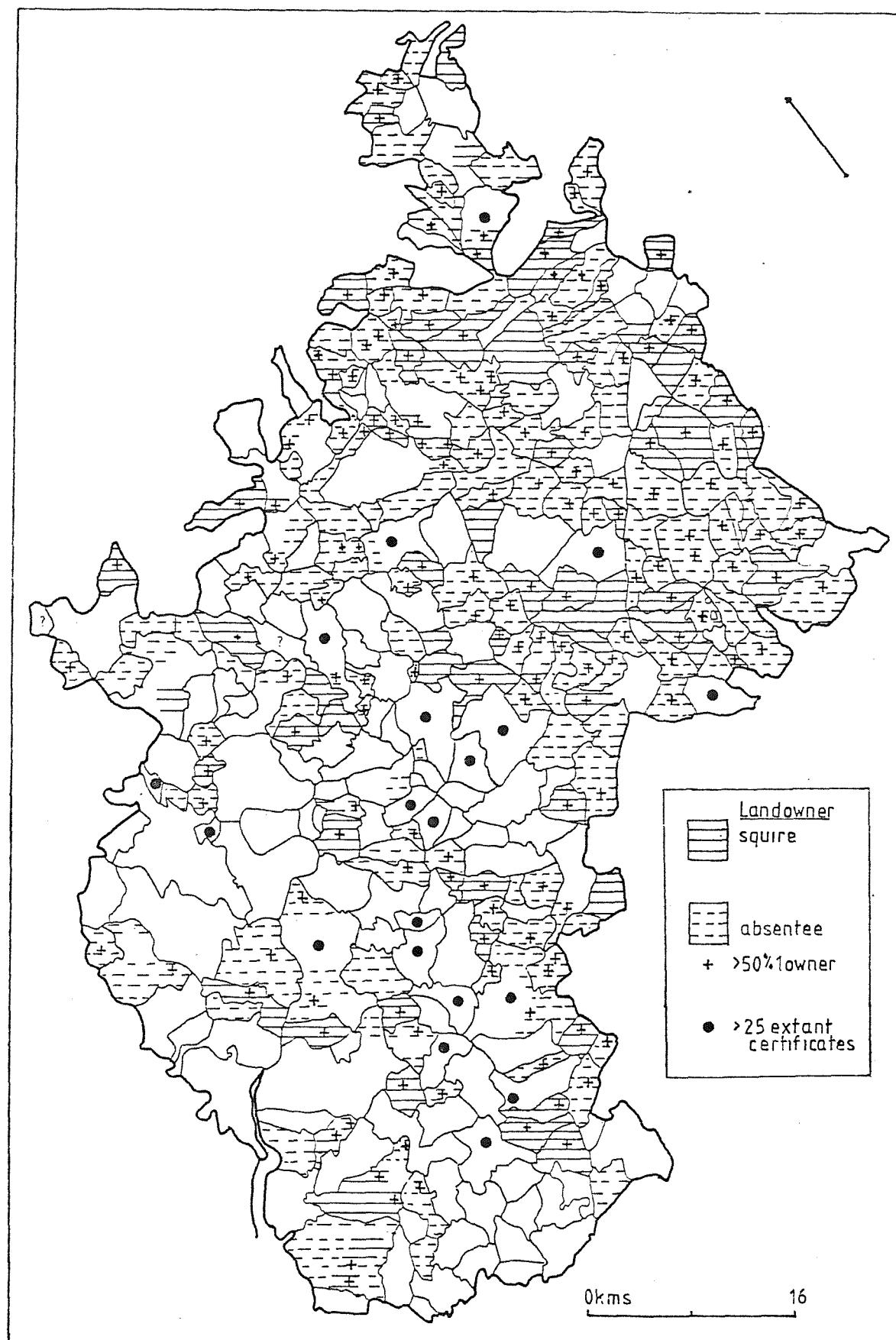
"by one act of legislation, (i.e. 14 Car II 1662), 15,535 parishes were made the gods of their own poor people and fortresses against all others. (79) .... The more a place, in truth wants people, the fiercer are the few inhabitants to keep out strangers. The reason is the charge of the poor on a small number of inhabitants is heavy, almost oppressive in some places, which if the inhabitants were more would be lighter. This is the case of a towns lately enclosed, or engrossed into a few hands, the process of which both depopulated the place and it is impossible it should ever received it again." (80)

In effect, the choice of township as the unit of administration of the law had ensured that the law would be one of removal rather than settlement. The duty of the overseer was to minimise the financial burden on ratepayers by the speedy arraignment and eviction of intruders. Townships in which this process became especially prevalent were commonly referred to as 'close' parishes by nineteenth century observers. The success of this policy was the more likely where ownership in the township was concentrated in the hands of one or two major landowners, in that it was not only easier to influence the overseers, but also easier to limit new housing and destroy tenements and cottages (81). Moreover, Elizabethan legislation which remained on the statute books until 1775 (82) could be invoked to control the building of cottages unless four acres of land were attached to them (83). The corollary of the 'close' parish is the 'open' parish. Overcrowding, moral turpitude and excessive poor rates were three evils which contemporary opinion believed to be the result of a more liberal attitude to strangers (84). However, three other characteristics would seem to be of greater interest to the historical geographer. Firstly, the exclusion of population could lead in some cases, to the landlords erecting cottages in neighbouring 'open' parishes, (85) and, as a consequence, labourers having to travel daily between parishes (86) up to six miles in each direction. Secondly, if the 'close' parishes act as barriers to permanent migration this should be reflected by numerous Removal Orders, but few Settlement Certificates. On the

other hand, it can be argued that few labourers would attempt to settle in such places and that removals might be equally low. Chapter 6 will examine this theme in more detail. Thirdly, these parishes would be less densely populated and have smaller populations than the neighbouring 'open' parishes. In testing these generalisations there is a great danger of isolating these apparent consequences and defining 'close' parishes in these terms, thereby creating a circular argument. It becomes very necessary to define clearly the characteristic elements in this typology of parishes.

Both Mills and Holderness agree on the essential characteristics of 'close' parishes. They have relatively low populations, a slow growth rate, inadequate accommodation and a dependence on outside labour. Both authors establish a link between early depopulation and 'close' parishes. The areas of deserted or severely depopulated villages from whatever cause between the fourteenth and eighteenth centuries, in the Midlands, West Norfolk and East Riding of Yorkshire, are dominated by such parishes. Enclosure for pasture before 1700 (87) and farm engrossment were significant causes for cottage destruction, processes easily engineered in the lightly populated Wolds, but also in the more densely populated clay vales of the East Midlands (88). These parishes not only show a low density of population compared with those surrounding them, but also a much slower growth rate in the century ending in 1860 (89). Mills argues that in Kesteven, manufacturing was insignificant and could be ignored as a variable affecting population. He establishes regions based on homogeneous soil characteristics to hypothesise that intra-regional variations in population would be a response to the differential operation of the social forces associated with landownership and the operation of the Poor Law (90). Mills uses the criterion which contemporary opinion viewed as the most significant feature of the 'close' parish, namely the degree of control exercised through land ownership. Mills uses land tax returns (91) to classify parishes, thus identifying the squire and absentee landlord parishes as two variants of 'close' parishes (92). He proposes that it would be the squire parishes, especially those with a higher percent of ownership in one hand, that would exhibit these characteristics most strongly. Figure 14 uses the same source to identify the distribution of such parishes in Gloucestershire (93). Its most striking feature is the actual number of parishes and townships which exist, at this time, as 'close' parishes. In particular, the north Cotswolds, Southwolds, Over Severn and the Northern part of the

Fig 14 CLOSE PARISHES IN GLOUCESTERSHIRE [after Mills] [1841]



Vale of Tewkesbury are dominated by them. The Vale of Gloucester, the coalfields and the cloth regions are the least affected areas. Here Holderness' caveat that ownership does not necessarily result in a restrictive population policy needs reiteration. Ownership of a parish is obviously significant in relation to the power to create 'close' communities, though power does not necessarily mean an inclination to wield it in this particular way. Using this criterion of limited ownership one would inevitably include places in which the supply of resident wage labour was adequate. Holderness argues that "a meaningful definition of a 'close' parish must be a place so restricted in the settlement of wage-dependent families that the supply of labour was insufficient for the cultivation of its area" (94). Holderness thus draws on the statistical appendices of the 1850 reports (95), which reveal a very limited correspondence between concentrations of land ownership and inadequate labour supply and from which he derives a simple surrogate index of acres per house to identify this labour shortage (96). Holderness' argument hinges on a direct relationship between low population density and a shortage of labour. Figure 15 uses this index for the 1841 Census to identify 'close' parishes in Gloucestershire.

The relationship of the 'close' parishes defined by Holderness to those defined by Mills is close, though the former is more restrictive. In fact, 56 percent of all those parishes in which more than 90 percent of the land was owned by one person exceeded the threshold figure of 40 acres per house. Almost without exception those parishes exceeding the threshold are defined as 'close' by Mills (97).

Holderness' own estimates for the Vale of Severn (Table 3) is more conservative than the number shown in Figure 15, though the latter is derived from his index. Holderness does not identify particular parishes or townships, nor does he define the Vale of Severn, so that the relationship between Figure 15 and Table 3 remains imprecise (98). Nevertheless, the dominance of 'close' parishes in the Cotswolds is clear. Holderness' approach identifies those parishes most likely to be affected by accommodation and labour shortages but he suggests that the 'open'/'close' typology in the context of <sup>population</sup> distribution is misleading. Outside some exceptional regions of England where the maldistribution was severe the parish which housed its own labourers was almost certainly the commonest type of community (99).

The difficulty in defining clearly the 'close' parish using the criteria used by both authorities is seen if Fraser's report

Fig. 15 CLOSE PARISHES IN GLOUCESTERSHIRE [after Holderness]

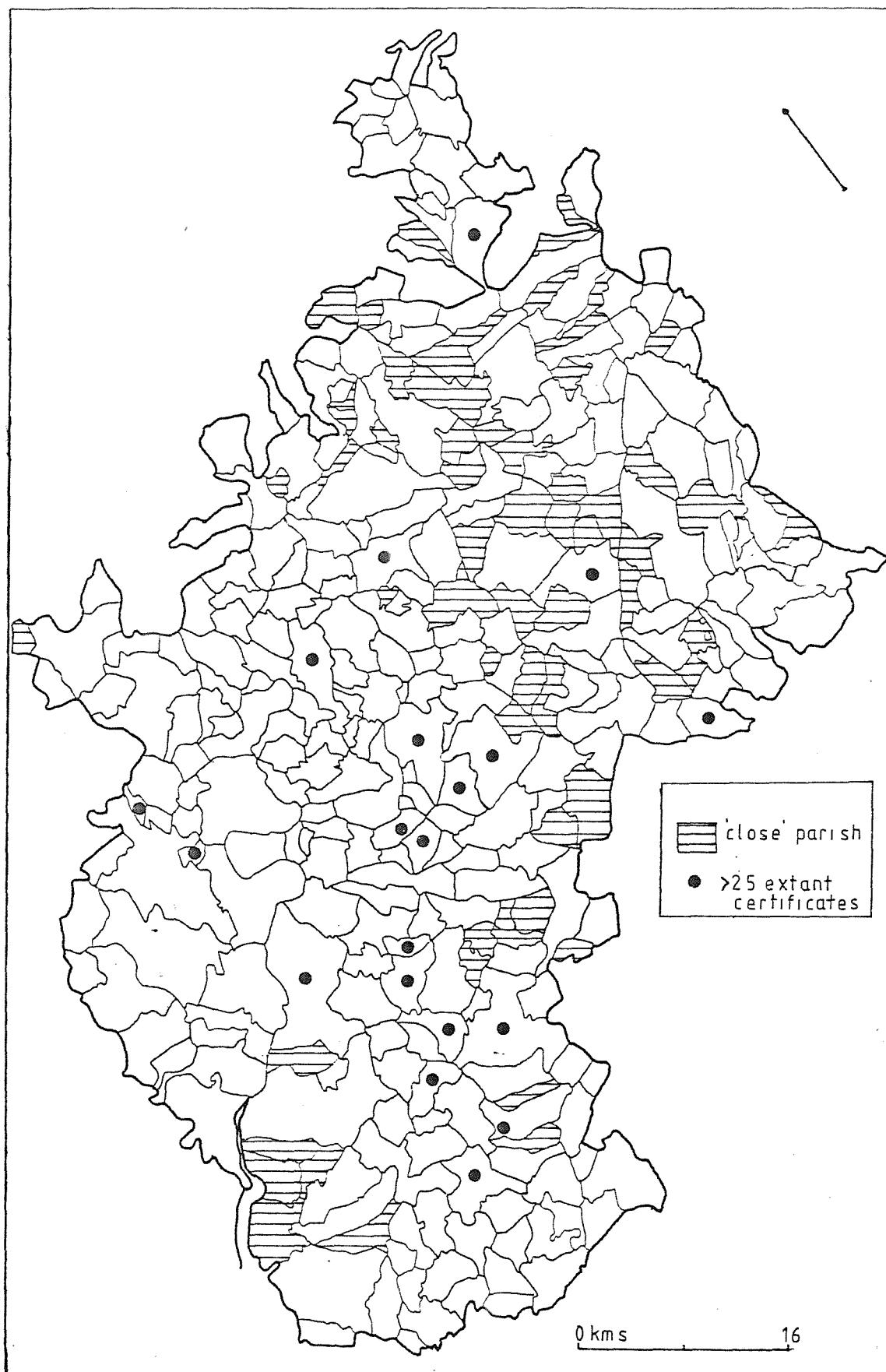


Table 3

## 'Close' parishes in the Vale of Severn and the Cotswolds in the Nineteenth Century

(from Holderness 135)

Region	All townships			'Close' townships			
	A no. of townships	B av. no of acres per house	C av. pop growth 1801-41	D no. of townships	E % of all township	F av. pop. growth 1801-41	G acres per house +
Vale of Severn	87	16.3	53.5	9	10.3	15.6	40(7)
Cotswolds (Glos.)	199	15.1	37.7	56	28.1	22.8	40(55)

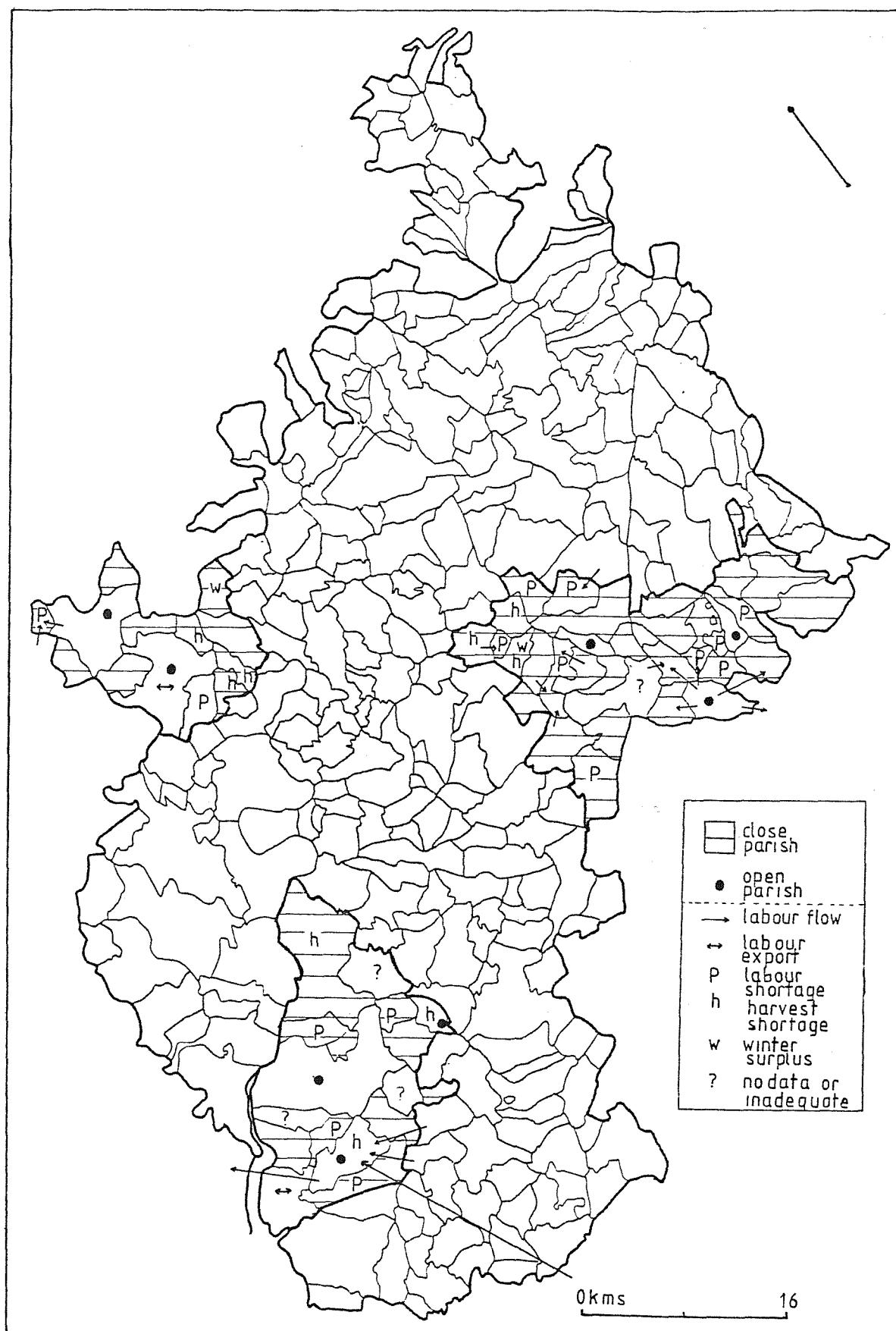
+ Column G gives the number of acres per house used as the demarcation line between 'close' parishes and others, and (in parenthesis) the number of places in each region beyond that line. The difference between the numbers in column D and Column G was supplied from using information from other than census data.

The other data are the 1850 and 1867 reports, B.P.P. 1850, XXVII and B.P.P. 1867, XVII (100), contemporary directories and the poor rates.

It falls outside the period encompassed by this thesis and there are no land tax assessments available against which Fraser's comments on labour shortage can be judged. Such comments do not cover the whole county and do not always give a clear picture of the degree of control of landownership, though from his investigation Fraser does make precise statements about labour needs and the presence of seasonal and permanent labour shortages (101). South Cerney, though not a market town, exhibits the relationship with the adjacent parishes which is typical of the effects the Poor Law had on labour movement. "It is an 'open' parish and its population has been in great measure driven into it from the surrounding 'close' parishes". Labourers travelled daily into Sharncote, Somerford Keynes, Siddington, Preston, Harnhill, Driffield, Latton, Down Ampney, Kemble and Ashton Keynes (102). A visual comparison of Figures 14, 15 and 16 is weak. There is only one case of inadequate labour supply in a parish in which there were many landholders, but this may reflect the apparent difficulty of persuading the squatters of May Hill, in Taynton, to accept regular employment (103). The relationship between labour shortage and either a high concentration of landownership or low population density is equally weak.

The existence of this social problem had not escaped Rudder's notice who like many commentators in the late eighteenth century was sensitive to the fear of depopulation. Early enclosure and, more recently, engrossment in the Vale had led to the migration of young people to the more prosperous market towns and hill country. In particular he notes instances of the pulling down of cottages by landlords (104). Two parishes in the northern part of the Vale might be categorised as 'close' though Rudder did not actually use this term. Aston-sub-Edge had suffered engrossment. "In 1751 there were 31 households and 80 inhabitants, but the lands are now let into four farms which made seven before enclosing", (1771) (105) "and at this time there are only 20 households and 63 inhabitants" (106). In Clifford Chambers "Several cottages have been taken down during the last century" (107). Both these parishes fall below Holderness' threshold, but exhibit low population densities and stagnating or declining populations compared with their neighbours. Oxenton to the east of Tewkesbury had "one or two ordinary farmhouses and a few mean cottages", but Rudder also notes an increase in population (actually eight percent over 60 years) (108), which is not in keeping with its growth rate at any time during the eighteenth century or with its slight absolute decline between 1811 and 1841. It just fails to meet Holderness' threshold figure but behaves very much like its neighbours, Woolstone,

Fig 16 CLOSE PARISHES AND LABOUR SUPPLY IN GLOUCESTERSHIRE  
[after Fraser] [1867]



Alstone, Little Washbourne and Stanley Pontlarge, which all have ratios exceeding 40 acres per house, low densities of population and total populations of < 100 inhabitants. Further south in the Vale at Standish "The small farms have been joined together and the cottages suffered to fall down, which has obliged the poorest sort of people to remove to other places" (109). If Atkyns is to be trusted, this resulted in a decrease in population of 20 percent since the early eighteenth century. The parish was certainly less densely populated than the neighbouring cloth parishes or those of the Vale in 1841. On the Cotswolds, Rudder observes in Beverstone that "the late dilapidation of cottages hath driven many younger people out of the parish to which the decrease of inhabitants ought to be attributed" (110). Beverstone was not enclosed until 1803 (111) and its population only increased by 0.3 percent per annum in the period 1811-1841. It may be significant that it was the neighbour of Tetbury, from which an adequate supply of labour could be acquired, though there is no proof of this symbiotic relationship. Similarly, Rudder notes that nearby Lasborough had only three houses (112). Two other Cotswold parishes were identified by Rudder as having very low populations. Eynford had just "25 souls" (113) and Stowell had only the Manor House (114). Both had > 40 acres per house and increased their population between 1811 and 1841 by 6 and 13 respectively (their low absolute population making their percentage increase a statistical anomaly).

Summary. An examination of the distribution of population in Gloucestershire, at this time, must consider not only economic and physical factors, but those related to the operation of the Poor Laws at the parochial level. In this context, Holderness' emphasis on labour requirements may prove to be of more value than Mills more mechanistic approach. It is unwise to expect a simple cause-effect relationship to exist as landownership is only one variable affecting population density and growth. Even within the general economic regions identified the growth of individual parishes will depend on the complex inter-relationship of individual landlords, the pace and nature of enclosure, soil type, land use, farm size, the relative location of parishes to through routes and neighbouring parishes and the range of economic activity that is potentially available. However, the concentration of 'close' parishes in the Cotswolds identified by both Holderness and Mills suggests that in the subsequent section this area might be regarded as an 'exceptional region' in that parishes are not labour self-sufficient (see page 86).

In consequence, the pattern and volume of Settlement Certificates should reflect the particular distribution and relationship of 'open' and 'close' parishes.

## II. Population

A - Gloucestershire in its national setting. In the pre-census period, the researcher is faced with major difficulties in making reliable estimates of population. Muster rolls, tax lists, the periodic lists of communicants, recusants and dissenters and the Anglican Parish Registers are all useful; but each has marked and well documented deficiencies (115). A full discussion of these is beyond the scope of this thesis.

The mechanism and precise level of population growth is still a matter of research but there is an acceptance of general national trends for the late seventeenth and eighteenth centuries (116). The period up to 1740-60 was one of stagnation, but from mid-century the trend became one of sustained increase. Gonner in 1913 had identified the elements of this pattern (117).

Table 4  
Population growth in England and Wales

<u>date</u>	<u>population</u>
1700	5,518,613
1750	5,733,132
1801	8,345,519
1851	16,915,825

(from Gonner)

This growth was accompanied by a re-orientation of the national economy that has led to the eighteenth century being regarded as the 'Age of Transition' (118), by which a pre-industrial agrarian society was transformed to an urban, industrial society before the end of Victoria's reign (119). The role of migration in this process of population redistribution is seen as critical by Deane and Cole who estimate that the net volume of internal migration probably doubled in volume between the first decade of the eighteenth century and a hundred years later. The volume differed very little between the two halves of the eighteenth century, despite the very different rates of national

population growth (120). These findings would support one of Lee's hypotheses that unless checks are imposed, both the volume and rate of migration tend to increase over time (121) (see Appendix 3, hypothesis I.e.).

At the beginning of the eighteenth century, the main axis of population distribution was orientated from East Anglia to Devon. London dominated the economic and population geography of the country.

The city system exhibited a strongly primate distribution. Wrigley estimates the population of London to have been 400,000 in 1650, 575,000 in 1700, 675,000 in 1750 and 900,000 in 1800. These figures for London represent about 7 percent of England's population in the mid seventeenth century and 10 percent at the beginning of the nineteenth (122). This growth cannot be attributed to natural increase in London itself, though after 1750 the importance of the influx into the area certainly declined, both in relation to the total volume of migration and, with the general disappearance of the excess of deaths over births, as a factor in the growth of the population itself. Nevertheless, the drift towards the "Great Wen" continued on a large scale; in absolute terms it was probably maintained and may have increased (123). Wrigley estimates that during the period 1650-1750 one adult in six in England had direct experience of London life (124). The dominance of southern England in the eighteenth century was not only a function of its agricultural prosperity and the commercial development of its market towns and ports, but the reflection of widely spread rural manufacturing activity, in particular the textile areas of East Anglia, Oxfordshire and the West Country and the iron industries of Worcestershire and the Forest of Dean (125).

Reference has already been made to Deane and Cole's division of the counties of England into three major economic groups. In the period of slow, national population growth, during the first half of the eighteenth century, many of the agricultural counties and those with mixed economies lost population by migration as the overall growth of the two categories was minute. The industrial/commercial counties, which included Northumberland and Durham, Lancashire and the West Riding of Yorkshire, Staffordshire and Warwickshire, Kent, Surrey and Middlesex and Gloucester grew by 15 percent in this period, when the national growth was but a third of this figure (126). Gloucestershire, largely through the losses of population in the other textile regions of the South-West, grew by 31 percent (127). During the second half of the eighteenth century, up to 1781, the agricultural counties increased

their population almost as fast as the industrial/commercial counties (128). After 1781, the gap between the latter group and the rest of the country widened (129). Gloucestershire increasingly becomes a mis-fit in the industrial/commercial category. Bristol had been for much of the eighteenth century the country's second city and port. Its suburban expansion in the late eighteenth and early nineteenth centuries masks what was really happening in the rest of the country (Appendix 4). Whereas the growth rates of the metropolitan area of Bristol to the rest of the county was 1:3.7 in 1701, by 1851 this had been reduced to 1:2.4. Its suburbs in Gloucestershire had a ratio to the rest of the county of 1:15.9 and 1:4.8 over the same period. The destruction of Poor Law documents in Bristol during the 1939-45 war therefore, represents a major loss of data for this thesis.

B - Contemporary Viewpoints of Gloucestershire Population. The general topographical descriptions of such inveterate travellers as Defoe or Young (130) are of little value in this context. Here, one must draw on the work of the county's two major topographers. The basis of Atkyn's estimates for the beginning of the eighteenth century is not clear. The figures he produces are clearly rounded estimates which Rudder revises by reference to the Parish Registers for the period 1700-1709. The 1760-1769 registers help him to identify and explain significant changes in population since the earlier part of the century. He produces a total figure for each parish and sometimes a figure for the number of households. It is, of course, impossible to check the accuracy of these estimates, except against the Registers whose weaknesses have already been noted. The most glaring anomalies may be apparent when viewed against the early nineteenth century Censuses, but even so the 1801 Census is thought to be unreliable and for this reason the 1811 Census is preferred (131). However, if these estimates are used to construct a general picture of the distribution of population at a given time, rather than provide accurate bench marks from which demographic indices can be interpolated, then their inaccuracies are less significant and may be regarded as random in their occurrence (132).

Two maps are constructed from Rudder's data. The first, Figure 17, mirrors Figure 11 and provides a general picture of the density of population in the county. At this time, Bristol was the only town of any consequence, though strictly outside the county (133). Its population probably exceeded 25,000 and with its suburbs stretching

Fig 17 POPULATION DENSITY IN GLOUCESTERSHIRE C.1771 [after Rudder]

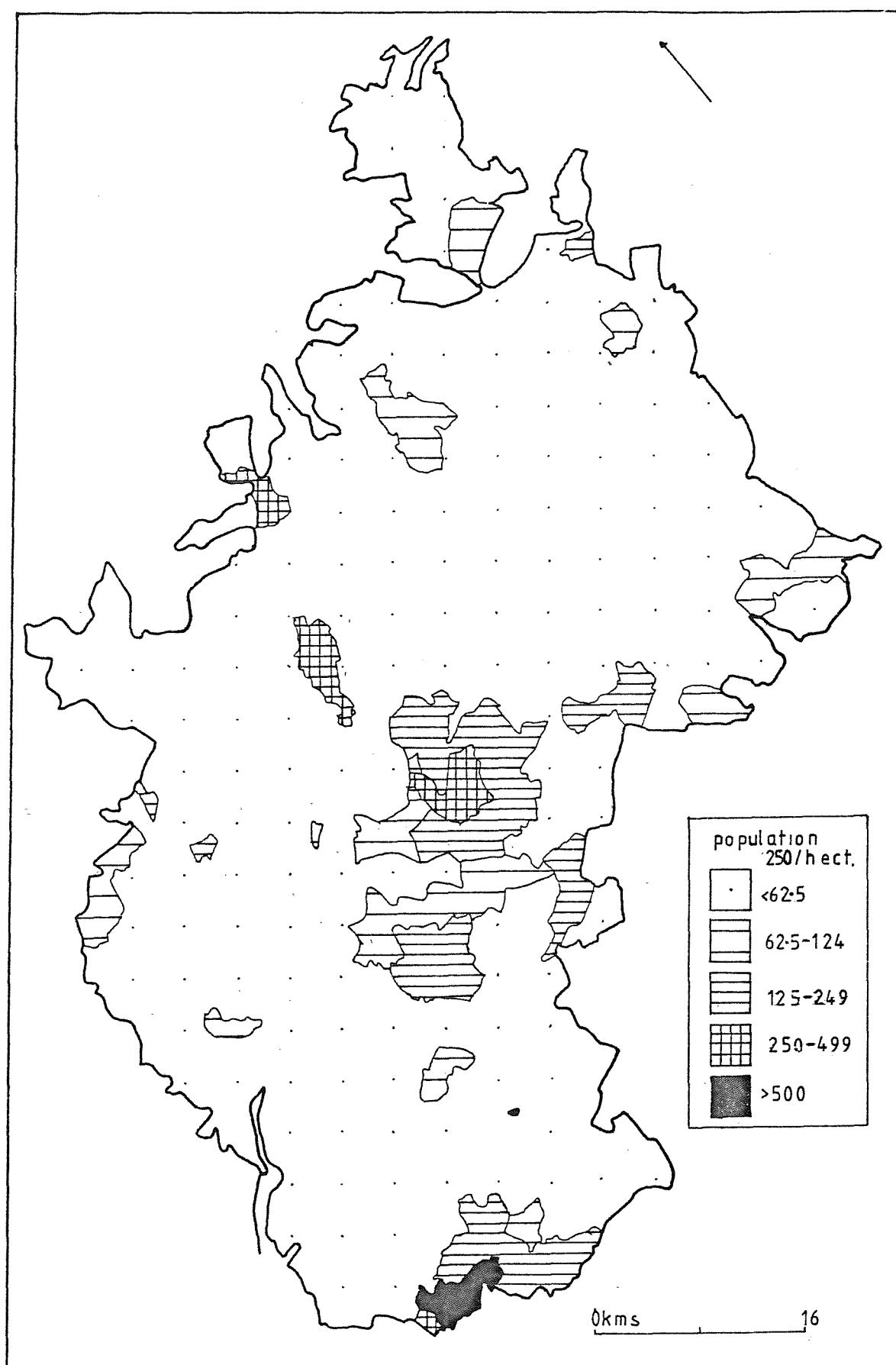
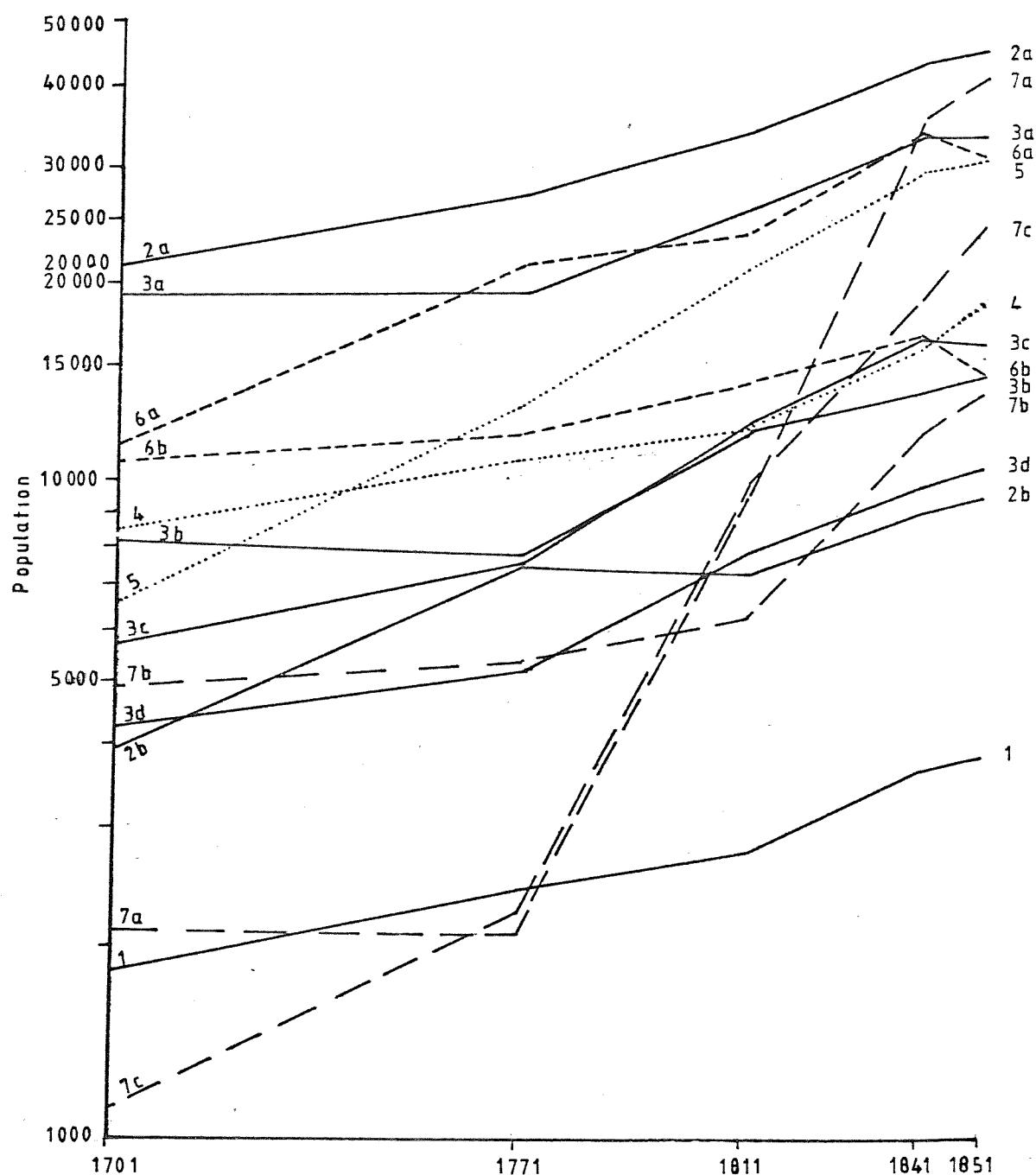


Fig 18 POPULATION GROWTH. GLOUCESTERSHIRE  
ECONOMIC REGIONS C.1701 - 1851

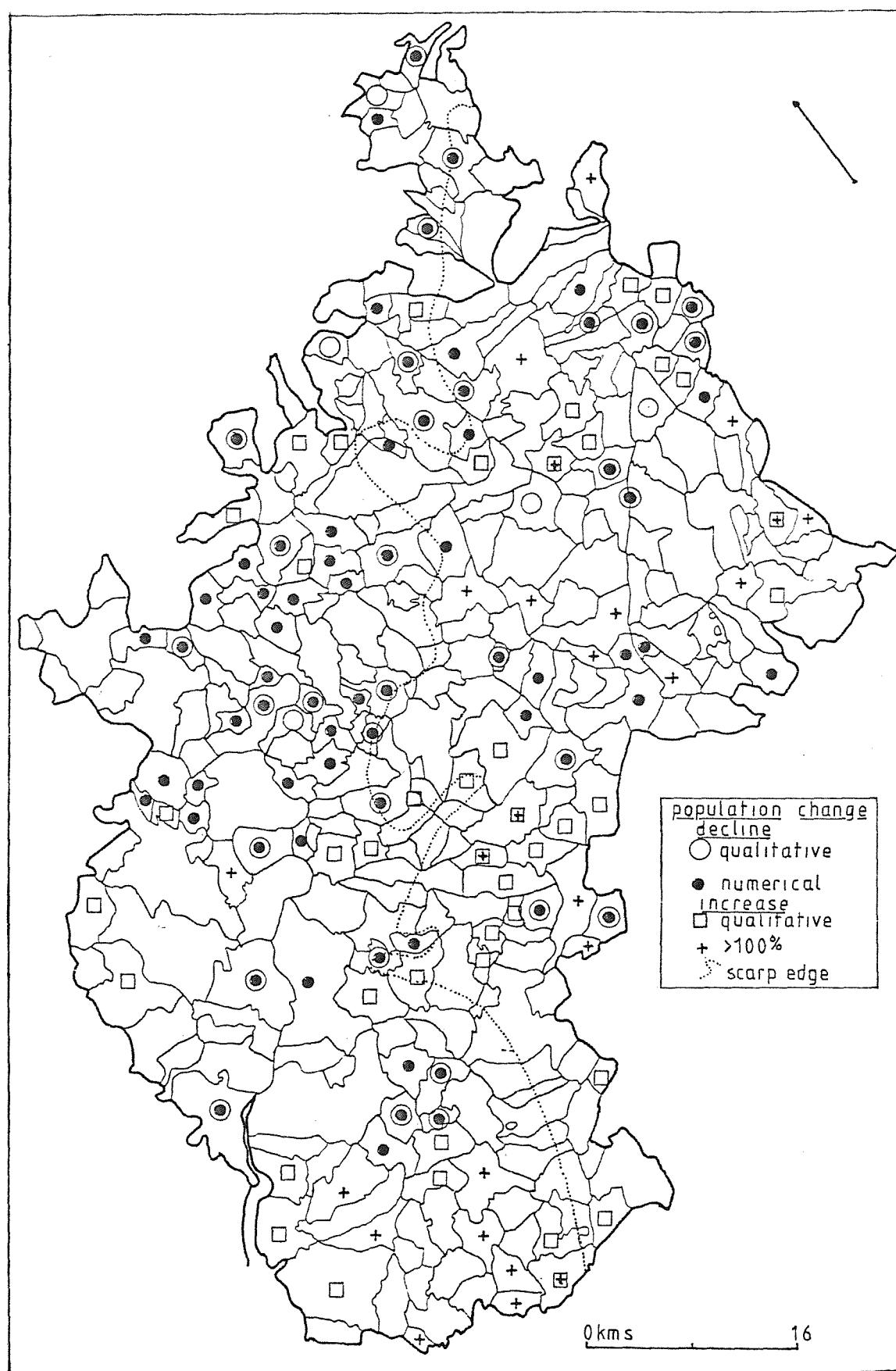


Key. see Fig. 13

into the coalfield to the east and to the new spa at Clifton in the west, the metropolitan areas must have had a population of at least 50,000 at this time (Figure 18). By comparison, Gloucester had just over 5,000 people. Figure 17 reveals the local peaking of densities where market towns existed, but only Tewkesbury, Cirencester and Tetbury had more than 3,000 people. The main concentrations of population are in the two cloth areas centred on Stroud and Dursley, though, the former was in absolute terms of far greater importance (Figure 18). The industrial belt along the Avon below Bath is clearly represented but the developments in the Forest of Dean are understated by this cartographic technique (134). However, some elements of the peripheral nature of the developments in the Forest are represented. Similarly, the differences that existed between the Vale and the Cotswolds are not revealed. The enclosed, smaller farm units of the former area which provided the Bristol, Gloucester, and cloth-making parishes with dairy products carried a great density of population than the Cotswolds with its larger farms (135) and greater amounts of open field and common pasture. Marshall was obviously somewhat surprised that the "labourers are remarkably numerous for the nature of the country" (136), when passing through the Cotswolds, but the pace of enclosure he had already noted may have been a contributory factor to this particular situation (see p. 66). Actually, before the nineteenth century, more people lived on the Gloucestershire Cotswolds than in the two cloth regions (see below). Figure 17 shows a pattern of population densities very similar to that which existed at the beginning of the eighteenth century.

The second map (Figure 19) derived from Rudder, reflects both the quantitative and qualitative changes in population that had occurred since Atkyn's study. It is tempting to regard these as the major changes, but a comparison of those parishes which had been noted as increasing in population with those that actually doubled their population since Atkyn's time, showed only a weak correspondence. There may be several reasons for these discrepancies. Firstly, the statistics presented by both commentators are, at best, estimates. Secondly, it was only the most recent significant changes that would have come to Rudder's attention in his travels. Thirdly, the changes revealed by the statistics may have occurred gradually and thus gained little attention locally. Fourthly, the comparison is between statistically-based evidence which pauses on major changes and

Fig. 19 POPULATION CHANGE IN GLOUCESTERSHIRE C1701-C1771



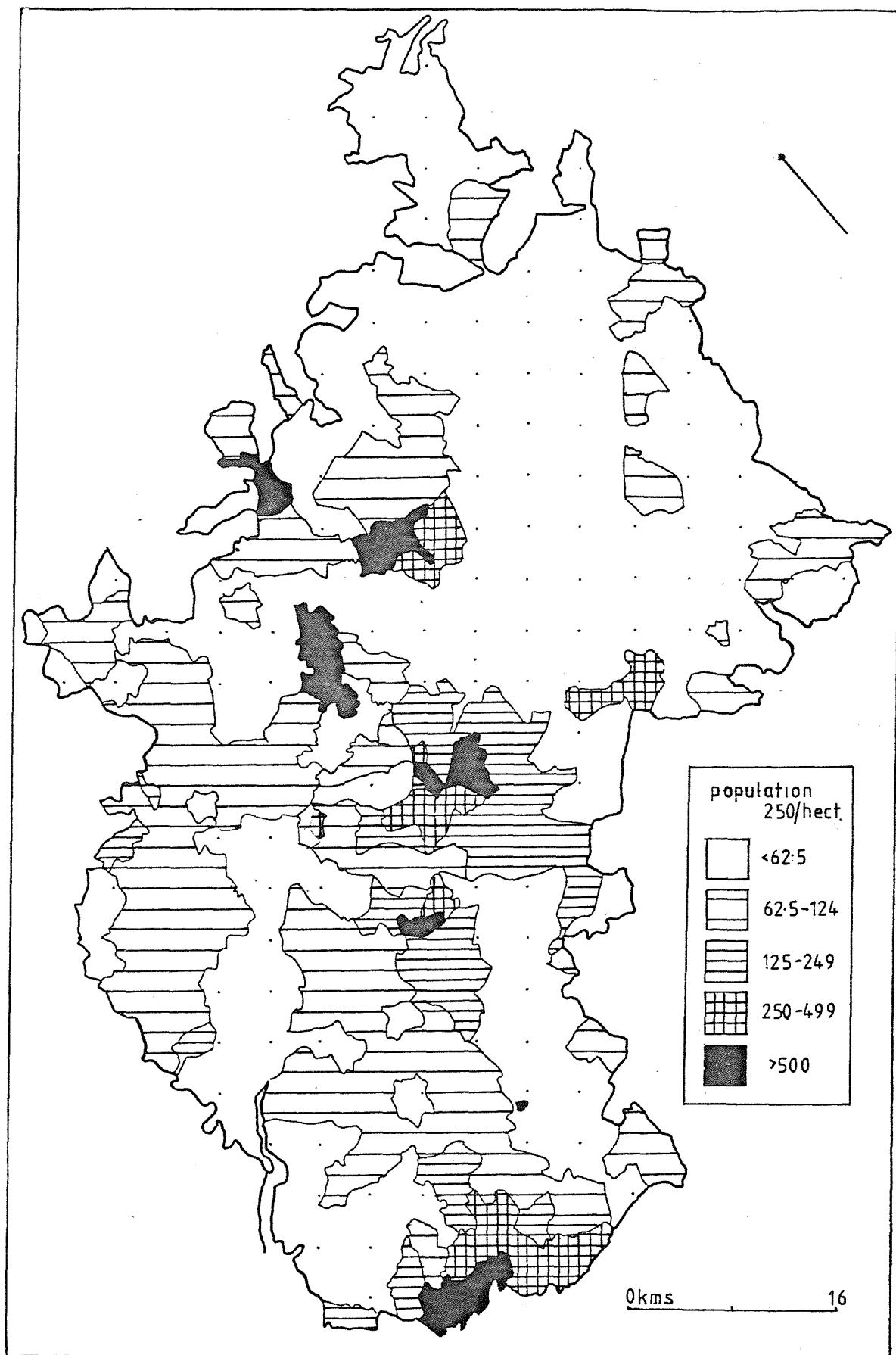
[after Rudder]

qualitative statements that hide the whole range of such changes. This figure also shows those parishes which, on the basis of Atkyn's and Rudder's estimates, actually declined in population. If these are compared with Rudder's qualitative statements then the correspondence is much higher. However, all of this may be an over-rationalisation of the reality that Rudder perceived and his comments may reflect the inadequacies of Atkyn's work rather than any significant population movements. It may be prudent to treat this map with caution and only attach importance to those parishes to which Rudder adds further qualifying detail. In particular, reference is occasionally made to engrossment and to the delapidation of cottages (137). The decline in population at Mickleton is attributed to conversion of the land to pasture which required fewer hands (138), though the enclosure of the downs and common fields in Cold Salperton had the opposite effect (139). Attention is drawn also to the low-lying lands of Arlingham and Awre as unhealthy and in the latter to the great mortality that had been experienced in 1700 (140).

The publication of the 1801 and 1811 Censuses revealed no radical change in the pattern of population distribution, only an intensification accompanying the rapid growth of population in the later decades of the eighteenth century (Fig. 18) (141). Bristol's suburbs had grown dramatically. Clifton stood in time between Bath and Cheltenham as a focal point of fashionable society, rejoicing in its spa and unparalleled views across the north Somerset countryside and the Avon Gorge. Cheltenham benefitted from the royal patronage of its Chalybeate well in 1788 but the malt market was still its basic industry. Rudder had seen Cheltenham as a declining market town (143), yet by the turn of the century its population had doubled. The clothing districts were prosperous and in Stroud, in particular, there was a great demand for houses (144). Beyond the Severn the new coke furnace iron industry and a prosperous coal industry led to a significant influx of people especially in the core area of the Forest (145).

Although 1841 does not represent the peak of population expansion in the county, Figure 18 shows that it does mark the period when, for many parts, population growth began to stagnate or even decline. Because of changes in the content of that Census and the arrival of civil registration, 1841 is also a convenient point for re-assessing population distribution (146). Figure 20 shows that Bristol's suburbs continued to expand into Gloucestershire and provide one of the areas of greatest growth in the county. Gloucester had spilled

Fig 20 POPULATION DENSITY IN GLOUCESTERSHIRE 1841

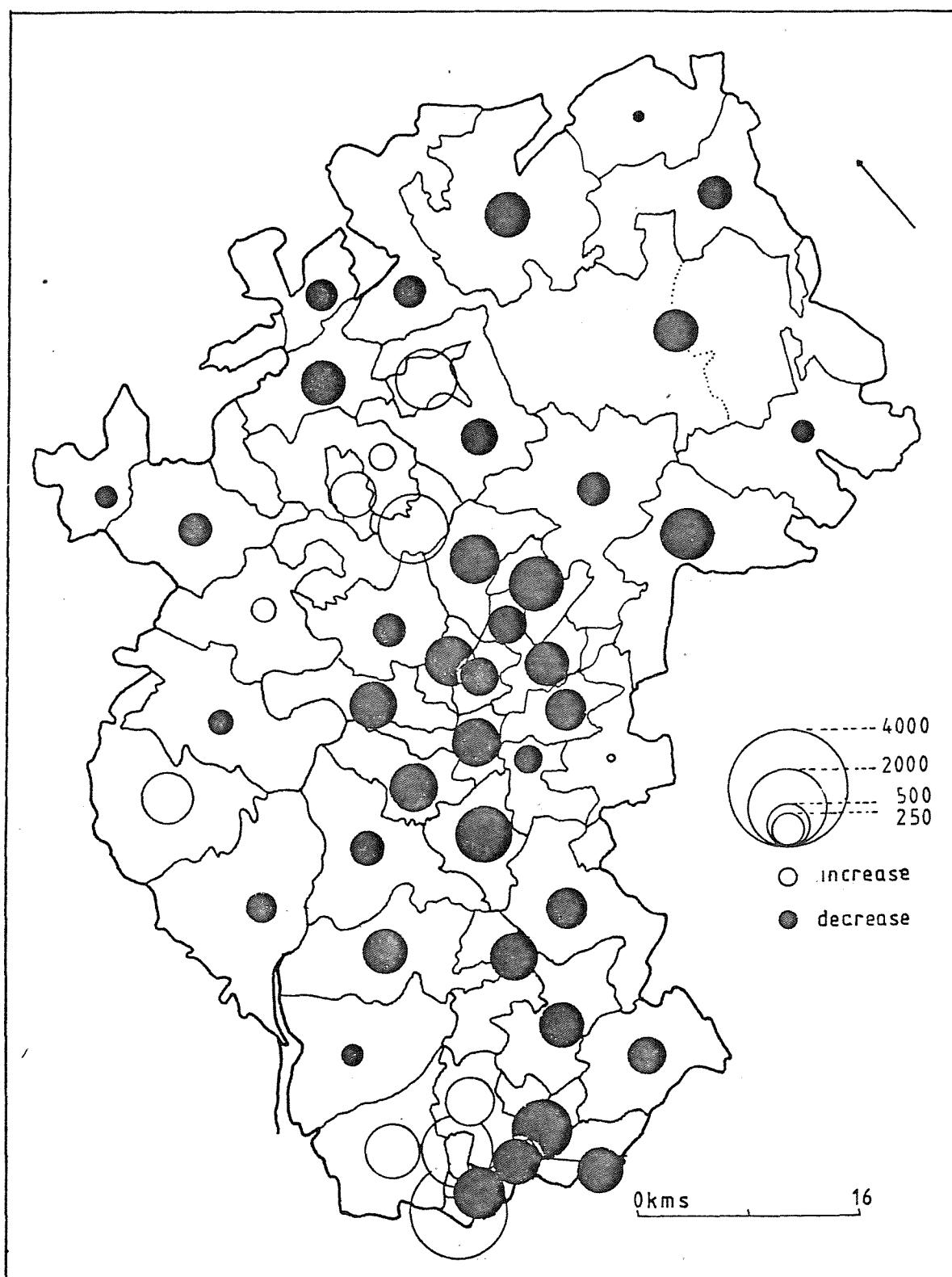


over into Barton St. Michael, Barton St. Mary and South Hamlet, but it was Cheltenham and the adjacent parishes of Charlton Kings and Leckhampton that formed the other major growth area (Appendix 4).

"The High Street in Cheltenham is in fact a portion of Bond Street transformed into the county for the convenience of those who like to have the choicest part of London removed elsewhere in the summer months" (147). This brash 'candy floss' society was encapsulated in the wit of a contemporary who saw Cheltenham like "Attica in Architecture and Boeotia in understanding" (148). By 1841, Cheltenham was no longer the hub of fashion and its growth could only be sustained by becoming a sedate, residential, provincial town. The Stroud area, by this time had gone through the process of landscape change comparable to that which Court attributed to the Black Country in the seventeenth century, that of "an industrialised countryside or rather a countryside in the course of becoming industrialised" (149). The 1841 Census was the first in which the two cloth areas showed an actual inter-decennial decrease in population, a trend that was as yet absent from all other parts of the county, but which was to become common-place in the next twenty years. The setback to the cloth industry in the late 1820's and in the 1830's was to continue throughout the next decade and to be strongly reflected in the steady stream of Poor Law removals and voluntary out-migrants from these regions. After a revival of fortunes in the 1860's and 1870's, these areas would need to seek replacement industries to avoid the economic and social disasters to which single industry areas are prone. In contrast, the Forest of Dean continued to prosper and act as a magnet for population growth, but the decline of the non-ferrous smelting industry of the Avon valley caused a temporary stagnation in the development of South Gloucestershire (150). In 1851, only 85 workers were recorded in this industry in the Bitton area (registration district 327) and 344 in Bristol and its suburbs (registration district 329 and 330) (151). In addition, the decline of the old felt-hat making industry in Frampton Cotterell also adversely affected the growth rate of this area (152).

Finally the establishment of civil registration allows one to compare the natural changes in population in the registration sub-districts with the recorded inter-censal population change between 1841 and 1851. This is set out for the county in Appendix 6 and summarised in Figure 21. The actual volume or direction of migration cannot be isolated only the net flow in any one district. The intra-urban flows in the

Fig 21 NET MIGRATION GLOUCESTERSHIRE REGISTRATION COUNTY 1841-1851



Bristol region show the process of suburbanisation, while Gloucester, Cheltenham and the Coleford area of the Forest of Dean were the only other areas of net in-movement. The rest of the county was losing population by out-migration. Losses were particularly heavy from the southern portion of the South Gloucestershire Coalfield, the two cloth making regions and the agricultural areas of the Cotswolds and Severn Vale. One would expect that Removal Orders from these areas would be heavy, but the orientation and volume of voluntary out-migration can only be gauged in any general way from a much wider study of birth-place data in the 1851 Census.

C - The Poor Law and Population Distribution and Growth. Holderness and Mills suggest that two of the major population characteristics of 'close' parishes are their slow growth rate and a low total population, reflected in low population density. It is easy to find parishes such as Staunton in the Forest of Dean which have a below average density of population and a slower growth rate, but equally easy to identify Flaxley and Blaiston as 'close' parishes where population growth is unhindered. Similarly, Fairford, Frampton-on-Severn, South Hamlet (near Gloucester) and Leckhampton are 'close' parishes, but have growth exceeding the regional average, in the period 1811-1841. In the South Gloucestershire Coalfield, Stoke Gifford, Rangeworthy and Cromhall are 'close' parishes (after Mills) showing inter-censal changes of population of 5.2 percent (1811-41) and 0.7 percent (1841-51), whereas the rest of the region had changes of 15.14 percent and 1.6 percent respectively. This could be taken as evidence of a restrictive population policy, but none of the three parishes have markedly low population densities and their poorer growth may reflect a position peripheral to the main coal bearing seams. In the cloth region, the 'close' parishes of Leonard Stanley, Pitchcombe and Miserdine show a 10.2 percent growth in population between 1811 and 1841, whereas the regional average was 13.21 percent, though their population loss in the 1841-51 period was far greater, (- 8.0 percent and - 3.14 percent respectively). The difference should not be attributed to the concentration of landownership, but the concentration of the main manufacturing units away from the peripheral side valleys and upper Frome valley. Actually, Leonard Stanley, situated along the core axis of the Frome, exhibited a growth rate second only to Stroud in this region between 1811 and 1841 and a very low percentage loss in the following decade (- 1.5 percent).

If landownership did exercise the power to restrict residence in the mechanistic fashion Mills proposes, then one would expect that

in the north Cotswolds where the majority of parishes are 'close', a striking difference in growth characteristics compared with the 'open' parishes in the same region. Table 5 identifies the 'open' parishes and shows that there was little difference in growth between the two types of parish between 1811 and 1841, but the stagnation between 1841 and 1851 did widen the rate of growth. It was decided to examine this generalisation further by assuming that the effect would be most noticeable where landownership was most highly concentrated. An arbitrary threshold of 90 percent of the land being held in one hand is used to identify this sub-group of 'close' parishes (Table 6). Between 1811 and 1841 only Stoke Gifford and Great Badminton did not exhibit a growth less than that of the region in which they were situated and only Tortworth and Stoke Gifford exceeded their regional growth between 1841 and 1851. However, there appears to be a marked difference between absentee landlord parishes and squire parishes, the latter exhibiting characteristics not unlike the 'open' parishes in the period 1811-1841. It was only in the more economically difficult period of the 1840's that these 'close' parishes exhibited the effects suggested by Mills. However, most parishes defined as 'close' did possess low population totals and below average densities for their region. In fact, 18 of the 23 townships containing <100 inhabitants were those with at least 50 percent of the land owned by one person. Appendix 4 and Figure 15 identify those parishes which Holderness regards as 'close'. By definition, they show low average population densities. Of the 61 townships and parishes thus defined, only Stanway exceeded 400 population but 26 had <100 inhabitants. Table 7 summarises the growth rates of these 'close' parishes in relation to regional population growth. These parishes exhibit a far great divergence from this regional growth, though this may be partly a function of the small number of parishes involved. The North Cotswold parishes exhibit a pattern not dissimilar from that in Tables 5 and 6 though their slightly lower growth rate would reflect the small total populations involved. Only more detailed analysis of age specific fertility rates could possibly reveal the influence of such a factor.

Summary. It is now clear that during the period with which this thesis is concerned, population movements in Gloucestershire tend to fall into two clear patterns. For much of the period, including the early decades of the nineteenth century Gloucestershire can be regarded as a county of 'absorption' (153). However, the second quarter of that century marks its change to one of 'dispersion'.

Table 5

'Open' Parishes in the North Cotswolds      (after Mills)  
Population Change 1811-41 and 1841-51.

Parish/Township	1811	1841	1851	Percentage dec. change.	
				1811-41	1841-51
Bledington	326	354	391	2.9	10.5
Bourton on the Water	663	943	1040	14.1	10.3
Brimpsfield	320	417	443	10.1	6.5
Broadwell	282	345	388	7.4	12.5
Chedworth	896	983	963	3.2	-2.0
Cirencester	4540	6014	6096	10.8	1.4
Coates	259	373	400	14.7	7.2
Guiting Power	613	672	690	3.2	2.7
Moreton in the Marsh	928	1345	1512	15.0	12.4
Northleach	647	939	931	15.0	-0.9
Oddington	412	525	545	9.1	4.8
Stow on the Wold	1188	1465	1515	7.8	3.4
Turkdean	164	246	278	16.7	13.0
Westcote	131	240	242	27.9	0.8
Withington	650	818	823	8.6	0.6
'Open' parishes	12019	15679	16257	10.2	3.7
'Close' parishes	21337	27478	28169	9.6	2.5

1. Cirencester is regarded as an 'open' parish as Cirencester Park had few inhabitants.
2. These figures omit
  - a. Chipping Campden and Mickleton which contain 'open' and 'close' townships which cannot be distinguished in the 1851 Census.
  - b. Poulton and Church Iccombe, transferred from other counties in 1844.
  - c. Ampney St. Peter; status could not be defined.
3. Eastington, Maugersbury and Donnington are included within the 'close' total and Northleach and Stow included above.

Table 6 Population change in selected 'close' parishes <sup>+</sup>  
1811-1851

Squire Townships/Parishes

Region		1811	1841	1851
2a	Adelstrop	228	200	196
	Eyford (H)	70	83	48
	Farmington (H)	232	359	339
	Rendcombe (H)	163	248	264
	Salperton	162	206	145
	Sezincote (H)	95	67	111
	Sherborne	506	637	674
	Side (H)	33	43	42
	n	1585	1923	1902
2b	Great Badminton	409	552	521

Absentee Landlord Townships/Parishes

2a	Ampney St. Mary (H)	168	121	125
	Baunton (H)	105	187	134
	Bibury	339	408	387
	Charlton Abbots (H)	99	101	112
	Eastleach Turville	370	421	446
	Hawling (H)	209	217	212
	Hazelton (H)	111	193	189
	Lemington (H)	63	53	58
	Notgrove	211	181	195
	Pinnock and Hyde (H)	47	61	29
	Prinknash (H)	7	7	13
	Roel (H)	42	20	12
	n	1771	1970	1912
2b <sup>6</sup>	Little Badminton	108	127	118
3a	Aston Somerville (H)	88	89	89
	Weston upon Avon (H)	96	91	93
	Wormington	81	73	62
	n	275	253	234
3c	Tortworth	303	240	237
5	Stoke Gifford	315	480	488

Table 6 continued

Summary

Close parish/region	Percent change (by decade)			
	1811-41		1841-51	
	close parish	regional change	close parish	regional change
<u>Squire township</u>				
2a	7.1	9.75	-1.09	3.41
2b	11.65	7.23	-5.6	4.29
<u>Absentee Landlord</u>				
2a	3.74	9.75	-2.94	3.41
2b	5.86	7.23	-7.09	4.29
3a	-2.66	9.03	-7.5	0.75
3c	-6.9	10.49	-1.25	-2.26
5	17.46	15.48	1.66	1.60

† Defined here as those townships/parishes where over 90 percent of the land is owned by one person.  
 Postlip, Cockbury and Corndean are omitted as these parts of Winchcombe cannot be separated for population purposes.  
 Similarly, Berrington in Chipping Campden, Wick in Wick and Abson, Didcote in Dumbleton in Dixton in Alderton are omitted.  
 H Exceeds Holderness' threshold figure of 40 acres per house.  
 Ø Little Badminton is included here, though it is part of the very large Hawkesbury parish, because its economy is closer to the Cotswold parishes of which topographically it is a part.  
 It is not possible to calculate Holderness' index from the Census summary table as no separate acreage is given.  
 Regional population change taken from Appendix 5, II.

Table 7

Population growth in 'close' parishes 1811-41 and 1841-51

Region	1811	1841	1851	percentage decennial growth	
				1811-41	1841-51
2a North Cotswolds (38) <sup>1</sup>	5181	6337	6373	7.44 (9.75) <sup>2</sup>	0.01 (3.41)
2b Southwold (4)	612	728	760	6.32 (7.23)	4.40 (4.29)
3a Vale of Tewkesbury (12)	1214	1160	1145	-1.48 (9.03)	-1.29 (0.75)
3c Vale of Berkeley (6)	1130	1072	1036	-1.71 (10.49)	-3.36 (-2.26)
3d Over Severn (1)	90	75	80	-5.56 (8.10)	6.67 (3.70)

(after Holderness)

Figures in parentheses      1   number of parishes                                  2   regional population growth from Appendix 5

Shipton Sollars omitted from 2a as its population not separately listed in 1811.

The latter, in Ravenstein's terms, had a total population falling short of the number of natives of that county enumerated throughout the kingdom. 317,685 natives lived in the county, 161,796 in the rest of England and Wales in 1851. The Registration County had a total population of 419,514 (154). The cloth parishes and the South Gloucestershire Coalfield, once foci of in-migration, had become, like the pre-dominantly agricultural districts, economically stagnant. The Forest of Dean and the three major urban centres became the growth points for the county.

It is expected that the analysis of the Poor Law documents in Chapters 5 and 6 should reflect these changes in prosperity. The Certificates should show a strong centripetal movement into the cloth parishes in the eighteenth century and the Removal Orders the reverse pattern in the second quarter of the nineteenth century. The existence of 'open' and 'close' parishes on the Cotswolds may also have implications for the pattern of extant documents. Chapters 5 and 6 examine these documents to test those migration hypotheses related to distance and direction and to evaluate the influence the Poor Laws may have had upon such movement.

## Chapter 4

Notes and References

1. Deane, P. and Cole, W.A. (1969) British Economic Growth (Cambridge University Press), 104.
2. Atkyns, R. (1712) The ancient and present state of Gloucestershire (Reprinted without amendment 1768; London : Bowyer)
3. Rudder, S. (1779) History of Gloucestershire (Cirencester). The fieldwork dates mainly from 1773. I am indebted to Lt. Col. Rudder of Bibury who is engaged on a study of his predecessor, Samuel. It appears that Samuel may have been privately educated with the children of a clothier's family at Uley, though his father was a weaver and later a shopkeeper. Samuel believed that it was at this time that he collected the first ideas for his history (see page 782), though his experience as a publisher, warden of the Weavers Company in Cirencester, Constable of that town and sub-division clerk no doubt played their part.
4. Ibid., VI.
5. Young, A. (1768) Six weeks tour through the southern counties of England and Wales (3rd ed. 1772; London).
6. Rudder, op. cit., 21-23.
7. Marshall, W. (1789) Rural economy of Gloucestershire (2 vols; 2nd ed. 1796; London), vol. 1, 6.
8. Ibid., vol. 2, 37.
9. Ibid., 87. Qualitatively such a statement is acceptable but Marshall tends to exaggerate as a comparison with the evidence of the 1801 Crop Returns would suggest (see 20 below).
10. Rudder, op. cit., 25.
11. Marshall, op. cit., vol. 1, 13 and 40-41.
12. Caird, J. (1852) English agriculture 1850-51 (London) 41-2.
13. Bravendar, J. (1850), 'Farming in Gloucestershire', Journal of the Royal Agricultural Society, 170-174.
14. Marshall, op. cit., vol. 1, 62.
15. Reports to the Board of Agriculture
  1. Turner, G. (1794) General view of the agriculture of the county of Gloucestershire.
  2. Rudge, T. (1807) General view of the agriculture of the county of Gloucestershire.
  3. Marshall, W. (1809) Review and abstract of the county

reports to the Board of Agriculture (5 vols.; 2nd ed.  
(1818); vol. 2, Western Department)

Turner's sub-divisions closely reflect those in Marshall's 'Rural economy'. Neither author is interested in the Wiltshire Vale around South Cerney or the Forest of Dean, though Turner does provide valuable details of the Overn Severn district. Only in the 'Review and abstract' does Marshall make reference to the South Cerney area (p. 403). Marshall maps the topographic sub-divisions of the county including the Bristol Quarter, Wyeside and the Stroudwater Hills which are then ignored in his text and in Turner's summary. This is ironic in view of the scathing comments he makes about Rudge's report (p. 419-24) and the soil map in particular.

16. Turner, op. cit., 46. It was the light soils developed on both the Old and New Red Sandstones that until the early eighteenth century were dominated by rye, in that it was thought that the area could not sustain wheat. These are the famous 'Ryelands' which also gave their name to a breed of sheep carrying an excellent short staple fleece.

17. Marshall, (1818) op. cit., 89.  
Rudge, op. cit., 426.

18. The 1801 Crop Returns.

Minchinton, W.E. (1949), 'Agriculture in Gloucestershire during the Napoleonic War', Bristol and Gloucestershire Archaeological Society Transactions LXVIII, 165-183. It is from this source that figures 9 and 10 are drawn. Minchinton believes that the returns represent a "fairly comprehensive statistical picture of the agriculture of Gloucestershire" (p. 166), despite his own reservations and similar ones expressed by the following authorities.

Hoskins, W.G. (1948), 'The Leicestershire Crop Returns of 1801', Transactions of the Leicestershire Archaeological Society XXIV, 127-153.

Henderson, H.C.K. (1952), 'Agriculture in England and Wales, 1801', Geogr. J. CXVIII, 338-45.

Idem (1951-2), 'The 1801 Crop Returns for Sussex', Sussex Archaeological Transactions 90, 51-59.

Pelham, R.A. (1950-51), 'The 1801 Crop Returns for Staffordshire in their geographical setting' in Collections for the History of Staffordshire (Stafford Record Society), 229-42.

Thomas, D. (1959), 'The Acreage returns of 1801 for the Welsh Borderlands', Trans. Inst. Br. Geogr. 26, 169-183.



19. Marshall, (1818) op. cit., 406. Turner (p. 8) comments on a similar arrangement on the Stroudwater Hills. Meadows and permanent pastures are found in the valleys and sheep and cow down as minority land use amongst the arable hill areas.

20. The methodological justification for crop combination regions is made by Weaver. He and Thomas describe the simple statistical model employed in the construction of Figure 10.

Weaver, J.C. (1954), 'Crop combination regions in the Middle West', Geogrl. Rev. XLIV, 175-201.

Thomas, D. (1959), 'The statistical and cartographical treatment of the acreage returns of 1801', Geogrl. Stud. 1, 15-25.

The importance of Weaver's approach is his attempt to isolate the significant crops in combination. This recognises that the farmer has alternatives, but that also some crops are found in association. The particular technique employed reflects the desire to standardise a procedure capable of precise repetition.

1. Within the chosen unit of administration, rank all crops by acreage.
2. Construct a theoretical curve of crop combinations from monoculture to all the combinations of crops which constitute at least one percent of the cropland (Thomas using the 1801 Crop Returns includes all crops for which a return was made.
 

e.g. monoculture -  $360^{\circ}$  = one significant crop  
 two-crop -  $180^{\circ} \times 2$   
 three-crop -  $120^{\circ} \times 3$   
 n-crop -  $y^{\circ} \times n$
3. Measure the deviation of every crop combination against the model, i.e. first ranking crop against monoculture; first and second ranking crops against the two-crop combination etc.

The smallest deviation is regarded as the significant crop combination.

4. The individual ranking of crops is ignored in the mapping process. e.g. wheat/barley/oats is regarded as the same as barley/oats/wheat.

21. Marshall, (1796), op. cit., vol. 1, 62-3.

22. Bravendar, op. cit., 118.

23. Walker, F. (1972) The Bristol region (London : Nelson), 161.

24. Ibid., 196.

25. Turner, op. cit., 10.

26. Rudge, op. cit., 89.

27. Gonner, E.C.K. (1912) Common land and enclosure (reprinted 1966; London : Cass), 281.

28. Walker, op. cit., 196.

Morton, J.G. (1864), 'On the farming of Gloucestershire', Journal of the Bath and West of England Society XII, 1-24. In south Gloucestershire yields continued to improve in contrast to the static carrying capacity of the Vale pastures, but the picture he paints is little different from that of Rudder or the 1801 Returns. The Alluvium and the New Red Marls were under less than 10 percent arable, the Old Red Sandstone in the Vale of Berkeley less than 20 percent arable, but the New Red Sandstone was entirely arable. The Great Oolite was 86 percent arable according to his calculations.

29. See note 28, Chapter 1.

30. Defoe, D. (1724) A tour through England and Wales (London : Dent), 36-42.

31. Rudge, op. cit., 341 has an account of the textile industry of the county but it follows too closely that of Rudder to be of any value. (Rudder op. cit., 63)

32. Rudder, op. cit., 60. References are made to Owlpen (p. 586), Cheltenham (p. 341), and Wickwar (p. 83).

33. Beckinsale, P.R. (1937), 'Factors in the development of the Cotswold woollen industry', Geogrl. J. 90, 349-63.

Kinwag, R.H. (1916), 'Historical geography of the West Country woollen industry', Geographical Teacher 8, 243-54 and 290-306.

Mann, J. deL. (1971) The cloth industry in the West of England from 1640-1880 (Oxford : Clarendon)

Bowden, P.J. (1962) The wool trade in Tudor and Stuart England (London : MacMillan).

Morris, J.M. (1934) the West of England woollen industry 1750-1840 (unpub. M.Sc. thesis, University of London)

34. Tann, J. (1964) Aspects of the development of the Gloucestershire woollen industry, (unpub. Ph.D. thesis, University of Leicester), 122.

35. Rudder, op. cit., 819, 727, 345, 262.

36. Ibid., 269, 401, 561.

Tann, op. cit., 242, identifies a Sea Mills in Berkeley as a

fulling mill in the 1820's. It is conceivable that in Rudder's time it was a grist mill.

37. Beckinsale, op. cit., 350-1.  
Kinvig, op. cit., 244.

38. Tann, op. cit., 47.  
Perry, R. (1945), 'The Gloucestershire woollen industry' B.G.A.S. 66, 51.

39. Carus-Wilson, E.M. (1939), 'An industrial revolution in the thirteenth century', Econ. Hist. Rev. 10, 39-60.

40. Tann, J. (1965), 'Some problems of water power - a study of mill siting in Gloucestershire', B.G.A.S. 84, 53-77.

41. Rudder, op. cit., 579 (Northleach), 727 (Tetbury).

42. Tann, J. (1967) Gloucestershire woollen mills (Newton Abbot : David and Charles), 54.

43. B.P.P. 1839. XLII, 140. Steam power consisted of 49 engines with an output of 843.5 h.p. and 219 water wheels which produced 1,628 h.p. The building of Gatcombe pond by Playne's of Minchinghamton in 1806 reflects the relative cost and reliability of water and steam power at that time.

44. Nicholls, H.D. (1858) The Forest of Dean (reprinted 1966) (Dawlish : David and Charles), 237.

45. Nef, J.U. (1932) The rise of the British coal industry (2 vols.; London : Routledge), vol. 1, 23. In the 1780's the regional output was estimated as follows - Northumberland and Durham, 29 percent; Scotland, 15 percent; Wales, 8 percent; the Midlands, 39 percent; Cumberland, 5 percent and other fields 4 percent. The Forest of Dean was in the latter category (see page 74). Ashton, T.S. and Sykes, J. (1929) The coal industry of the eighteenth century (Manchester University Press), 7 and 13. On the basis of the Gaveller's Report (see 44 above and V.C.H. for Gloucestershire, vol. 2, 227-31), the output can be estimated at 94,432 tons annually whereas the national output was about 6,000,000 tons.

46. Johnson, B.L.C. (1953), 'New light on the iron industry of the Forest of Dean', B.G.A.S. LXXII, 124, notes that pig iron was transported on the lower Wye at 3d. per ton/mile, for 1d. on the Severn but  $7\frac{1}{2}$ d. per ton/mile overland from Bishopswood to Newnham-on-Severn.

47. Victoria County History of Gloucestershire (1907) vol. 2, 233.

48. Hart, C. (1971) The industrial history of Dean (Newton Abbot :

David and Charles), 119. Hart states that the first coke fired furnace was introduced at Cinderford in 1795.

Rudder, op. cit., 36, had been aware of the limitations of local coal for metallurgical coke and the pressure this placed on charcoal production.

49. Hart, op. cit., 70.

50. Rudder, op. cit., 209, refers to the old furnace at Abenhall (Abinghall) now used as a paper mill, but which had been in operation as a furnace when Atkyns wrote his county history in 1712. It had been part of the Foley family empire.

51. Johnson, op. cit., 134.

52. Ibid., 136.

53. Idem (1951), 'The charcoal <sup>iron</sup> industry in the early eighteenth century', Geogrl. J. CXVII, 167-77. This article is based on Hulme, E.W. (1928-29), 'A statistical history of the British iron trade from 1717-1750' Newcomen Society, 9, 12-13.

54. Walker, op. cit., 178.

55. Hart, op. cit., 63.

56. Rudge, op. cit., 22, see also 46 above.

57. Court, W.H.B. (1938) The rise of the Midland industries 1600-1838 (reprinted 1953 ; Oxford University Press), 6.

58. The Newham on Severn Settlement papers are lodged in the parish chest, but the Certificates and Removal Orders are not sufficiently numerous to warrant analysis. The larger collection of examinations shows links with West Wales, the Severn valley and Cumberland.

59. Johnson, (1951) op. cit., figs. 1 and 2, p.168.

60. Mantoux, P. (1907) The industrial revolution in the eighteenth century (9th impression 1948; London : Cape), 279.  
Atkyns statement (p. 200) "that there only six houses in this great tract of land" is totally unreliable.

61. Nicholls, op. cit., 229.

62. Hart, op. cit., 231, notes that the 170,611 tons in 1871 represented the zenith of ore output.

63. 1851 Census. Population tables and occupations of the people.  
Vol. 1, 385, 389 and 397 and 492. Vol 2, 844 and 873.

64. Jenkins, R. (1942), 'The copper works at Redbrook and at Bristol', B.G.A.S. 63, 145-167.  
Hart, op. cit., 110. John Coster, a Dean man, living in Bristol had leased these works in 1691, and had established a Cornish trade link. His son, Thomas, became the director of the Bristol

Brass Company in 1712 and six years later controlled the Redbrook works. There was a great deal of litigation following the lease of these works to the Bristol company in 1730, as the Redbrook works suffered from an obvious rundown in the next decade.

65. Ibid., 416.

66. Mansfield, R.J. (1961), 'Newnham-on-Severn' Forest of Dean Local History Society, occasional papers 1. G.C.L. RQ. 215.4(1).

67. Rudder, op. cit., 5.

68. Jones, A.E. (1899) History of Mangotsfield and Downend (Bristol) 219.

69. Walker, op. cit., 180.

70. Braine, A. (1891) History of Kingswood Forest (Kingsmead facsimile 1969), 84.

Bedminster and Brislington on the Somerset side of the Avon were also pit districts.

Buchanan, A. and Cossens, N. (1969) Industrial Archaeology of the Bristol region (Newton Abbot : David and Charles), 76-77.

71. Walker, op. cit., 181.

72. Ibid., 213.

73. Avon Navigation Act. 10 Anne, C. 8. (1712) provided an improved link between Bath and Bristol.

Bristol and Gloucester Railway Act. 9 Geo. IV, C. 93. (1828).

Avon and Gloucester Railway Act. 9 Geo. IV, C. 94. (1828).

74. Walker, op. cit., 255.

75. Ellacombe, H.T. (1881) History of Bitton (Exeter), 231. This is the source upon which Braine drew heavily.

76. Ibid., 228.

Braine, op. cit., 55.

77. Rudder, op. cit., V.

78. Holderness, B.A. (1972), ' "Open" and "close" parishes in England in the eighteenth and nineteenth centuries', Agr. Hist. Rev. XX, 127-8.

79. Coode, G. (1851) Report to the Poor Law Board on the Laws of Settlement and Removal of the poor B.P.P. 1851 XXVI, 63.

Eden, Sir. F.M. (1797) The state of the poor (3 vols.; London : Davis).

80. Coode, G. op. cit., 278 is quoting North, R. (1688?) A discourse on the pernicious tendency of the laws for the maintenance and settlement of the poor, (published 1753; London).

81. This is a constant theme in the evidence of the assistant

commissioners in the 1850 Report to the Poor Law Board on the Law of Settlement and Removal of the Poor B.P.P. 1850 XXVII.

Evidence of a Beckett, G.A. for East Anglia and Berkshire, (p.8)

Evidence of Weale, R. for Bedfordshire (p.167). The latter observed that this power was only kept in check by the distance of 'close' parishes from 'open' ones. See also

Burn, R. (1764) History of the Poor Laws, (London), 211.

Davies, D. (1795) The case of labourers in husbandry (Bath) 56.

Eden, op. cit., vol. 1, 361.

This system was not undermined until the Union Chargeability Act 28 and 29 Vic., (1865).

Digby, A. (1976) The rural Poor Law in Fraser, D. (ed.) The new Poor Law in the nineteenth century (London: MacMillan), 167-8.

Digby suggests that the 1854 Report reflected the controversy that had been stimulated by the 1846 and 1847 Poor Law Acts and over emphasised the effects of the Settlement Laws on the labour market. Cottage destruction was probably less significant than the lack of incentive for landlords to build cottages for what would have been an uneconomic investment.

82. 15 Geo. III, C. 32. (1775) thus allowed cottages to be built on the waste without four acres of land, though Holderness believes this Act to have been meaningless by the eighteenth century as a hindrance to the erection of cottages. Holderness, op. cit., 129

83. 31 Eliz., C. 7. (1589).

84. The relationship of excessive poor rates and 'open' policy noted by Coode above had not always been verified by subsequent statistical analysis.

Holderness, op. cit., 138 notes that in the period 1785-7 and 1825-9 "the trend of the increases in poor rates bears no close relationship to the system of 'open' and 'close' parishes" and in that sense "the establishment of 'close' parishes was of limited success in its primary objective". This is not a surprising observation in that the poor rate represented only one aspect of the administration of the Poor Law at this time. The existence of Union Workhouses under Gilbert's Act (9 Geo. III, C. 7. 1783); local charities, the roundsman system, the cottage system, or other variants on outdoor relief; the availability of alternative and supplementary incomes for a head of household and his family and the attitude of the vestry would all affect the rate.

See also Mills, op. cit., (1959) 187. However, Mills, D.R.

(1972) 'Political, historical and regional geography' in New Trends in Geography (Milton Keynes : Open University) Units 13-15 63, correlates poor rate and landownership and at the 99 percent level attains a correlation coefficient of +0.647 which suggests a strong link between these two variables.

85. a Beckett, op. cit., 8.

86. This aspect of mobility is dealt with admirably by Mills, D.R. (1970), 'The geographical effects of the Laws of Settlement in Nottinghamshire, an analysis of Francis Howell's Report, 1848' East Midland Geographer vol. 5, 31-38, but this does not fall within the scope of this thesis.  
Caird, op. cit., 516, notes that labourers walked 40-50 miles a week in this way taking an hour each way in a daily journey.

87. Mills, (1963) op. cit., 16, 170, Table 16, 179.  
Hunt., H.G. (1959) 'Land ownership and enclosure 1750-1830' Econ. Hist. Rev. XIII, 501, corroborates this view. Even so, this does not mean that freehold villages could not be enclosed at an early date without suffering depopulation. The Vale of Severn was certainly such an area. Equally late enclosures in many areas resulted from landownership being in many hands.

88. Mingay, G.E. (1962), 'The size of farms in the eighteenth century', Econ. Hist. Rev. XV, 484, emphasises engrossment as a separate phenomena from enclosure and notes the difficulties for the small farmer of open fields in clay areas.

89. Mills, (1959) op. cit., 191.  
Idem (1963) Landownership and rural population with special reference to Leicestershire in the mid nineteenth century, (Unpub. Ph.D. thesis, University of Leicester) 201.  
Holderness, op. cit., 129 and 135.  
Lambert, A.M. (1953) Oxfordshire about 1800 (Unpub. Ph.D. thesis University of London), 286.

Wood, E.G.R. (1950) A study of the changes in the distribution and density of population in Worcestershire during the period 1841-1931, and of the geographical factors involved (unpub. M.A. thesis University of Birmingham), 26, 38-9.

90. Mills, (1959) loc. cit.,

91. These Land Tax Assessments are lodged in Gloucester Records Office, but are not available after 1832. It was their other use as Electoral Registers that had resulted in their being kept in the County until that date. The 1831 assessments are largely

complete. The 1841 assessments would have allowed direct comparison with Holderness' data (Table 4, p. 46) but only the exemptions have been preserved at the P.R.O. 1831 is convenient for my purpose as one would not anticipate dramatic changes in the balance of land ownership in such a short period.

Mills, op. cit., (1963) does not spell out the assumption he makes that within a parish there is a direct link between tax assessed and acreage owned.

92. Mills, (1963) op. cit., Appendix A4, 1-3.

Squire township

- a) Over half of the land held by one owner.
- b) Total ownership in one hand (excluding the Church).
- c) Two or three resident landlords holding more than two thirds of the land, but no one owner holding half.
- d) A parish identified in Kelly's directory in 1855 as a 'Principal Seat'.

Absentee Landlord township

- a) Non-resident landlord controls over half the township.
- b) Two three or four non-resident landlords, holding at least two thirds of the land.
- c) When resident landlord holds less than one half, but there are also important non-resident landlords.

Freeholder townships

Basically this identifies a fragmented pattern of ownership by including within it those parishes with between twenty to forty owners if the density of ownership (acreage of township divided by the number of owners) was less than forty acres or where the number of owners exceeded forty and the average size of property was less than forty acres.

Divided township. The residue

One of the main criticisms of the early work on land tax assessments by Davis (88) was his assumption that although the county assessments as a proportion of the national assessments were inequitable and bore no relation to size; within the county such apportionment was fair. It led to his calculation of an acreage equivalent for each county which was then applied as a multiplier to individual parishes. Grigg notes that such a procedure could only have validity if calculated at the parish level. There would be a different acreage equivalent for each parish. Even so, this assumes that under

registration, under valuation and agricultural variations were not significant within the parish. Martin tries to estimate such error and concludes from his comparison of estimated acreages in enclosure awards and from land tax assessment that it is sufficiently small at the parish level, (usually less than 5 percent variation), for their use in estimating acreages. Within the parish, error is increased where a greater number of small holdings places a proportionately greater valuation on the house in relation to the land on which it is situated. Similarly, industrial parishes would suffer greatly from this problem. This is not a serious problem in this study. 'Close' parishes are identified by the degree of concentration of land ownership and, by definition, the rating of large landowners would fall proportionately more on land than buildings. No attempt is made to calculate the number and size of farms with which many agricultural historians have been concerned.

For Mills purpose some of the difficulties referred to are of little relevance as the assessments are used essentially as a listing from which the number of proprietors can be abstracted and from which an index, the density of owners, can be calculated. The acreage given in the assessments are for this period sufficiently close to those in the 1837 valuations to be acceptable to Mills for the broad comparisons which underpin his classification of townships.

Land tax returns like many of the source materials available to economic historians and historical geographers are full of inconsistencies and irregularities which minimise their potential value.

Ward, W.R. (1953) English land tax in the eighteenth century (Oxford University Press).

Mingay, G.E. (1964), 'Land tax assessments and the small landowner', Econ. Hist. Rev. XVII, 381-9.

Martin, J.M. (1966), 'Land ownership and the land tax returns', Agr. Hist. Rev. XIV, 96-103.

Grigg, D.B. (1962-3), 'The land tax returns', Agr. Hist. Rev. XI, 82-94.

Davies, E. (1927), 'The small landowner 1780-1832 in the light of land tax assessments' Econ. Hist. Rev. I, 87-113.

93. This utilises a modified Mills classification  
Squire township

a) Over half of the parish owned by one resident landlord.

- b) Over two-thirds of the parish owned by two or three landowners but no single person holding as much as half the land.

Absentee township

- a) Over half the parish in one hand.
- b) Over two-thirds of the parish owned by two, three or four owners but no single owner holding as much as half the land.

Boxwell and Leighterton are classified as Group(a) because the Huntley family own more than two thirds of the parish.

Similarly within the squire townships, the Peacy family is categorised under(a) in Prescott.

Evidence of residence was checked against Pigot's Directory 1842, Slater's Directory 1858-9, Rudder's Gloucestershire, 1779.

94. Holderness, op. cit., 131-132 quotes support his view from Robert Weale's evidence to the Poor Law Board in 1850, 380, that in Bedfordshire the correlation between 'close' parishes and those with a labour shortage was not high. Forty parishes were shown to be deficient in cottages, yet there were only twenty-five 'close' parishes. Only twelve of these drew on outside labour. Similarly, the link between 'estate' villages and 'close' villages (Mills, op.cit., (1959) 193 and (1972) 63 et. passim) was not especially strong on the basis of this criterion. Holderness, op. cit., 133, notes that such 'estate' villages frequently were quite populous in relation to their particular localities, whereas 'close' parishes in Mills, (1959) op. cit., 191, view would exhibit low population densities.

95. The appendices to the 1850 Report (B.P.P. XXVII) specifically identify labour shortages. The terms of reference of the Commissioners had been to investigate the practical effects of the laws on

1. The labouring classes, their industrial habits, wage rates, residence, conditions and articles of consumption.
2. The employers of labour, the stability and progress of agriculture and manufacturing and the application of capital.
3. The continuance of pauperism and vagrancy in increasing the burden of taxation, local and general.
4. To make personal contact to discover changes which they might recommend.

96. Holderness, op. cit., 132-5. Several factors are considered to distinguish 'close' parishes. Population density, the rate of expenditure on the poor between 1785-7 and 1825-9, social structure as revealed in contemporary directories, relative increase in the number of houses and the growth of population; unfortunately, there is no clear indication of how these factors were qualified or how the number of 'close' parishes was assessed. A surrogate index, (acres per house) is used. Actually he rejects any correlation between the levels of poor rate expenditure and 'open' and 'close' parishes (p. 138).

97. Alstone and Woolstone were transferred from Worcester in 1844 and are not found in the Gloucestershire Land Tax Assessments. Only Northwick, Randwick and Preston (near Newent) are omitted on the basis of landownership.

98. Holderness, op. cit., Table 1, 135. It appears that for the Vale of Severn and the Cotswolds there is a close correspondence between this index and the number of 'close' townships derived from other sources. This does not mean that the same parishes have been identified. It has been assumed that the other sources refer to the factors listed above as it could not have drawn on the 1850 reports (B.P.P. XXVII). Gloucester had not been visited. The reports covered Suffolk, Norfolk, Essex the Reading Union of Berkshire, Surrey, Sussex, Dorset, Hampshire, Somerset, Bedfordshire, Berkshire, Buckinghamshire, Oxfordshire and Northumberland.

99. Ibid., 134-6.

100. Fraser, J. (1867-8) Commission on the Employment of children young persons and women in Agriculture, B.P.P., 1867-8, XVII. Its terms of reference were to investigate whether the Factory Acts could be modified to this form of employment with the special view to the better education of children. Fraser did not visit the whole county, but did include the unions of Cirencester, Thornbury and Newent as a sample of the varied rural economies of Gloucestershire.

101. Ibid., 127 and 131. An examination of labour demand from Fraser's evidence shows that in the arable district of Newent for every 100 acres, 4 men, 1 boy and 2 women (or 3/1/1) are required. In the mixed farming parishes of the Cotswolds the figures are 2½/1/1 and in the Vale of Berkeley either 2½/1/0 or 2/1/1. (p. 118 and 123). In view of this evidence from Fraser's report it

would seem unwise that Holderness adopts the same threshold figure for identifying the 'close' parishes in the Vale of Severn and the Cotswolds. The very different economies of these regions noted by contemporary observers reinforce the real differences in labour required by arable farming compared with pastoral activities. Holderness does not argue the case, but it could be hypothesised that this demand for labour on the Cotswolds, where arable was dominant, could be balanced against the more numerous, smaller units of the Vale dairying country.

102. Ibid., 107-111. Siddington, Preston, Driffield, Down Ampney and Harnhill would all be 'close' in Mills terms, but only the latter meets Holderness' requirement. The other parishes were all in Wiltshire.

103. Ibid., 127.

104. Rudder, op. cit., VI - VII

105. Tate, W.E. (1943), 'Gloucestershire enclosure acts and awards', B.G.A.S. 64, 50.

106. Rudder, op. cit., 243.

107. Ibid., 375.

108. Ibid., 590.

109. Ibid., 682.

110. Ibid., 282.

111. Tate, op. cit., 56.

112. Rudder, op. cit., 114. There is some evidence to suggest that such a relationship often existed between market towns which became grossly overcrowded and neighbouring 'close' parishes. See 102 above, also Holderness, op. cit., 133 and Mills, (1970) op. cit., 36.

113. Rudder, op. cit., 665.

114. Ibid., 707.

115. Hollingsworth, T.H. (1969) Historical demography (London : Hodder and Stoughton)  
 Glass, D.V. and Eversley, D.E.C. (eds.) (1965) Population in history (London : Arnold)  
 Wrigley, E.A. (ed.) (1966) Introduction to English historical demography (London : Weidenfeld and Nicholson).  
 Patten, J. (1973) Rural-urban migration in pre-industrial England (research papers; School of Geography, Oxford), no. 6, 13 et passim.  
 Deane, P. and Cole, W.A. (1969) British economic growth (Cambridge University Press), 116-17.

116. Chambers, J.D. (1972) Population, economy and society in pre-industrial England (Oxford University Press).

Idem (1954), 'The course of population change', in Glass and Eversley, op. cit., 327-334.

Deane and Cole, op. cit., 98-135.

117. Gonner, E.K.C., (1913), 'Population of England in the eighteenth century', Jl. R. Statist. Soc. 76, 261-296.

118. George, D. (1953) England in transition (Harmondsworth : Penguin)

119. Laslett, P. (1965) The world we have lost (London : Methuen).

120. Deane and Cole, op. cit., especially chapters 2 and 3, 40-137.

Redford, A. (1926) Labour migration in England 1800-1850 (Manchester University Press).

Law, C.M. (1967), 'Growth of urban population in England and Wales 1801-1911', Trans. Inst. Br. Geogr. 41, 125-143.

Lawton, R. (1967), 'Rural depopulation in nineteenth century England', in Lawton, R. and Steel, R.W. (eds.) Liverpool essays in Geography (London : Longman), 227-255.

120. Deane and Cole, op. cit., 111.

121. Lee, E.E., (1966), 'A theory of migration', Demography 3, 53-101.

122. Wrigley, E.A. (1967), 'A simple model of London's importance in changing English society and economy 1650-1750', reprinted in Urban Development (1973) (Milton Keynes : Open University), Unit 1, 11-12.

Bristol, the second city had a population of 33,000 in 1700 and 62,000 a century later by which time Birmingham with 72,670 had become second to London.

123. Deane and Cole, loc. cit.

124. Wrigley, op. cit., 17.

Smith, C.T. (1951), 'The movement of population in England and Wales in 1851 and 1861', Geogrl. J. CVII, 206, shows how London dominated inter-county migration currents in 1861.

125. Darby, H.C. (1973), 'The age of the improver 1600-1800', in Darby, H.C. (ed.) A new historical geography of England (Cambridge University Press), 302-388.

126. Deane and Cole, op. cit., Table 24, p.103 and Table 25, p.108-9.

127. Ibid., 112.

128. Ibid., 105. The figures used in Table 25, p. 108-9 show that agricultural counties grew by 373,051 between 1751 and 1781 and the industrial/commercial counties by 617,054. In absolute terms this statement seems unjustified. The percentage change in the

same period was 19 percent and 27.4 percent respectively.

129. Deane and Cole, loc. cit.

	1781 - 1801	percent
	population change	change
Agricultural counties	272,336	11.7
Industrial/commercial counties	897,280	31.2

130. Defoe, loc. cit.

Young, loc. cit.

131. Armstrong, W.A. (1966), 'Social structure from the early Census returns', in Wrigley, op. cit., 210. A five percent deficiency is suggested.

132. Statistically this might be challenged in that the nature of the settlement pattern might affect the accuracy of the estimates. To the casual observer (Atkyns ?) nucleated villages, dispersed hamlets, farms, and urban agglomerations present different images. Further errors in the early Censuses relate to acreages, as the Ordnance Survey did not effect an accurate national survey of areas until 1891. However, by this time changes in the size of townships from boundary adjustments would complicate any calculation of the earlier areas of townships. It is felt that the gains from this particular exercise were not clearly established to warrant the rejection of the figures given in the 1851 Census.

133. Bristol had become a City and County in its own right in 1376 by Royal Charter.

134. The variable size of the parish unit creates inherent limitations in choropleth maps.

135. Marshall, (1789) op. cit., 2, 28-9. Cotswold farms varied in size between 200-1,000 acres. Some exceeded 2,000 acres though the mean was around 500 acres.

136. Ibid., 29.

137. Rudder, op. cit., 48-49.

138. Ibid., 547.

139. Ibid., 637.

140. Ibid., 232 and 246.

141. Deane and Cole, op. cit., Table 24, p. 103.

142. Moreau, S. (1805) A tour of Cheltenham Spa p.63 (G.C.L. 10747(2))

143. Rudder, op. cit., 342.

144. Fisher, P.H. (1871) Notes and recollections of Stroud (London : Turner), 138.

145. Rudge's figure of 48 as the population of the Forest Lands (West

and East Dean) must be in error. Rudge, op. cit., 360. The 1801 Census recorded 4,073 for these districts.

146. Civil registration had been introduced in 1837, the unit of administration was made coterminous with the Poor Law unions established in 1834. The 1851 Census adopts the same unit and therefore <sup>/it</sup> becomes possible to extract a migration balance by comparing natural and inter-censal population changes. The 1841 Census is the first to provide birthplace data, though the enumerator only recorded whether a person was born in that particular parish or elsewhere. 1841 marks for many Gloucestershire parishes the onset of a major period of economic stagnation or decline.

147. Welch, A.M. (1898), 'Cheltenham as a watering place', Cheltenham Ladies College Magazine 37, 76, which quotes from a Gentleman's Magazine of 1820 (G.C.L. 9506)

148. Ibid., 70.

149. Court, op. cit., 70.

150. Buchanan and Cossens, op. cit., 121, blame smaller production units for the decline.

151. 1851 Census. Occupation of the people, vol.1, 385-389, 397 and 492.

152. V.C.H. op. cit., 192.

153. Ravenstein, E.G. (1885), 'On the laws of migration', Journal of the Royal Statistical Society XLVIII, 184. A 'county of absorption' has a population more or less in excess of the number of its natives enumerated throughout the kingdom. In a 'county of dispersion', on the other hand, the population falls short of the number of natives enumerated throughout the kingdom.

154. The 1851 Census does not distinguish by English county the birthplace of residence in Scotland and Ireland and thus the definition of kingdom as used by Ravenstein has to be restricted to England and Wales in this context. It must also be remembered that the summary tables of that Census are by Registration County, but the birthplace is given by Geographical County.

## Chapter 5

Patterns of migration as revealed by  
the analysis of Poor Law documents  
from the woollen cloth parishes of  
Gloucestershire

"The subject matter of History  
 (Historical Geography) is not  
 the past as such, but the past  
 for which we possess historical  
 evidence."

Collingwood, R.G., (1963)  
 'The Idea of History', 202.

Chapter 2 explored the processes that are relevant to an understanding of migration and discussed the value of a total migration model. The model is used here as a framework for analysing the substantial volume of Settlement Certificates and Removal Orders that survive for the Gloucestershire woollen cloth parishes. Although the model need not be regarded as having spatial implications, such an approach is central to geographical analysis. Migration distances and the direction of movement are central to this discussion though migration differentials and temporal patterns are analysed <sup>/ in</sup> subsequent sections. Following a description of the varied migration patterns and an analysis of the factors underpinning them, a number of hypotheses derived from Chapters 2 and 3 are then tested. This will not only illuminate elements of the total migration model and migration in Gloucestershire during this period, but also the effect of the operation of the Poor Laws may have had on patterns of migration.

A - Migration Distances. Straight line distances were measured between each pair of townships named in the Settlement Certificates (1) and for each cloth parish the data were aggregated into eight kilometre bands. Table 8 shows this data as a cumulative frequency distribution. The most noticeable characteristic of this data is its very marked positive skew. Over 90 percent of the Certificate holders travelled <32 kms. and more than half travelled <8 kms. In these circumstances, generalised statements based on the mean are misleading as extreme values, which <sup>in</sup> fact may represent a separate migration process, are overweighted. For this reason median values are used. In six out of the eleven

Table 8

Cumulative frequency distribution of Settlement Certificates to  
(1) selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region.

Region	Parish	Distance ( < kms.)												n	median
		8	16	24	32	40	48	56	64	72	80	80			
6a	Bisley	95	130	136	138	147	148	148	148	148	148	3	151	6.6	
	Kings Stanley	45	52	54	56	56	56	56	56	56	56	0	56	4.3	
	Painswick	130	180	193	204	206	211	212	212	214	214	0	214	7.2	
	Rodborough	96	104	105	106	107	109	109	109	109	109	0	109	4.5	
	Stonehouse	52	66	69	70	71	71	71	71	71	71	0	71	4.8	
	Stroud	322	392	428	453	458	462	464	466	470	471	9	480	5.0	
6b	Cam	41	49	53	55	57	57	58	58	58	58	0	58	3.8	
	Dursley	79	105	112	120	125	129	145	148	149	149	9	158	6.9	
	Hawkesbury	24	36	37	41	41	41	43	43	44	45	1	46	6.9	
	Kingswood	41	48	51	54	56	57	57	57	57	57	0	57	4.3	
	North Nibley	29	43	45	45	45	48	50	50	50	50	0	50	6.1	

(1) At least 25 extant documents.

All subsequent tables are based on this lower limit unless otherwise stated

Table 9

Certificates/1000 kms.<sup>2</sup> for selected parishes in the Gloucestershire  
woollen cloth manufacturing region.

Distance Band (kms.)	0-7.9	8-15.9	16-23.9	24-31.9	32-39.9	40-47.9	48-55.9	56-63.9	64-71.9	72-79.9
mid-class	4	12	20	28	36	44	52	60	68	76
Ring area (kms. <sup>2</sup> )	201.14	603.43	1005.46	1408.26	1810.29	2212.57	2614.86	3017.14	3419.43	3821.71
Bisley	472.3	58.0	6.0	2.1	4.4	0.5	0	0	0	0
Kings Stanley	223.7	11.6	2.0	1.4	0	0	0	0	0	0
Painswick	646.1	82.8	12.9	7.8	1.1	2.3	0.4	0	0.6	0
Rodborough	477.3	13.3	1.0	0.7	0.6	0.9	0	0	0	0
Stonehouse	258.5	23.2	3.0	0.7	0.6	0	0	0	0	0
Stroud	1600.9	116.0	35.8	17.8	1.7	1.8	0.8	0.7	1.2	0.3
Cam	203.8	13.3	4.0	1.4	1.1	0	0.4	0	0	0
Dursley	392.8	43.1	7.0	5.7	2.8	1.8	6.1	1.0	0.3	0
Hawkesbury	119.3	19.8	1.0	2.8	0	0	0.8	0	0.3	0.3
Kingswood	203.8	11.6	3.0	2.1	0	0.5	0	0	0	0
North Nibley	144.2	23.2	2.0	0	0	1.4	0.8	0	0	0

parishes no Certificates have been found which involve movements in excess of 60 kms. In fact, < 2 percent of the extant Certificates link parishes over 80 kms. apart. Painswick exhibits the greatest median value, but even this is only 7.2 kms. If Dursley is excluded from the data, the inter-quartile range of movement nowhere exceeds 9 kms. The relationship of movement to distance is shown more clearly in Table 9 in that the raw data for Certificates are recast to take into consideration the differences in area between concentric bands. For example, the area within the 16.1 - 24 kms. band is less than half the area of the band between 40.1 - 48 kms. from the point of origin (see Appendix 7). It should be noted that the data are aggregated for the whole period in which Certificates (or Indemnity Bonds) were in operation. In effect, this holds constant any temporal factors, but this approach can be justified. In the period in question, mainly the eighteenth century, this region remained prosperous and exhibited a strong centripetal pattern of migration. The period chosen, from 1662 - 1865, is defined by the operation of the Settlement Laws at the parochial level and is therefore regarded as a constant, even though there were important amendments to the Law in 1697 and 1795. Changes in transport were being effected especially from the mid eighteenth century, but they did not involve any immediate major change in technology or present the labourer and skilled artisan with a cheap means of rapid transport. For the person affected by the Certificate system, physical effort largely determined distances travelled. Turnpikes were becoming increasingly significant in the County in the second half of the century, but must be regarded as irrelevant (2). Cox suggests we pay too much attention to the roads which were turnpiked for the benefit of the wealthy traveller or the Royal Mail. Saltways, drove roads, ridgeways and bridle paths were the routes travelled by the labouring man. Cox believes the separation of the two types of route is almost as complete as between motorway and country road today (3). Pierce notes that even in 1835 road transport, apart from foot or cart, was the privilege of the wealthy. She quotes costs of 5d. per mile which would have been well beyond the means of an agricultural labourer (4). A man could walk almost as fast as a goods wagon. Alternatively the many navigable rivers and coastal waters provided a means of transport though in 1825 the London to Bristol journey by river and canal took at least five days (5).

It is within this context that Pierce examines the shape and size of the Poor Law unions. In essence each union had a market town at

its focus and the radius of its hinterland depended primarily on the distance a labourer, the chief user of the Poor Law system, could be expected to travel and the distance from which the goods used by the workhouse could be expected to be obtained (6). Both of these were determined, in part, by time and cost. The spatial extent of the union was determined by the nature of movement in pre-railway Britain.

"Probably 7-8 miles was about the distance the labourer might be expected to travel conveniently to the market town, assuming the workhouse was at or near it, and 7-8 miles was as far as he cared to go for the Doctor, to sell his corn, or to buy groceries." (7)

In upland areas the distance may be closer to ten miles (8). In reality Pierce believes that because her measurements of shape were to the longest axis the actual distances may have been only half those quoted (9). In Gloucestershire the distances revealed in Table 10 give general support for her conclusions.

Table 10      Maximum distance from a boundary to the union centre in each Gloucestershire union

<u>Poor Law Union Centre</u>	<u>Maximum distance in kilometres</u>
Yate	15
Kington (Thornbury)	19
Dursley	10
Westbury	12
Newent	12
Eastington	12
Stroud	11
Tetbury	11
Cirencester	15
Eastington (in Northleach)	13
Maugersbury (in Stow)	16
Winchcombe	12
Cheltenham	10
Tewkesbury	11

The urban unions in Gloucester, Bristol and Clifton are omitted.

If cost and the physical difficulty in overcoming distance can be offered in partial explanation for the very restricted movement revealed in Tables 8 and 9, then further insights may be gained from

an understanding of the Law of Settlement and Removal and from the labourers' mean information field. It has already been suggested that the specific nature of the Certificate contract (p.49) might exaggerate short distance movement. To test this hypothesis requires a comparative analysis with Removal Orders and other contemporary sources. Table 11 sets out the data for Removal Orders 'from' which are comparable to Certificates 'to', in that the former mainly imply an earlier move which may or may not have involved the use of a Certificate (10). The data for Bisley, Painswick, Hawkesbury, Dursley and Kingswood lend superficial support to the hypothesis if median values are adopted as the index of movement. In the cases of Stonehouse, Stroud and North Nibley the median differences are reversed but negligible. Table 12 shows that out-migration (Removal Orders 'to') was marked by median distances little different from Removal Orders 'from' in the pre-1795 period. There is a tendency for out-migration to be marginally more restricted if median values are used.

The median cannot summarise the complete data set and some measure of dispersion would seem necessary as a complementary index. It was decided to employ a measure of distance-decay using the weighted data for Certificates and Removal Orders for all movement not exceeding 80 kms. (i.e. for at least 95 percent of all movement). Hagerstrand has suggested that a Pareto function may be appropriate in describing migration data in that log-log transformation results approximate to a linear relationship. Hagerstrand argues that a knowledge of the value of the exponents derived from the migration field for each parish (in Sweden) and for each decade would give an unique insight into the dynamics of migration, regional variations and changes over time (11).

"That an important quality of the migration field, the gradient, can be expressed in a single figure, even if sometimes imperfectly, would greatly simplify the cartographic representation of migrational distances. The result would be of great anthropo-geographical significance, it being evident that clusters of high exponents showed isolated districts and clusters of low exponents districts of a wide outer world." (12)

He does note, however, the tendency of this function to over-estimate short-distance migration, a limitation which makes it unacceptable as a law of migration equation. Nevertheless, this does not invalidate its use as an index to compare changes in migration fields over space and time (13). Table 13 compares the migration fields of selected woollen cloth parishes as shown by Settlement Certificates 'to' and contemporary Removal Orders 'from'.

Table 11

Cumulative frequency distribution of Removal Orders 'from'  
selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region. Pre-1795.

Region	Parish	Distance ( < kms.)												n	median
		8	16	24	32	40	48	56	64	72	80	80	80		
6a	Bisley	40	76	84	89	94	98	98	98	98	99	1	100 <sup>+</sup>	9.9	
	Painswick	83	125	137	149	154	156	161	165	165	166	6	172	8.5	
	Stonehouse	42	48	48	48	48	48	48	48	48	49	1	50	4.2	
	Stroud	70	86	89	92	93	97	99	99	100	100	0	100	4.8	
6b	Dursley	85	116	122	126	136	143	150	152	152	153	3	156 <sup>+</sup>	7.4	
	Hawkesbury	16	31	34	36	36	36	36	36	36	36	0	36	9.3	
	Kingswood	15	24	27	31	34	35	35	35	35	35	0	35	10.2	
	North Nibley	40	62	63	65	68	68	68	68	68	69	1	70	5.6	

<sup>+</sup> excludes unlocated parish.

Table 12

Cumulative frequency distribution of Removal Orders 'to'  
selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region. Pre-1795.

Region	Parish	Distance ( < kms.)											n	median
		8	16	24	32	40	48	56	64	72	80	80		
6a	Bisley	18	24	28	29	31	31	31	31	32	32	0	32	7.3
	Painswick	55	70	77	79	82	86	86	86	87	87	4	91	6.6
6b	Stroud	55	63	67	69	69	72	72	73	73	74	2	76	4.8
	Hawkesbury	10	24	28	30	31	32	32	32	32	32	0	32	11.5
	North Nibley	27	33	36	43	45	48	52	52	52	52	1	53	5.4

Table 13

Distance decay function. A comparison of  
Settlement Certificates 'to' and Removal  
Orders 'from' (pre 1795) using the Pareto-  
Slope function (1)

Parish	Certificates 'to'		Removal Orders 'from'	
	b value	r (2)	b value	r
Bisley	-4.05	-0.93	-3.38	-0.86
Kings Stanley	-3.91	-0.95	no data	
Painswick	-3.49	-0.90	-2.85	-0.89
Rodborough	-3.77	-0.95	no data	
Stonehouse	-3.96	-0.96	-3.11	-0.79
Stroud	-2.93	-0.98	-3.14	-0.90
Cam	-2.29	-0.85	no data	
Dursley	-2.68	-0.87	-3.12	-0.85
Hawkesbury	-2.69	-0.76	-3.75	-0.93
Kingswood	-3.72	-0.92	-3.37	-0.91
North Nibley	-3.27	-0.82	-3.37	-0.88

$$(1) Y = aD^{-b}$$

(2) See note 14

Calculations are based on the weighted values derived from Tables 8 and 11. Only parishes with 25 extant documents are used.

The exponents for Settlement Certificates show a concentration of high values in the northern cloth parishes and for North Nibley and Kingswood in the southern area. The other southern cloth parishes exhibit very much lower exponents and the higher values for North Nibley and Kingswood reflect the dominance of Wotton-under-Edge in their migration patterns. It can be suggested tentatively that the high values in the parishes of the Frome Basin reflect the deeply incised valleys which create a centripetal pattern of route ways focussed on Stroud. This tends to reinforce short distance movement. Moreover, the isolation of this area was noted by contemporary travellers. Stroud's links with Gloucester were very poor. A petition to build a new road over the Horse Pools in 1816 emphasised the town's inaccessibility and the existing bad roads. The hill route via Painswick and Upton was almost impassable for carriages and the alternative route via

Cainscross and Stonehouse was circuitous (15). Turner and Marshall both thought that the roads in the Vale of Gloucester to be very bad, a combination of deep soils and poor management (16). The isolation of Bisley and Painswick was noted by Rudder as the explanation for their decline as market towns (17). Fisher comments that it took a whole day for a wagon team to make the return journey from Stroud to Chalford, yet this was a linear distance of only 6 kilometres (18).

It has already been suggested that the nature of the Settlement Certificate, as a contract between two specified parishes, may have restricted migration distances. Neither of the two descriptive measures used above, the median and the Pareto-slope value, provide unambiguous support for this hypothesis. In fact, given the known limitations of the data, variations in population density and settlement spacing and the complexities of the migration process, one should not expect unequivocal support for this hypothesis (19). A non-parametric test was applied to the aggregate data to examine the null hypothesis that Settlement Certificates did not show more restricted migration fields than contemporary Removal Orders (20). The Kolmogorov-Smirnov test is preferred to the Median test as it treats the whole data set rather than just a measure of central tendency (21). Only Bisley supports the alternative hypothesis in this form. However, the similarity in the migration pattern from these two sources might be the result of including retrospective Certificates in the data. It has been argued (p. 49) that these may involve longer distance moves. For both Painswick and Bisley 34 such documents exist, but the Chi Square test does not support the view that they come from a different population of migrants (22).

It is possible to construct a contrary hypothesis based on the assumption that the Certificate system was designed to encourage mobility. In particular, the 1795 Act made the great majority of the labouring classes 'de facto' Certificate holders and thus ending the need for the Certificate. In these circumstances, a comparison of Removal Orders issued either side of that date, may reveal whether any substantial change in migration distances occurred in the latter period. A comparison of 'b' values (Table 14) for in-migration shows that only Dursley had a more restricted migration field in the later period. In every case median values are higher for the later period whether one uses Removal Orders or Settlement Certificates.

Table 14

Distance decay function. Pareto-slope  
values for Removal Orders 'from', post 1795.

Parish	'b' value	r
Bisley	-2.72	-0.82
Painswick	-2.84	-0.91
Stonehouse	-2.22	-0.78
Stroud	-2.61	-0.87
Cam	-3.42	-0.88
Dursley	-3.70	-0.88
Hawkesbury	-3.38	-0.90
Kingswood	-2.96	-0.83
North Nibley	-2.27	-0.99

Calculations as in Table 13. Slope value calculated from weighted values derived from Table 16.

A comparable picture is seen in patterns of out-migration whether median values (Table 12) or 'b' values (Table 15) are used. Only North Nibley does not conform to a pattern of greater migration distances after 1795.

Table 15

Distance decay function. A comparison of  
Removal Orders 'to', before and after the  
1795 amendment, using the Pareto-slope function.

Parish	pre 1795		post 1795	
	'b' value	r	'b' value	r
Bisley	-3.23.	-0.88	-2.47	-0.84
Painswick	-3.40	-0.89	-2.60	-0.85
Stonehouse	no data		-3.45	-0.87
Stroud	-3.06	-0.83	-2.45	-0.84
Cam	no data		-2.70	-0.84
Dursley	no data		-2.92	-0.90
Hawkesbury	-3.00	-0.87	-2.57	-0.86
Kingswood	no data		-3.37	-0.88
North Nibley	-3.08	-0.88	-3.38	-0.90

Calculations as in Table 13.

Data derived from weighted values derived from Tables 12 and 17.

It is tempting to see these trends as indicating greater mobility in the post-1795 period, especially as the cost of removal now fell on the issuing authority, making long distance removal expensive and consequently one might expect an under-representation of this category. One cannot determine whether parish officers ignored the long distance migrant or were more likely to offer non-resident relief to a temporary pauper. Tables 8, 11, 12, 15 and 16 clearly show a great proportion of migrants coming from longer distances after 1795, but the cause may not lie in the relaxation of the Law, but in the economic fortunes of the cloth industry. Out-migration from the more remote districts of the Somerset-Wiltshire cloth region had gathered momentum towards the end of the eighteenth century. This flow emerges indirectly through the large number of returned paupers from Gloucestershire in the decades following 1820. Throughout this period, when Removal Orders were issued in large numbers (Appendix 8 and 9) there were no dramatic changes in accessibility for the labouring poor. Any extension of the volume and/or the range of migration should be viewed as a reflection of the necessity to seek work away from the immediate depressed area. Increased effort and personal hardship would be required in this search process. Kingswood and Hawkesbury, which present the nearest opportunities and Stroud show a great increase in this particular migration stream. The Kolmogorov-Smirnov test uses the weighted data derived from Tables 11 and 16 (in-migration) and Tables 12 and 17 (out-migration) to test the null hypothesis that there was no significant difference in the migration field before and after the 1795 amendment(23).The null hypothesis is only rejected in one parish for in-migration, but there is an apparent difference between the two cloth regions for out-migration, though the very limited number of parishes investigated makes this conclusion tentative. The rejection of the null hypothesis in the Stroudwater area could be taken as evidence of the restrictive nature of the Certificate system, but there is an alternative preferred explanation. This northern area was more densely populated and economically stronger than the Dursley region and as a consequence could be expected to have a larger migration field. The latter area stagnated and declined in the post-Napoleonic War period and little variation in its migration field is to be expected. On the other hand, it can be argued that similar results would have been expected in the hypothesis dealing with in-migration if this argument is valid. Only Bisley, of the northern group of parishes provides such support, though the very small difference between the calculated D value and its

Table 16

Cumulative frequency distribution of Removal Orders 'from'  
selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region. Post-1795.

Region	Parish	Distance ( < kms.)												n	median
		8	16	24	32	40	48	56	64	72	80	80			
6a	Bisley	23	41	53	56	65	68	73	73	76	76	7	83 <sup>+</sup>	16.6	
	Painswick	47	92	107	116	121	124	127	128	130	130	3	133 <sup>+</sup>	9.3	
	Stonehouse	38	48	51	52	52	54	55	56	60	61	1	62	6.1	
6b	Stroud	69	85	93	98	101	112	119	121	121	122	8	130 <sup>+</sup>	7.4	
	Cam	51	68	75	80	88	91	94	94	94	94	1	95	5.9	
	Dursley	56	71	82	87	95	95	98	98	98	98	11	109 <sup>+</sup>	7.5	
	Hawkesbury	25	47	59	63	66	67	69	69	69	69	2	71	12.5	
	Kingswood	35	60	66	76	89	98	99	99	99	100	1	101	12.6	
	North Nibley	36	50	56	59	61	63	66	67	68	68	3	71	7.4	

<sup>+</sup> excludes unlocated parish.

Table 17

Cumulative frequency distribution of Removal Orders 'to'  
selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region, Post-1795.

Region	Parish	Distance ( < kms.)												n	median
		8	16	24	32	40	48	56	64	72	80	80			
6a	Bisley	20	39	67	69	70	79	81	83	83	84	15	99	17.0	
	Painswick	31	111	121	125	132	137	138	144	144	146	22	168	15.0	
	Steonehouse	38	48	50	50	51	51	53	53	53	53	4	57	6.9	
6b	Stroud	25	35	52	53	54	61	63	63	64	65	18	83	20.0	
	Cam	25	35	38	43	46	48	49	49	49	52	3	55	9.6	
	Dursley	32	42	46	51	54	56	57	59	59	59	15	74	12.2	
	Hawkesbury	16	38	51	63	65	66	67	67	68	69	3	72 <sup>+</sup>	14.7	
	Kingswood	38	47	54	73	80	82	83	83	83	83	8	91	10.3	
	North Nibley	48	62	64	69	72	77	78	78	78	78	11	89 <sup>+</sup>	6.4	

<sup>+</sup> excludes unlocated parish

critical table value suggests that this may be a function of the significance level chosen (24). Both the median and slope values point to an increase in the migration field after 1795 in the northern parishes, whilst the evidence is contradictory for the southern cloth parishes.

A comparison of slope values for Removal Orders 'from' for both the pre-1795 and post 1795 periods suggests that in-migration in the majority of parishes was more restricted than out-migration. The testing of these related hypotheses provides very little support for the alternative hypothesis (25), thus re-emphasising that the observed differences in median and slope values are based on sample data.

Patten suggests that it may be a mistake to combine short and long distance movements as they are a response to different processes (26). Thirty-two kilometres is adopted as the threshold value for long distance migration. Mann, in her work on the West of England cloth industry notes that movement into Bradford on Avon and Trowbridge rarely exceeded this distance and Rudder also used this distance to describe the radius within which spinners for Stroud were to be found. (27). The greatest number of Certificates for any parish exceeding this threshold are 38 for Dursley (24 percent of the total) and 27 for Stroud (5.6 percent). Before the 1795 amendment there are 29 long distance Removal Orders from Dursley (18.6 percent) and 23 for Painswick (13.4 percent). After that date, there are 32 for Stroud (24.6 percent), 27 for Bisley (32.5 percent) and 25 for Kingswood (25 percent). An analysis of out-migration (Removal Orders 'to') indicates a similar pattern of increase in long distance movement after 1795. Twelve percent of out migration exceeded 32 kilometres in the earlier period whereas after 1795 the figure rose to 24.3 percent. The hypotheses tested above are therefore re-worked separating long from short distance migration at this threshold. The test for two independent samples (Chi Square) is used for this purpose and unlike the Kolmogarov-Smirnov test used above, utilises all the data available and not just that up to 80 kilometres (28). The results of the Chi Square test closely match those of the Kolmogarov-Smirnov test in showing that even when long distance movement has been isolated no real differences in migration pattern can be established between Certificates and Removal Orders, in-migration and out-migration and in the southern cloth parishes before and after the 1795 amendment. However, the separation of long distance movement lends further support to the tentative conclusion that, for the Stroudwater region, real differences in migration are

to be found in the later period. It is argued that differences in economic development, rather than changes in the Law, are the most likely causes of these regional differences (29).

The use of statistical tests is justified on the assumption that the extant documents provide a sample drawn from the total population. In such circumstances, descriptive measures such as the median or slope value must be treated with caution. The greatest weakness of using mathematical expressions of distance is that in the creation of one set of generalisations, there is a danger that other important patterns and processes may be obscured. The distance-decay function smooths out the very real differences in distance that are related to direction. There is no isotropic surface, but rather a series of troughs and ridges and even archipelagos which reflect variations in the response to the uneven supply of information. It is this theme and the specific spatial patterns of movement associated with the cloth parishes that are considered in the next section.

B - Directional Influences in Migration. It is the availability of information and the processes by which it is transmitted which are crucial in creating the 'necessary conditions' for decision-taking in migration. Face to face contact was the most significant force in providing this information. The market for labour was far from perfect.

"In agriculture and mining areas the workers attended annual fairs to offer themselves for hire .... Employers sometimes gave notice of vacancies in local newspapers and in cases of emergency used the Town Crier. The office of the overseer of the poor, the inn and the house of call of the tramping artisan all served as centres of information. Most often, however, it was by word of mouth from one man to another that news of opportunities of employment was spread." (30)

The high exponents of the distance-decay function reflect the relative immobility of pre-industrial society. This is not in conflict with the growing body of empirical research in historical demography which suggests that, even in rural parishes, it would be a mistake to think of society as static. It reinforces what Patten calls 'undynamic mobility' which can be regarded as a symbiotic relationship between market town and the surrounding countryside (31). The long working hours of the labourer were relieved by a weekly market, but social intercourse and contact with a wider world was limited. The centripetal nature of this interaction helped to emphasise local mobility in which servants changed employment, children were apprenticed and marriages agreed. Even so, directional influences did exist within this local field, as the family provided not only information about opportunities

but also security.

An analysis of the Poor Law documents for each parish reveals the importance of this particular process. Jonathon Aldridge, his wife Jane and his two children, Elizabeth and Jonathon, were removed from Stroud to Randwick in 1729. One cannot be sure whether the same person is involved, but a spinster, Elizabeth Aldridge was again removed in 1735 and a Jane Aldridge removed to Randwick in 1741. In 1830 a William Aldridge was subjected to a similar removal. Similar links between these two parishes ~~are~~ recorded for the Baxter family. William and Martha were removed in 1730 and Certificates were issued to Richard in 1737, Samuel in 1740 and John in 1749. John Chandler his wife and three children were certificated from Randwick to Stroud in 1740 following a Removal Order to Randwick from Stroud three years earlier. In 1750 Thomas and Daniel Chandler were issued with similar Certificates, as was Josiah in 1758. Removals back to Randwick were issued in 1806 for Elizabeth, Hester in 1808, Joseph in 1829 and John Chandler in 1831. It is not possible without recourse to reconstitution techniques to be sure that these are all members of the same family or that they were even known to each other, but the very close link between these two parishes is suggested. Certificates in 1704, 1761 and 1767 were provided for the Cooks, another Randwick family that wished to move to Stroud, and Removals in the other direction issued in 1758, 1769 1796 and 1831. Similarly, 6 people with the surname Hunt moved to Stroud from Bisley over the period 1697 to 1758, 4 Lewis' from Rodborough between 1720 and 1763 and 6 Snows again from Bisley between 1707 and 1743. Settlement Certificates to Stroud appear either from Rodborough or Eastington for people with the common surname of Clutterbuck, in 1702, 1741, 1752, 1760 and 1770. Removal Orders from Stroud were issued in 1739 and 1778 while an Examination is extant for 1842 (32). The same surname appears in Dursley Certificates and Removal Orders. George and Hannah were removed back to Eastington in 1746, James was certificated to Dursley in 1767 and a Hannah Clutterbuck was removed in 1830 (33). Again it cannot be shown that all these people were related, though the re-occurrence and stability of the same name over nearly one hundred and fifty years does suggest kinship ties. The Examinations, which frequently contain the most biographical detail, shed little light on migration motives. Occasional reference is made to the desire to be re-united with other members of the family. Economic motives are rarely expressed, though this seems unnecessary in the circumstances. It is assumed that 'betterment migration'

underpins the bulk of voluntary movement.

The assumption made in the previous section was that family ties are implicit in common surnames, though it is rarely possible to prove it from these documents alone. Nevertheless, a further examination of inter-parochial movement indicates information flows along specific channels and results in asymmetrical patterns of movement. The map of Certificates to Stroud (Fig. 22) shows the highly localised distribution which is to be expected. There is little or no contact with the area west of the Severn, other than the parishes immediately west of the Over Bridge, with the southern cloth parishes, except Dursley, or the Cotswolds except Cirencester. Stroud's influence appears to be in the Vale of Gloucester and the Severn valley from Gloucester and Cheltenham to Tewkesbury and Worcester. There is also some contact with the Somerset/Wiltshire cloth area. The pattern of Removal Orders from Stroud (Figs. 23 and 24) confirms this orientation, but emphasises a much stronger link with the Somerset Wiltshire cloth area and the north Wiltshire Clay Vale which show a late eighteenth century migration into the Stroud area. In Painswick the links with Stroud, Bisley and Miserdine account for 40 percent of all its Certificates (Fig. 25) and a similar proportion of subsequent removals. Figure 25 shows that Painswick's links outside the northern cloth area are in the Vale around Gloucester and Tewkesbury and to a lesser extent its neighbouring Cotswold parishes. The evidence of Removal Orders, like those from Stroud, reveals a strong link with the Somerset Wiltshire cloth area. Nearby Bisley, like all the other northern cloth parishes, is closely tied to Stroud in its migration pattern. It also has links with the Vale to the south of Gloucester but stronger ties with that part of the Cotswolds lying in an arc from Stow on the Wold to Cirencester. Again the Removal Orders show the strong link with the Frome-Trowbridge area. Stonehouse, downstream from Stroud in the Frome Valley, has a highly restricted migration field as the slope exponent for Certificates shows (Table 13). The evidence of Removal Orders reveals a labour shed extending into the Vale between Gloucester and Berkeley and also south to the Somerset/Wiltshire cloth area, but truncated by the river Severn. Stonehouse also has a major collection of settlement Examinations for which birthplace data are frequently provided (Fig. 26). From this source, the strong ties with the Somerset/Wiltshire cloth area are again confirmed. On November 3rd 1804 no less than nine clothworkers born in Shepton Mallet were examined at Stonehouse (34).

Fig 22

MIGRANTS TO STROUD  
[settlement certificates]

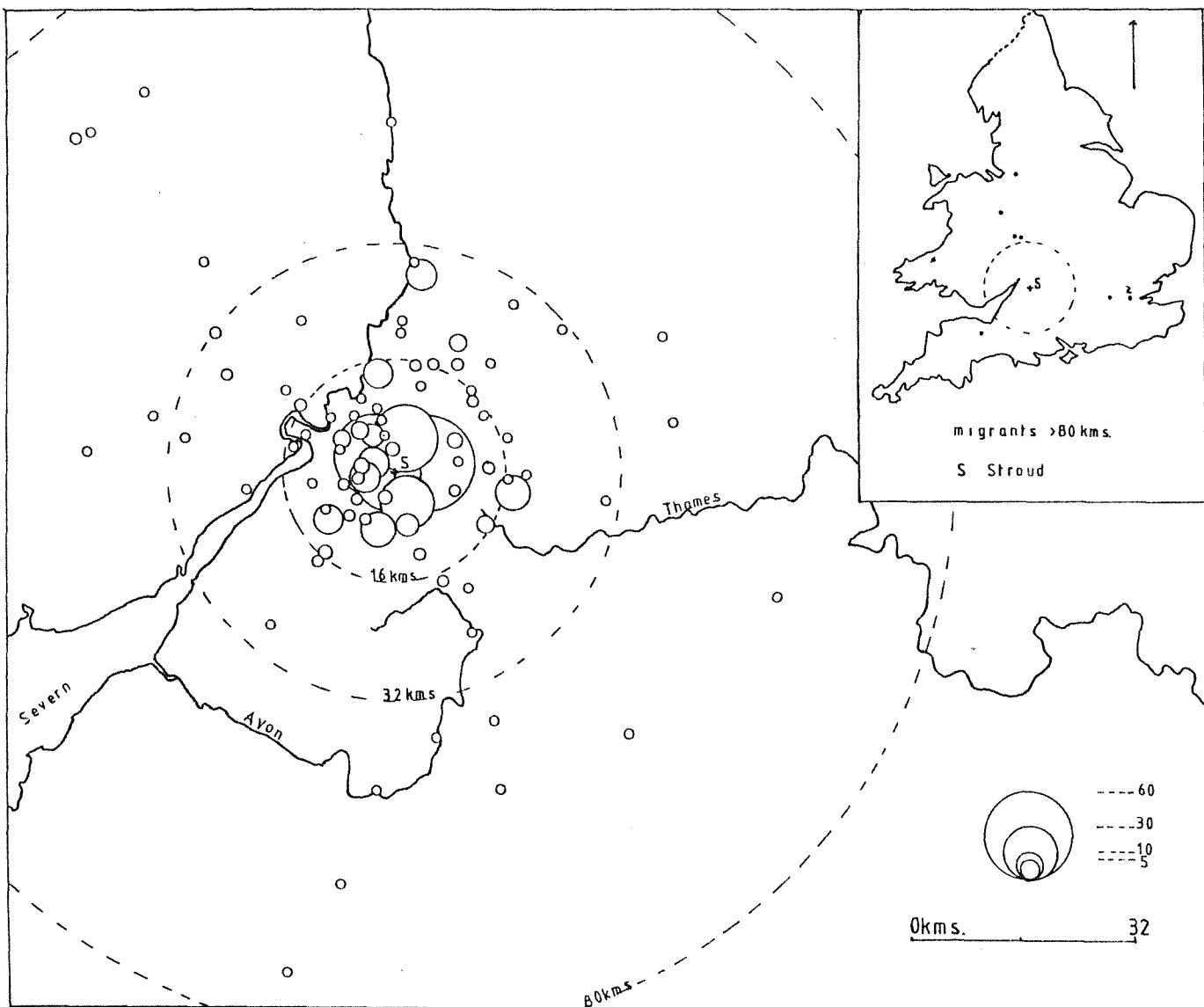


Fig 23 MIGRANTS TO STROUD [removal orders pre 1795]

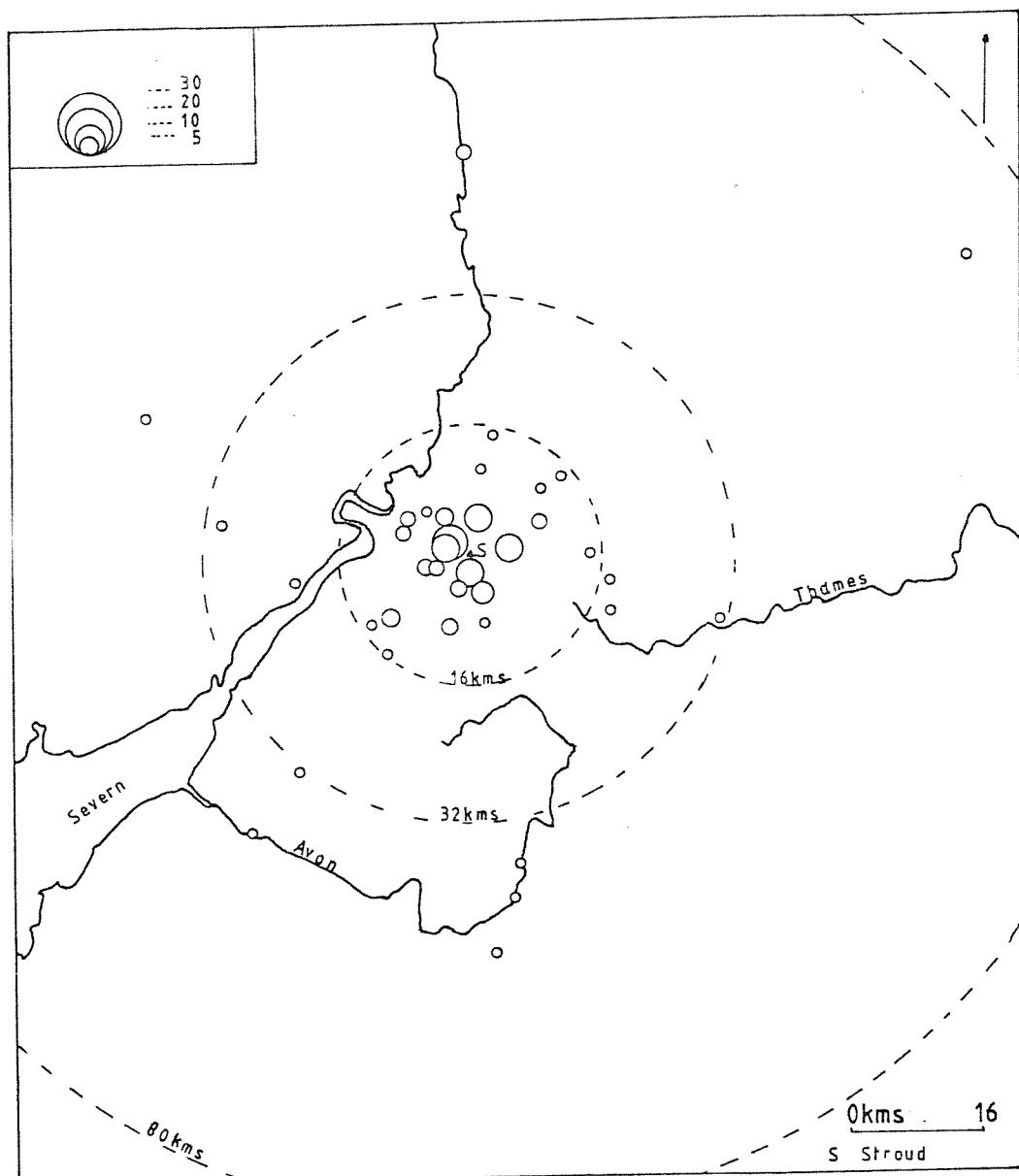


Fig 24 MIGRANTS TO STROUD [removal orders post 1795]

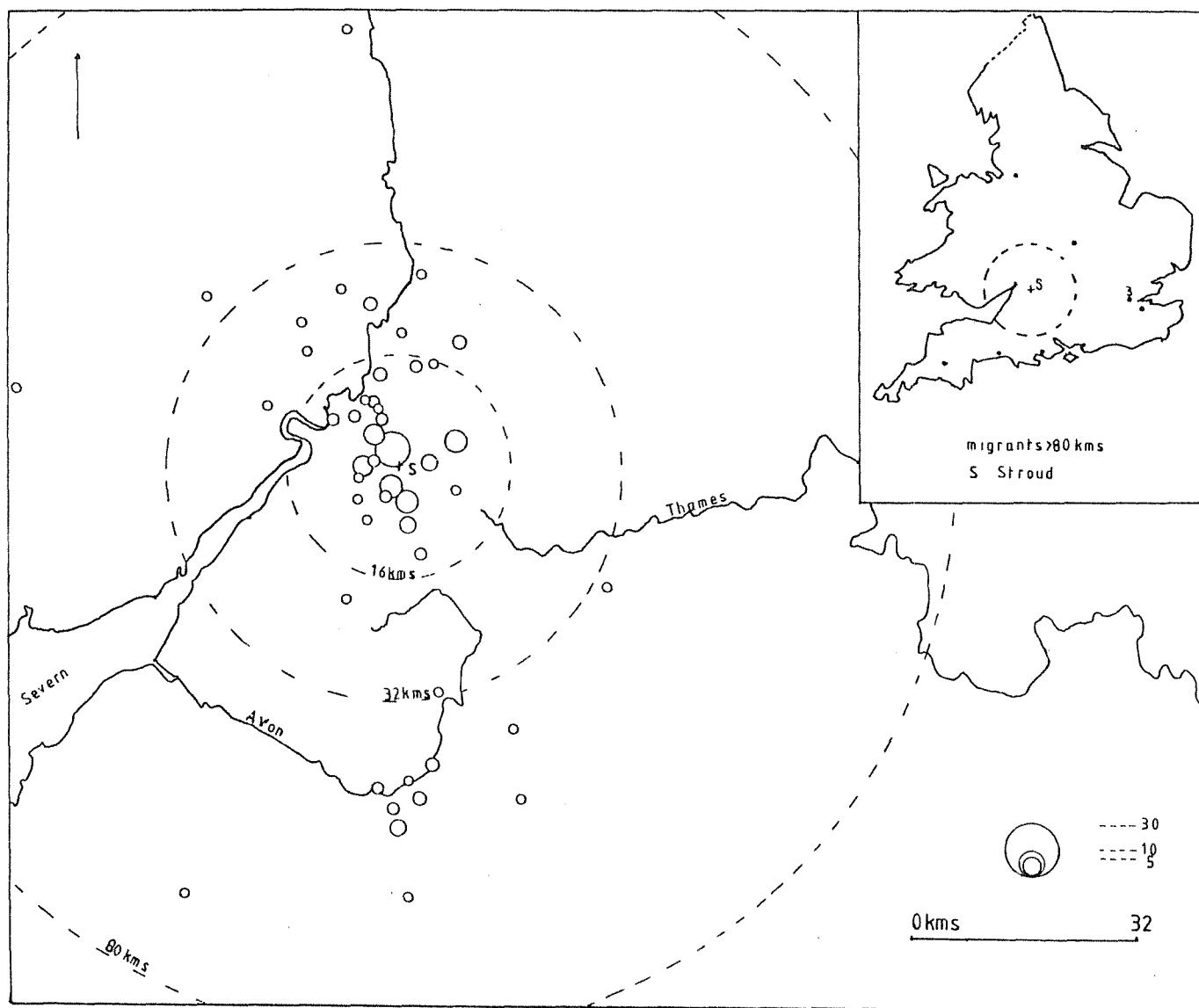


Fig 25 MIGRANTS TO PAINSWICK [settlement certificates]

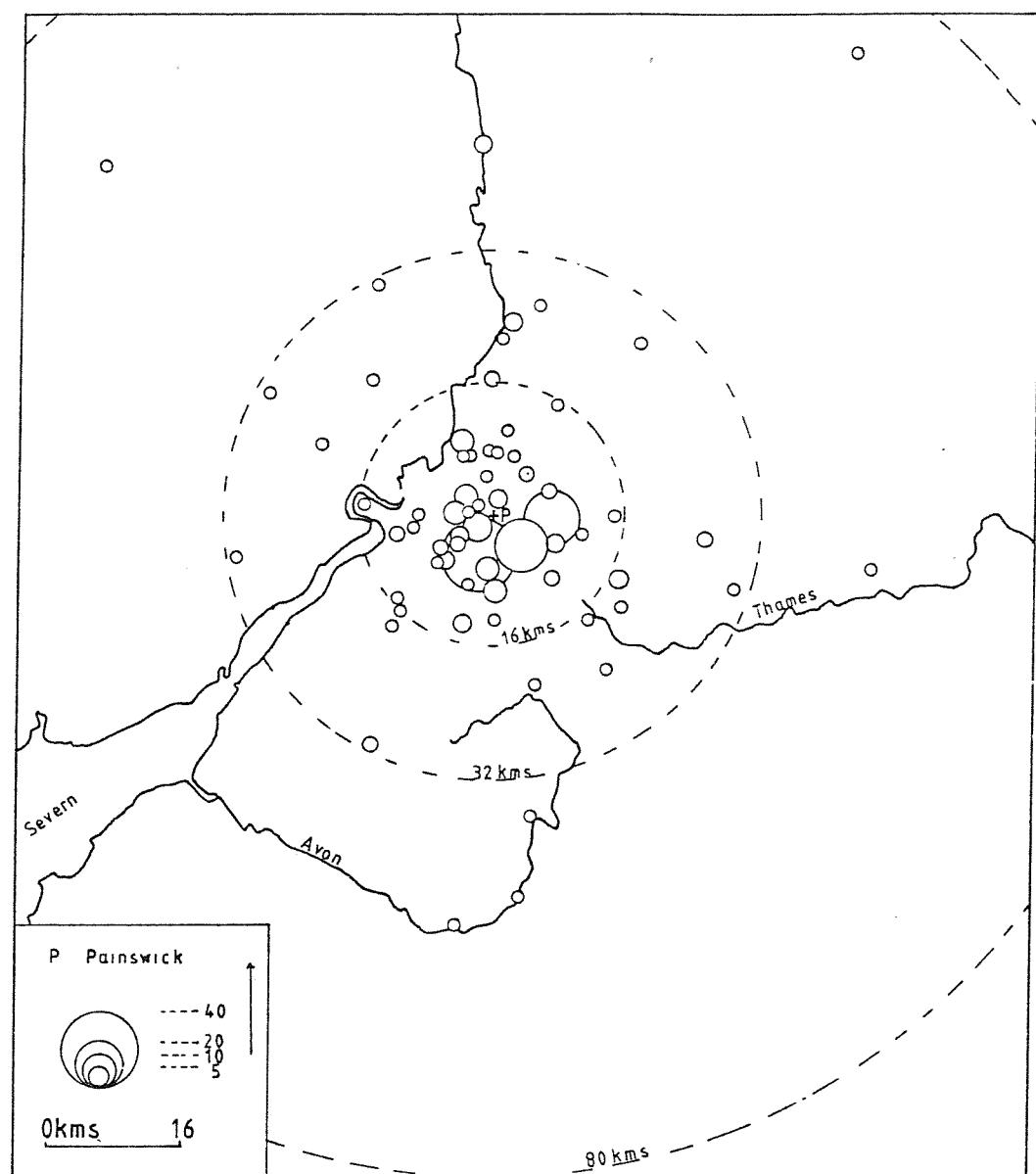
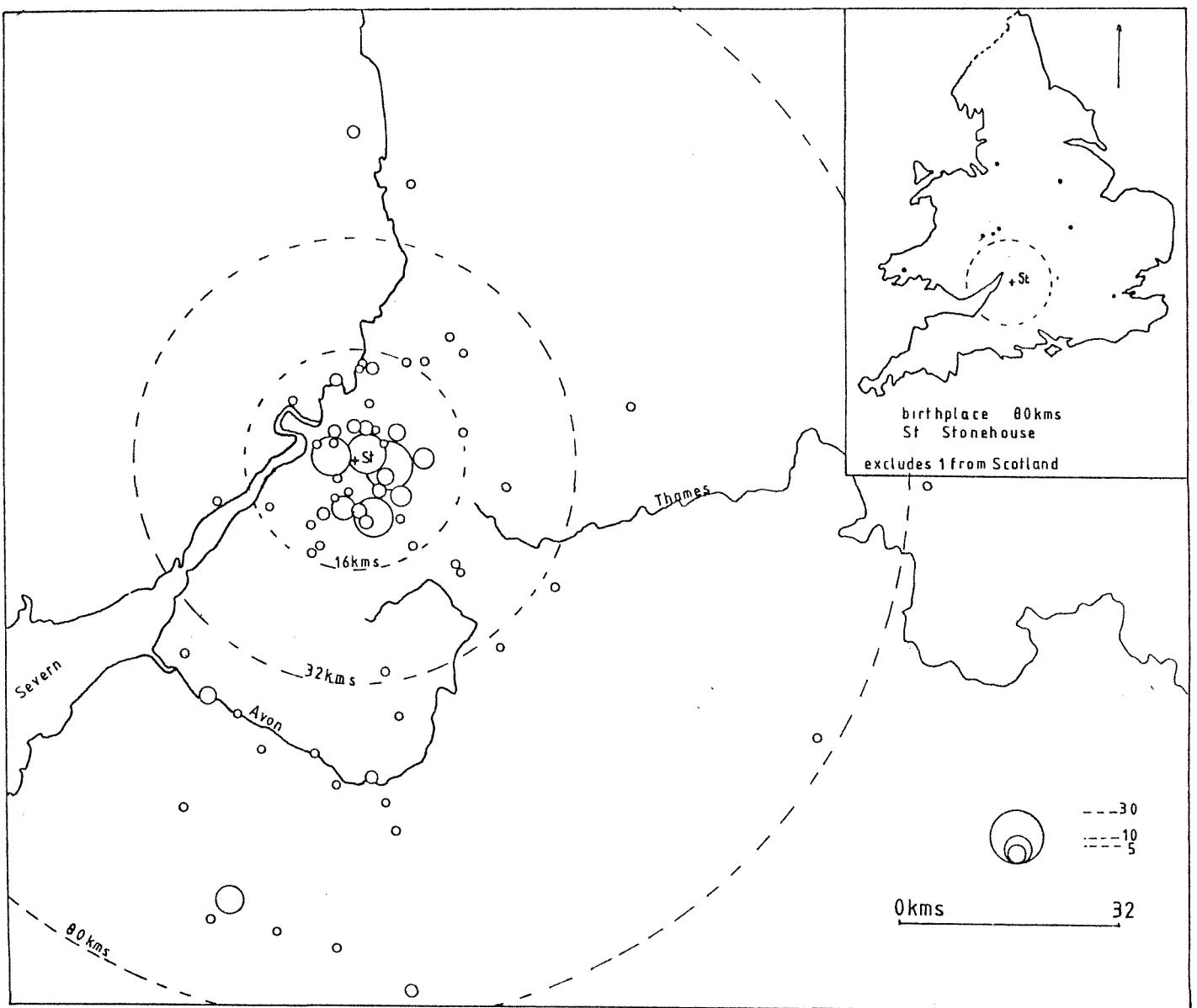


Fig 26 BIRTHPLACE OF EXAMINEES AT STONEHOUSE



In all these northern parishes, strong ties are shown between them and Stroud, which lay at the focus of the Frome with its major tributaries. Stroud, increasingly, came to dominate the economic life of this region. Not only did Bisley, Painswick, Rodborough and Stonehouse send the majority of their migrants there, but the Certificates to those parishes show Stroud to be their main supplier of labour in a pattern of well defined counter-streams.

The smaller collections of Certificates for Cam, Hawkesbury, Kingswood and North Nibley do not show very clear evidence of directional influence. Cam is linked to its neighbour Dursley, but Wotton under Edge is orientated towards the other three centres. In each case, there is some link with the Wiltshire/Somerset cloth area and the Stroudwater region. As is to be expected from their respective positions, North Nibley and Cam have links with the nearby parishes of the Vale of Berkeley, whereas Hawkesbury is tied to the Southwolds. As in the case of the northern cloth region the evidence from the Removal Orders from these parishes tends to reinforce the pattern of Certificates, though emphasising the long distance link to the Wiltshire/Somerset cloth region and, in the cases of Kingswood and North Nibley, the link to Stroudwater. The Removal Orders show that Cam received in-migrants not only from this latter area but from the Vale between Berkeley and Gloucester. North Nibley's links into the Vale extended further south towards Thornbury and the south Gloucestershire coalfield. In the case of Hawkesbury, the most southerly of the Gloucestershire woollen cloth parishes at this time, the old focus of the parish, below the Cotswold Edge, had been superceded by Upton and the parish itself lay aside the important Cheltenham to Bath turnpike. This scarp top route is clearly revealed in the shape of the migration field for this parish, especially in the post 1795 Removal Orders (Figure 27). Dursley, however is the major cloth parish in the southern area for which documents survive (Figures 28-30); it is unfortunate that none survive for the larger centre of Wotton under Edge. Dursley's influence is largely internal to the southern cloth parishes and over a third of its Certificates show this intra-regional movement, with Wotton under Edge, North Nibley and Uley providing the major sources of labour. Its influence extends into the Vale of Berkeley, but the Over-Severn region is again unimportant as a source of labour. It is linked to the Stroud area but very strongly to the cloth area of Wiltshire and Somerset and Frome in particular.

Fig 27 MIGRANTS TO HAWKESBURY [removal orders post 1795]

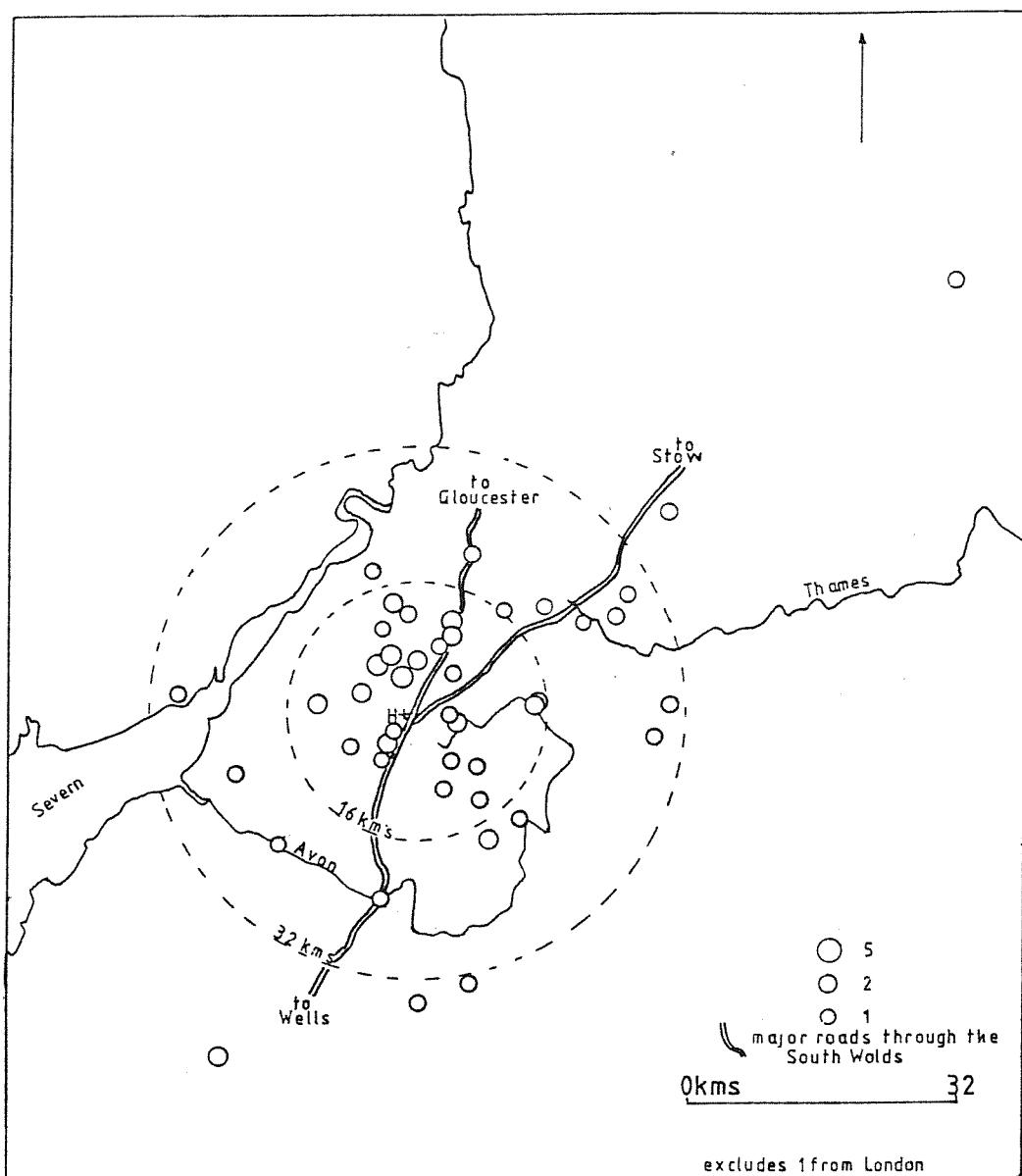


Fig. 28 MIGRANTS TO DURSLEY [settlement certificates]

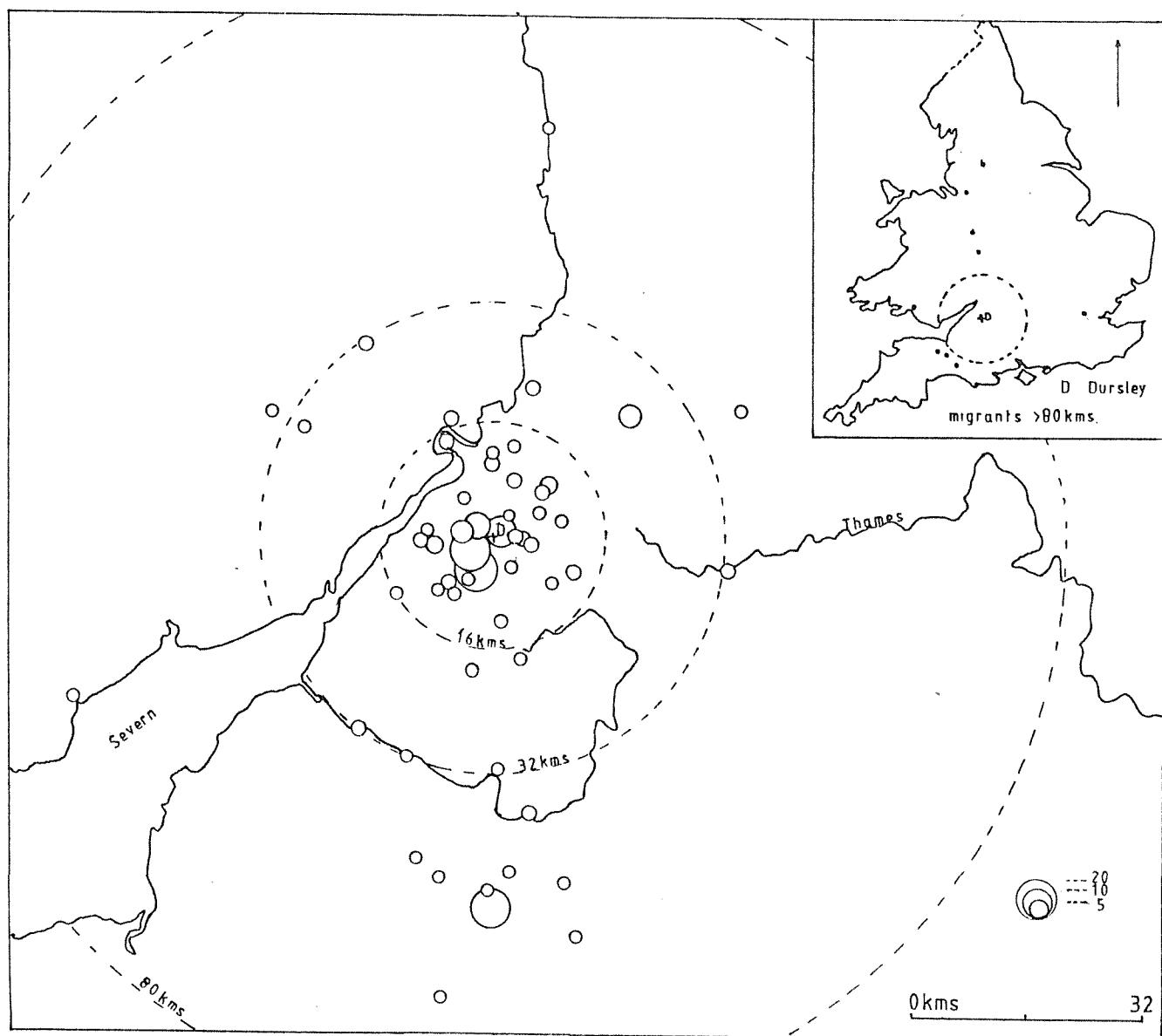


Fig 29 MIGRANTS TO DURSLEY [removal orders pre 1795]

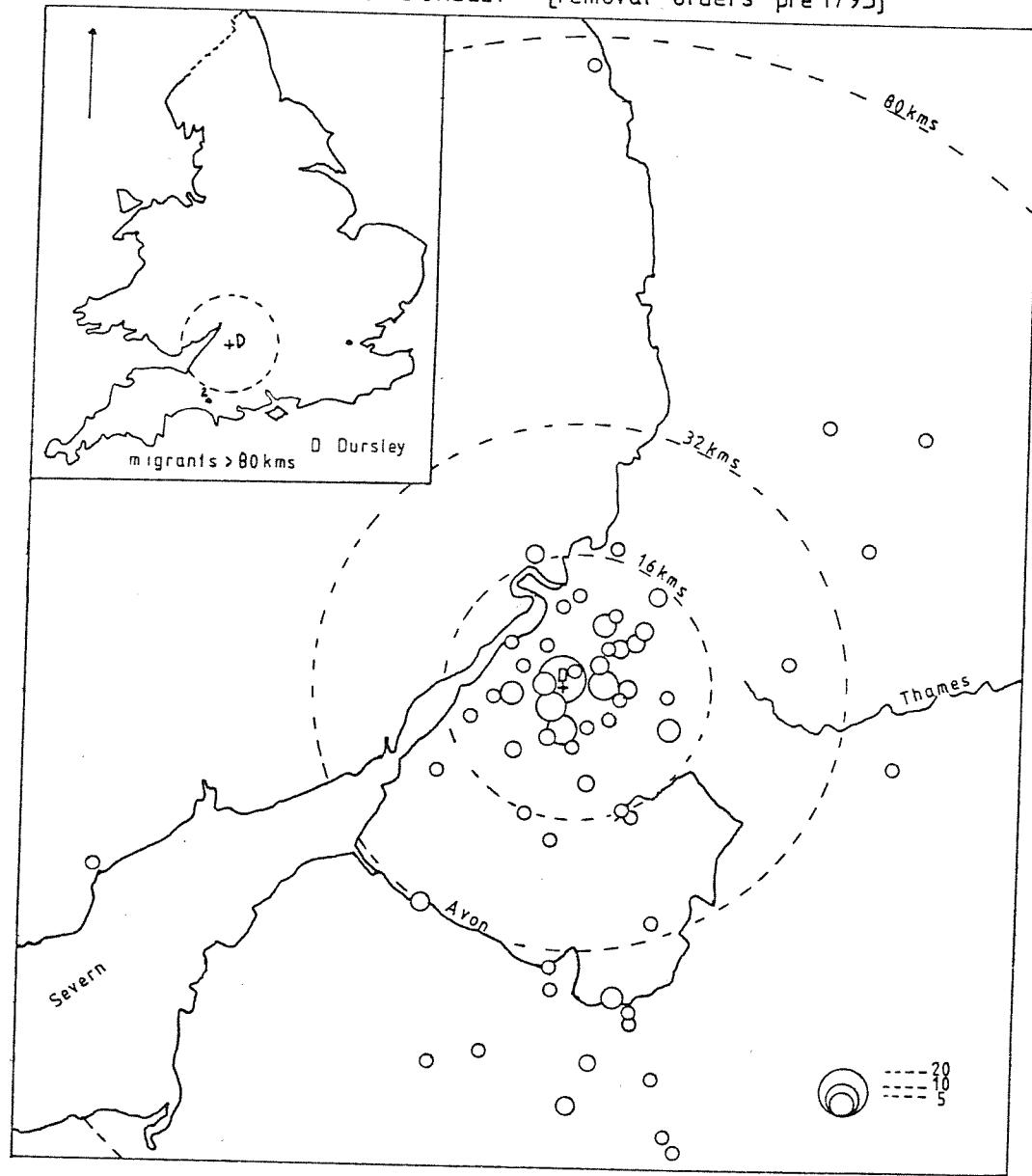
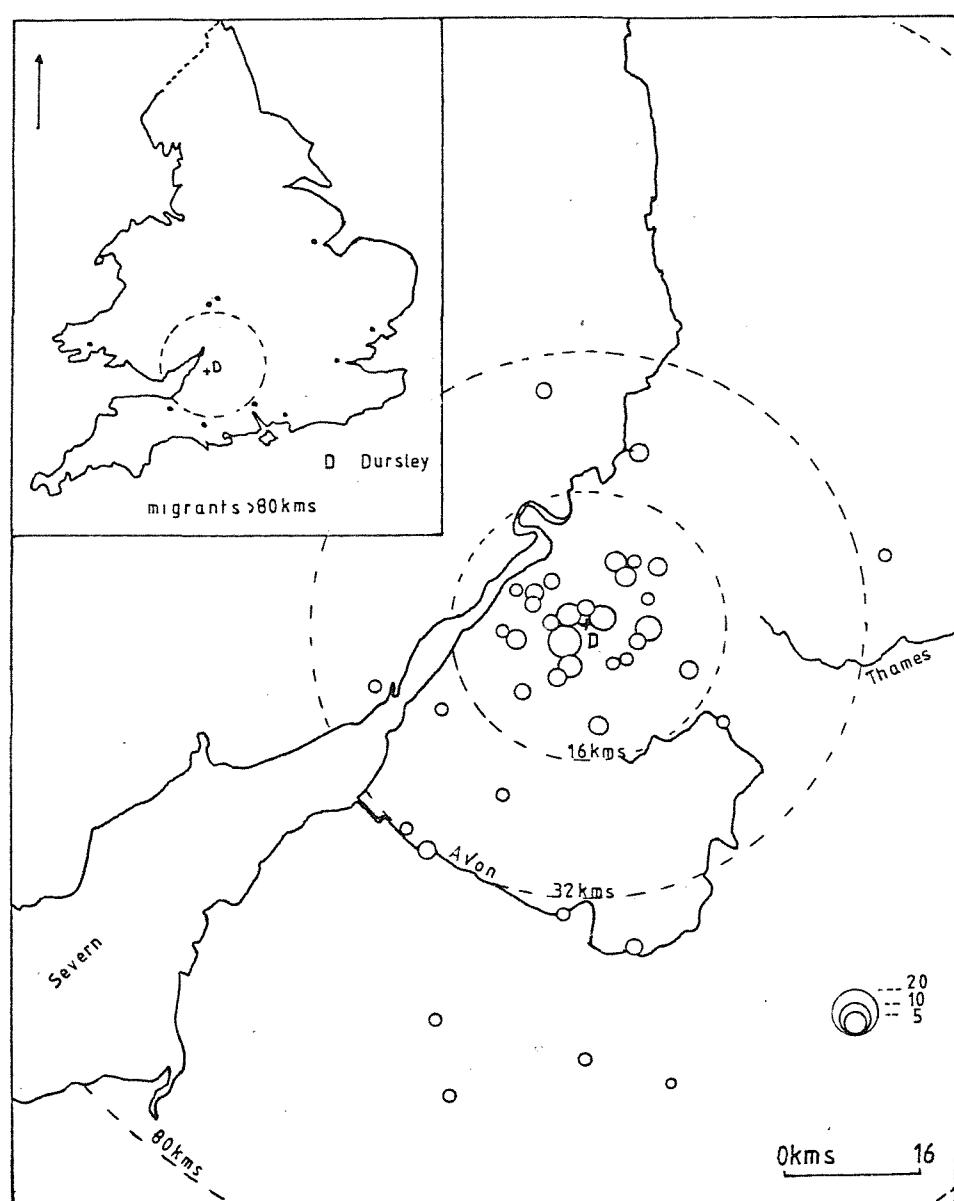


Fig 30 MIGRANTS TO DURSLEY [removal orders post 1795]



Figures 31, 32 and 33 are drawn from the aggregate data for Certificates and Removal Orders to summarise the links between the cloth regions and other economic regions. Certain general conclusions may be derived which relate to the directional asymmetry of the migration fields for the two cloth regions in the county, but which also have implications for the analysis of their economic geography for the period under consideration. The latter will be treated more fully in the Chapter when considering temporal variations, and in Chapter 6 when the evidence for the other regions of the county are considered.

There was very little movement across the Severn. Within the county, bridges existed at Maisemore and at Over. Fording "for those with more resolution than prudence" was possible between Newnham and Arlingham. Ferries existed at Lower Load, near Tewkesbury, the Haw, six miles above Gloucester, from Framilode to Arlingham, Purton to Purton, Aust to Beachley (the Old Passage) and from Saltmarsh to Port Scaut (Port Skewett), (the New Passage) (35). Defoe encapsulated the view of Everyman. "The sea was so broad. The fame of the bore of the tides so formidable, the wind also made the water so rough and which was worse the boats to carry over both man and horse appeared so very mean that in short none of us car'd to venture" (36). Only 14 Certificates (total 1,081) were received in the northern cloth parishes from the Forest of Dean and the Over-Severn, that area enclosed by the Wye and Loden rivers. The pattern for Removal Orders is substantially the same as only 18/830 are to these areas. The link with the Dursley Wotton under Edge area is even weaker. However, the Severn was also a major artery of trade in the eighteenth century. A mid-century observer commented on the vast quantity of grain, pig and bar iron, earthenware, wool, cider and provisions that flowed to Bristol in return for merchant goods. There had been a recent boom in traffic and Perry's survey in May 1756 noted 376 vessels based between Gloucester and Welshpool (37). Seven percent of the Certificates generated outside the northern cloth region and received in the Stroud area originate in the Vale of Severn and the Welsh borders as far away as Shrewsbury. Fewer documents were received from this location in the Dursley region, probably as a result of the intervening opportunities presented by the area around Stroud.

For the cloth parishes, the dominant long-distance movement was with the Somerset Wiltshire cloth region of Frame, Bradford on Avon, Trowbridge and their surrounding villages. The link is stronger with the Dursley area which would have presented intervening opportunities

Fig 31 MIGRATION TO THE CLOTH REGIONS OF GLOUCESTERSHIRE [Settlement Certificates]

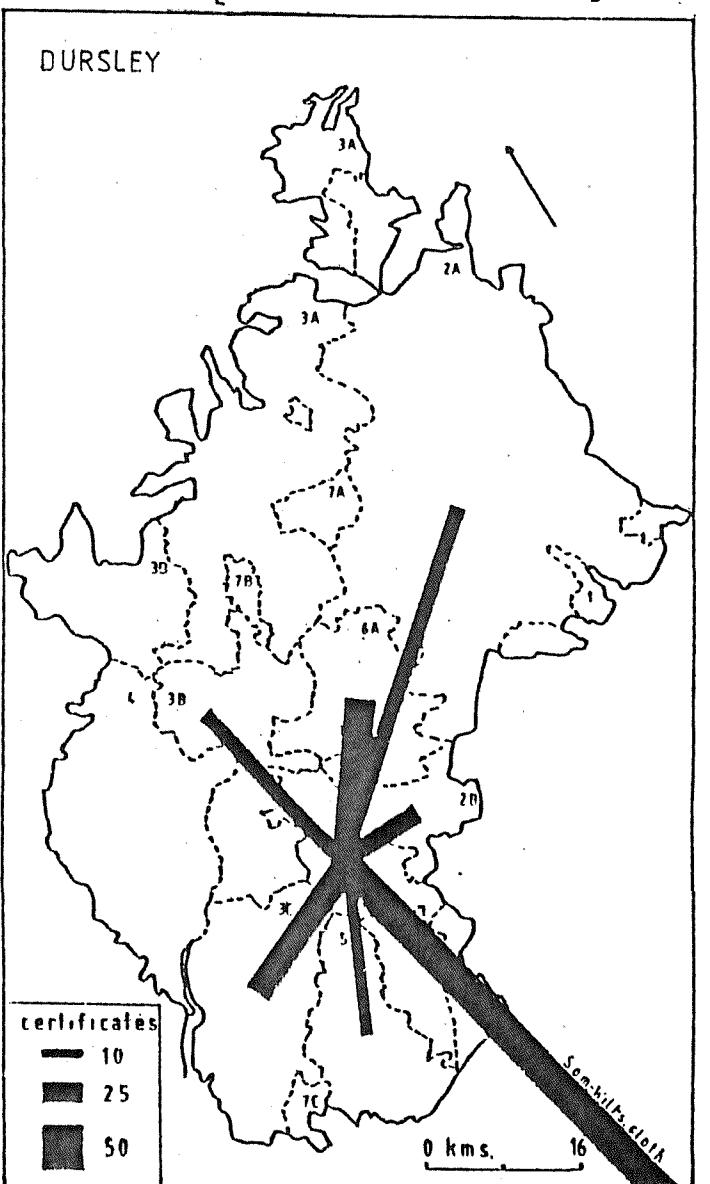
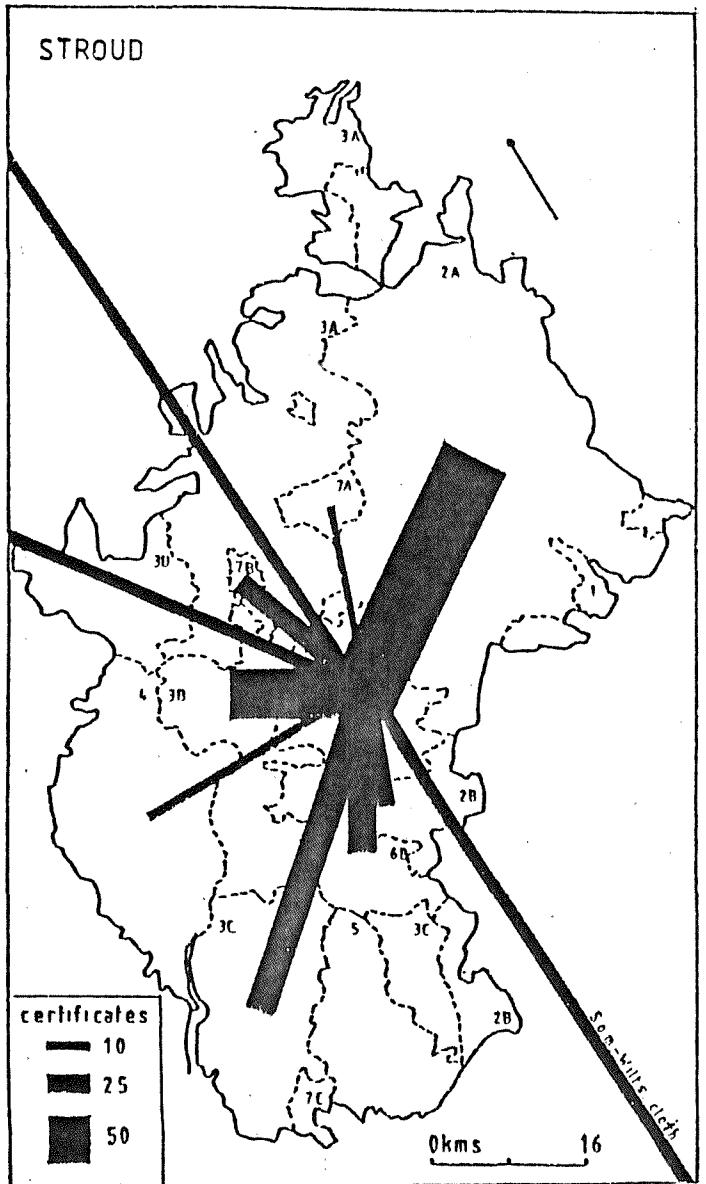


Fig 32 MIGRATION TO THE CLOTH REGIONS OF GLOUCESTERSHIRE [Removal Orders pre 1795]

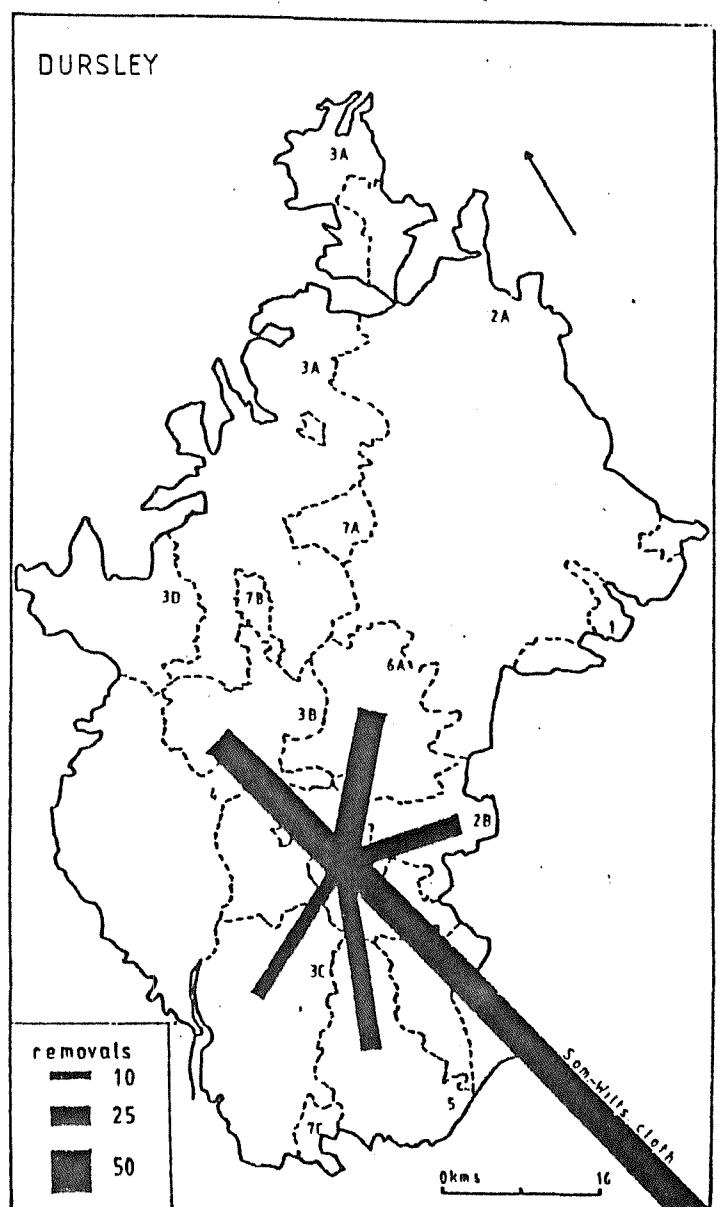
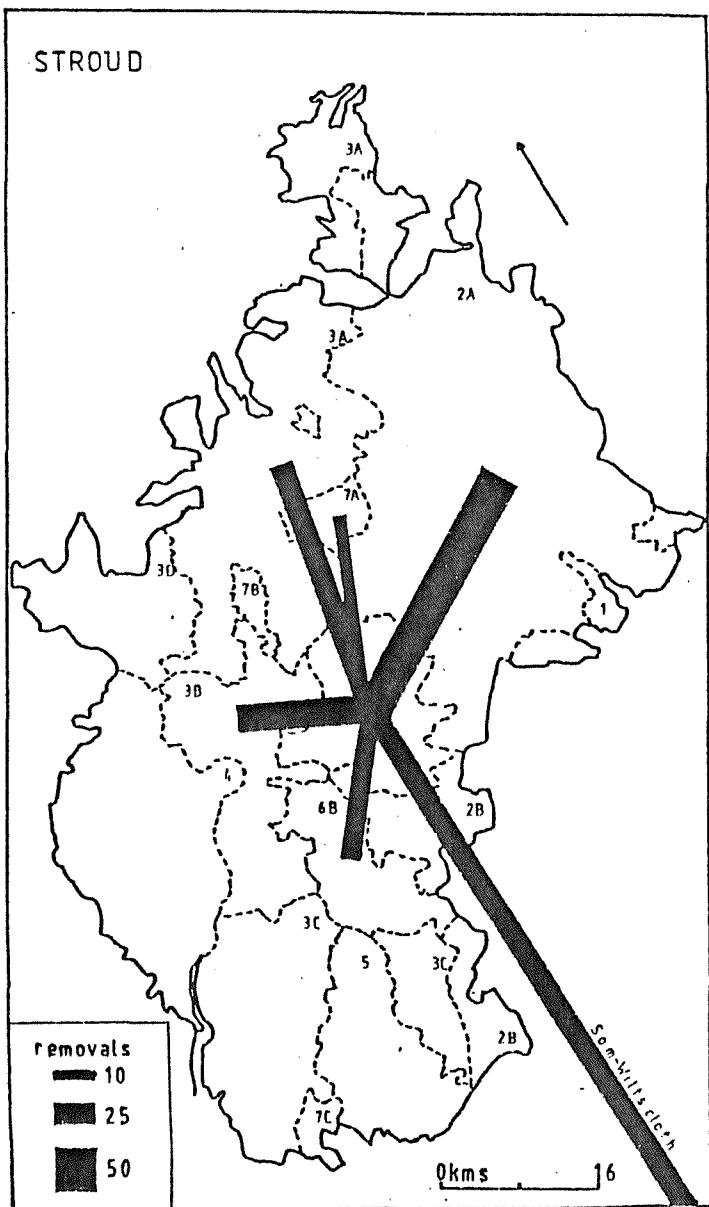
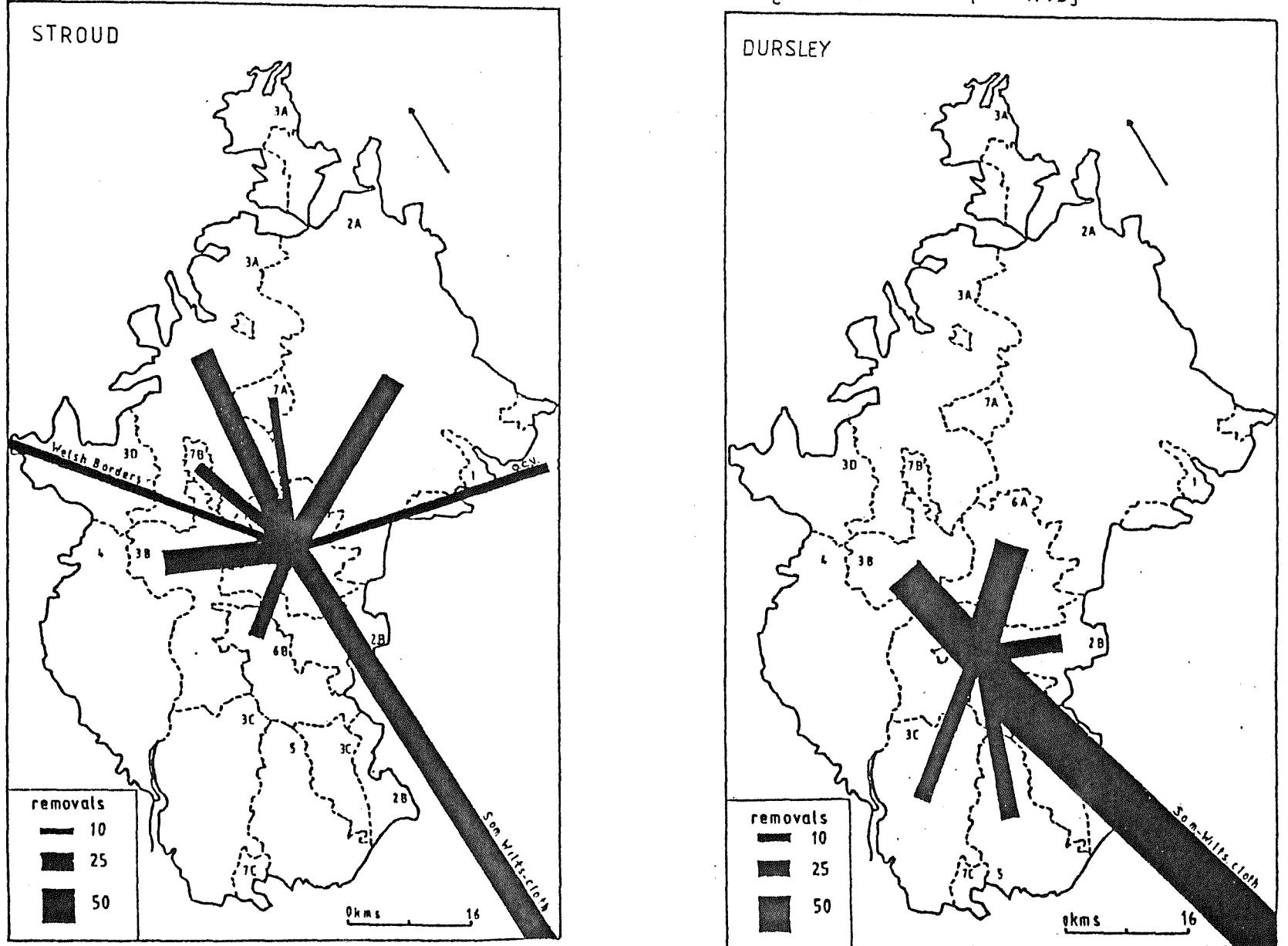


Fig 33 MIGRATION TO THE CLOTH REGIONS OF GLOUCESTERSHIRE [Removal Orders post 1795]



in relation to its more economically powerful northern neighbour. In the difficult period of the 1820's and 1830's, 13.5 percent of all the extant Removal Orders for the Gloucestershire cloth regions are to the Somerset-Wiltshire region. Whereas 44 Removal Orders pre-date 1795, 88 survive for the later period.

There is a noticeable absence of contact with London, the influence of which had been so emphatically expressed by other authors (38). The absence of Certificates may reflect their unimportance in long-distance migration, but the evidence of Removal Orders also suggests that this particular migration stream was weak. This is very different from the findings of Thomas in his study of Poor Law documents for Berkshire and Oxfordshire and this, no doubt, reflects the indirect influence of distance in determining migration (39).

Figures 31, 32 and 33 show that short-distance movement was dominant during this period. Intra-regional movement is most pronounced. Here is a relatively information rich environment which establishes major counter-streams to the currents between each pair of parishes. In contrast, the movement between the two Gloucestershire cloth regions was not as great as might have been expected. Only the parishes of Frocester, Nympsfield, Kingscote and Beverstone separate the Cam and Ewelme from the Frome Basin. Yet, only 34 Certificates survive from the southern cloth parishes which originated in the northern area and only 37 Certificates mark the counter-stream. Less than 10 percent of the Certificates received in the Stroud area from outside the region originate in the southern cloth parishes. Sixteen percent mark the return flow. The pattern for Removal Orders is substantially the same. Only 14 which were issued from the Stroud area to the Wotton under Edge-Dursley region survive for the pre-1795 period and only 21 for the period after that date. The reverse flow is represented by 37 and 51 documents respectively. It would seem that the evidence from Removal Orders was that the flow from north to south to seek employment was more significant. This impression is reinforced when viewed against their regional population totals, which can be taken as an index of employment opportunities. On the basis of Rudder's figures the northern region had nearly twice the population of the southern region. This evidence conflicts with that for the Certificates and the implications of a gravity model. The difference might be explained by the great economic hardship which the southern region suffered after the mid-1820's and the consequent flood of Removal Orders which these smaller communities would feel obliged to issue. The

marginal notes in the 1841 Census details emigration from Uley, Wotton under Edge and Kingswood but also from Painswick, Bisley and Avening. Population decrease is mentioned for Dursley, Owlpen, Uley Cam, Kingswood and Wotton under Edge, all in the southern region; but also for Randwick, Bisley, Minchinghampton, Avening and Horsley (40). Appendix 6 shows that proportionately the decreases were greater for the southern region. In Uley the loss of nearly 1,000 people was attributed to the falling-off of woollen cloth manufacturing in the West of England (41). This is in stark contrast to the enumerator in Kingswood in 1821 who had noted "the flourishing state of the fine woollen manufactures which has attracted many strangers .... marriages and population are greatly increased" (42). The northern cloth region shows far stronger links with the north Cotswolds and the Vale of Gloucester than with the southern cloth region and Southwolds with which it is contiguous. The Southwolds region would be equally accessible and equidistant from both cloth areas, but figures 31, 32 and 33 point to a closer orientation to the southern area.

The evidence of settlement Certificates and Removal Orders has identified in-migration to these cloth parishes in Gloucestershire, but the existence of Certificates 'from' and Removal Orders 'to' allows one to examine out-migration for the same area. Unfortunately only Eastington has a collection of > 25 Certificates (43). This is in the form of a listing between 1739 and 1770. It emphasises the highly localised nature of the Certificate contract (median distance 4.3 kms.) and the very strong pull of the surrounding cloth parishes. Sixty-seven percent of the out-movement is intra-regional. Twenty-eight percent went to the nearby Vale below Gloucester. There is a more substantial collection of Removal Orders to the cloth parishes. The survival of > 1,000 documents reinforces the general conclusion of Ravenstein that each main current of migration produces a compensating counter-current (Appendix 2, law 4). The data are aggregated at the regional level as Figures 34 and 35. Unfortunately, they cannot show the preponderance of intra-regional movement, especially in the Stroud area where over half the movement before 1795 was of this order. The unimportance of the flows between the two cloth regions noted in Figures 31, 32 and 33 is also characteristic of this data. This data for out-migration does show four dominant migration streams of which only one was significant for in-migration. This was the reciprocal flow with the Wiltshire/Somerset cloth region, and again the southern area showed the stronger link as at least 25 percent of all Removal Orders received

Fig 34 MIGRATION FROM THE CLOTH REGIONS OF GLOUCESTERSHIRE [Removal Orders pre 1795]

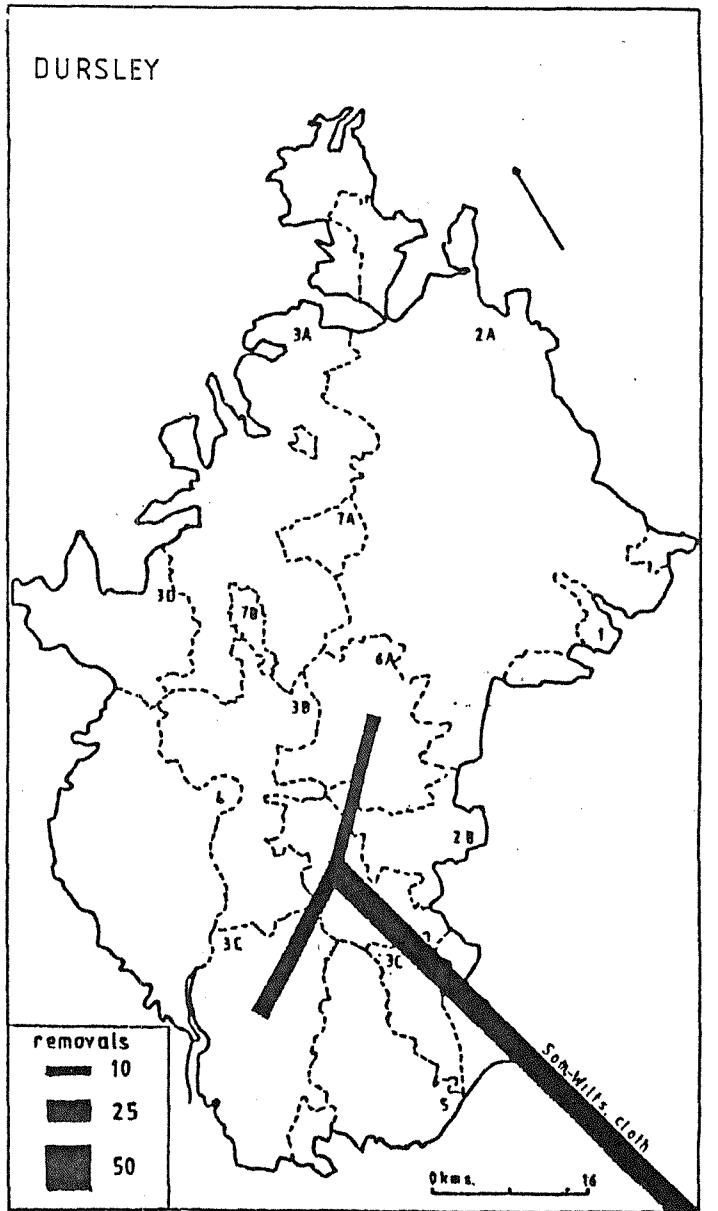
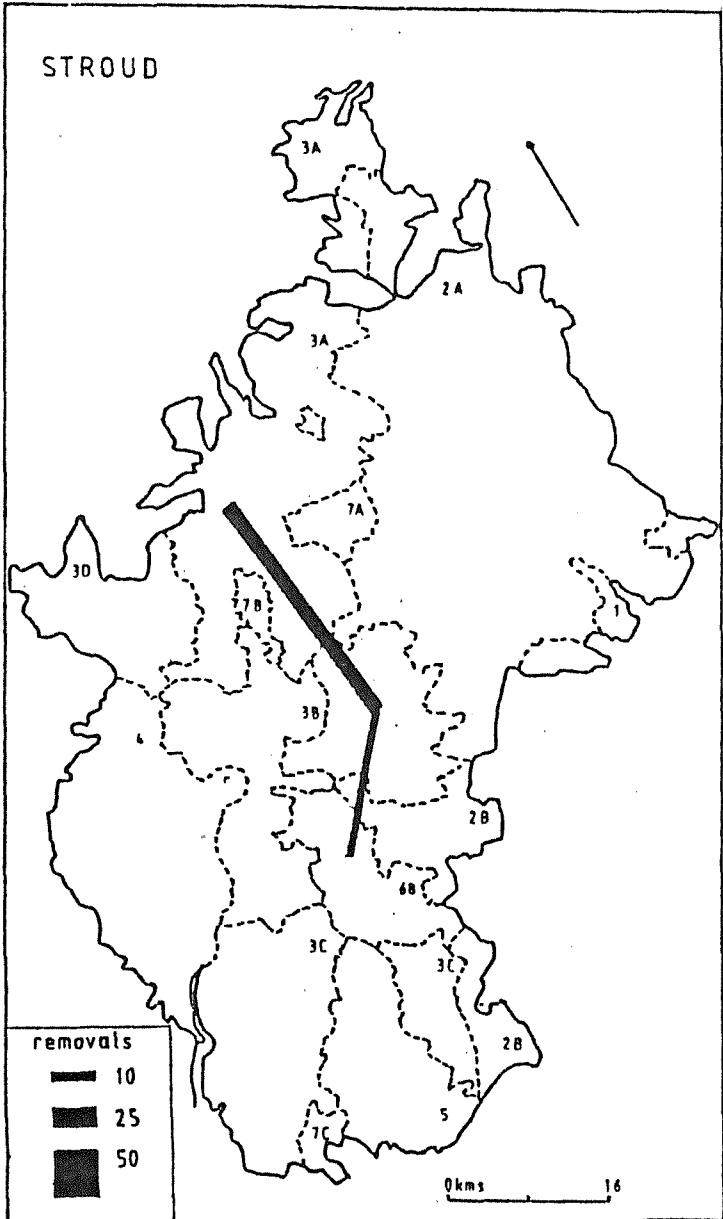
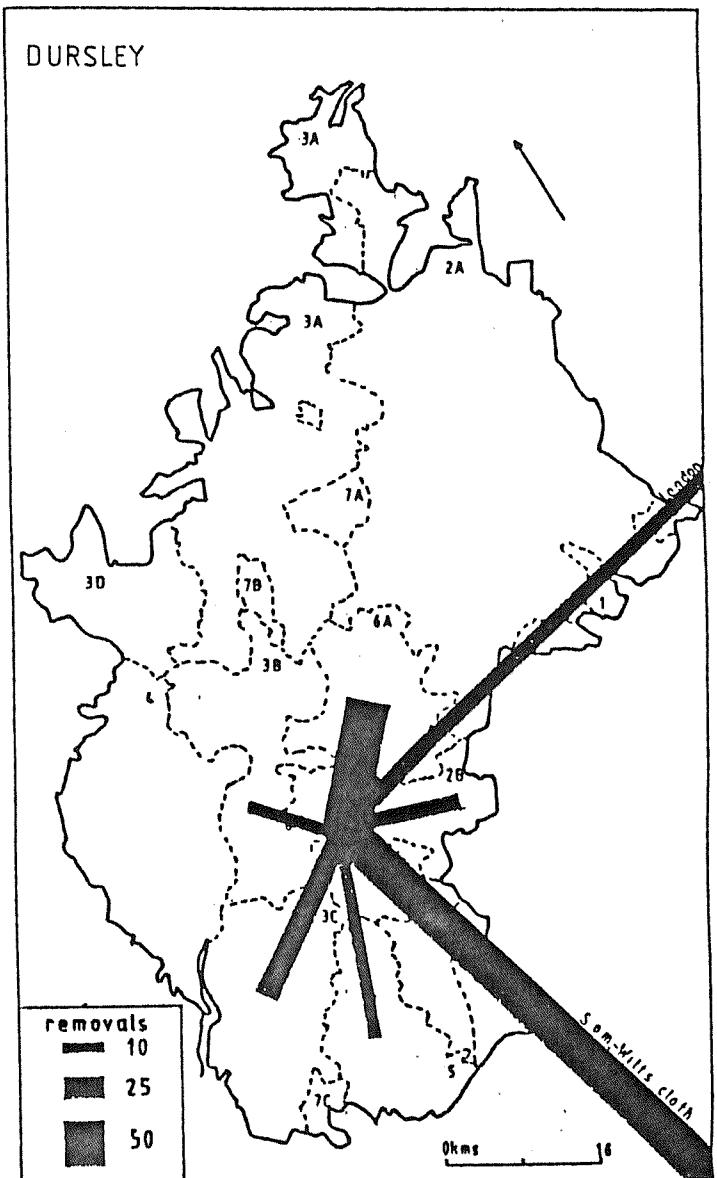
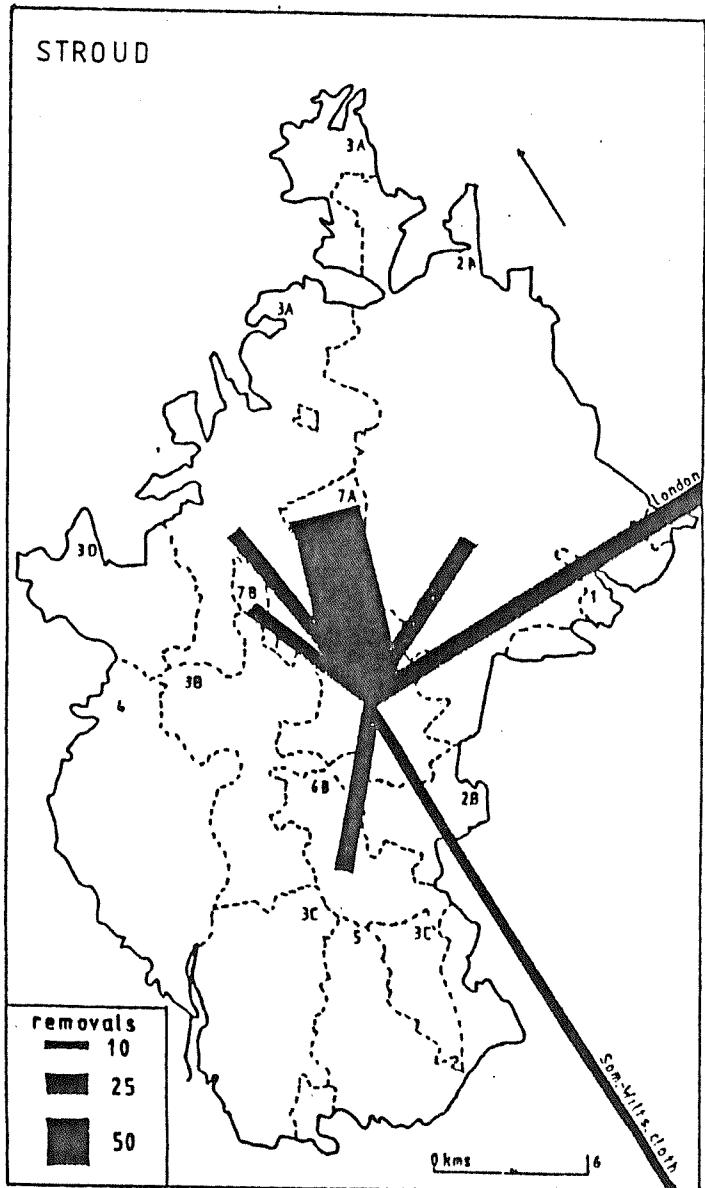


Fig.35 MIGRATION FROM THE CLOTH REGIONS OF GLOUCESTERSHIRE [ Removal Orders post 1795 ]

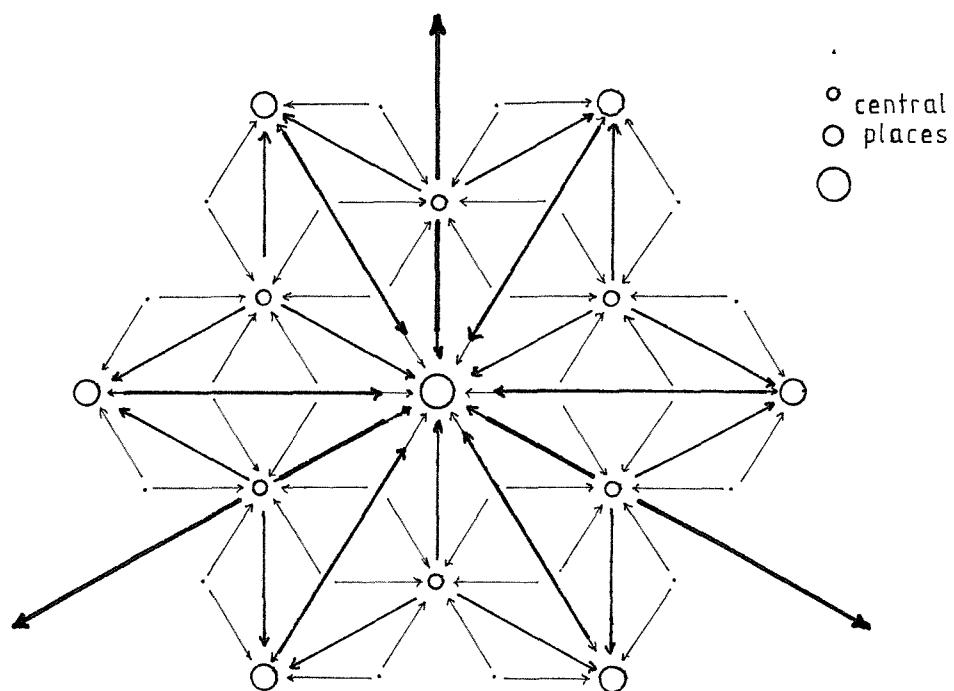


in that region were from the Wiltshire Somerset cloth area. The three other streams were all urban orientated. Interestingly, this may cast some doubt on the supposed safety and anonymity of a rural-urban move. It is the difficulty of detection in such places that is regarded as a key pointer to the ineffectiveness of the Settlement Laws. Chapter 4 had shown the meteoric expansion of Cheltenham but the slowing down of that process by the 1840's. Both phases in its fortunes are thus recorded in the large number of removals back to Stroud, Bisley and Painswick in the 1830's. A fifth of all removals received in this northern cloth area emanated from that source. To the south of the County lay Bristol, a city of metropolitan standing, whose port and city hinterland dominated Gloucestershire and much of Wiltshire and Somerset at this time (44). The removals back to the cloth regions after 1795 again reflect an earlier out-flow, but because of the anonymity of such a city the volume of data in no way reflects its importance as a centre of attraction, a force that would become more powerful in the 1830's and 1840's as the cloth industry suffered major setbacks. Only by using Enumerators' Returns for 1841 to 1871 for the Bristol parishes can this be checked, as the Settlement Laws become less useful as a source of migration data. The Removal Orders 'to' also show in the early nineteenth century, an earlier flow to London. In quantitative terms, this is greater than the in-migration from London recorded in Removal Orders 'from', but it is still of little significance. Here, the inherent weakness of the data is even more clearly revealed, given our knowledge of the historic dominance of London in England's labour market.

C - Migration as a Central Place Analogue. In Chapter 2 it was suggested that there has been strong empirical support for invoking a central place model to explain migration. This implies a different mechanism from the distance-decay model in understanding the role of mean information fields as they relate to the migration process. In central place terms no allowance is made for differences in the information field of any service centre within a particular category of the settlement hierarchy. An isotropic surface does not allow for the directional influences considered in the previous section. In terms of the model, labour supply will decrease smoothly with distance from the employment centre and be directed to the nearest centre. Moreover, movement is only to be expected upwards in the hierarchy. In migration terms, labour will travel further to major employment centres (high order centres) and in so doing, originate in large rather than small settlements.

Figure 36 summarises the movement that would occur under the marketing conditions of a Christaller analogue. However, before the usefulness of such a model can be demonstrated in an eighteenth century context, it is necessary to establish clearly the nature of the specific settlement hierarchy.

Figure 36

Migration flow in a central place model

An eighteenth century settlement hierarchy. Clarke, in discussing the geographical origin of urban migrants, uses John Adams' 'Index Villaris' of 1680 (45) and Everitt refers to the revised 'Index Villarum' of 1690 to supplement the market towns he maps from Blome's 'Britannia' of 1673, Leland, local histories, and State Papers (46). King also drew on this source to calculate the population of his various urban categories (47). Unfortunately, when Adams used the Hearth Tax Returns to define urban status, no clear indication was given of the criterion he adopted, but the use of any multiplier and consequent classification can only be subjective. Dickinson believes that size is not an important criterion (48), a view echoed by Carter who regards function, in this case market town status, as the only reliable criterion for this period (49). Law, using the degree of nucleation interpreted from map evidence as a secondary criterion,

believes that size is more reliable than function. He argues that there is insufficient information for differentiation on any other criterion. Rural functions such as forestry and agriculture are extensive in landuse and create low population densities so that settlements with purely rural functions are rarely large and most settlements over a given size (>2,500 in the eighteenth century) are therefore urban (50). He acknowledges the difficulty of calculating population, the subjectivity of a threshold figure and the cases when rapid growth towards the end of the century would raise to urban status a place which had been previously no more than a hamlet or a village. More serious is his exclusion of places such as Bisley exceeding the threshold population but failing to meet his secondary criterion. Such thriving centres of rural industry, in this case of textiles, with a large geographic area of dependent cottage labour, would act as a strong focus for migration opportunity. Law also excludes a great number of market towns whose population was <2,500. Everitt, referring to the period 1500 to 1640, notes that many market towns which were in size really villages of limited population (some 300-400 inhabitants) had very limited fields of influence, but in that area played a vital role in the lives of several thousand husbandmen and labourers (51). Clark would certainly echo the significance of this observation in terms of mean information fields or the processes by which the diffusion of job opportunities are discovered and he argues that such centres should not be omitted because of their limited size (52). Dickinson refers to such settlements as 'urban villages', ascribing a population of some 700-1,000 inhabitants to them (53). Lambert uses an arbitrary figure of 1,000 to define urban status (54). The 1801 Census replaces a quantitative measure by the divisions of tything, parish, town, borough and city, but omits from urban status a great many settlements with markets. Neither Patten, Randall nor Thomas in dealing with settlement and population actually define the term town (55).

If one accepts market town status as the basis of the urban hierarchy then those places without that status, the villages and townships, form the base of the settlement hierarchy. The identification of higher orders in the hierarchy raises problems. The establishment of a national system of Poor Law unions in 1834 suggests the addition of a higher order service function to that of market town status and reflects the greater importance that these centres had in relation to the surrounding countryside in the late eighteenth and early nineteenth

centuries. The first Annual Report of the Poor Law Commissioners in 1835 sets out the principles that underpin the choice of union centres

"The most convenient limits of unions which we have found has been that of a circle, taking a market town as a centre and comprehending to it those parishes whose inhabitants are accustomed to resort to the same market. This arrangement was found highly convenient for the weekly attendance of the parish officers and some portion of the Guardians and other auxiliaries to good management were derived from the town itself." (56)

Pierce rightly emphasises the value of this arrangement in that the same units were normally adopted for the collection of vital statistics required by the 1836 Registration Acts (57). She also refers to Dr. William Farr's evidence to the Select Committee on the Boundaries of Parishes, Unions and Counties (1868) in which the logic of the market town as a focus of country life was stressed. In fact, the initial choice of centre was often verified by evidence subsequently collected in the field by the assistant commissioners (58).

Carter's work on the urban hierarchy in North East Wales for 1831-35 nests market town and Poor Law union centres to indicate the most important settlements in the area. (59). It could be argued that the workhouse was not always in a market town and that this would distort the classification. Table 18 examines this relationship within the Gloucestershire Registration County. Each Poor Law union centre is listed with an indication of its rank in population within its union at the time of Atkyns, (c. 1701), Rudder (c. 1773) and at the first Census (1801). It indicates whether it was a market town in the *Index Villarum* of 1690 or in Rudder's 'History'. One might expect that variations from this nested relationship would be most likely to occur in areas close to expanding urban centres or in regions with rural mining and manufacturing communities. In Gloucestershire, only four centres are not in market towns and in each case these are to be found in an adjacent parish. Social pressures may help to explain their siting though this does not imply that the focus of the union or the most likely place for the conduct of its business would not have been in the market town itself. Christmas confirms this local pattern of Gloucestershire workhouses, emphasising a correspondence with major nodes, along the Severn and in manufacturing or urban centres (60). She also shows that pressure groups did operate in the choice of union centre and its territory. In particular, Lord Redesdale and the local yeomen were in dispute as to whether Moreton in the Marsh or Stow on the Wold should be a union centre. Ultimately, Stow did become

Table 18

## Gloucestershire Registration County

## Poor Law Union Centres

Poor Law Union Centres		A	B	C	D	E
Bristol	1	1	1	1	1	1
Stapleton	1	7	7	3	0	0
Yate	2	9	9	5	0	0
Thornbury	3	2	2	2	1	1
Dursley	4	2	2	2	1	1
Westbury		1	1	1	0	0
Newent		1	1	1	1	1
Gloucester		1	1	1	1	1
Eastington	5	1	1	3	0	0
Stroud	6	1	2	2	1	1
Tetbury		1	1	1	1	1
Cirencester		1	1	1	1	1
Northleach	3	1	1	1	1	1
Stow		1	1	1	1	1
Winchcombe		1	1	1	1	1
Cheltenham		1	1	1	1	1
Tewkesbury		1	1	1	1	1

A Rank of Union Centre in the population of its Registration District in 1801.  
 B as A, in 1771, from Rudder  
 C as A, in 1701, from Atkyns.  
 D Presence of market in 1771.  
 E Presence of market in Index Villaris, 1690.

1. Stapleton became the centre for a registration district that extended to the Severn and included Bristol's western suburb Clifton, and part of the South Gloucestershire Coalfield. It was only 5 kms. from Bristol. It seems to have little nodal significance. Atkyns does not give a figure for St. George but its importance as a coal mining village and its proximity to Bristol is such, that like Mangotsfield, it probably exceeded Stapleton's population.
2. Yate was overshadowed by the two market towns of Chipping Sodbury and Wickwar, the former was only 3 kms. away.
3. In Thornbury, Northleach and Stow the workhouses were in an adjacent parish, within 2 or 3 kms. of the market towns. Thornbury was more central to its large registration district than Berkeley.
4. Dursley was much smaller than Wotton under Edge, but more central to the registration district.
5. Eastington increased in importance as a cloth manufacturing centre in the eighteenth century but was within the market areas of Gloucester, Stroud and Dursley while Frampton and Standish also had larger populations at this time.
6. Stroud had been overshadowed by Bisley until the eighteenth century but this is a statistical anomaly as the continuous built up area of Stroud extended into Rodborough, Nailsworth and Woodchester and towards Bisley itself.

a centre and Lord Redesdale's property formed much of the territory linked to Shipston -on-Stour (61).

Further levels in the hierarchy are difficult to determine on the basis of function. Carter has used assize towns, but this only isolates one or two settlements in each county, and as the county is the unit of selection this distorts the economic basis of town/country relationships which are implicit in this particular classification (62). Directories might provide a possible source of functional data, but for the eighteenth century there are few which have a national coverage or are consistent in the criteria used in the collection of their data. Thus, to identify a consistent national measure one is forced to use population size as a surrogate for functional strength in spite of the inadequacy of population estimates and the subjectivity of the threshold figures which are employed. On this basis, regional centres are defined as those with a population >5,000 and major regional centres as those >10,000 at mid-century (63). London has its own category.

Table 19

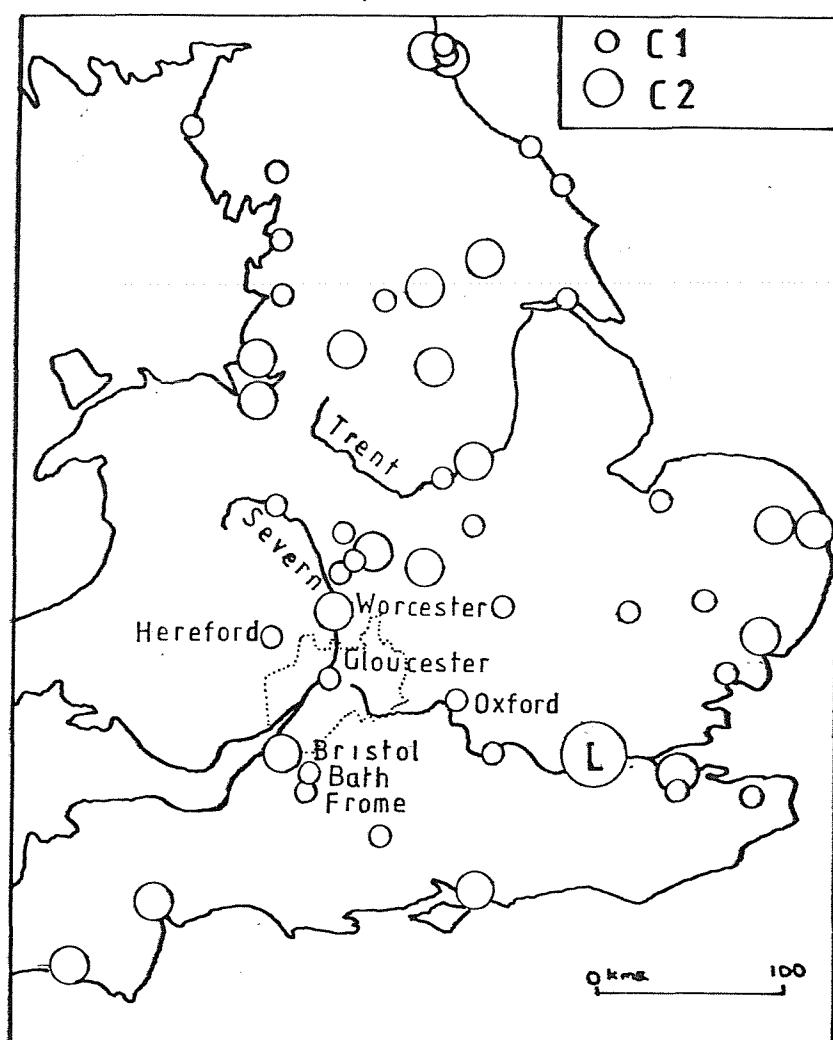
A settlement hierarchy for the eighteenth century

A	Villages
B <sub>1</sub>	Market towns
B <sub>2</sub>	Poor Law union centres
C <sub>1</sub>	Regional centres
C <sub>2</sub>	Major regional centres
D	London

This classification requires modification when using the nineteenth century Removal Orders to allow for the substantial growth of national and urban population by that time. Between 1751 and 1831 the national population had increased 129 percent and that of Gloucestershire by 93 percent (64). The two categories of regional centre are therefore re-defined by populations in excess of 10,000 and 25,000 respectively. Figures 37 and 38 show the distribution of these major centres in England and Wales c. 1750 and 1821 (65).

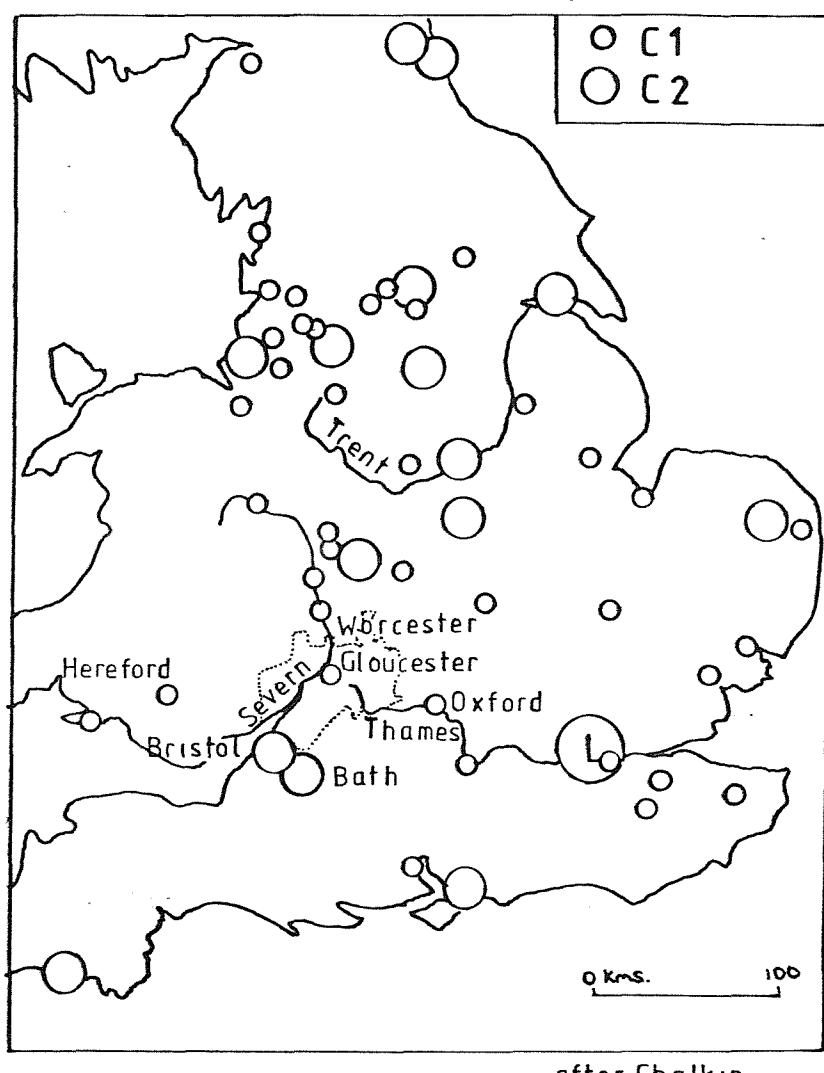
Fig. 37 MAJOR TOWNS IN ENGLAND AND WALES

c. 1750



after Law.

Fig 38 MAJOR TOWNS IN ENGLAND AND WALES  
c 1820



Central Place Analysis. For each cloth parish, Certificates and Removal orders were analysed and tabulated in Tables 20, 21 and 22 using the settlement hierarchy established above. The overall percentage movement in each of the categories is very similar for categories A, B<sub>1</sub> and B<sub>2</sub> for both types of document. Over 93 percent of all movement occurs in these three classes. However, this conceals a real difference between the two types of document. In the Certificates, flows to Bisley, Rodborough and Painswick from Stroud account for nearly half of all those extant in the two cloth regions from any Poor Law union centre. In the Removal Orders, the percentage is 37 and 39 for the pre-1795 and post-1795 period respectively, while there are links with more than 40 union centres as far away as Hay-on-Wye, Carmarthen, Romsey, Salisbury, Abingdon, Banbury, Shipston-on-Stour and Wednesbury. There is not a great deal of difference between the patterns shown by the two sets of Removal Orders, though there is a larger outflow from the small market towns and villages to other villages, rather than to small market towns in the post 1795 period. This may indicate that in a region where Stroud with < 9,000 population in 1841 is the largest settlement, in a period of economic distress the likelihood of paupers escaping the system in small villages is very unlikely. The strong symbiotic relationship of settlements in the lower levels of the hierarchy is revealed by this strong 'forced' return flow to the villages. At the other extreme, the existence of any counter stream from the Metropolis is negligible.

In the central place model movement is only to be expected upwards in the hierarchy, but there is little support for this proposition in the Poor Law data. Tables 20, 21 and 22 show that for in-migration not only is there a great deal of movement between settlements at the same level in the hierarchy, but more significantly a strong movement to settlements of lower status. Movement frequently occurs from Poor Law union centres and market towns to the villages and also, to a lesser extent, from regional centres to lower order centres. At the higher levels of the urban hierarchy only Bristol and Worcester are important points of origin for migrants to the cloth parishes. At the regional level, Frome and Gloucester are significant sources of labour. The proximity of the latter to the cloth area results in it having the stronger link, but even this only constitutes 1.5 percent of the Certificates 'to' and 1.7 percent of the Removal Orders 'from', both before and after the 1795 amendment. These Tables show a rapid decline in the percentage of migrants as one ascends the settlement

Table 20

Migration flows into the Gloucestershire Woollen Cloth Manufacturing  
Region, by Settlement Class. (Settlement Certificates)

Class	Parish	Migration from												
		A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		
n	%	n	%	n	%	n	%	n	%	n	%	n	%	
A	Kings Stanley	31	55.4	10	17.9	15	26.8						56	
	Rodborough	61	55.9	24	22.0	24	22.0						109	
	Stonehouse	48	67.6	6	12.5	17	35.4						71	
	Cam	41	70.7	5	8.6	11	19.0	1	1.7				58	
	Hawkesbury	27	58.6	14	30.4	5	10.9						46	
	Kingswood	30	52.6	21	36.8	5	8.8			1	1.8		57	
	North Nibley	26	52.0	16	32.0	7	14.0	1	2.0				50	
B <sub>1</sub>	Bisley	66	43.7	29	19.2	54	35.8	2	1.3				151	
	Painswick	110	51.4	43	20.1	50	23.4	7	3.3	4	1.9		214	
B <sub>2</sub>	Stroud	307	63.9	87	18.1	66	13.9	13	2.9	5	1.0	2	0.4	480
	Dursley	91	57.6	28	17.7	19	12.0	17	10.8	3	5.2			158
<u>Summary</u>														
A		264	59.1	96	20.8	84	18.8	2	0.2	1	0.2			447
B <sub>1</sub>		176	48.2	72	19.7	104	28.5	9	2.5	4	1.1			365
B <sub>2</sub>		398	62.4	115	18.0	85	13.3	30	4.7	8	1.3	2	0.3	638
												n	1450	

see Table 19 for key.

Table 21

Migration flows into the Gloucestershire Woollen Cloth Manufacturing  
Region, by Settlement Class. (Removal Orders 'from' pre 1795)

Class	Parish	'from'	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		
			n	%	n	%	n	%	n	%	n	%	n	%	
A	Stonehouse		23	46.0	12	24.0	14	28.0	1	2.0				50	
	Cam		12	75.0	3	18.8	1	6.3						16	
	Hawkesbury		23	63.9	11	30.6	2	5.6						36	
	Kingswood		17	48.6	15	42.9	2	5.7			1	2.9		35	
	North Nibley		43	61.4	13	18.5	10	14.3	2	2.9	2	2.9		70	
B <sub>1</sub>	Bisley		54	54.0	19	19.0	23	23.0	2	2.0	1	1.0	1	1.0	100 <sup>+</sup>
	Painswick		85	49.4	27	15.7	42	24.4	13	7.6			4	2.3	172
B <sub>2</sub>	Stroud		65	65.0	26	26.0	6	6.0			3	3.0			100
	Dursley		98	62.8	23	14.7	30	19.2			4	2.6	1	0.6	156
<u>Summary</u>															
A			118	57.0	54	26.1	29	14.0	3	1.4	3	1.4		207	
B <sub>1</sub>			139	51.1	47	18.7	65	23.9	15	5.5	1	0.4	5	1.8	272
B <sub>2</sub>			163	63.8	49	19.1	36	14.1			7	2.7	1	0.4	256
													n	735	

+ excludes one document unlocated  
 see Table 19 for key.

Table 22

Migration flows into the Gloucestershire Woollen Cloth Manufacturing  
Region, by Settlement Class. (Removal Orders 'from' post 1795)

Class	Parish	'from'	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		
			n	%	n	%	n	%	n	%	n	%	n	%	
A	Stonehouse		33	53.2	9	14.5	19	30.6	1	1.6				62 (1)	
	Cam		61	63.5	16	16.7	17	17.7			1	1.0		95	
	Hawkesbury		56	78.9	7	9.9	6	8.5			1	1.4	1	1.4	71
	Kingswood		65	64.4	13	12.9	19	18.8			4	4.0		101	
	North Nibley		53	74.6	7	9.9	7	9.9	2	2.8	1	1.4	1	1.4	71
B <sub>1</sub>	Bisley		52	62.6	7	8.4	18	21.7	1	1.2	3	3.6	2	2.4	83 (2)
	Painswick		81	63.6	10	7.6	35	26.5	6	4.5					132
B <sub>2</sub>	Stroud		89	68.5	19	14.6	15	11.5	3	2.3	1	0.8	3	2.3	130 (3)
	Dursley		71	65.0	8	7.3	21	19.3	3	2.8	5	4.6	1	0.9	109 (3)
<u>Summary</u>															
A			268	67.0	52	13.0	68	17.0	3	0.8	7	1.8	2	0.5	400
B <sub>1</sub>			133	61.9	17	7.9	53	24.7	7	3.3	3	1.4	2	0.9	215
B <sub>2</sub>			160	66.9	27	11.3	36	15.1	6	2.5	6	2.5	4	1.6	239

(1) excludes 1 document undated.  
 (2) excludes 2 documents unlocated.  
 (3) excludes 1 document unlocated.

n 854

see Table 19 for key.

hierarchy. Whereas 41.9 percent of the certificated migrants come to villages from a higher order centre, 32.1 percent come to market towns and 6.3 percent to Poor Law union centres from higher order places. Similarly, within any one level in the hierarchy the percentage of migrants decreases as the origin increases in status. The Poor Law union centres do not always conform to this pattern because of the particular spacing of Stroud and Dursley and their strong links with nearby settlements. The limited nature of downward movement from higher order centres ( $C_1$  status and above) might be interpreted as support for a central place model, but it could also be a function of the differential operation of the Law in favour of migrants moving greater distances or to larger settlements.

The central place model implies that larger places increase their relative importance as destinations with the size of the settlement of origin (see p. 23). Table 20 is re-cast to test this hypothesis which would be supported if the percentage value in each column in Table 23 increased with the hierachal status of the parish of origin (66).

Table 23

Relative distribution of migration distances  
by settlement class<sup>1</sup>

Hypothesis : That larger places increase their relative importance as destinations with the size of the origin.

		<u>to (percent)</u>					n
		A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	
from	A	31.5	21.0	47.5			838
	B <sub>1</sub>	33.9	25.4	40.6			283
	B <sub>2</sub>	30.8	38.0	31.1			273
	C <sub>1</sub>	4.9	22.0	73.2			41
	C <sub>2</sub>	7.7	30.8	61.5			13
	D			100			2

1. Key. see Table 19

At the regional level and above there is some support for this hypothesis, but the limited extant data and the presence of only

the lower categories of the hierarchy in the cloth parishes renders such evidence of limited value. An extension of this hypothesis is that the interaction slope ('b' value) can be expected to flatten with the increase in status of a centre in the hierarchy. This was tested by Spearman's Rank Correlation Coefficient (67), firstly using Rudder's population estimates and then the latter, but more reliable 1811 Census data (68). Neither was significant. The same hypothesis relating the 1811 Census data to the post-1795 Removal Orders 'from' exponent gives further support to the null hypothesis. There is no justification in finding support for the central place model using the evidence of the Pareto-slope index.

The evidence of Removal Orders 'from' suggests, irrespective of origin, villages constitute over half the destinations. In the case of Settlement Certificates at least 48 percent of the movement was of the same type. One might expect that the known emphasis on short-distance moves in the Certificates would result in a greater proportion of inter-village than town-village movement, compared with contemporary Removal Orders. The Chi Square test for two independent samples was used to test this hypothesis using those parishes which are common to Tables 20 and 21. No significant difference was found between the two sources (70). The vulnerability of migrants in smaller places partly accounts for the relative importance of village-village moves in the Removal Orders, while the dominance of closely spaced small towns in the woollen districts increases the downward moves in the Settlement Certificates. A comparison of Tables 21 and 22 suggests that after 1795 there was an increase in village-village movement compared with town-village movement in the Removal Orders. This hypothesis was similarly tested and is statistically significant (71). This suggests that in the period of increased economic difficulty in the first half of the nineteenth century, the differential effect on those villages which had much domestic textile work and smaller mills, was an increase in Removal Orders. Their small size enabled this aspect of administration to be more effective. An analysis of townward moves shows the pattern of village-town and town-town movement was very similar if Settlement Certificates and Removal Orders in Tables 20 and 21 are compared (72). After 1795, village-town movement increases (73) thus reflecting the continuing process of reorganisation and urban concentration of the Gloucestershire woollen industry.

The evidence of movement away from the Gloucestershire cloth

region (Tables 24 and 25) allows one to examine a wider spectrum of the settlement hierarchy than is present for in-migration. Redford's work on mid-Somerset and Hagerstrand's in Central Sweden suggest that for out-migration, movement upwards in the central place hierarchy would be the norm. Some support is found for this process in this data. Whereas, 65.2 percent of the town movement to Bisley and Painswick came from higher order centres in the pre-1795 period, 71.2 percent of the movement away from these towns was directed upwards in the hierarchy. In the post-1795 period, the percentages are 79.3 and 82.2 respectively. The pattern for Stroud and Dursley is even more pronounced. In the post-1795 period, 18 percent of movement to these centres was downward in the hierarchy, but 49.5 percent of the out movement was orientated towards higher order centres. Nevertheless, Tables 24 and 25 re-emphasise the significance of downward moves. Over half the removals to Stroud in the post-1795 period are from villages. Although the differential operation of the Law and the reorganisation of the cloth industry inflate the volume of such movement these are not grounds for ignoring the underlying pattern. Unlike the data for in-migration, those for out-migration (Tables 24 and 25) do not show a significant increase in inter-village movement after 1795 (74), though only North Nibley and Hawkesbury have data for both periods and such a conclusion must be very tentative. Throughout the whole period of parochial administration, townward movement was always dominant in out-migration and was to increase significantly in the period after 1795 (75).

A comparison of in-migration and out-migration at the village level is again limited to just the two parishes noted above, but for both the earlier period and that after 1795 test values are significant, thus supporting the general proposition that out-migration from the villages was town orientated (76). At town level, test results reinforce the greater significance of townward movement for out-migrants. (77).

Randall follows Olsson in suggesting that, in the central place model, migrants from small places would move shorter distances than those from larger ones (78). This has already been tested using slope values, but is tested further by separating short and long distance movement. If migrants from distances  $> 80$  kilometres are analysed, there are only 21 Certificates, 11 pre-1795 Removal Orders 'from' and 37 after that date. Town-town movement constitutes 60, 70, and 69 percent of all movement, but the very limited data make this

Table 24

Migration flows from the Gloucestershire Woollen Cloth Manufacturing  
Region, by Settlement Class. (Removal Orders 'to' pre-1795)

Class	Parish	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		
		n	%	n	%	n	%	n	%	n	%	n	%	
A	Hawkesbury	18	56.3	9	28.1	2	6.3	2	6.3	1	3.1		32	
	North Nibley	22	41.5	11	20.8	16	30.2			4	7.5		53	
B <sub>1</sub>	Bisley	13	40.6	10	31.3	9	28.1						32	
	Painswick	37	40.7	11	12.1	30	33.0	2	2.2	9	9.9	2	2.2	91
B <sub>2</sub>	Stroud	42	52.3	23	30.3	9	11.8	1	1.3			1	1.3	76

Summary

A	40	47.1	20	23.5	18	21.2	2	2.4	5	5.9			85
B <sub>1</sub>	50	40.7	21	17.1	39	31.7	2	1.6	9	7.3	2	1.6	123
B <sub>2</sub>	42	52.3	23	30.3	9	11.8	1	1.3			1	1.3	76
													n 284

see Table 19 for key.

Table 25.

Migration flows from the Gloucestershire Woollen Cloth Manufacturing  
Region, by Settlement Class. (Removal Orders 'to' post 1795)

Class	Parish	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		
		n	%	n	%	n	%	n	%	n	%	n	%	
A	Stonehouse	28	49.1	11	19.3	14	24.6	1	1.8			3	5.3	57
	Cam	37	67.3	6	10.9	9	16.4	3	5.5					55
	Hawkesbury	43	59.7	10	13.9	10	13.9	2	2.8	7	9.7			72 *
	Kingswood	34	37.4	23	25.3	13	14.3	5	5.5	11	12.1	5	5.5	91
	North Nibley	36	40.9	27	30.7	10	11.4	1	1.1	11	12.5	3	3.4	88 **
B <sub>1</sub>	Bisley	30	30.3	12	12.1	20	20.2	22	22.2	10	10.1	5	5.1	99
	Painswick	55	33.1	20	12.0	27	16.3	47	28.3	10	6.0	7	4.2	166 **
B <sub>2</sub>	Stroud	28	33.7	13	15.7	11	13.3	14	16.9	11	13.3	6	7.2	83
	Dursley	32	43.2	14	18.9	11	14.9	1	1.4	10	14.5	6	8.1	74
<u>Summary</u>														
A		178	49.0	77	21.2	56	15.4	12	3.3	29	8.0	11	3.0	363
B <sub>1</sub>		85	32.1	32	12.1	47	17.7	69	26.0	20	7.5	12	4.5	265
B <sub>2</sub>		60	38.2	27	15.3	22	14.0	15	8.9	21	13.4	12	7.6	157
												n	785	

\* excludes unlocated document

see Table 19 for key.

distance threshold useless. As a result, the data are dichotomised at 32 kilometres and this forms the basis of Tables 26, 27 and 28. The increase in town-town flow is clearly represented. In Table 20 such movement constitutes 41.8 percent of the flow, whereas it increases to 73 percent for long distance Certificate movement. For pre-1795 Removals 'from' the figures are 42.8 and 65 percent respectively; after that date 35.3 and 73 percent respectively. A comparison of Tables 20, 21 and 22, 24, 25 and Tables 26, 27 and 28 shows that, without exception, the percentage of village-town movement increases over long distance. The pattern of long distance out-migration was strongly town orientated irrespective of the status of the settlement of origin. In the post-1795 period there was not only movement upwards in the hierarchy to market towns and union centres, but also to settlements of regional status and above. Before 1795, 28 percent of the movement was directed to these major centres, whereas post-1795 it had increased to 51 percent. Bristol and Cheltenham were the main attractions, but 18 percent of the movement was to London.

Olsson adds two major qualifications to his central place migration model. Firstly, variations in population density and the spacing of settlements might cause deviations from the theoretical patterns as devised by Christaller. Secondly, the model is

"applicable only to migrants seeking advantages which are a positive function of population size. Migration to smaller places, return migrations, compulsory moves etc.; should not necessarily conform with the suggested pattern. Highly specialised labour have alternative migration destinations only in places where their own jobs are available and although these people might minimise effort, this would not be revealed in an overall analysis. These limitations in the validity of the models are in full accordance with central place theory, which does not allow purchases on lower levels than one's own place of residence." (79)

The positive functions of population size relate to the number and variety of goods and services offered by a centre. In migration terms, this is translated into migration opportunities which need not be defined in economic terms, though employment opportunities would seem to be a major component in such a definition. Movement to places lower in the settlement hierarchy can only be accommodated if they are regarded as centres of highly specialised opportunities. In this context, clothworkers will be considered below, in the section on migration differentials.

Tables 26-28Long distance migration to and from the Gloucestershire woollen cloth manufacturing region by settlement classTable 26 Settlement Certificates 'to'

Class	n	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D
A	20	11	3	4	2		
B <sub>1</sub>	23	6	5	8		4	
B <sub>2</sub>	65	18	11	15	17	2	2

Table 27 Removal Orders 'from'Pre 1795

A	11	3	4	1	3		
B <sub>1</sub>	33	13	4	6	4	1	5
B <sub>2</sub>	38	12	8	6	4	7	1

Post 1795

A	70	33	8	23	2	2	2
B <sub>1</sub>	44	19	6	14		3	2
B <sub>2</sub>	54	26	8	7	3	6	4

Table 28 Removal Orders 'to'Pre 1795

A	10	2	3	5			
B <sub>1</sub>	15	2		6	2	3	2
B <sub>2</sub>	7	2	2	1	1		1

Post 1795

A	65	23	11	5	6	9	11
B <sub>1</sub>	72	14	7	11	8	20	12
B <sub>2</sub>	53	12	3	7	2	17	12

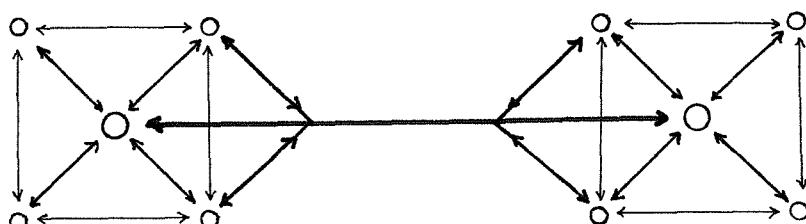
see Table 19 for key.

Summary The limitations of the data are reflected in the simplicity of the approach adopted in this section. The identification of a settlement hierarchy is a necessary basis for examining the central place analogue for migration. Evidence for townward migration is clearly shown for the period after 1795, especially for out-movement and longer distance migration, but that for an upward drift is less evident. This may result from the differential operation of the Poor Law in favour of migrants travelling to more distant and larger settlements. Nevertheless, support for this analogue is very limited in the face of considerable movements downward in the settlement hierarchy. The process of diffusion of information concerning migration opportunities may have some characteristics similar to those expected in a central place model, but this may be coincidental. The town-town flow of information is only part of a chain that extends to the villages making up their hinterlands. In this way, town-village movements are to be expected especially as in the late eighteenth and early nineteenth centuries, rural industry was widespread in Gloucestershire. Figure 39 reflects a pattern of information and migration flow different from that of a central place model (Fig. 36).

Figure 39 A model of migration flows in eighteenth century

Gloucestershire

○ village  
○ town



D - Migration Differentials. This chapter has concentrated on the distance and directions travelled by migrants who came within the administration of the Poor Law. It has been shown that the availability of the information was crucial in affecting these aspects of the decision to migrate. Migration, however, is not a mechanical response to a set of exogenic forces, but a response by individuals whose propensity to migrate varies with age, sex, occupation, family history and other differentials. The following section investigates some of these personal variables which are recorded in the Poor Law documents. Implicit in this section, is the recognition that, by definition, it can only deal with those people who actually migrated and cannot

investigate the rest of the population which either did not migrate or which fell outside the operation of the Law.

Occupations. It is not only the prosperous members of society that are missing from these documents, but also a large group of skilled artisans. Hoskins has identified in the West Country, weavers, hatters, and woolcombers who, as early as 1700, had organised tramping for their fraternity (80). Hobsbawm has claimed that "there was a time when hardly any trade society which provided its members with benefits failed to adopt it" (81). The tramping system was effective for organised and apprenticed workers. It was widespread even in the early nineteenth century, affecting masons, bakers, printers, coopers, carpenters, paper makers, hatters, curriers and corders. A 'blank' or 'clearance' was carried by the artisan to be presented to the local secretary or relieving officer at a call house where food, lodging and a small allowance would be provided. If no work was available then the tramp continued. This device created a mobility and self-sufficiency in the face of periodic seasonal unemployment. "The main problem to the artisan would not be the Settlement Laws but craft exclusiveness in many towns especially in the earlier period in the eighteenth century and when industry was retracting" (82).

Several other difficulties should be noted in using Poor Law data to investigate the particular differential of occupation. Firstly, the data are very imperfect. All too frequently Certificates omitted this detail and registers, almost without exception, did the same (83). Examinations carry more frequent references as service and apprenticeship had an important bearing on Settlement liability, but of the cloth parishes, only Bisley, Dursley, Painswick and Stonehouse have sufficient Certificate and Examination data for analysis. Appendix 10 identifies the occupation and civil status of migrants to these four parishes. Secondly, one cannot be sure whether the occupation stated is that practised by the migrant prior to the move or one acquired subsequently. Only where such detail exists in the Examination or in the Certificate carried by the migrant is it possible to make this distinction. Redford notes that it was frequently the case in pre-industrial England, and in rural districts sometime after the introduction of the factory system, for labouring men to have more than one job. Farm labouring was often combined with craft manufacturing to accommodate the seasonal rhythm associated with both occupations and thereby maximised their labour (84). In these circumstances, Redford wished to investigate whether workers displaced from their trade by technical advances were re-absorbed into

the same industry, either in their own district or in a more rapidly expanding centre. In essence, would distance or previous industrial training influence more strongly the decision to migrate in a period when there was still a great deal of mobility between occupations (85). Some examples of this tendency are found in the cloth parishes. Edward Haines had been hired as a servant in Stroud in 1734, but when examined 14 years later, he was a slaymaker in Painswick. James Gyde learned the trade of gunsmith from his father and worked for three years in London before becoming a butcher. Similarly, Joseph Coake had been apprenticed a tailor though he had left after two years because of slack trade and some forty years later had become a cordwainer. William Saunders had been hired to a Sapperton yeoman for a year, but at his examination in 1743 he had become a scribbler (86). Evidence of similar occupational change can be found in the other cloth parishes though it is less than five percent of the occupations recorded. Minchinton notes that occupational specialisation increased during the eighteenth century. Whereas a prosperous weaver may have held land and property at the beginning of that century this was rare by the end of the century (87). A third problem is that the actual description of occupations is imprecise. The categories farm labourer, labourer, servant and covenant servant may or may not be synonymous. Some labourers were certainly in husbandry, but in these documents others were bakery employees, wagoners and road workers. Similarly, in these documents, covenant servant subsumed domestic servants, farm labourers, a footman, broadweaver, scribbler and clerk. In this section, no distinction is made between these four categories unless the evidence is unambiguous. Labourers and clothworkers constitute 78 percent of all the occupations stated in Appendix 10 and of these one third are weavers. Of the remainder, those in clothing, the building industry and smithing are the most numerous. There are few representatives of personal services or tradesmen, which may be a reflection of the lowly position in the settlement hierarchy of the four parishes. Dursley was a market town and Poor Law union centre, but its population was about 2,000 in Rudder's time (Appendix 4). Bisley was the largest settlement, but it had no identifiable core and was really an amalgam of hamlets overlooking the Frome Valley above Stroud. Table 29 analyses the distances which the two main groups of workers travelled. To eliminate civil status as a variable each sub-group is identified. This analysis suggests that in all cases the median distances travelled are greater for labourers than clothworkers.

Table 29

Distances travelled by groups of workers to  
selected Gloucestershire cloth parishes

	Clothworkers				Labourers			
	a	b	c	d	a	b	c	d
1st quartile	3.8	5.1	5.1	4.5	4.7	6.4	5.1	5.8
median	6.4	10.6	7.0	7.0	8.3	11.5	9.3	10.2
3rd quartile	9.4	50.6	30.4	23.7	18.9	39.0	17.1	20.5
n	149	34	93	276	62	16	39	117

key

source : Appendix 10

- a unattached males
- b man and wife
- c married couple with family
- d overall

distances in kilometres

2 female clothworkers and 7 female servants are omitted.

This might be unexceptional, in that one would expect that within a cloth manufacturing region the density of job opportunities would be high for the latter group of workers. The hypothesis, that no real difference existed between the median migration distances of clothworkers and labourers, is rejected for the sub-group of unmarried clothworkers who find it easier to obtain local work. For married couples and those with families there is no real difference between the two groups of workers (88).

It has already been suggested that long-distance migration should be regarded as a response to somewhat different processes compared with the regular town-country interaction of short-distance movement. In this data, 24 percent of all the clothworkers travelled long distances ( $> 32$  kms.), reflecting a well defined link with the cloth towns of Shepton Mallet, Frome and Bradford (89). In fact, 23 of these migrants were card makers, all of them resident in Dursley and of which 13 came from Frome (90). There are also migrant clothworkers from other textile regions. Another cardmaker came from Colchester, whilst woolcombers came from Newbury, and Stoke Fleming (Dartmouth), feltmakers from Stofford (Yeovil) and Ashton-under-Lyne and weavers from Stourbridge, Worcester and Burford. Some 16.2 percent of the labourers travelled long distances but there is no evidence of such well defined streams. Covenant servants came from Bristol, Halesowen and London, but where

farm labourers have been identified with certainty, the majority originate from the Vale of Gloucester, but very few from the Cotswold parishes that are no further away. This may support Pelham's contention that the 'close' parishes operated against the free movement of their inhabitants so that a reserve of labour would exist in arable districts to meet the potential shortage of harvest labour (91). Rudder had noted that farm mergers and conversion to pasture had caused an outflow of young people from the Vale to market towns and the hill country (92). The data are dichotomised at 32 kilometres to test the hypothesis that the patterns of short and long-distance migration did not differ significantly in any of the groups identified in Table 29. Only cloth working families are shown to have to travel significantly greater distances (93). The conflicting evidence of these last two tests suggests that observed differences may be a function of chance and further testing in other regions is required. Equally, these differences may result from the unique situation in the region rather than as support for a more general statement on migration differentials.

Within the central place model of migration, the well defined long distance stream from Wiltshire and Somerset cloth regions might be regarded as a specialist stream which may move downwards in the urban hierarchy (see p. 180). It is true that some branches of the industry such as cardmaking, dyeing and fulling could be regarded as highly specialised, but it is also true that apprenticeship regulations were frequently ignored and many workers had more than one source of livelihood. Certainly the weavers and the category grouped as cloth-workers (Appendix 10) should be regarded as less specialist and a reciprocity of movement between parishes, irrespective of hierachal status, as commonplace. In these circumstances Olsson's specialist migration streams cannot be identified with any confidence and this particular qualification to a central place model of migration remains untested. Nevertheless, the strong inter-regional movement noted above suggests that occupational links were important in establishing specific migration streams in the cloth industry. It has already been established that distance and intervening opportunity result in Dursley, rather than Stroudwater, acted as a focus for Somerset-Wiltshire out-migration. Redford observed that there was but a weak link between the West Country and the West Riding in the 1840's and that movement from the former area to Birmingham, South Wales, London and abroad emphasised that movement was not governed by occupational experience but by distance (94).

The data for checking this observation lie outside the main study area and are less useful by mid-century, but there is some evidence to suggest that such long distance occupational links should not be completely discounted. Employment for 18 Bisley parishioners was found in Yorkshire and for 66 in a Shrewsbury flax factory through the efforts of parish officers (95). There is evidence of a counter-flow from Yorkshire to Eastington which had been a flourishing centre in the first 40 years of the nineteenth century (96). By contrast, there are only 2 removals back to Yorkshire from the cloth parishes (97).

Civil Status. Poor Law documents are more complete in detailing the civil status of migrants entering the cloth parishes (Tables 30 and 31). Certificates show that 17 percent of the extant documents are for unaccompanied males, 3.6 percent for unaccompanied females, 3.2 percent for females with children, 20.6 percent for married couples and 37.2 percent for families. The single man had no difficulty in being accepted by another parish, but the liability of the family man is particularly noticeable. The relatively small group of women migrants cannot be seen as contrary evidence to one of Ravenstein's Laws, but reflects the hope held by the officers of the parish of legal settlement that the freedom of a spinster to move would result in a marriage elsewhere, thereby reducing their burden. The lower age of marriage of spinsters compared with bachelors and the availability of domestic work or domestic carding and spinning would also militate against female movement. The vulnerability of single women outside their parish of legal settlement would imply that a Certificate was a necessary insurance policy and their absence can be interpreted as a differential effect of the law rather than of migration.

Whereas Table 30 shows the relatively low percentage of certificated single male migrants, Appendix 10 shows that this group constituted over half the sample. This discrepancy is noticeable even if the 'and family' category is regarded as an indication of a future state of the single male. The presence of a large group of single male covenant servants, labourers and clothworkers in Appendix 10 is to be expected in a cloth manufacturing region, despite the importance of female labour providing an important secondary source of income for the family. In Appendix 10 the male dominance of the industry is reflected in that 129 weavers account for a quarter of all occupations recorded. Randall's view, that it might be advantageous for skilled migrants to have their occupations stated (98), cannot be regarded as a satisfactory explanation, as relatively few of the extant Certificates contain such detail.

Table 30

Civil Status of Certificated migrants to selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region.

Parish	M	MC	Mch	MCch					F	WSp	SpP	Wi	Wich	Wch	Ch	n	
				1	2	3	4	5									
Bisley	29	32		17	19	14	7	4	1	21	2	1		2	2	151	
Painswick	36	45		18	22	12	11	7	3	44	4	1	4	4	2	1	214
Rodborough	9	26	3	24	12	10	4	2		15	3		1				109
Stonehouse	7	12		5	13	1	6	2	5	14	2		1	2		1	71
Stroud	22	31		22	14	15	3	4	4	22	4		2	5	1		149
Cam	15	12	2	5	1	5	3	7	1	2		1	1		1	3	59 +
Dursley	51	30	2	20	6	12	6	1	6	5	3		3	1	6	2	154 +
Hawkesbury	10	4		5	3	1	4	2		14		2		1			46
Kingswood	5	13	1	8	1	2				23			1	1	2		57
North Nibley	6	8	1	7	6	2	1	1		8	5			1	3	1	50
n	190	213	9	131	97	74	45	30	20	168	23	5	13	17	17	8	1060
%	17.9	20.1	0.8	12.4	9.2	7.0	4.2	2.8	1.9	15.8	2.2	0.5	1.2	1.6	1.6	0.8	

Key

M	Unaccompanied male
MC	Married Couple
Mch	Male and child(ren)
WSp	Unaccompanied female, wife or spinster or unspecified female status.
SpP	Pregnant spinster or widow
Wi	Widow
Wich	Widow and child(ren)
Wch	female and child(ren)
Ch	Unaccompanied child

F 'and family' or 'wife and family'. Wife 's name not specified. This was often a general format to cover the eventuality of the certificate holder acquiring dependents who would take his legal settlement. Styles belief that this format is less common after 1730 as justices were invoking a law of derivative settlement is broadly substantiated in Gloucestershire. (99) see page 52. It is unwise to make any assumption about the civil state of this group unless the number of children is stated. The existence of this group reduces the value of any form of statistical testing in which differences between Removal Orders and Certificates are explored.

Unless otherwise indicated, apprentices are not included.

+ Differences between this table and Table 8 result for incomplete data. Registers and Documents both used

Table 31

Civil Status of persons for whom Removal Orders issued from selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region.

Parish	M	MC	Mch	MCch					F	WSp	SpP	Wi	Wich	Wch	Ch	n	
	1	2	3	4	5	5											
Bisley	18	14	5	11	24	13	5	5	3	38	8	7	10	9	10	183	
Painswick	35	36	7	25 <sup>+</sup>	25	18	22	9	7	5	57	14	4	8	20	14	306
Stonehouse	13	9	2	7	6	4	7	7	1	27	17		4	5	3	112	
Stroud	27	17	6	18	24	13	16	3	6	45	20	1	11	15	7	231	
Cam	9	17		15	14	14	5	5	6	6	12	1		4	3	111	
Dursley	14	38	4	27	25	20	12	5	9		27	14	7	3	26	3	234
Hawkesbury	9	7	1	11	9	11	8	5	3	2	20	12	1	2	2	4	107
Kingswood	14	19	2	13	15	16	13	3	4		8	7	3	7	9	3	136
North Nibley	5	17	2	21	14	12	8	3	3		26	14	1	7	4	4	141
n	144	174	29	148	156	121	96	45	41	13	254	118	25	52	94	51	1561
%	9.2	11.1	1.9	9.5	10.0	7.7	6.1	2.9	2.6	0.8	16.4	7.5	1.6	3.3	6.0	3.3	

<sup>+</sup> Includes an apprentice.

see Table 30 for key

Wrigley has concluded from the growing volume of family reconstitution studies of seventeenth and eighteenth century England that the young and single were most mobile and that marriage acted as a constraint to movement (100). Thus, it would be wise to regard the sub-set of Certificates recording occupations as having an unexplained bias.

The evidence of Removal Orders is different from that of the Certificates. The single man forms an even smaller proportion of those who required assistance. Married couples and couples with children make up 11.1 percent and 38.8 percent of those for whom Removal Orders were issued, but the vulnerability of the female and of children is most evident. A third of ~~the~~ all the Orders were for these groups and the lack of evidence concerning migratory females in the Certificates may be seen more clearly as a differential effect of Poor Law administration. Pregnant spinsters or widows constitute a particularly vulnerable group as the bastard took its birthplace as that of legal settlement. Table 29 suggests that the unattached male labourer or clothworker was more likely to find work closer to his parish of legal settlement than the married man with or without a family. These directional hypotheses are tested and whether the median distance or a threshold of 32 kilometres is adopted, no evidence is found for regarding civil status as a significant variable in explaining variations in migration distances (101).

Age as a Migration Differential. Lee has hypothesised that there is a heightened propensity to migrate at certain stages of the life cycle (Appendix 3). Settlement Certificates do not provide evidence to test this particular migration differential and one can only subjectively interpret Table 30 on the basis that the high percentage of unaccompanied males, married couples, with or without family, implies that certificated migrants were predominantly youthful. Such people, whether having entered the labour market or marriage or having recently acquired dependents are at critical periods in their life cycle. Migration is seen as one response to the need to seek an improvement in material well-being. An analysis of the Examinations in Table 32 shows a preponderance of young migrants (< 35 years). The directional hypothesis that youthfulness is a significant attribute of migration was accepted (102). The high proportion of families in this category is to be expected, but the presence of a large proportion of single men, 50 percent of all examinees in Appendix 10, is surprising in view of the general belief that this category was the least vulnerable to the administration of the Poor Law. A small number of these examinees were witnesses rather than the object of a potential removal, but it is more likely

that the Law is again the critical factor. After the 1795 Amendment the cost of removal was to be borne by the issuing authority. Out-door relief for the married man and his family in the parish of residence would be cheaper than implementing a Removal Order. The single man could be removed more cheaply. Table 31 does not provide support for this interpretation as < 10 percent of the Removal Orders were for single men. The variation in unaccompanied females between Table 32 and Appendix 10 is more easily explained. Their occupational status would be less worthy of comment in an Examination, though the evidence of Removal Orders would suggest that more than just 9/410 examinees in Appendix 10 should have been female.

Table 32

Age and Civil Status of Examinees in selected parishes in the Gloucestershire woollen cloth manufacturing region.

	1				2				3				4				n	%
	B	P	S	D	B	P	S	D	B	P	S	D	B	P	S	D		
65	1	3			2	1	2			1		1		1	12	4.7		
65-50	2	1	2	1	2				4	2	4	1	1	4	24	9.4		
49-35	3	2	13	1	2		3	1	8	3	20	2		4	62	24.2		
35		9	37	1	3	6	13	1	6	9	37	3	7	6	18	158	61.7	
n			76			36				100				44		256		
%			29.7			14.1				39.1				17.2				

key

1	single males	B	Bisley
2	married couples	P	Painswick
3	couples with children	S	Stonehouse
4	females with/without children	D	Dursley

Table 32 also shows that whereas 14.1 percent of the examinees were over 50 years of age and of these 4.7 percent were over 65, the 1841 Census placed 17.3 percent and 6.9 percent of the population of three of these four parishes in these two age bands (103). The older workman was more vulnerable to illness and underemployment than the younger worker and there was a tendency for parishes to remove such people towards the end of their working lives. In this sense, migration cannot be seen as a linear process, but rather a cyclic one, in which people are returned to their place of legal settlement after a gap

of many years. The place of legal settlement would then have to bear the financial responsibility for the aged and sick. It was this attitude that rural parishes sought to counter and which ultimately led to the irremovability clauses in mid-nineteenth century amendments to the Poor Law (p. 45). However, it is not shown statistically from these four parishes that the older migrant was more vulnerable than any other age group. (104). This need not lead to the dismissal of the belief that such groups were more likely to be removed, but that in a period of general economic decline such differences were minimised.

E - Temporal Variations in Migration. The emphasis in this Chapter has been on the spatial aspects of migration as revealed by Poor Law documents, but some consideration of temporal variations is also necessary. In this context, Settlement Certificates are of a little value as variations in their number reflect chance survival and Poor Law administration rather than economic factors. Removal Orders, however, may indicate not only the difficulties encountered by the individual, but if aggregated, a pattern that reflects the economic vicissitudes of particular settlements and regions. Appendix 8 aggregates the extant Removal Orders, by quinquennia, for all the Gloucestershire cloth parishes for which at least 25 documents have survived. Figure 40 graphs the quinquennial running means for 25 year periods for the two cloth regions. To aid a visual comparison, the values for the southern cloth region have been doubled to weight the populations of the two regions (105). This was thought desirable as no attempt is made to interpret the volume of movement only its temporal pattern. The pattern for individual parishes is shown in Figure 41. The unknown and differential survival rate of documents remains a major problem, while the relatively few documents between 1662 and the end of the seventeenth century and again after 1840 may be explained in terms of the Law's administration rather than in economic terms. The economic difficulties of the latter period are highlighted in the inter-censal population changes (Fig. 18, Appendices 4 and 6) and reinforced in the marginal notes by the enumerators. It is not until 1865 that the Union Chargeability Act was passed, yet only six Removal Orders post-date 1850 in the two cloth regions. This discrepancy is explained by Coode who noted the

"action of the common Board of Guardians in administering relief to all the poor of all the parishes, the allowance of non-resident relief as between the parishes in the union, the relief in the workhouse made to operate as relief in the parish of settlement rapidly reduced the occasions of question

and actual removal ..... and that lately the privilege of residential irremovability, though it has raised questions innumerable between the several parishes in the unions, has made the cases for removal still fewer and its effects in this direction must daily increase." (106)

The 1847 Amendment embodied these changes to which Coode referred, but it is probable that such practices pre-dated legislation.

Figure 40 shows a remarkable similarity in the trend profiles of the two Gloucestershire cloth regions. One would expect that the overall growth of population in the eighteenth century, especially in its closing decades, would be reflected in an increased incidence of movement and subsequent removals. The general rise may reflect the long period of economic stagnation which the cloth industry suffered from the late 1720's until the mid 1770's. Competition from a growing European industry and a levelling off of the Levant trade under-pinned this trend, though the Seven Years War (1756-63) brought a temporary upsurge for military cloth for both the East India Company and the forces in America.(107). The trend for removals in the northern parishes is downward at this time, but the southern parishes engaged in other sectors of production were less fortunate. The bad harvest of 1756 exacerbated these local difficulties and contributed to the weavers' six week strike in support of the 1728 wage provision (108). The post-war depression in the Stroudwater region was due to the collapse of the East India Company trade (109). Rudder notes that Chalford, Horsley and Alderley were all in a state of decline at the end of the decade (110). Chalford was the main centre for this coarse trade. The 50 years from 1775 remained essentially a period of prosperity. There had been a temporary rise in unemployment following the disruption and violence of 1802 and the discharge of soldiers who had been weavers, after the Peace of Amiens in 1802. The northern parishes do show this slight rise, but on balance, the French Wars brought prosperity to the cloth areas (111). The interpretation of Figure 40 in economic terms requires that a distinction is made between the prosperity of the clothier and that of his employees. The trend of Removal Orders is downward for the war years, but rises steeply after the peace. Yet, in the same period and up to 1825, Gloucestershire mill owners continued to rebuild and enlarge their mills as new machinery was introduced. The late eighteenth century saw the beginnings of the processes of geographical concentration and industrial rationalisation in the cloth industry. This coincided with a period of rapid population growth in the Stroud area. Chalford and Nailsworth mushroomed with the cottages of weavers

Fig 40 REMOVAL ORDERS FROM THE GLOUCESTERSHIRE  
CLOTH MANUFACTURING REGIONS

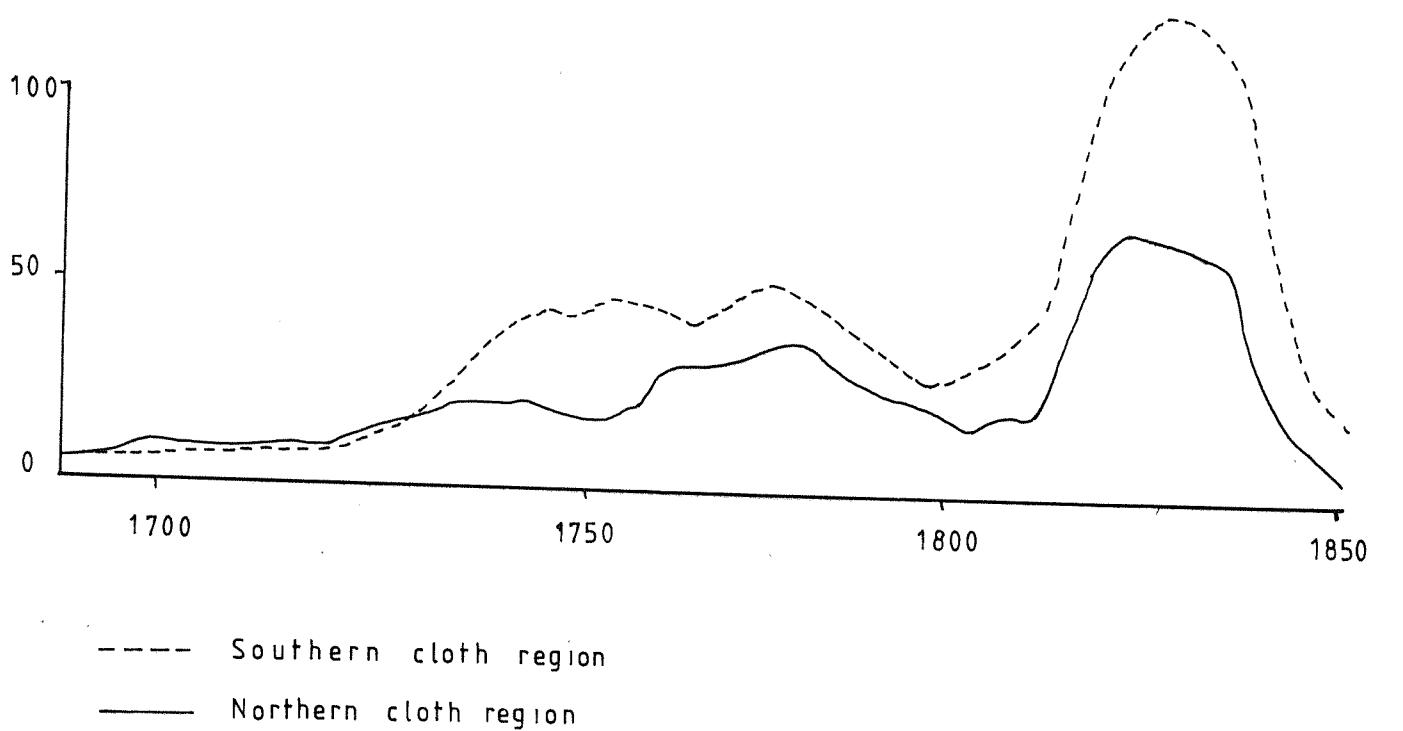
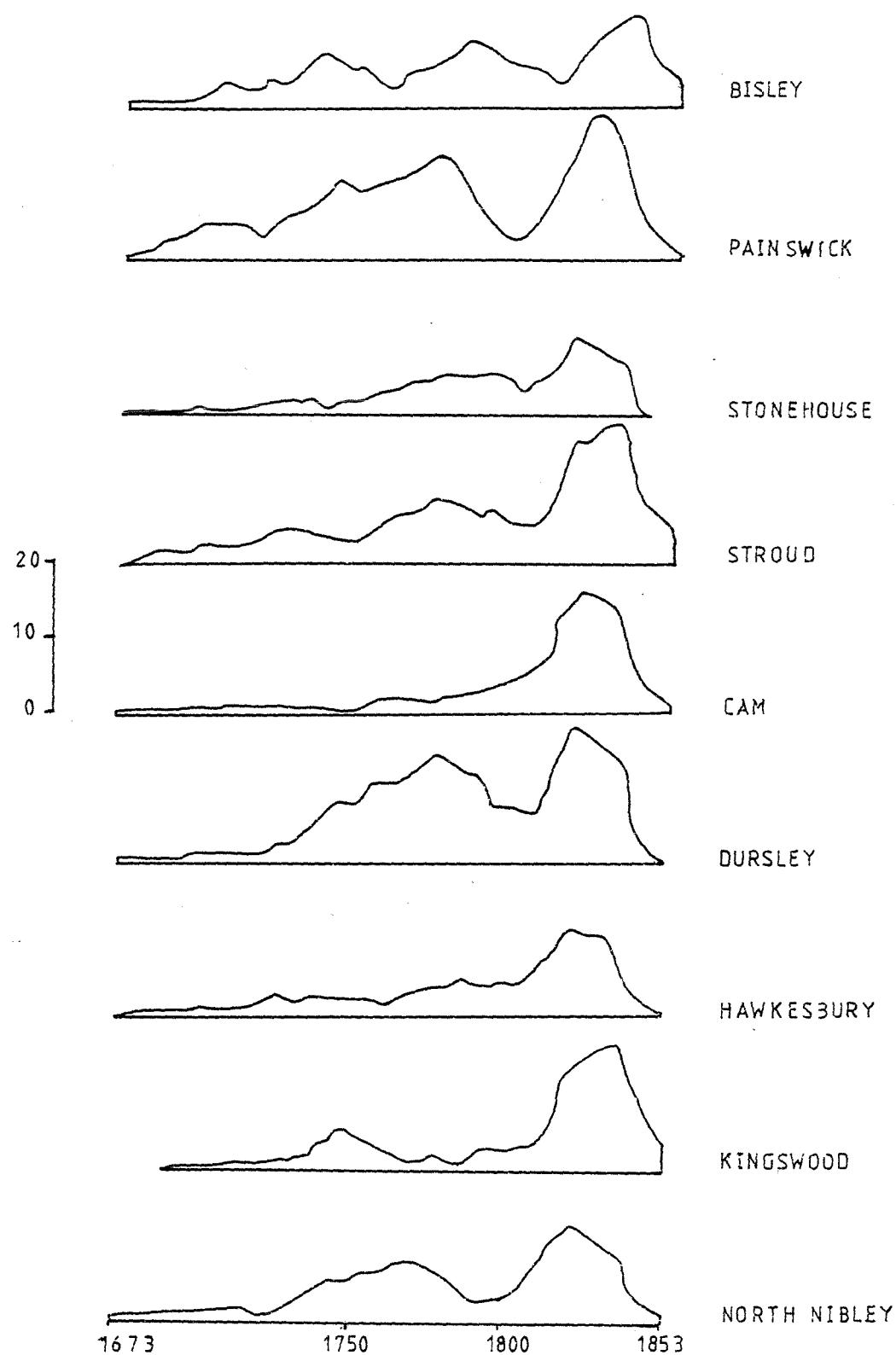


Fig 41 REMOVAL ORDERS FROM SELECTED PARISHES  
IN THE GLOUCESTERSHIRE CLOTH  
MANUFACTURING REGION



and spinners (112). Morris comments that in the period up to 1806 machinery brought prosperity to both particular towns and particular clothiers rather than unemployment (113), but Turner in his report to the Board of Agriculture notes that mechanisation brought unemployment and a sharp rise in the poor rate in Stroudwater (114). Rudge in his report is sensitive to the effect that the reorganisation and mechanisation of the industry had on domestic employment over an area 40 miles around the core region (115). It was this, as much as the lack of water power noted by Rudder, that was responsible for Tetbury's decline as a cloth making centre (116).

The peak period of extant Removal Orders is between 1826 and 1830, which was certainly a period of temporary, but major crisis for the industry in Gloucestershire (117). The market in South America collapsed as loans were not made available to the post-revolutionary governments. In the United States a major tariff rise was introduced, while at home the failure of numerous county banks and the wave of strikes which followed the repeal of the Combination Acts all increased the manufacturers' difficulties (118). Gloucestershire firms found themselves much more vulnerable to domestic competition from the West Riding (119). These difficulties also affected the cloth manufacturers of Wiltshire and Somerset. These latter areas, like Dursley, were particularly affected by the American tariff changes which slackened the demand for the cassimeres upon which much of their prosperity rested. It was not only the handloom weavers who suffered, but also other clothworkers, as some of the capitalists in the Cam and Dursley areas withdrew from trade while their fortunes remained intact. The Factory Commissioners noted that in a three year period, prior to their visit to the area, some 12 out of 19 manufacturers had closed (120). Whereas the 1821 Census marginal notes identified an increase of population in Stroud and the flourishing state of the clothing trade (121), in 1826, nearby Bisley, had over 2,000 unemployed and 450 on half work out of a total population of 6,000 (122). A decade later, removals from both Gloucestershire regions remained high. By 1838 only 13 mills remained active in the southern region employing 482 operatives. Further north, the first spate of mill closures occurred in the side valleys of Horsley, Avening, Painswick, Slad and Nailsworth (123). There were 66 mills in Stroudwater employing 4,673 operatives, of which 14 mills were in Stroud itself (1,299 workers) and 12 in Minchinhampton (785 workers) (124). In a more competitive period mechanisation had now created over-production, over-investment and an over-dependence on traditional cloths which the now

rapid change-over of firms and mill closures emphasised. Structural and cyclic unemployment were compounded. The Removal Orders do not show the full extent of the crisis in the period 1839-49 when 30 mills closed. By 1856, no mills remained in Dursley or Wotton under Edge and only two in Uley and a single mill in Painswick (125). W. A. Miles, one of the assistant commissioners investigating the plight of the hand-loom weaver, observed that 137 mills were in operation in Gloucestershire in 1820, but only 79 remained in 1839. There had been 85 bankruptcies since 1816 (126). Shepherd's mill closed in Uley, in 1837, leaving over 1,000 unemployed. In the Stroud Union 70 percent of the out-door weavers had to receive occasional outside relief in the late 1830's. Bisley was even more severely depressed. Its population in 1831 was 5,896 and in 1838 3,501 paupers were being relieved (127). Many left for America and Australia, others migrated to the Merthyr Tydfil ironworks (128). The story is repeated in the southern cloth region as the marginal notes of the 1841 and 1851 Censuses bear witness. Figures 40 and 41 are thus very misleading for the post 1841 period. Equally, they do not reflect the recovery of the Stroud area during the 1850's. It was not until some 20 years later that this area entered the long period of contraction in cloth making from which it has never recovered. The 1861 Census highlights these salad days when employment reached a peak of 7,050 (129).

This short summary of the fortunes of the county's cloth industry is superficial, but de Mann and Tann both show that the fluctuations in prosperity were not only frequent but differentially affected firms and parishes within the two regions (130). The volume of Removal Orders that survive for individual parishes is inadequate for the task of closely matching or indicating these frequent changes. No one parish has even an average of 10 Removal Orders for any one year (131). The documents, in general terms, can be used as an indicator of unemployment which in aggregate reflect periods of economic difficulty. In this sense they act as a starting point for more detailed investigations. The reduction in their use in the 1840's, some 20 years before parochial responsibility for the poor was finally extinguished, is a major drawback at a time of significant change in the geographical and structural components of employment opportunities.

F - Summary. This Chapter has attempted to throw light not only upon the spatial and differential characteristics of the eighteenth century migration process, but inevitably upon the nature of the data sources being used.

That short-distance movement was dominant is only a re-statement of that which has been established by other researchers. The cause lay in the restricted nature of the working man's mean information field rather than in restrictions imposed by the Certificate system. Conversely, if this system encouraged mobility, it is not reflected in significant increases in the proportion of long-distance migrants. It was demonstrated that, after 1795, the Stroudwater region did exhibit such a tendency though an explanation is sought in that region's economic buoyancy rather than in modifications to the Settlement Laws. The recognition of long-distance migration as a separate phenomenon is justified by the identification of the significant towward flow of migrants especially in the early nineteenth century and of inter-regional links between the cloth regions of the West Country. Shorter distance movement was not without definite streams, but here personal ties, the system of 'open' and 'close' parishes and restrictive practices of wealthy arable farmers prove to be of major significance. The differential operation of the Laws will be explored more fully in the next chapter.

To test the validity of a central place analogue of migration in an historical context, a settlement hierarchy was proposed. The symbiotic relationship between market towns and their surrounding countryside at this time, was not only a function of a servicing role, but also a result of widespread rural manufacturing. Consequently, contrary to the model, movement downward in the hierarchy appeared frequently.

An examination of the migration differentials of occupation, civil status and age showed only the latter to be significant. More clearly revealed is the differential effect of the Laws on certain civil groups, thus throwing more light on the data source rather than on migration processes. Nevertheless, it emphasises the importance of placing migration studies within their particular socio-legal environments. Ravenstein had proposed that females were more migratory than males in short-distance movement, but unfortunately the nature of the data did not allow this hypothesis to be tested.

Finally, some consideration was given to the value of Poor Law documents as indicators of temporal variations in the economic fortunes of the cloth industry. The vagaries of parochial administration eliminate Certificates in this context, but aggregated Removal Orders prove more valuable for the eighteenth century and up to 1840.

Chapter 6 attempts to gauge whether the cloth parishes generated special migration patterns and to examine further the validity of Poor Law data as a basis for migration studies. To this end, consideration

will be given to collections of Poor Law documents in other Gloucestershire parishes, the findings of studies from other regions and the evidence from the Enumerators' Returns and Marriage Registers for the cloth parishes.

1. This method was thought to be preferable to that employed by Sogner (see note 26 Chapter 1) who only distinguishes movement between contiguous parishes and at the intra-county and inter-county levels. The accidents of spacing in relation to the arbitrary divisions imposed by a county boundary reduce the value of this classification of movement. The method adopted here, however, also has limitations in presupposing that the population is all resident in one nucleated settlement. In large parishes, where townships are not identifiable, this could represent a major source of error. In this thesis the major settlement is used as the point from which measurements are made in the belief that over a very large sample errors would cancel each other out.  
 Source for Table 8. The Certificates for Cam are lodged with the incumbent, those for Dursley in the Gloucester City Library (G.C.L. 8200) and the rest in the Gloucester Records Office, in the Overseers' Papers. Bisley, P.47; Kings Stanley, P.190; Painswick, P.244; Rodborough, P.272a; Stonehouse, P.316; Stroud, P.320a; Hawkesbury, P.170; Kingswood, P.193 and North Nibley, P.230.  
 The Dursley collection includes both documents and two registers which include both Certificates and Removal Orders. The first register contains an initial list up to 1707 with additions up to 1765. The second register runs from 1767 to 1836. The two registers have only 3 duplicate entries for Certificates and 2 for Removal Orders. A comparison of the documents and registers allows 7 Certificates to be identified from the latter but which are missing from the documents. Only 8/151 documents are not in the registers, though the value of the first register by itself, is very limited as it is primarily a listing of Certificates without date or place of origin. Fourteen entries from this collection prove unmappable.  
 Stroud possesses the largest collection of registered data (470 entries) and only 10/149 documents do not appear in the two registers. (OV3/5/1-OV3/5/2)
2. Ralph, E. and Smith, B.S. (1972) A history of Bristol and Gloucestershire (Beaconsfield : Darwen and Finlayson), 71-97.  
 Cox, C. (1973), 'Transport' in Hadfield, C. and Hadfield, A.M. (eds.) The Cotswolds. A new study. (Newton Abbot : David and Charles), Figure 22, 150, is based on Tunnicliffe's map of the 'Great Roads' c. 1780.

3. Cox, C. op. cit., 153-4
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- Maltby, B. (1971), 'Parish registers and the problem of mobility', Local Population Studies 6, 32-34.
4. Pierce, E.M. (1957) Town and country relations in England and Wales in the pre-railway age as revealed by poor law unions, (unpub. M.A. thesis, University of London), 35.
5. Ibid., 24.
6. Ibid., 42.
7. Ibid., 106.
8. Ibid., 337.
9. This would only be true if all unions were elongated in shape.
10. Sources for Tables 11, 12, 16 and 17. Removal Orders for Cam are lodged with the incumbent, see note 1 above.  
The Dursley collection provided 267 Removal Orders of which only two could not be mapped. Thirty-four entries in the registers had no corresponding document, whereas 25 documents could not be located in the registers.
11. Hågerstrand, T. (1965), 'A monte-carlo approach to diffusion', Archives European Sociologicales VI, 43-67. Hågerstrand uses migration data to estimate the effect of distance as a surrogate in assessing the contacts required for diffusion to occur. From this, a mean information field is derived. He is dealing with rural Sweden where word of mouth contact was crucial. Distance is seen as a major element in explaining the nature of this contact and the consequent diffusion of innovation. It is felt that this approach is particularly useful in this study where the diffusion of information depended very much on the same direct contacts.  
Idem (1957), 'Migration and area', in Hannerberg, D., Hågerstrand, T. and Odeving, B. (eds.) Migration in Sweden (Lund Studies in Geography, Series B; Human Geography : Gleerup), vol. 13, 113.
12. Ibid., 115 et. passim.
13. Ibid., 116-7.
14. Having calculated the product-moment correlation, it is necessary to test whether the coefficient is significant in statistical terms, i.e. where the value is so extreme that the probability of it having occurred as a result of chance in a particular sample is evaluated. Here  $\alpha = 0.05$  and the degrees of freedom are  $n - 2 = 8$ . A directional one-tailed test is used so that a correlation coefficient,  $r > 0.549$  is sufficient to reject the null hypothesis (see Ebdon, D. (1977) Statistics in Geography (Oxford : Blackwell)),

80 and Appendix C8, 183).

Two assumptions are made.

1. That the transformed data is normally distributed.
2. That the extant documents are unbiased as a sample of all the documents issued. This statistical definition of bias is different from that identified in Chapter 3 and later in this Chapter. In a statistical sense it relates to the requirement that each item forming the sample has an equal probability of being selected. Here, all the extant documents form the sample from the statistical population of all the documents issued and there is no way in which the validity of this assumption can be verified.

15. The case of the petitioners for a new road from Stroud to the City of Gloucester (1816). G.C.L. J.F.9.12.6.

16. Turner, G. (1794) General view of the agriculture of the county of Gloucestershire. Report to the Board of Agriculture, 40.  
Marshall, W. (1789) Rural economy of Gloucestershire (2 vols; 2nd edition, 1796; London), vol. 1, 14.  
Smith and Ralph, op.cit., 95, note that the cost of moving spanish wool by water from Bristol to Gloucester was  $1\frac{1}{2}$ d. per cwt. but from Gloucester to Stroud by road the cost was 3d. in summer and  $4\frac{1}{2}$ d. in winter.

17. Rudder, S. (1779) History of Gloucestershire (Circencester), 289 (Bisley), 592 (Painswick).

18. Fisher, P.H. (1871) Notes and recollections of Stroud (London : Turner), 150.

19. If hypotheses are to be tested rigorously then one is faced by several difficulties. Firstly, the hypothesis must be stated unambiguously, Secondly, it has to be made operational. All too frequently in human geography, one is faced with a major problem of isolating the characteristics which are to be measured. Here, the Removal Orders are grouped so that those issued after the end of the Certificate system in 1795 are not considered. Even so, the Certificates and Removal Orders are not strictly comparable because both series include some data from pre-1697, though in volume and effect their inclusion is not important. It can be argued that the law codified existing practice and no major technological, economic or social change occurred in the second half of the century to invalidate their use. A greater difficulty exists in that Removal Orders do not of necessity

isolate earlier movement (see page 52) and where they do, it is not the date of the 1795 Amendment, but an unknown period prior to it that marks the actual migration. Thirdly, there may be a bias in the sample that cannot be identified, but probability suggests that the larger the data set the more likely it is to be representative of the population. Even the largest collection of Certificates, some 480, is spread over 120 years. In these circumstances the use of the Chi Square test and the Kolmogorov-Smirnov test which bring greater precision to the analysis, need to be handled circumspectly.

20. Hypothesis. Settlement Certificates do not show a more restricted migration field than contemporary Removal Orders

Parish	D Value	Critical D Value	Accept null hypothesis
Bisley	0.23	0.18	x
Painswick	0.11	0.14	+
Stonehouse	0.12	0.25	+
Stroud	0.04	0.15	+
Dursley	0.07	0.16	+
Hawkesbury	0.12	0.30	+
Kingswood	0.291	0.292	+
North Nibley	0.09	0.25	+

x reject + accept

Kolmogorov-Smirnov test. two-tailed test, large samples,  $\alpha = 0.05$  see Siegl, S. (1956) Non-parametric statistics for the behavioural sciences (Tokyo : Kogakusha), 128-136. A directional one-tailed test was at first used, but this provided zero results on those occasions for which the Removal Orders exhibited a cumulative frequency curve greater than that for the settlement Certificates; for this reason the two-tailed test was preferred and the assumption adopted was that in combination with a more restrictive slope value a clearer picture of support for the initial hypothesis could be gauged. Occasionally the sample was  $< 40$  which is regarded as the threshold for large samples, but the alternative form of the test was not adopted as it was considered that the comparability of results from one test was more important. As the two independent samples were never of equal size it would have

been even more inappropriate to adopt that form of the test. Only movement < 80 kms. was included. This excluded only 1.7 percent of both Certificates and Removal Orders in this hypothesis as it was felt that the extra calculations resulting from their inclusion was unwarranted.

21. Ibid., 136.

22. Chi Square test. Siegl, op. cit., 104-111. One-tailed test  $\alpha = 0.05$ ,  $df = 1$ , Table value  $\chi^2 = 2.71$ . Calculated values - Painswick  $\chi^2 = 0.02$ , Bisley  $\chi^2 = 0.05$ .

23. Hypothesis. There is no significant distance in the migration fields shown by Removal Orders 'from', before and after the 1795 Amendment.  
(IN-MIGRATION)

Parish	D value	Critical D value	Accept null hypothesis
Bisley	0.22	0.21	x
Painswick	0.14	0.16	+
Stonehouse	0.24	0.26	+
Stroud	0.16	0.18	+
Dursley	0.08	0.18	+
Hawkesbury	0.18	0.28	+
Kingswood	0.13	0.27	+
North Nibley	0.16	0.23	+

x reject + accept

Kolmogorov-Smirnov test. see note 20.

Hypothesis. There is no significant difference in the patterns of out-migration, shown by Removal Orders 'to', before and after the 1795 Amendment (OUT-MIGRATION)

Parish	D value	Critical D value	Accept null hypothesis
Bisley	0.32	0.28	x
Painswick	0.42	0.18	x
Stroud	0.29	0.24	x
Hawkesbury	0.20	0.29	+
North Nibley	0.17	0.24	+

x reject + accept

Kolmogorov-Smirnov test. see note 20

24. If  $\alpha = 0.10$  rather than 0.05 the calculated D value would have exceeded the table value. The one-tailed test originally used had produced exactly the same result as in note 23. In this case no zero  $\chi^2$  value was recorded.

25. Hypothesis. There is no significant difference in the patterns of in-migration (Removals 'from') and out-migration (Removals 'to') either before or after the 1795 Amendment

Parish	D value	Critical D value	Accept null hypothesis
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Pre 1795

Bisley	0.15	0.28	+
Painswick	0.13	0.18	+
Stroud	0.04	0.21	+
Hawkesbury	0.13	0.33	+
North Nibley	0.27	0.25	x

Post 1795

Bisley	0.09	0.22	+
Painswick	0.15	0.16	+
Stonehouse	0.13	0.25	+
Stroud	0.11	0.22	+
Cam	0.07	0.24	+
Dursley	0.06	0.22	+
Hawkesbury	0.13	0.23	+
Kingswood	0.12	0.20	+
North Nibley	0.09	0.22	+

x reject + accept

Kolmogorov-Smirnov test. see note 20.

26. See Chapter 2, note 72.

27. Mann, J. de L. (1971) The cloth industry in the West of England from 1640-1880 (Oxford : Clarendon Press), 32. Movement into Bradford upon Avon and Trowbridge rarely exceeded 20 miles (32 kms.)

28. See note 22

Hypothesis.

There is no significant difference in the patterns of long and short distance migration as shown by each of the pairs of documents listed below.

- a. Certificates and pre-1795 Removals 'from'.
- b. Removals 'from' pre-1795 and post-1795
- c. Removals 'to' pre-1795 and post-1795
- d. Removals 'from' and Removals 'to' pre-1795
- e. Removals 'from' and Removals 'to' post-1795

Parish	a	b	c	d	e
Bisley	0.17	11.37 <sup>+</sup>	4.56 <sup>+</sup>	0.00	0.04
Painswick	8.15 <sup>+</sup>	0.00	4.72 <sup>+</sup>	0.02	6.85 <sup>+</sup>
Stonehouse	0.10	3.08 <sup>+</sup>	n/d	n/d	0.11
Stroud	0.46	9.74 <sup>+</sup>	14.6 <sup>+</sup>	0.00	2.73 <sup>+</sup>
Cam	n/d	n/d	n/d	n/d	0.51
Dursley	0.00	0.00	n/d	n/d	2.38
Hawkesbury	2.48	1.80	0.07	0.49	0.00
Kingswood	0.46	2.00	n/d	n/d	0.43
North Nibley	0.05	2.31	0.09	2.85 <sup>+</sup>	0.46

<sup>+</sup> statistically significant. i.e. reject null hypothesis.

29. It is of course possible that the results of the  $\chi^2$  test in note 28 do not reflect real differences in migration patterns, but the adoption of the particular threshold of 32 kms. by which long distance migration is defined. The data were re-worked adopting 16 kms. as the threshold value. Hypotheses a, d, and e are unaffected, but the new value increases the support for the alternative hypothesis that migration distances increased for both in-migration and out-migration after 1795.

Parish	a	b	c	d	e
Bisley	3.51 <sup>+</sup>	12.8 <sup>+</sup>	10.9 <sup>+</sup>	0.02	1.4
Painswick	6.85 <sup>+</sup>	0.29	2.82 <sup>+</sup>	0.36	0.20
Stonehouse	0.10	5.76 <sup>+</sup>	n/d	n/d	0.50
Stroud	0.79	11.6 <sup>+</sup>	26.1 <sup>+</sup>	0.85	10.2 <sup>+</sup>
Cam	n/d	n/d	n/d	n/d	0.69
Dursley	1.98	2.20	n/d	n/d	0.98
Hawkesbury	0.23	3.84 <sup>+</sup>	3.67 <sup>+</sup>	0.73	2.14
Kingswood	2.27	0.48	n/d	n/d	1.03
North Nibley	0.02	6.03 <sup>+</sup>	0.64	10.4 <sup>+</sup>	0.00

<sup>+</sup> statistically significant. n/d no data.

30. Ashton, T.S. (1954) The eighteenth century (Ashton, T.S. series ed.; 5 vols.; Economic History of England; London : Methuen), vol. 3, 219.

31. Patten, J. (1973) Rural-urban migration in pre-industrial England (Research papers; School of Geography, Oxford), no. 6, 23-4.

32. Stroud collection G.R.O. P320a.OV3/1 - OV3/5/5.

33. Dursley collection G.C.L. 8200.

34. Stonehouse collection G.R.O. P316.OV3/1 - OV3/4.

35. Moreau, S. (1805) A tour of Cheltenham Spa G.C.L. 10747(2).

36. Defoe, D. (1724) A tour through England and Wales (2 vols.; re-printed 1927; London : Dent), vol.2, 40.

37. Perry, G. (1758), 'Description of the Severn with its navigation and trade', Gentleman's Magazine 28, 277-8. G.C.L. 4793 BT.62. Willan, T.S. (1937), 'The river navigation and trade of the Severn Valley, 1600-1750', Econ. Hist. Rev. 8, 68-79. Minchinton, W.E. (1954), 'Bristol - metropolis of the West in the eighteenth century', Transactions of the Royal Historical Society 4, 69-89.

38. Wrigley, E.A. (1967), 'A simple model of London's importance in changing English society and economy 1650-1750', in Urban Development (1973) (Milton Keynes : Open University), unit 1, 1-35. Smith, C.T. (1951), 'The movement of population in England and Wales in 1851 and 1861', Geogrl. J. 117, 200-10.

39. Thomas, E.G. (1971) The treatment of poverty in Berkshire, Essex and Oxfordshire, 1722-1834, (unpub. Ph.D. thesis, University of London), 233 et passim.

40. 1841 Census. Population Returns and Enumeration Abstract. Gloucestershire, 99.

41. loc. cit.

42. 1821 Census. Population Returns. Answers and Abstract. Gloucestershire, 357.

43. G.R.O. P127. OV2/1. 39 Certificates are listed of which only 5 are dated. The register covers the period 1739-1770.

44. Minchinton, op. cit., 69-89.

45. Clarke, P. (1972), 'The migrant in Kentish towns, 1580-1640', in Clarke, P. and Slack, P. (eds.) Crisis and order in English towns 1500-1700 (London : Routledge and Kegan Paul), 132.

46. Everitt, A. (1967), 'The marketing of agricultural produce', in Thirsk, J. (ed.) Agrarian history of England and Wales (Cambridge University Press), vol.4, 466-76.

47. Glass, D.V. (1950), 'Gregory King's estimate of the population of England and Wales, 1695', in Glass, D.V. and Eversley, D.E.C. (eds.) (1965) Population in history (London : Arnold), 186-8.

48. Dickinson, R.E. (1932), 'Distribution and functions of the smaller urban settlements of East Anglia', Geography 17, 20.

49. Carter, H. (1956), 'Urban hierarchy and historical geography. A consideration with reference to north east Wales', in Baker, A.R.H. et. al. (1970) Geographical interpretations of historical sources (Newton Abbot : David and Charles), 271

50. Law, C.M. (1972), 'Some notes on the urban population of England and Wales in the eighteenth century', Local Historian 10, 10-16.

51. Everitt, op. cit., 478.

52. Clarke, op. cit., 132.

53. Dickinson, op. cit., 21.

54. Lambert, A.M. (1953) Oxfordshire about 1800, (unpub. Ph.D. thesis, University of London), 280.

55. Patten, loc. cit.  
Thomas, loc. cit.  
Randall, H.A. (1971) Some aspects of population geography in certain rural areas of England during the eighteenth and early nineteenth centuries, (unpub. Ph.D. thesis, University of Newcastle).

56. B.P.P. XXXV (1835), 107, 12.  
Pierce, op. cit., 47.

57. 6 and 7 W. IV, C. 85 and C. 86.

58. Pierce, op. cit., 55.

59. Carter, op. cit., 275.

60. Christmas, E.A. (1974) Administration of the poor law in some Gloucestershire unions 1815-47, (unpub. M.Litt., University of Bristol), 66-67.

61. Ibid., 115-6.

62. Carter, op. cit., 272.

63. Law, loc. cit.

64. Deane, P. and Cole, W.A. (1969) British Economic growth 1688-1959 (2nd ed. Cambridge University Press), 106-22 et passim.

65. Figure 37 is based on Law, loc. cit. Figure 38 is based on Chalkin, C.W. (1974) The provincial towns of Georgian England (London : Arnold), 26.

66. Olsson, G.A. (1965), 'Distance and human interaction. A migration study', Geogr. Annaler 47B 8, 36.  
Randall, op. cit., 233.

67. Spearman's Rank Correlation coefficient. See Siegl, op. cit., 202-11 and 284.

68.  $r_s = 0.12$  ( $\alpha = 0.05$ ,  $n = 10$ )  
 $r_s = 0.08$  ( $\alpha = 0.05$ ,  $n = 11$ )

69.  $r_s = 0.18$  ( $\alpha = 0.05$ ,  $n = 9$ )

70. Calculated  $X^2 = 0.7$ . Table value  $X^2 = 2.71$ . ( $\alpha = 0.05$ ,  $df = 1$ )

71.  $X^2 = 5.5$

72.  $X^2 = 0.00$

73.  $X^2 = 5.2$

74.  $X^2 = 0.4$

75.  $X^2 = 9.7$

76.  $X^2 = 3.8$  and  $X^2 = 24.6$

77.  $X^2 = 3.5$  and  $X^2 = 78.5$

78. Olsson, op. cit., 29.  
 Randall, op. cit., 233.

79. Olsson, op. cit., 36.

80. Hoskins, W.G. (1935) Industry, trade and people in Exeter, 1688-1800 (Exeter Research Group; Manchester), monograph 6, 58-61.

81. Hobsbawm, E.J. (1956), 'The tramping artisan', Econ Hist. Rev. 3, 299.  
 Morris, J.H. (1934) The west of England woollen industry 1750-1840, (Unpub. M.Sc. thesis, University of London), 256, notes that there would be less likelihood in these circumstances, of weavers appearing in eighteenth century Removal Orders.

82. Hobsbawm, op. cit., 303-4, believes the system came to an end with the major economic slump of the 1840's when temporary migration no longer appeared as an alternative to the localised effects of what had become structural unemployment.

83. See note 39, Chapter 3.  
 For Bisley only 25/151 Certificates state occupations. For Dursley 52/158, Painswick 32/217 and Stonehouse 4/71.

84. Laslett, P. (1965) The world we have lost (London : Methuen), 16.  
 Redford, A. (1926) Labour migration in England 1800-1850 (2nd ed. 1964, Manchester University Press), 23.  
 Coleman, D.C. (1955), 'Labour in the English economy of the seventeenth century', in Carus-Wilson, E.M. (ed.) (1962) (2 vols.; Essays in economic history; London : Arnold) vol. 2, 300-2, notes that the seasonal demands for industrial and agricultural labour became conflictory rather than complementary. The weather affected transport and water power and thus created slack in both sectors

of the economy. The inadequacy of the marketing process and a consequent inconsistency in the demand for industrial products could also lead to periods of slack demand for labour.

85. Redford, op. cit., 23 and 35-6.

86. The Painswick collection is held by the incumbent.

87. Minchinton, W.E. (1951), 'The beginning of trade unionism in the Gloucestershire woollen industry', B.G.A.S. XX, 128. Minchinton is quoting B.P.P. (1806) III, 340.

88. Hypothesis There is no significant difference in the proportions of labourers and clothworkers travelling long distances ( median distance)

	$\chi^2$	Accept null hypothesis
i Clothworkers and labourers	6.3	x
ii Unattached male clothworkers and Unattached male labourers	4.5	x
iii Married couples engaged in clothwork and labouring	0.01	+
iv Families engaged in clothwork and labouring	1.97	+

x reject + accept

Median test (Siegl op. cit. p. 111/116)  $\alpha = 0.05$  Table value  $\chi^2 = 2.71$ , one-tailed test.

The alternative hypothesis states that fewer clothworkers travelled long distances

Hypotheses 2, 3 and 4 isolate sub-groups by civil status to remove the latter as an intervening variable

89. At Stonehouse, 11 Shepton Mallet weavers were examined on the 3rd of November 1804. G.R.O. P316. 0V3/4.

90. Dursley collection G.C.L. 8200.

91. See note 49, Chapter 3 and page 48.

92. Rudder, op. cit., VI-VII.

93. Hypothesis There is no significant difference in the proportion of long-distance migrants ( $> 32$  kms.) between clothworkers and labourers.

	$\chi^2$	Accept null hypothesis
i Clothworkers and labourers	2.67	+
ii Unattached male clothworkers and Unattached male labourers	0.95	+
iii Married couples engaged in clothwork and labouring	0.00	+
iv Families engaged in clothwork and labouring	3.10	x

x reject + accept

$\chi^2$  test.  $\alpha = 0.05$ , Table value  $\chi^2 = 2.71$ , one tailed test.

Hypotheses ii - iv isolate sub groups by civil status to remove the latter as an intervening variable.

The alternative hypothesis states that more clothworkers travelled long distances.

94. Redford, op. cit., 48.

95. B.P.P. (1840) XXIV, 546-9. See G.R.O. P47/CH4/1.

96. Keys, A.E. (1955) A history of Eastington (published privately) G.C.L. 5319.

97. The Bisley collection contains two Removal Orders to Leeds, G.R.O. OV3/2/1 - OV3/2/3.

98. Randall, op. cit., 202-4.

99. Styles, P.H. (1963), 'The evolution of the law of settlement', University of Birmingham Historical Journal IX, 56.

100. Wrigley, op. cit., 14.

101. Hypothesis There is no significant difference in the proportions of different civil groups travelling long distances

	median distance	> 32 kms		
	$\chi^2$	Accept null hypothesis	$\chi^2$	Accept null hypothesis
i Unattached male labourer and married labourer with/without family	1.5	+	0.09	+
ii Unattached male clothworker and married clothworker with/without family	0.6	+	1.07	+

Test details as in note 93

Occupation held constant. Data from Appendix 10.

102.  $\chi^2 = 14.06$  ( $\alpha = 0.05$ , Table value  $\chi^2 = 2.71$ , one tailed test)

103. 1841 Census. Vol. II Ages. 88-101. Details of age were first included the 1821 Census, but it was thought unnecessary to repeat the question in 1831. These calculations exclude 14 inhabitants from Bisley, two from Painswick.

104.  $\chi^2 = 1.6$ , whether the data is dichotomised at 50 or 65 years of age and is statistically not significant (critical value  $\chi^2 = 2.71$ ,  $\alpha = 0.05$ , one tailed test. This test excludes Stonehouse for which no data available in the 1841 Census.

105. The weighting of population between the two cloth regions was 1.79 (1771); 1.73 (1811); 2.07 (1841) and 2.21 (1851). Obviously the doubling of the figures for the southern region is very crude. The widening gap emphasises the difficulties encountered by the Dursley area in the period after 1826.

106. Coode, G.E. (1851) Report to the Poor Law Commissioners on the Law of Settlement and Removal. B.P.P. (1851) XXVI, 159. Coode quotes the parochial returns to the Poor Law Board for the 21st October 1850. In the year from Michaelmas 1849, only 840 Removal Orders were issued in England and Wales. He also refers to 13867 Removal Orders being issued in 1849 of which 12,737 applied to inter-union movement. Assuming the existence of 15,535 parishes, less than one Removal Order was issued per parish in that year.

107. Mann, op. cit., 38-9, 51-2.

108. Minchinton, op. cit., (1951) 130, 135.

109. Mann, op. cit., 49.

110. Rudder, op. cit., 289, 302 and 218. Mann suggests that on the whole Rudder's view of the state of the woollen industry was rather sanguine and his memory of the 1740's and 1750's particularly short. There had been 25 bankruptcies between 1736 and 1756. See Mann, op. cit., 51

111. Minchinton, op. cit., (1951) 132. Tann, J. (1967) Gloucestershire woollen mills (Newton Abbot : David and Charles), 51.

112. Walrond, L.F.J. (1973), 'Wool, woolmen and weavers' in Hadfield and Huddersfield, op. cit., 192.

113. Morris, op. cit., 169.

114. Turner, op. cit., 31. He also blames mechanisation.

115. Rudge, T. (1807) General view of the agriculture of the county of Gloucestershire Report to the Board of Agriculture. 346 and 351. Rudge makes specific reference to a concentration of industry around Dursley, Wotton under Edge and Northleach, though his examples suggest that he is partly mis-quoting Rudder for the latter place. See Rudder, op. cit., 579.

Mann, op. cit., 53 notes the centripetal tendency as early as the mid-eighteenth century away from the villages of North Wiltshire. The same process was commented on by Davis, T. (1794) General view of the Agriculture of Wiltshire. Report to the Board of Agriculture. 215.

Eden, Sir. F. (1797) The state of the poor (3 vols. Davis; London),

Vol. 3, 796-799.

Minutes and Evidence to the Select Committee on Woollen Manufactures B.P.P. (1806) III, 308.

Herbert, N.M. (1976) History of the County of Gloucester (Pugh, R.B. series ed; Victoria County History; Institute of Historical Research, London; Oxford University Press), 53.

Rudder, op. cit., 553, noted a comparable process at work in Miserdine.

An analysis of Removal Orders for the cloth parishes shows that 58 were to villages in the Wiltshire/Somerset cloth region, 29 were to market towns and 33 to Poor Law union centres in the same region. Ten were to Frame and a further two to Bath. These would represent late eighteenth or early nineteenth century migrants into Gloucestershire.

116. Rudder, op. cit., 727.

117. Mann, op. cit., 168.

118. Ibid.

119. Ibid., 170 and 175.

120. First Report of the Factory Commissioners (1833) quoted by Mann op. cit., 172.

B.P.P. (1834) XXVIII. Appendix to Report of His Majesty's Commissioners for the Inquiry into the Administration and practical operation of the Poor Laws. 619.

Hyett, F.A. (1928) Glimpses of the history of Painswick (Gloucester : Bellows), 101. A man, woman and child in factory employment received £1.1s.3 $\frac{3}{4}$ d. (£1.07p.), whereas a family of five as outdoor weavers received 10s.4d. (0.52p.) as they suffered the most from an overstocked labour market.

121. 1821 Census. Population returns and abstracts. Gloucestershire. 105.

122. G.R.O. P47a M.I.1. Answers to a questionnaire by Bisley officers to the Loan Committee for distressed manufacturers.

123. Tann, op. cit., (1967), Figs. 2, 4, 6 and 7.

124. B.P.P. (1839) XLIII Reports of the Assistant Commissioners for handloom weavers, quoted by Morris, op. cit., 188.

125. Tann, J. (1964) Aspects of the development of the Gloucestershire woollen industry, (unpub. Ph.D. thesis, University of Leicester), 327.

126. B.P.P. (1840) XXIV Reports of the Assistant Commissioners for handloom weavers. Report of Miles, W. Gloucestershire. Part V, 363.

127. Ibid., 429-33.

128. Ibid.

129. These figures are quoted by Walker, F. (1972) The Bristol region (London : Nelson), 258, they differ from those of Mann, op. cit., 220, which are the official factory returns.

Gloucestershire

	Number of mills	Employees
1850	80	6,043
1856	64	5,409
1861	49	4,687
1867	62	6,368
1870	28	3,848

130. Mann, op. cit., 35. Trade in Gloucestershire had been cushioned in the Spanish War, 1719-21, by the Levant Trade.

Turner, op. cit., 31, found that the fine trade was slack in Stroud, Whereas its coarse trade for the army and East India Company was buoyant.

131. Moving averages are designed to remove violent short-term fluctuations in a data set. They may in fact, hide the crises one is trying to isolate. The situation may be analogous to storm incidence which is obscured by climatic averages.

## Chapter 6

### Comparative Studies of Migration

The Gloucestershire cloth parishes have been used as the core of this study, but the evaluation of the significance of the patterns established in Chapter 5 requires empirical evidence of the Law in operation in other areas and corroborative studies using different contemporary data sources. In the first case, Settlement Certificates and Removal Orders will be examined in other Gloucestershire parishes and reference will be made to the findings of the few pieces of comparable research that exist in other parts of the country. Where it has been possible, data from other research workers have been recast to aid this comparison. Later in the Chapter, Anglican Marriage Registers and the Enumerators' Returns for the 1851 Census are used, for selected Gloucestershire cloth parishes, to examine the migration patterns revealed by these data sources and to compare them with the patterns derived from Poor Law data.

#### I. Poor Law Migration in other parishes

A - Migration distances. Table 33 shows the very uneven survival of Poor Law documents in the rest of the county. Of the major economic regions identified in Chapter 4, only Bristol's suburbs in Gloucestershire\* ~~are~~not represented, but the number of documents surviving in each of the regions bears no relationship to the regional population and any reference to inter-regional flows represents qualitative statements about direction rather than the volume of movement. The largest Gloucestershire collection is for Cheltenham, but the transcription of Certificates for Newark in Nottinghamshire (1) and for Birmingham (2) provide far larger data sources which have been reworked to provide comparable evidence. The Newark data are purely a listing and the Birmingham study originally uses a three part distancezoning based on an origin located within the city (as it was in 1940), within Worcestershire, Staffordshire and the rest of Warwickshire and the rest of the country (3). For both Newark and the Birmingham data straight line distances are measured to the settlement of origin and the data aggregated in eight kilometre bands. The marked positive skew associated with this particular distance/decay function is again present. Eighty-eight percent of the movement is restricted to <32 kms. in the Gloucestershire parishes and 42.7 percent of the migrants travelled < eight kilometres. Less than three percent of the Certificates are from distances greater than 80 kms. These

Table 33

Cumulative frequency distribution of settlement certificates to  
selected parishes in Gloucestershire, Newark and Birmingham.

Region	Parish	Distance (< kms.)										n	median	
		8	16	24	32	40	48	56	64	72	80			
1	South Cerney	31	40	42	46	47	48	48	48	48	48	48	48*	6.4
2a	Chedworth	39	61	65	70	70	72	72	72	72	72	72	73*	7.4
	Chipping Campden	28	52	73	92	96	99	102	102	102	102	102	106	16.6
2b	Tetbury	27	61	77	84	92	95	97	99	102	102	104	107	15.7
3a	Badgeworth	20	26	30	30	30	30	30	30	30	30	30	107	15.7
3b	Stinchcombe	26	29	31	31	32	33	33	33	33	33	33	31	6.6
	Berkeley	58	85	95	103	109	110	110	110	111	111	112	33	5.1
3c	Chipping Sodbury	20	27	45	45	47	48	49	50	51	51	51	113	7.4
4	Littledean	8	27	31	33	33	34	34	34	34	34	34	34	12.2
	Mitcheldean	28	50	62	65	69	70	72	72	73	73	73	78	11.2
5	Westerleigh	44	55	61	65	66	68	68	68	69	69	69	74	5.4
	Wickwar	29	39	42	42	46	48	50	50	50	50	50	51	6.7
7a	Cheltenham	80	148	172	181	184	188	191	196	198	198	198	201	10.2
7b	Gloucester	1	9	13	17	17	18	20	21	23	23	25	26	23.7
	Newark	165	355	496	688	743	774	815	836	844	848	848	892	20.7
	Birmingham													
	Pre 1697	40	60	78	86	91	92	94	94	94	94	94	98	7.2
	Post 1697	135	283	371	420	451	481	502	518	520	535	535	612	11.6

+ unidentified parish excluded

characteristics are most strongly marked at the village level.

Table 33 shows that South Cerney, Chedworth, Badgeworth, Stinchcombe and Westerleigh have much lower median values than those for either market towns or Poor Law union centres. Littledean, in the Forest of Dean is the only exception, but the difference is not very great. In fact, Gloucester is the only settlement to show really distinctive inter-quartile and median values. Only one Certificate is from within eight kilometres yet only one comes from beyond 80 kilometres. This high median value may reflect the pull of the shire town within the county, but the limited size of the collection may distort this value (4). Like Gloucester, Newark and Birmingham have a much lower proportion of their in-coming migrants from the immediate countryside. Of the Newark and Birmingham migrants, 22.9 percent and 28.7 percent respectively, come further than 32 kms. and in the case of Birmingham 11.4 percent come from beyond 80 kms. Here the limitations of the median measure are clearly revealed. Newark a market town of regional importance within the Trent Valley has a far higher value than England's fifth largest city in the mid-eighteenth century.(5). The Pareto-slope values for the parishes in Table 33 are listed below

Table 34 Distance-decay function. Settlement Certificates to selected Gloucestershire parishes, Newark and Birmingham; using the Pareto-slope function.

Parish	b value	r
South Cerney	-3.56	-0.94
Chedworth	-3.83	-0.90
Chipping Campden	-3.23	-0.85
Tetbury	-2.12	-0.97
Badgeworth	-3.65	-0.92
Stinchcombe	-3.15	-0.85
Berkeley	-3.16	-0.86
Chipping Sodbury	-2.54	-0.77
Littledean	-3.42	-0.89
Mitcheldean	-3.04	-0.89
Westerleigh	-3.35	-0.80
Wickwar	-3.54	-0.92
Cheltenham	-2.90	-0.90
Gloucester	-1.24	-0.57
Newark	-2.17	-0.92
Birmingham	-2.20	-0.94
pre-1697	-3.52	-0.89
post-1697	-2.12	-0.93

for n=10, r values 0.549 are significant ( $\alpha=0.05$ , one tailed test)

The limited migration fields of the villages compared with the Poor Law union centres of Tetbury and Cheltenham and the regional centres of Gloucester and Birmingham are clearly shown, though the picture for market towns is less clear. The high value for Wickwar reflects Rudder's observation of a town in decline; a once prosperous cloth manufacturing industry reduced to a parlous state, spinning yarn for Stroud and Chalford (6). Berkeley has a similarly restricted migration field, and Rudder notes that its market is 'so little frequented that it scarcely deserves to be called one' (7). The comparatively high value for Chipping Campden may reflect its relative isolation high on the Cotswold dip-slope and the greater accessibility of the market towns of Evesham, Shipston-on-Stour, Winchcombe and Moreton-in-the-Marsh. Nearby, the market and prosperous silk manufacturing industry at Blockley provided further competition. The high median value for Chipping Campden should be seen as a function of the relatively large size of the parish which reduces the percentage of recorded short-distance moves. Although Tetbury's importance as a cloth manufacturing centre had declined both absolutely and relatively by the third quarter of the eighteenth century, it was still an important commercial centre, set in an area of agricultural improvement (8). It lay across the important routes from Stroudwater to Malmesbury and from Bristol or Bath to Cirencester. Only the latter was a more important centre in the Cotswolds and the low 'b' value reflects its status. The pattern for Newark is not dissimilar. This market town dominated the Vale of Trent, below Nottingham, providing the most important bridging point of the river between Nottingham and Gainsborough. Like Birmingham, with an equally low slope value, long-distance migration ( $>32$  kms.) constitutes a significant part of all movement. Gloucester and Tetbury share the same characteristic.

In Chapter 3 reference was made to Pelham's hypothesis that the certificate system, by preventing the arbitrary ejection of newcomers, heralded a period of greater mobility, of movement from greater distances (9). This proposition is summarised in the Table below. (10) Table 34 shows that the Pareto-slope changed dramatically between the two periods either side of the 1697 Amendment. The null hypothesis that there was no significant difference in the migration patterns of the two periods, measured by the number of long-distance migrants was rejected (11).

Table 35

Certificated migrants to Birmingham 1686-1726

Zone	1686-97		1698-1726	
	Total immigrants	Annual average	Total immigrants	Annual average
Inner	45	3.8	161	5.6
Middle	46	3.8	312	10.8
Outer	7	0.6	144	5.0
Total	98		617	

from Pelham, 50.

It is unfortunate that no other parish examined in this thesis provides comparable Certificate data, or for that matter, Removal Orders, in any quantity, for this earlier period. Pelham's view is logically sound and irrefutable as the relative importance of the factors encouraging townward migration cannot be quantified. The Certificate system may have provided one of the 'necessary conditions' for migration and in this sense greater mobility may have resulted. The actual increases in Certificates noted by Pelham (12) would be a direct consequence of the 1697 Act, but the greater volume of movement over greater distances does not of necessity reflect the Certificate system per se. The evidence from Chapter 5 suggests that Certificate carriers were not restricted in the distance they could travel, which is not to deny that the long-distance migrant might be encouraged to travel without one, knowing that in a period of need one could be obtained retrospectively. However, if one makes the assumption that migrant behaviour is essentially one of limited rationality, direct long-distance migration can only occur if information is available. This assumption ignores the reality that some long-distance migration was the result of a series of shorter moves over a longer period of time, which cannot be identified from the Certificate alone. Birmingham, already a prosperous town in the late seventeenth century, entered a period of substantial and sustained growth in the eighteenth (13). Its population had grown to over 20,000 by mid century and its mean information field would have grown to sustain the process of cumulative causation which underpins urban growth. The expansion of the specialised branches of metal working (14), the enclosure of its common fields, and a relative worsening of rural conditions (15), would provide further

'necessary conditions' to stimulate a major influx of labour.

A comparison of Settlement Certificates and contemporary Removal Orders, for the non-cloth parishes of Gloucestershire, is restricted by the paucity of extant data. Table 36 sets out the distance patterns of Removal Orders from selected Gloucestershire parishes and Table 37 compares the slope values for Certificates and Removal Orders in the pre-1795 period. It is appropriate to test those hypotheses identified in the previous Chapter as this may throw some light on the suggestion that the evidence from the cloth parishes may need to be treated as a special case. As in Chapter 5, no significant difference can be established between the two data sets, thus reinforcing the conclusion that, in statistical terms, Settlement Certificates had no restrictive effect on migration distances (16). Furthermore, the separation of short and long distance migration does not affect these findings (17). There is an alternative explanation to the one based on the restricting effect of the Laws of Settlement and Removal. Rudder's comments on the stagnation of Berkeley have been noted above and a similar observation made of Chipping Sodbury, whose cheese market was in decline. Tetbury had similarly suffered from the decline not only of its cloth manufacturing but its wool and yarn market (18). Cheltenham in the mid-eighteenth century had less than 1,500 population (Appendix 4). Stinchcombe, on the Cotswold Edge, had no means of finishing its cloth and it lost population throughout the eighteenth century. These five market towns were all relatively small, three were in decline while Chipping Campden was relatively isolated. It is argued that this group presents a very different picture from the thriving cloth parishes and one would expect that smaller and economically stagnating parishes to have a very limited migration field, the effect of which would be to minimise the differences between distances recorded in Certificates and Removal Orders.

The contrary proposition that the Certificate system encouraged mobility can be tested indirectly through an analysis of Removal Orders, issued before and after the 1795 Act. Table 38 summarises the frequency distribution of distances for post 1795 Removal Orders and a comparison of Pareto-slope values, either side of the Amendment, is set out as Table 39. Unfortunately, only Bitton, Tetbury and Chipping Campden have data for both periods which reduces the value of any hypothesis tested, though test results do provide general support for a null hypothesis (19). The data for out-migration are similarly fragmented. There are no substantial collections of Certificates 'from' and only Tetbury and Bitton have Removal Orders 'to' for both the pre-1795 and post-1795 periods. (Tables 40 and 41)

Table 36

Cumulative frequency distribution of Removal Orders 'from'  
selected Gloucestershire parishes. Pre 1795.

Region	Parish	Distance ( ← kms.)												n	median
		8	16	24	32	40	48	56	64	72	80	80			
2a	Chipping Campden	19	39	51	58	58	60	61	61	61	62	1	63	15.0	
	Kempsford	13	21	23	24	24	25	25	25	25	25	1	26	6.4	
2b	Tetbury	28	49	59	60	65	66	67	68	69	70	6	76 <sup>+</sup>	6.4	
	Berkeley	29	39	44	46	47	47	47	47	47	48	1	49	4.2	
3b	Stinchcombe	65	70	72	74	74	75	75	76	76	76	1	77	3.7	
	Chipping Sodbury	12	16	24	26	28	28	28	28	29	29	0	29	11.8	
3c	Olveston	16	29	32	37	39	41	43	43	43	43	1	44	9.6	
	Bitton	25	33	40	41	45	46	48	49	49	49	1	50	7.7	
5	Westerleigh	66	91	94	99	100	101	101	101	102	102	3	105	4.5	
	Cheltenham	27	57	66	66	69	70	71	74	74	75	2	77	10.4	

\* 1 undated

Table 37

Distance decay function. A comparison of Pareto-slope values for selected Gloucestershire parishes, for Settlement Certificates and Removal Orders 'from' pre-1795.

Parish	'b' value	$r^1$	'b' value	$r^1$
Chipping Campden	-3.23	-0.85	-3.03	-0.81
Tetbury	-2.12	-0.97	-2.34	-0.96
Stinchcombe	-3.15	-0.85	-3.47	-0.90
Berkeley	-3.16	-0.86	-3.38	-0.88
Chipping Sodbury	-2.54	-0.77	-3.10	-0.86
Cheltenham	-2.90	-0.90	-2.57	-0.74

1. for  $n = 10$  all  $r$  values  $\geq 0.549$  are significant when  $\alpha = 0.05$ , one-tailed test.

Table 38

Cumulative frequency distribution of Removal Orders 'from'  
selected Gloucestershire parishes. Post 1795.

Region	Parish	Distance (. kms.)										n	median	
		8	16	24	32	40	48	56	64	72	80			
1	South Cerney	15	24	33	36	41	43	43	43	43	43	1	44	13.4
2a	Chipping Campden	36	66	80	90	92	94	95	96	96	96	5	101+	11.2
2b	Tetbury	30	55	74	92	103	107	109	113	113	113	8	121+	17.3
3a	Badgeworth	14	29	30	31	32	32	32	32	32	32	1	33+	9.1
3b	Slimbridge	13	19	24	26	29	29	30	31	31	31	1	32	11.5
3d	Dymock	20	30	36	39	39	39	39	39	39	39	1	40+	7.2
4	Mitcheldean	11	20	23	24	24	25	26	26	27	27	0	27	9.0
5	Bitton	42	57	60	62	63	67	69	70	70	72	9	81+	7.5
7a	Leckhampton	19	30	38	45	50	50	51	53	53	53	1	54	14.1
7b	Gloucester	6	23	29	34	42	44	49	53	55	56	4	60	22.4

+ unidentified parish

✓ includes one from Ireland

Table 39.

Distance-decay function. A comparison of Removal Orders  
'from' before and after 1795, for selected Gloucestershire  
parishes.

Parish	Pre-1795		Post-1795	
	'b' value	$r^2$	'b' value	r
South Cerney	n/d		-3.39	-0.88
Chipping Campden	-3.03	-0.81	-3.26	-0.91
Tetbury	-2.34	-0.96	-2.96	-0.84
Kempsford	-3.39	-0.92	n/d	
Badgeworth	n/d		-3.55	-0.94
Berkeley	-3.38	-0.88	n/d	
Slimbridge	n/d		-2.93	-0.86
Stinchcombe	-3.47	-0.90	n/d	
Chipping Sodbury	-3.10	-0.57	n/d	
Olveston	-3.11	-0.88	n/d	
Dymock	n/d		-3.80	-0.92
Mitcheldean	n/d		-2.62	-0.79
Bitton	-2.90	-0.90	-2.57	-0.89
Westerleigh	-3.28	-0.90	n/d	
Cheltenham	-2.57	-0.74	n/d	
Leckhampton	n/d		-3.06	-0.84
Gloucester	n/d		-1.54	-0.92

2. for  $n = 10$  all  $r$  values  $> 0.549$  are significant  
 when  $\alpha = 0.05$  for one tailed test.

n/d no data

Table 40

Cumulative frequency distribution of Removal Orders 'to' selected Gloucestershire parishes, before and after the 1795 Amendment.

Region	Parish	Distance (< kms.)										n	median	
		8	16	24	32	40	48	56	64	72	80			
<u>Pre 1795</u>														
2b	Tetbury	17	33	37	46	55	57	58	59	60	62	3	65	15.4
3b	Stinchcombe	20	22	23	25	26	26	26	27	27	27	0	27	3.8
3c	Olveston	9	23	23	24	25	25	25	25	25	25	1	26	11.5
5	Bitton	14	24	25	28	30	30	30	30	30	30	2	32	9.6
	Westerleigh	29	42	43	44	45	45	45	46	46	46	3	49	5.8
<u>Post 1795</u>														
2a	Chipping Campden	15	23	30	33	37	39	43	43	45	45	3	48	16.6
2b	Tetbury	13	29	43	52	62	65	67	72	72	72	15	87	23.9
3b	Slimbridge	25	33	41	44	50	50	50	50	51	51	6	57	10.6
5	Bitton	29	46	50	52	54	55	59	59	60	60	5	65	9.6
7b	Gloucester	2	12	16	16	17	17	19	19	19	20	10	30	21.8

Table 41.

Distance-decay function. A comparison of Removal Orders  
'to' before and after 1795 for selected Gloucestershire  
parishes.

Parish	Pre-1795		Post 1795	
	'b' value	r	'b' value	r
Chipping Campden	n/d		-2.58	-0.83
Tetbury	-2.05	-0.94	-2.65	-0.81
Slimbridge	n/d		-3.36	-0.86
Stinchcombe	-3.10	-0.90	n/d	
Olveston	-3.17	-0.85	n/d	
Bitton	-3.19	-0.88	-2.93	-0.89
Westerleigh	-3.42	-0.72	n/d	
Gloucester	n/d		-2.29	-0.69

$\alpha = 0.05$        $df = 8$       one tailed test  
 all values  $\geq 0.549$  are significant.

From this very limited data, there is no support for the hypothesis that migration distances increased significantly after 1795 (20). Finally, the Removal Orders 'from' and Removal Orders 'to' are used to test the hypothesis that the pattern of inward and out-migration are essentially the same, both before and after the 1795 Amendment. This view is substantiated by the Kolmogorov-Smirnov test and by the Chi Square test which separates short and long distance movement (21).

Summary. The re-testing of the same hypotheses from Chapter 5 in selected Gloucestershire parishes beyond the cloth region, reinforces the general conclusions of Chapter 5. No evidence is found to support the view that Certificates affected migration distances, that in and out migration differed, or that migration distances increased after the 1795 Act. This would suggest that support for the latter proposition in the Stroudwater region (see page 138) is a function of economic conditions rather than changes in the Law.

Comparative studies in other regions. There have been few major studies of migration using Poor Law documents. Melville transcribes 68 documents for the village of Blewbury in Berkshire (22). Thirtynine Removal Orders from the village exist for the period up to 1795. Excluding two Removals to London, the furthest is to Upton in Buckinghamshire, about 36 kms. away. The median distance is 9.8 kms.

Oxley's research is concerned mainly with the administration of the Old Poor Law (23) and treats migration superficially. Appendix 11 abstracts from his thesis data for parishes in the West Derby Hundred of Lancashire. The different aggregation base used by Oxley makes detailed comparison with the Gloucestershire data difficult. In the West Derby Hundred, 85 percent of the Certificates, 71 percent of the Removal Orders 'from' and 51 percent of the Removal Orders 'to' come from within 10 miles (16 kms.). For the Gloucestershire parishes the comparable figures are 92.6, 76.1 and 62.6 percent. The value of Oxley's data is further limited, in that too few distance categories are used and that the county and hundred are used as distance categories. Furthermore, one cannot identify the migrants travelling <10 miles who originate in areas beyond the West Derby Hundred; Salford is a major focus of out-migration from Atherton and Lowton, in the West Derby Hundred, but both lie within 10 miles of this rapidly growing town. Similarly, Cheshire accounts for the most significant out-county movement, but much of this lies within the 10 mile zone. The figures quoted can only be regarded as minima. Using this data two hypotheses are tested.

Firstly, the pattern of migration shown by Settlement Certificates 'to' would be more restricted than that for Removal Orders 'from'. Secondly, in-migration would be more restricted than out-migration. In both cases, the results are at variance with those for the Gloucestershire parishes (24), but the test data are not strictly comparable. Firstly, the pre-1795 Removal Orders could not be separated in Oxley's study. Secondly, the data can only be dichotomised at 16 kms. Thirdly, the paucity of information makes it necessary to aggregate the data for all parishes, as only Lowton has more than 25 extant documents in the categories being compared. It was shown in Chapter 5 that when the data for Gloucestershire was dichotomised at 16 kms., there was a tendency for post-1795 migration distances to show a significant increase. The inclusion of post-1795 data in the Removal Orders to be compared with Settlement Certificates is likely to lead to the rejection of the null hypothesis. The validity of the result of the second test is questioned by the lack of clarity in the data noted above and which differentially affects Removal Orders 'to'. Nevertheless, the short-distance nature of migration in the eighteenth and early nineteenth centuries is reaffirmed. Excluding Cheshire, with 11 Removal Orders 'from', Yorkshire and Kent each provide two and Dorset, Flint, Shropshire and Westmorland only one each.

Another major study using these documents is that of Thomas, who examines the treatment of poverty in Berkshire, Oxfordshire and Essex (25). These counties were important in the domestic phase of textile production and it is unfortunate that most of his analysis is qualitative. Movement is identified by the separation of extra-county migration from that originating from within, thus parishes close to county boundaries, like Newbury, show a higher percentage of out-county moves than parishes more centrally placed. Mean values are preferred to the median thereby inflating average distances when compared with those calculated in this thesis. Further difficulties arise from the calculation of this value for each parish, the aggregate group to which it has been allocated, (villages, agricultural and industrial; textile towns; coastal villages and villages near London) and a separate mean for intra-county and inter-county movement. Appendix 12 represents the recalculated data from Thomas' thesis to produce a single mean for each settlement category. Thomas' calculations show that for all the rural areas in his study the mean distance was about 6 miles (9.6 kms.) In Oxfordshire, only 12/103 parishes had migration distances, in the Removal Orders, exceeding 10 miles (16 kms.) (26). Unfortunately long and short-distance movement is not quantified in the study though Thomas acknowledges them as resulting from

different processes (27).

The other major study using Settlement Certificates to analyse migration patterns for this period, is that by Randall, who focuses on Northamptonshire and Kettering in particular, but also uses data from Reigate, in Surrey, and from those Essex parishes for which at least 100 documents survive (28). Mean distances are again used and the data is aggregated by 3 kilometre bands up to 81 kilometres. Although not strictly comparable to the aggregation procedure used in the present study, it is possible to calculate the Pareto-slope value for each parish.

Table 42

Distance decay function. Settlement Certificates  
to Kettering, Reigate and selected Essex parishes  
using the Pareto slope function

<u>Parish</u>	<u>'b' value</u>	<u>r</u>
Kettering	-2.74	-0.84
Reigate	-3.57	-0.86
Bocking	-2.92	-0.80
Brantree	-2.93	-0.83
Castle Hedingham	-3.39	-0.82
Chelmsford	-2.69	-0.82
Chigwell	-3.26	-0.81
Colchester St. Botolph	-3.33	-0.83
Colchester St. James	-3.17	-0.82
Colchester St. Leonards	-3.37	-0.86
Bedham	-3.08	-0.83
Earls Colne	-3.31	-0.84
Great Bardfield	-3.56	-0.87
Great Clacton	-2.19	-0.84
Great Coggershall	-2.96	-0.81
Halstead	-2.22	-0.78
Ingatestone	-2.88	-0.83
Kirby le Soten	-2.56	-0.83
Rayleigh	-2.75	-0.76
Thorpe le Soten	-2.83	-0.80
Witham	-2.49	-0.76

1. Reigate and the three Colchester parishes contain intra-urban moves which exaggerate short-distance migration.
2. For  $n = 27$  all  $r$  values  $> 0.32$  are significant when  $\alpha = 0.05$  one tailed test.
3. Appendix 13 records Certificates weighted for ring areas. Data from Randall op. cit., Appendix 9.2.

From Appendix 9.3 of Randall's work, one is able to make an estimate of median migration distances for the Essex parishes, which have been included in Appendix 13 of this thesis. This allows a comparison with the Gloucestershire data in a way which is not possible from the same data reworked by Thomas. The effect of using mean distances can now be seen in comparing the figures for Chelmsford. Thomas calculates a mean distance of 27.7 kms., whereas the median distance is 13.5 kms.

Excluding Colchester, where intra-urban movement exaggerates local movement, only Great Bardfield has a lower median value than Painswick, which has the highest recorded value amongst the cloth parishes in Gloucestershire. Several factors contribute to the greater migration distances for the Essex and Berkshire parishes. The pull of London is much stronger in these counties, (29) and the counter-streams are particularly noticeable. Of the 138 Certificates received in Reading, but originating from outside the county, 55 are from London. Half the Removal Orders from Reading were also back to the capital (30). These links with London were, in part, the result of specific occupational links in the textile industries, but Rochford Hundred also received London's 'waste' for its market gardens which in turn served the metropolis. (31). A further impetus to long-distance movement was the important coastal traffic. At Wivenhoe, in Essex, 112/300 Certificates were from other coastal parishes including Ipswich, London, Chatham, Gravesend and Whitstable. Removal Orders issued from Thorpe le Soken and Kirkby le Soken were to places as far distant as Newcastle, Blakeney, Sheppey and Selsey (32).

The data for Kettering includes both Removal Orders and Settlement Certificates which allow further testing of the distance hypotheses. Table 43 sets out the Pareto-slope values for the Kettering data. These indices are not directly comparable with those for Gloucestershire as the aggregation process is different and there is no separation of the pre-1795 and post-1795 Removal Orders. Further difficulties arise from the exclusion of a greater proportion of movement exceeding 81 kms. and from the unexplained, anomalous result for Removal Orders 'to'. Other differences in technique also restrict direct comparison. Randall defines long-distance migration as the upper quartile of the migration stream (33). He also combines Certificates 'to' and Removal Orders 'to' in defining in-migration on the grounds that the person concerned in the Order was probably not the person who originally possessed the appropriate settlement. His contrary argument, that the existence of a Removal Order implies an original earlier movement, is closer to the view taken in this

thesis. One cannot agree with his view that the identity of the migrant is immaterial (34), as Removal Orders can be usefully matched with the original Certificate.

Randall concludes from a visual inspection of the cumulative frequency curves of in-migration and out-migration and from a Spearman's Rank Correlation test ( $r_s = 0.92$ ,  $df = 26$ ,  $\alpha = 0.01$ ) that there is no significant difference in their pattern (35). However, he also concludes that in-migrants tend to travel shorter distances than out-migrants. No allowance is made for the fact that the data set is a sample and not a statistical population or for the vagaries of survival which must influence the interpretation of any results. For these reasons, non-parametric tests have been employed in this thesis.

Table 43

Distance decay function. Pareto-slope  
values for Kettering

Category of document	'b' value	r	n	n	
				<81 kms	>81 kms
Removal Orders 'from'	-2.94	-0.78	96		26
Certificates 'to'	-2.74	-0.84	340		39
Removal Orders 'to'	-1.12	-0.35	51		12
Certificates 'from'	-2.42	-0.69	144		11

1. The calculations are made on the same basis as in Appendix 13.
2. All r values  $> -0.549$  are significant, when  $\alpha = 0.05$ .
3. All values  $> 81$  kms. are omitted from the calculations.
4. Data derived and reworked from Randall, op. cit., Tables 9.6 and 9.7 which include 3 post 1795 Removal Orders 'to' (1 also for 1795) and 4 or 5 post-1795 Removal Orders 'from', (1 also for 1795).

It has been noted above that in the Removal Orders, 25 percent of the data relate to places  $> 81$  kms. from Kettering. This not only limits the value of Table 43, but also the results of the Kolmogorov-Smirnov test, which in this thesis only uses data from within 81 kms. However, the Chi Square test does make use of the whole data set in the distance hypothesis. Certificates 'to' are compared with Removal Orders 'from' and Certificates 'from' with Removal Orders 'to' (37). The rejection of these related hypotheses suggests that, unlike the previous analysis, Certificates appear to have a restricting effect upon migration distances. An examination of Randall's raw data shows that the inclusion of a very limited amount of post-1795 data cannot account for this rejection and

further testing is required in other parts of the country to see if the Kettering data should be regarded as a special case.

The hypotheses related to in-migration and out-migration can also be tested from the Kettering data by comparing Removal Orders 'from' and Removal Orders 'to' and Certificates 'from' with Certificates 'to' (38). The acceptance of the null hypothesis in both cases, is contrary to the results obtained by Randall and it is possible that the differences in approach noted above, may be the cause of this discrepancy. It was decided therefore to retest the hypotheses separating short and long-distance movement. Removal Orders 'from' and Certificates 'from' are combined, as in Randall's thesis, to define out-migration and Removals 'to' are combined with Certificates 'to' to define in-migration (39). The data are then regrouped to match the definitions adopted in this thesis. In both cases Randall's definition of long-distance is used. No statistical support is found for his view that the pattern of in-migration was more restricted than that for out-migration (40).

Summary. The short-distance nature of migration during the late seventeenth and eighteenth centuries is reaffirmed. Certificates have been considered as affecting migration in two contrary ways. Firstly, they have been regarded as a restricting factor; but the evidence from Gloucestershire does not provide support for this view. Both Oxley's study and that by Randall show a difference in pattern between Certificates and Removal Orders. Oxley's data may include a substantial proportion of post-1795 Removal Orders which cannot be isolated and which may increase the proportion of long-distance movement, though this particular factor cannot explain the differences between Randall's conclusion and that suggested in this thesis. It would seem further testing in other regions is required. Secondly, Certificates are regarded as the mechanism by which mobility was encouraged. Pelham's data for Birmingham were re-examined and an increase in migration distances was confirmed, though this does not mean that the trend results from changes in the Law. The similar patterns for in-migration and out-migration in the cloth parishes, were confirmed in those Gloucestershire parishes analysed in this Chapter and in the data reworked from Randall's study of Kettering.

B - Directional Influences in migration. Chapter 5 showed that even in short-distance migration directional influences could be identified. Tables 44, 45 and 46 show the inter-regional flows to Gloucestershire regions from Certificates and Removal Orders. Despite the paucity of extant documents movement from the majority of the economic regions of

Table 44

Migration flows into Gloucestershire by economic region. Settlement Certificates 'to'.

Region	1	2a	2b	3a	3b	3c	3d	4	5	6a	Certificates from							SDC	0	N					
											6b	7a	7b	7c	WSC	OCV	TV	L	Ct	VS	WB	Mid			
1	9	20	2	1		1			1	1					3	10									48+
2a	1	81	1	14	1				1	1					1	6		2	32	24	13		2	179+	
2b	15	11	1	4	2				3	11	4		1	1	36	8		1	2	1	3		1	2	107
3a	8	1	17	1								1	1												31
3b	1	1	3	66	20	1	5	4	5	22		3	2	4			1							4	146
3c	3	1				9			14	1	3		6	13				1						2	54
3d	no data																								
4			3	4		12	38			3	1		9	2		1		1		1	34		3	112	
5		1	6		6	21			40	3	23		1	2	10	2		2	2	1	1	1	4	125	
6a	3	82	13	31	63	33	2	12	3	708	37	8	21		18	4	2	3	3	14	12	3	1	3	1079
6b	18	22	4	21	30				13	34	156		3	3	41	3		1		2	9	1	6	4	371
7a	34		118		1	3					8		10	1	1	1	1	1	4	8	5	3	3	201	
7b			2	1		1					3		1	2			1	1	4	5	1		1	26	
7c	no data																								
N	13	263	56	194	167	117	19	55	78	777	246	13	49	17	129	35	6	9	42	60	71	23	9	27	2479

Key

1 - 7c in Gloucestershire  
 1 Oxford Clay Vale  
 2a North Cotswolds  
 2b South Wolds  
 3a Vale of Tewkesbury  
 3b Vale of Gloucester  
 3c Vale of Berkeley  
 3d Over Severn  
 4 Forest of Dean

5 South Glos. Coalfield  
 6a Northern Cloth Region  
 6b Southern Cloth Region  
 7a Cheltenham  
 7b Gloucester  
 7c Bristol suburbs

Outside Gloucestershire  
 WSC Wilts. Somerset cloth region  
 OCV Oxford Clay Vale in Wilts and Oxon.  
 TV Thames Valley  
 1 London  
 Ct Cotswolds  
 VS Vale of Severn  
 WB Welsh Borders  
 Mid Midlands  
 SDC South Somerset/Dorset cloth region  
 0 Others

+ excludes unidentified parish

Table 45 Migration flows in Gloucestershire by economic region. Removal Orders 'from', pre-1795.

Region	1	2a	2b	3a	3b	3c	3d	4	5	6a	6b	7a	7b	7c	WSC	OCV	TV	Removed to			Mid	SDC	0	N		
																		L	Ct	VS						
1	no data																									
2a	2	13																						2	89	
2b	2	4	8	9	2	1				1	1	11	6	2					23	17	6		2	1	1	1
3a	no data																							2	3	
3b				1		51	11												2						76	
3c		1			3	25	1	2	2	3	45			1					7	1					126	
3d	no data							1	1	14	3	2												10	73	
4	no data																									
5		1	2		27	1		65	1	2									33	4						
6a	1	45	3	27	33	3	4	4	3	225	14	1	11						24	2					155	
6b	4	23	2	37	11			20	37	110									36	1	1	5	5	3	1	
7a	10		37	1			2			4		5	7						1		1	1	1	1	12	
7b	no data																								297	
7c	no data																								1	
N	5	78	37	75	127	80	8	8	105	284	179	8	19					127	31	1	9	24	34	15	9	
																									1315	

Key see Table 44

Table 46

Migration flows in Gloucestershire by economic region. Removal Orders 'from', post 1795.

Region	Removed to																				0	N			
	1	2a	2b	3a	3b	3c	3d	4	5	6a	6b	7a	7b	7c	WSC	OCV	TV	L	Ct	VS	WB	Mid	SDC		
1	5	7	2	1	1	3			1	2	1				7	11								1	44
2a		23			14										1	1								101	
2b	1	12	10	1	2	9		2	8	7	6	1		3	40	5	3	1	24	27			7	6	121
3a	4			14	3					3		5	1		1				2	2	2			33	
3b	2				2	8	1	1	1		4	7	1							2	1			32	
3c	no data																								
3d					4				6					3					3	23			1	40	
4					2	1		1	9										1	11	1		1	27	
5		2					4			29					1	21	1	1	1	1				17	
6a	3	29	8	31	35			8	2	2	148	21	11	16		38	12	2	5	3	6	10	1	2	81
6b	1	9	25	5	66	24	5	4	21	51	120		6	1	77	2		3	4	6	6	1	2	15	408
7a	5	1		7	4	2				10	17	1			1	1	1		2	2	1		2	14	447
7b	3			6	4	1	5	5	1	10		1			2	1		2	2	3	5	3	6	54	
7c	no data																							60	
N	10	96	46	87	124	44	27	23	62	235	172	19	27	5	187	37	8	16	33	49	62	13	4	62	1448

key see Table 44

the county is identified.

South Cerney, situated between Cirencester and Cricklade, lay amongst the rich water meadows and pastureland of the Churn Valley, which were typical of the Oxford Clay Vale, in North Wiltshire, in the eighteenth century. Its influence was very restricted and migrants came only from the immediate neighbourhood of the Vale and Cotswolds. Chedworth, on a tributary of the Upper Coln in the Cotswolds, has outside the cloth parishes, the most restricted field of influence in the county (Table 34). However, compared with its neighbours it was fairly large, but 63/74 Certificates come from these Cotswold parishes. Two Cotswold market towns are included in the study. Chipping Campden's isolation has been noted above and is emphasised by the high 'b' value (- 3.23) whereas that for Tetbury is very much lower (- 2.12). The highest part of the Cotswold Plateau lies immediately to the south of Chipping Campden and as Figure 42 shows there is a major gap in the migration field from that direction. Most of its migrants came from the villages at the foot of the Escarpment, from the Vale of Evesham and the Stour Valley, from Stratford-on-Avon and Warwick. Christmas uses both rate books and the evidence of newspapers to show that Stow-on-the-Wold, for which there is no significant collection of Poor Law documents, was similarly orientated towards Warwickshire and Oxfordshire (41). Although Tetbury had lost some of its importance as a cloth manufacturing centre it was still extremely important as a spinning town and wool market. It had created a strong nodal position at the cross-roads of the important Oxford, Cirencester to Bath and Bristol turnpikes with the routes from Dursley and Stroud to Malmesbury and Chippenham. Its excellent accessibility is reflected in the wide directional and distance orientation of the migrants in Figure 43, but the links with the two Gloucestershire cloth areas, Cirencester and the Wiltshire cloth parishes are particularly strong.

In contrast to Tetbury, the old market town of Berkeley lay close to the Severn and off the main route through the Vale from Bristol to Gloucester. Here was a town in decline with little attractive force outside the lower Vale from Thornbury in the south to Brampton in the north. Table 36 shows only three Removal Orders were issued for settlements further than 32 kms. There is a very strong link with the riverine parish of Hinton, but the Severn at this point is over four kilometres wide and the lack of contact with the Forest of Dean parishes is most noticeable. Further south in the Vale, Olveston is situated close to the Old Passage, the ferry from Aust to Beachley, and migrants from

Fig 42 MIGRANTS TO CHIPPING CAMPDEN [settlement certificates]

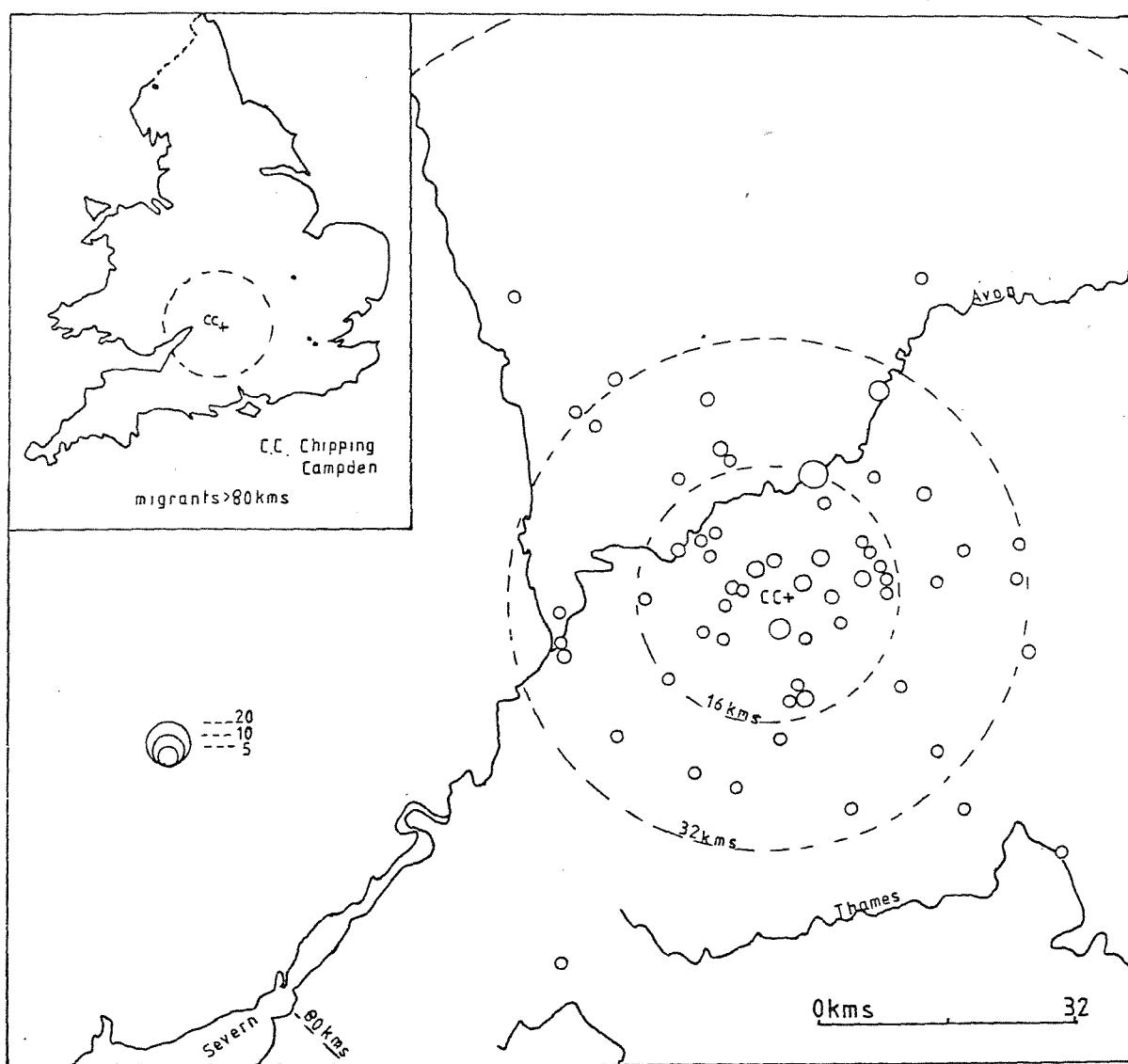
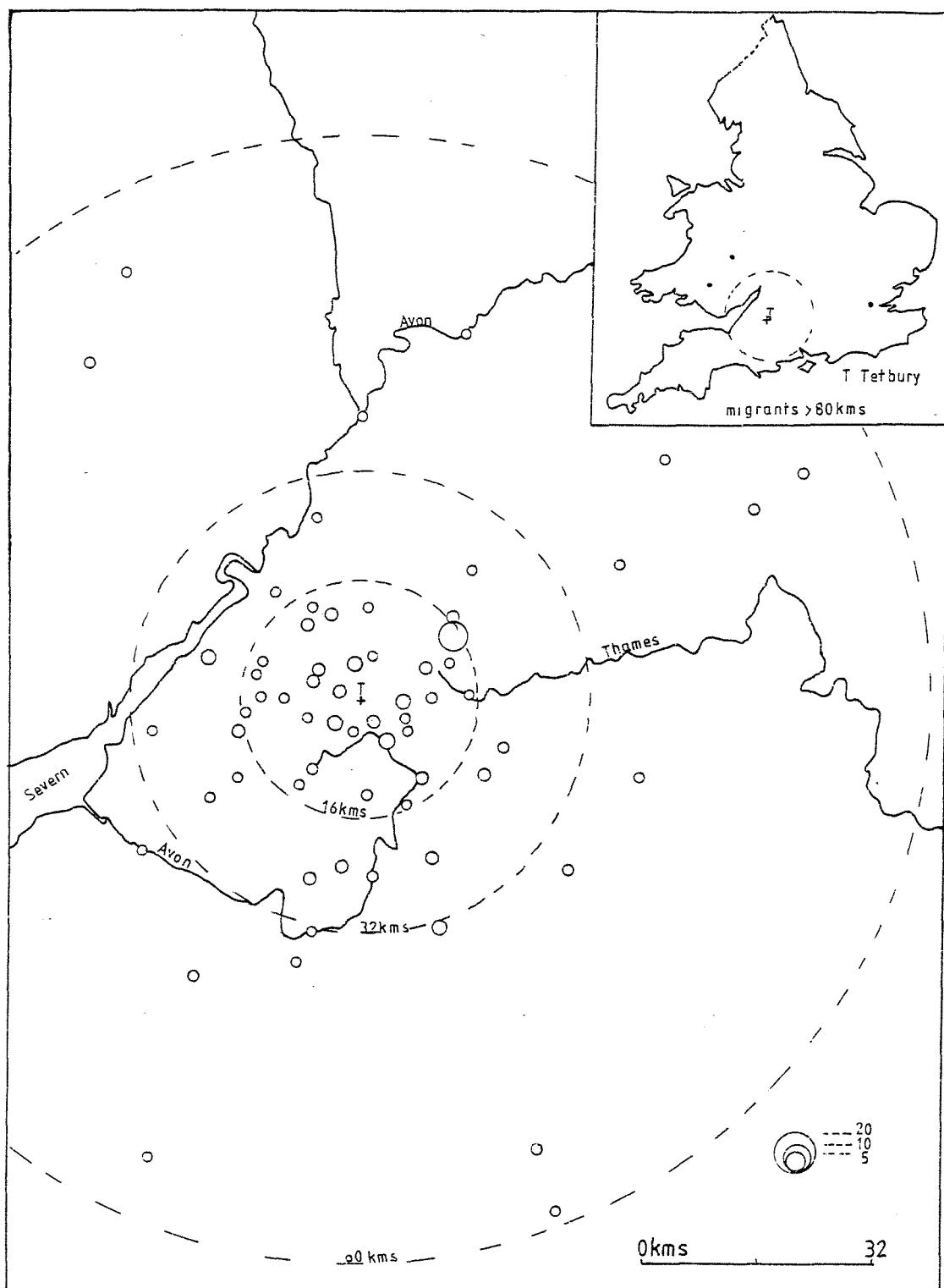


Fig 43 MIGRANTS TO TETBURY [settlement certificates]



Newland, Lydney, Chepstow and Glamorgan are found here. Rudder had noted the movement of people out of the Vale to the cloth towns and Upland Country, but the absence of Settlement Certificates or Removal Orders for these areas in the Berkeley and Slimbridge collections suggests that there was no corresponding counter-stream.

The isolation of the west bank of the Severn from the rest of the county noted above is confirmed in the data for Littledean and Mitcheldean. Littledean at this time, had yet to benefit from the growth of nearby Cinderford and its highly restricted migration field was confined to the Forest and the Ryelands into Herefordshire. Mitcheldean, close to the Hereford, Ross and Gloucester and Monmouth turnpikes was more important than Littledean in the eighteenth century. Beyond the Forest its links with Herefordshire, Ross and Gloucester are most noticeable.

The coalfield in South Gloucestershire is represented by the villages of Westerleigh and Bitton and the market town of Wickwar. The latter, at the northern limit of the syncline, became a mining community later than the other two parishes and the coalfield plays little part in the movement recorded in its Settlement Certificates. Despite the parlous state of its cloth industry links with the Dursley region and the Wiltshire cloth region remain. In fact, all three settlements show a strong link with Wiltshire which may, in the case of Bitton and Westerleigh, reflect the attraction of this area of thriving mining and metal industries to a region within which the villages were beginning to suffer from the reorganisation of the cloth industry. The crucial factor in explaining this pattern is the availability of employment and not the opportunity to use the craft skill that the migrant may have brought with him. Nevertheless, the Westerleigh Certificates show some evidence of occupational links. Nicholas Carter, a coalminer from Poulton, Somerset, came to the village on a Certificate dated 30th May 1684 and William Reynolds a feltmaker, came from Gloucester in June 1700. The making of felt hats was concentrated in the parishes of Frampton Cotterell, Winterbourne, Pucklechurch and Westerleigh in Rudder's time (Figure 11). Richard Symonds came from Pucklechurch in November 1684 and William Thomas with his wife, two children and an apprentice from Frampton Cotterell in August 1750 to settle in Westerleigh (42). The absence of movement from the Cotswold parishes to this area is noticeable. Figures 44 and 45 for Bitton Removal Orders also show that this prosperous village, halfway along the turnpike from Bristol to Bath, had important directional links with these major Georgian cities.

The evidence for the major urban centres of the county is

Fig 44 MIGRANTS TO BITTON [removal orders pre 1795]

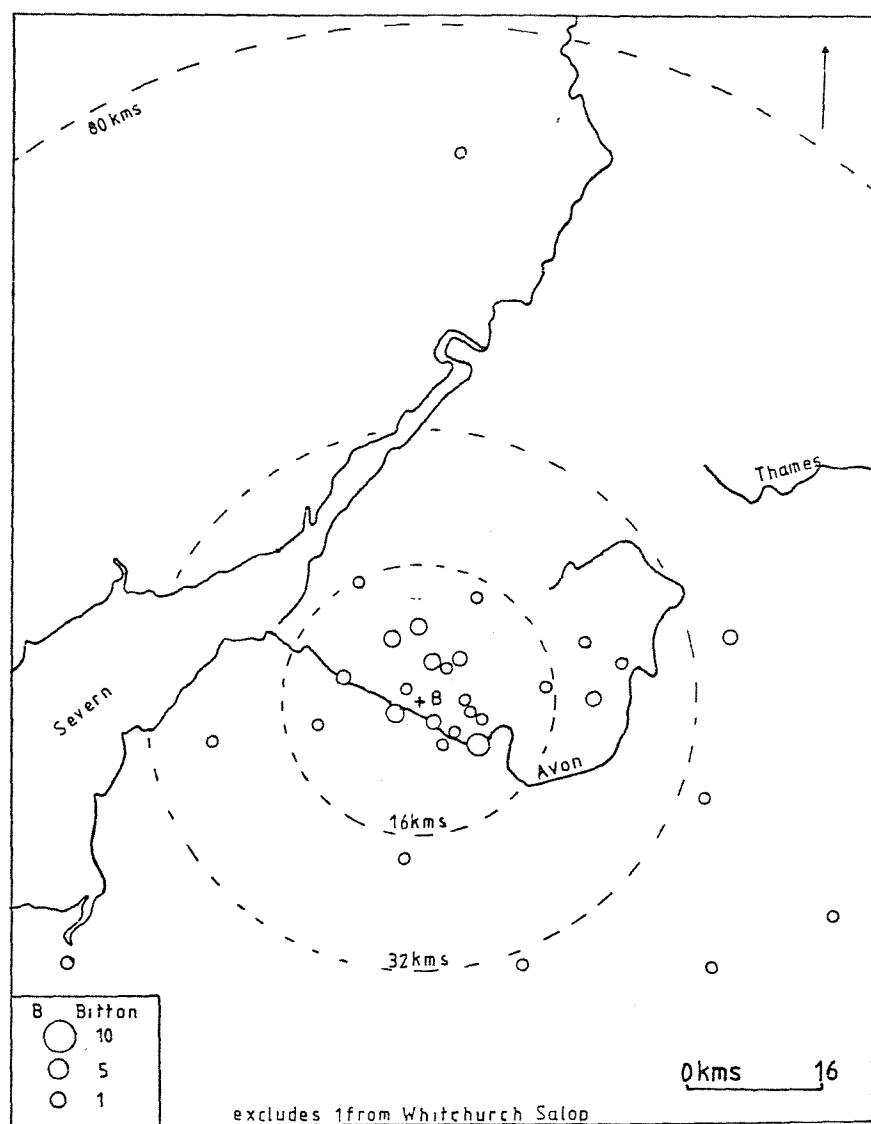
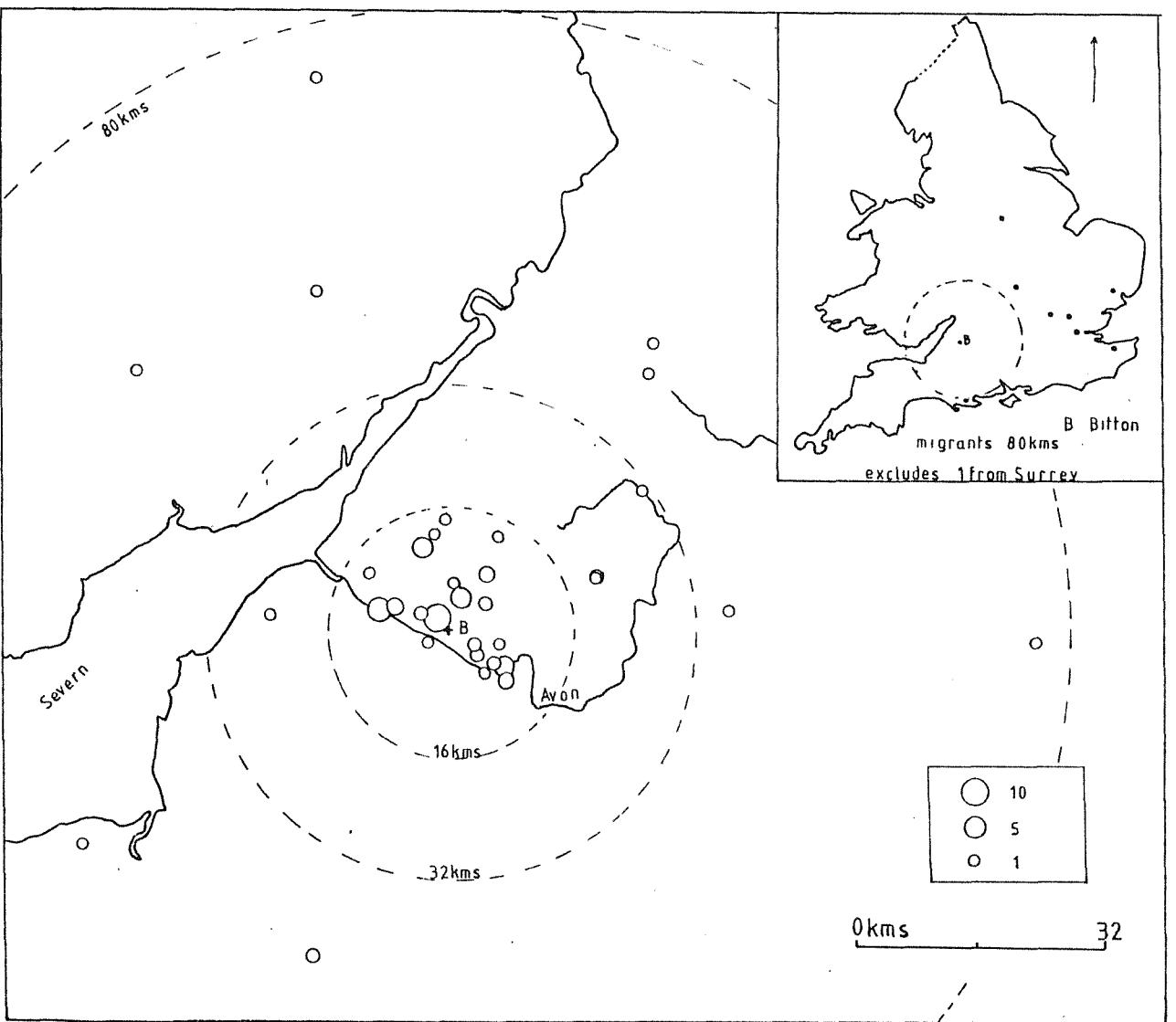


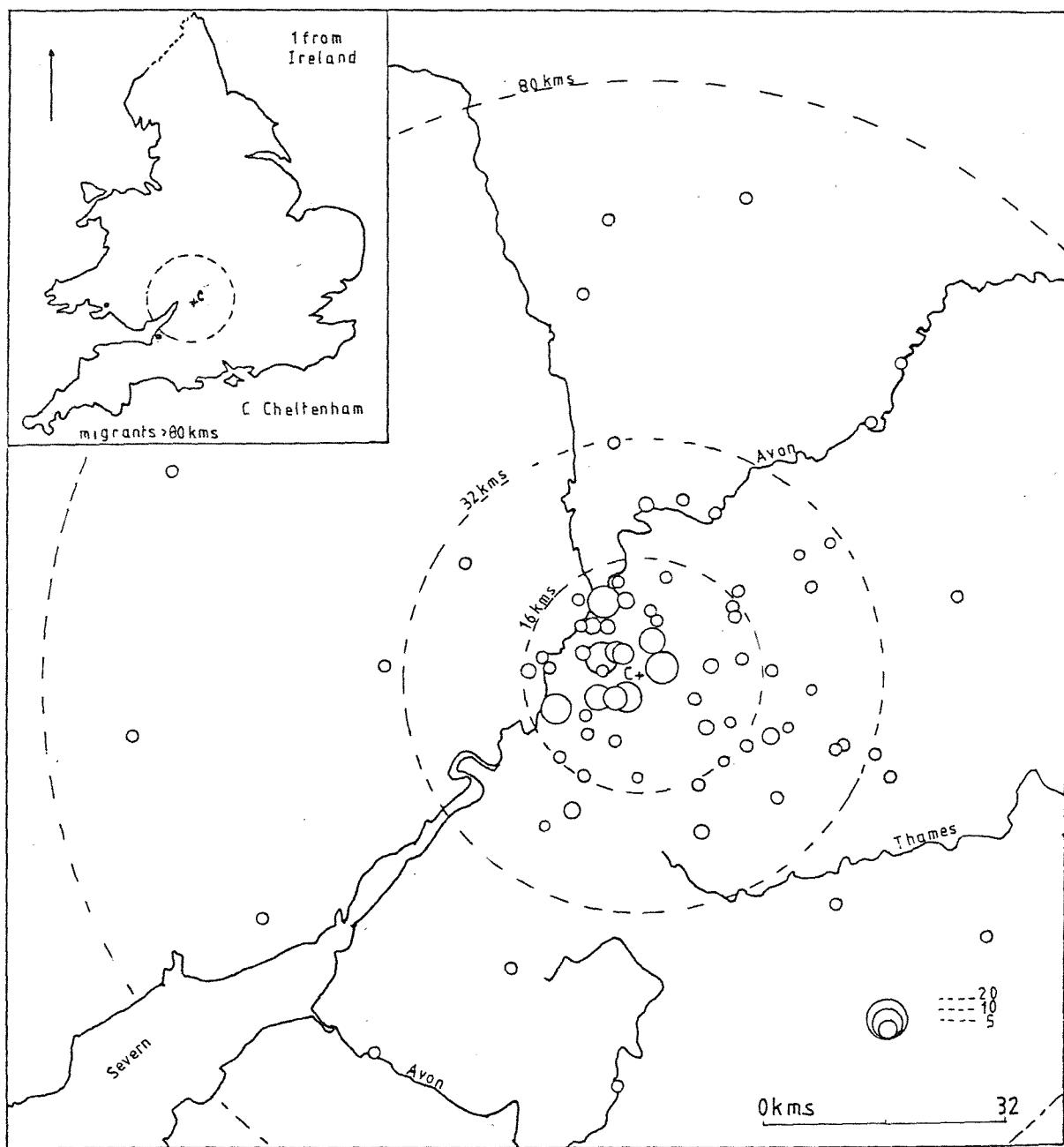
Fig 45 MIGRANTS TO BITTON [removal orders post 1795]



particularly disappointing. There are only small collections of Removal Orders and Certificates for the City of Gloucester. Both data sets reveal very low 'b' values (Tables 34, 39 and 41) which would be expected in a city which was not only the county town, but also a port and the lowest bridging point of Britain's most important navigable river. The post-1795 Removal Orders show the one definable stream of movement as from the Stroudwater parishes. Cheltenham has an important collection of Certificates for this period before it gained significance as a spa town. Their highly localised distribution is striking; 128/201 Certificates are from the Vale of Gloucester and Gloucester itself and 38 are from neighbouring Cotswold parishes. It does not appear attractive to the cloth parishes though a weak link to the Midlands is recorded (Figure 46). Contemporary Removal Orders confirm this picture, but more interestingly the lack of Removal Orders in the post-1795 period, may reflect not only the vagaries of the survival of these documents, but also the mushroom growth that the town enjoyed in the first half of the nineteenth century. Christmas' analysis of the rate books shows a significant number of Gloucester and Stroud parishioners receiving non-resident relief in Cheltenham and Gloucester relieving paupers from Westbury-upon-Severn (43). Of the six unions Christmas analysed, only Cheltenham had more non-settled poor compared with those receiving non-resident relief elsewhere. This in itself is a reflection of the town's recent growth. In consequence, the 1846 legislation did not adversely affect this union (see page 45) (44).

Before leaving this examination of Gloucestershire parishes, particular reference must be made to the effect that the administration of the Poor Law may have had on the direction of movement. The background to this theme of 'open' and 'close' parishes has been examined in some detail and evidence presented to suggest that such an effect did occur. Figures 14 and 15 identify the spatial distribution of 'close' parishes using the criteria suggested by Mills and Holderness and the location of the major collections of settlement Certificates. The total lack of coincidence between the two patterns provide further support for the view that 'close' parishes may have operated a strict policy of deterring newcomers. Certificates were issued by such parishes as this would alleviate the rates, but the lack of a collection of any size of Certificates in any of these parishes seems too strong to be explained by chance. However, as the Certificate, by definition, prevented a settlement being effected and coupled with the power of removal, this differential operation of the Law is not entirely convincing

Fig 46 MIGRANTS TO CHELTENHAM [settlement certificates]



unless one considers that such newcomers may displace local labour and thereby cause an increase in the rates. It has been suggested that one of the evils of the settlement system was its drugging effect on local labour, which endured permanent poverty and pauperisation in the sure knowledge that in their parish of settlement, support, however meagre, would be forthcoming (45). Further support for the view that 'close' parishes restricted newcomers is noted by Mills (see page 83) and may be seen operating in Gloucestershire as late as 1867. The Reverend James Fraser noted that South Cerney, with many small land-owners was able to supply Sharncote, Somerford Keynes, Siddington, Harnhill, Driffield, Latton, Down Ampney, Kemble and Ashton Keynes. "Labourers travel some 3-4 miles daily. South Cerney is an open parish and its population has been in great measure driven into it from the surrounding close parishes." (46) (see Figure 16).

There is some evidence to suggest that many parishes did not freely grant Certificates. Figure 14 shows the concentration of 'close' parishes in the North Cotswolds (region 2A). Of the 108 parishes in this region there are no surviving Certificates in 40 parishes and only one Certificate survives in each of a further 22. In fact, Yanworth, with 10 Certificates has the largest surviving number for any 'close' parish in this region. For the 20 parishes in this region with the greatest concentration of landownership (Table 6), only 32 Certificates survive and 8 of these are for one parish, Rendcombe. One would expect that the policy of not issuing Certificates would be most prevalent in those parishes which suffered a labour deficiency; those parishes identified by Holderness (Figure 15). However, 31.1 percent of the extant Certificates for this same region come from these parishes. Chedworth, an 'open' parish, has four such 'close' parishes surrounding it, Coln Rogers, Coln St. Dennis, Yanworth and Rendcombe, which provide 30/63 Certificates found there. If one regards this as a special case derived from the particular arrangement of 'open' and 'close' parishes, then only 52 Certificates survive for the other 34 North Cotswold parishes defined in Holderness' terms. In the absence of more specific comment in the overseers' papers, in these 'close' parishes, then this evidence can only be regarded as circumstantial.

Inevitably, much of the preceding discussion on directional influences has dealt with movement over fairly short distances, but Thomas' analysis emphasises the close relationship between long-distance migration and the specific streams established through occupational links, especially those between the textile regions of Southern England.

In fact, there was little movement towards the northern textile areas (47). The evidence of Removal Orders shows that the silk industry of East London proved attractive to parishes in the Essex woollen cloth area and to Chieveley in Berkshire, during the last two decades of the eighteenth century and in the decade following the Napoleonic Wars (48). Evidence for a counter-stream is equally strong. Bocking, Braintree and Halstead in Essex and Thatcham in Berkshire had silk mills which attracted East End labour in the 1830's (49). This replacement industry gave a lease of life to these old woollen cloth manufacturing areas (50). The Certificates for the same Essex parishes show links not only with London, but also with the Suffolk cloth towns, Norfolk, Cirencester, Tetbury, Kettering, Coventry, Melton Mowbray and as far away as Kendal (51). The Berkshire and Oxfordshire cloth area had particularly strong links with Gloucestershire and Wiltshire and with Leicestershire and Northamptonshire. Settlement Certificates reflect in-migration until the 1760's and Removal Orders 'from' reflect the decline towards the end of the century (52). Randall's work on Kettering, an important centre of the eighteenth century worsted industry, provides further evidence of directional links created by settlements having similar manufactures. This was not only true for differential links within Northamptonshire, but also for the longer distance, reciprocal movements with the West Country and East Anglia. Again, no link is found with Yorkshire (53). Although there is good reason for assuming, as Randall suggests, that long-distance moves from known textile centres imply occupational links, little actual evidence is provided to corroborate this supposition, except for woolcombers from Tetbury (54). Randall makes the important point that where a great number of migrants are coming from textile villages to a major textile centre, like Kettering, this does not necessarily imply that a specific occupational link is in evidence, but that the industry would have a strong influence on the spatial extent and form of that town's intensive migration field (55). By implication, person to person transfer of information was of paramount importance, carrying news of opportunities of other work besides that of textiles (56).

C - Migration as a central place analogue. In Chapter 5 a settlement hierarchy was established which provided the basis for testing the migration analogue of central place theory. Tables 47, 48 and 49 provide comparable data for the non-cloth Gloucestershire parishes for Settlement Certificates and Removal Orders and for Newark and Birmingham Certificates. In this section aggregated tables are of

Table 47

Migration flows into selected Gloucestershire parishes,  
Newark and Birmingham, by settlement class. Certificates 'to'.

Class	Parish	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		N
		n	%	n	%	n	%	n	%	n	%	n	%	
A	South Cerney	38	79.2	5	10.4	5	10.4							48
	Chedworth	63	86.3	2	2.7	8	11.0							73
	Badgeworth	27	87.1	2	6.5	1	3.2	1	3.2					31
	Stinchcombe	20	60.6	7	21.2	5	15.2	1	3.0					33
	Littledean	21	61.7	3	8.8	8	23.5	1	2.9	1	2.9			34
	Westerleigh	57	77.0	12	16.2	3	4.1	1	1.4	1	1.4			74
B <sub>1</sub>	Chipping Campden	62	58.4	13	20.3	28	26.4	1	1.6	1	1.6	1.	1.6	106
	Berkeley	86	76.1	17	15.0	7	6.2	2	1.8	1	0.9			113
	Chipping Sodbury	34	63.0	7	13.0	7	13.0			6	11.1			54
	Mitcheldean	50	64.0	5	6.4	11	14.1	9	15.5	2	2.6	1	1.3	78
	Wickwar	24	47.1	11	21.6	15	29.4			1	2.0			51
B <sub>2</sub>	Tetbury	58	54.2	19	17.8	25	23.4	3	2.7	1	0.9	1	0.9	107
	Cheltenham	138	69.0	13	6.5	37	18.5	10	5.0	2	1.0			200
C <sub>1</sub>	Gloucester	8	30.8	3	11.5	11	42.3	2	7.6	1	3.8	1	3.8	26
	Summary	226	77.1	31	10.6	30	10.2	4	1.4	2	0.7			293
A		256	63.7	53	13.1	68	16.9	12	3.0	11	2.7	2	0.5	402
B <sub>1</sub>		196	63.8	32	10.4	62	20.2	13	4.2	3	1.0	1	0.3	307
B <sub>2</sub>		8	30.8	3	11.5	11	42.3	2	7.6	1	3.8	1	3.8	26
C <sub>2</sub>	Newark	597	66.9	59	6.6	175	19.6	7	0.8	52	5.8	2	0.2	1028
	Birmingham	290	41.0	66	9.3	274	38.7	35	4.9	17	2.4	26	3.5	892
	Pre 1697	52	53.1	6	6.1	34	34.7	4	4.1	1	1.0	1	1.0	708
	Post 1697	238	39.0	60	9.8	240	39.3	31	5.1	16	2.6	25	4.1	98

+ 1 unlocated

ø 1 from Eire.

Table 48.

Migration flows into selected Gloucestershire parishes by  
settlement class. Removal Orders 'from'. Pre-1795.

Class	Parish	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		
		n	%	n	%	n	%	n	%	n	%	n	%	
A	Kempsford	20	76.9	5	19.2	1	3.8						26	
	Stinchcombe	64	83.1	7	9.1	6	7.8						77	
	Olveston	31	70.5	3	7.3	7	1.7			3	7.3		44	
	Bitton	38	76.0			5	10.0			7	14.0		50	
	Westerleigh	78	74.3	12	11.4	9	8.6	1	1.0	5	4.8		105	
B <sub>1</sub>	Chipping Campden	46	73.0	4	6.0	13	20.6						63 + ♂	
	Berkeley	35	71.4	8	16.8	4	8.2			2	4.1		49	
	Chipping Sodbury	19	70.4	2	7.4	2	7.4			4	14.8		27	
B <sub>2</sub>	Tetbury	49	64.4	8	10.5	13	17.1	3	3.9	1	1.3	2	2.6	76 + ♂
	Cheltenham	56	72.7	1	1.3	12	15.5	7	9.1			1	1.3	77
Summary														
A		231	76.5	27	8.9	28	9.3	1	0.3	15	5.0		302	
B <sub>1</sub>		100	71.9	14	10.1	19	13.7			6	4.3		139	
B <sub>2</sub>		105	68.6	9	5.9	25	16.3	10	6.5	1	0.7	3	2.0	153
													518	

+ 1 unlocated

♂ 1 undated

Table 49.

Migration flows into selected Gloucestershire parishes by  
settlement class. Removal Orders 'from'. Post-1795.

Class	Parish	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D		
		n	%	n	%	n	%	n	%	n	%	n	%	
A	South Cerney	27	61.3	11	25.0	6	13.7							44
	Badgeworth	26	78.8	2	6.1	3	9.1	2	6.1					33 *
	Slimbridge	27	84.4	2	6.3	3	9.4							32
	Dymock	28	70.0			12	30.0							40 *
	Bitton	60	74.1	3	3.7	5	6.2	1	1.2	11	13.6	1	1.2	81 *
B <sub>1</sub>	Leckhampton	22	40.7	4	7.4	10	18.5	16	29.6	2	3.7			54
	Chipping Campden	84	83.2	6	5.9	7	6.9					4	4.0	101
	Mitcheldean	24	88.9			2	7.5			1	3.7			27
B <sub>2</sub>	Gloucester	36	61.0	3	5.1	11	18.6	3	5.1	4	6.8	2	3.4	59 z
	Tetbury	77	63.6	22	18.2	11	9.1	7	5.8	3	2.5	1	0.8	121 *
<u>Summary</u>														
A		190	66.9	22	7.7	39	13.7	19	6.6	13	4.6	1	0.3	284
B <sub>1</sub>		108	84.4	6	4.7	9	7.0			1	0.8	4	3.1	128
B <sub>2</sub>		113	62.8	25	13.9	22	12.2	10	5.6	7	3.9	3	1.7	180
														592
*	1 unlocated	ø	1 undated	z	1 to Ireland									

less value than in Chapter 5, as the settlements do not reflect a specific network in which a great deal of interaction occurs. This may be partially responsible for the much higher percentage of village-village movement which characterises both the Removal Orders 'from' (pre-1795) and the Certificates in these parishes compared with those in Chapter 5. Only six Certificates survive (2.1 percent of the total movement to villages) from centres of regional status and above. The greater movement downwards in the hierarchy from Poor Law union centres and market towns, in the cloth parishes, reflects their economic interdependence as potential centres of employment during the pre-factory phase of manufacturing. The villages in Table 47 would not have been labour magnets. Notwithstanding this observation, movement downward in the hierarchy is present at all levels, providing further support for the view that a central place analogue is inappropriate in this context. Similarly, there is no clear pattern of the relative number of migrants to high order centres increasing with the status of the origin. (Table 50).

Table 50

Migration flows to Gloucestershire parishes

to (percent)

	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D	n
<u>from</u>	A	32.9	37.3	28.6	1.2		686
	B <sub>1</sub>	26.1	44.5	28.3	2.65		119
	B <sub>2</sub>	17.5	39.8	36.3	6.4		171
	C <sub>1</sub>	12.9	38.7	41.9	6.5		31
	C <sub>2</sub>	11.8	65.0	17.6	5.9		17
	D	50.0	25.0	25.0			4

This table is a re-casting of the data in Table 47 for Settlement Certificates.

The pattern for Newark is similar to that of the market towns of Gloucestershire, but the uniqueness of geographical place is reflected in the higher percentage of movement from regional centres such as Nottingham and Lincoln. Newark is also within 30 kms. of the Poor Law union centres of Bingham, Grantham and Mansfield and these and

other union centres account for nearly 20 percent of the migrants. The picture is very incomplete as no further work has been done on the Settlement papers in this part of the East Midlands. However, two-thirds of Newark's Certificates relate to surrounding rural parishes for which it acted as a focal point, but without more evidence, one cannot show the town's relationship to higher order centres. The Certificates again point to a substantial movement down the hierarchy, reflecting the uniqueness of place rather than a geometry of space.

Birmingham provides the only data for an urban centre of major regional or national status. It retains its links with an immediate hinterland, though the importance of movement from villages to the city declined in the first quarter of the eighteenth century. Table 47 emphasises town-town flows, especially with other regional centres and London, reflecting an information-rich system and the likelihood of equally strong counter-streams of out-migrants.

The evidence from Removal Orders shows the same tendencies. The lack of movement from the highest order centres may be seen as indirect evidence of a central place analogue. It was noted in Chapter 5 that village-village movement increased in the post-1795 period, but there is a reverse pattern in Tables 48 and 49. However, only Bitton is common to both Tables and there is little difference over time. To aggregate and compare the different parishes in these two Tables would be meaningless. Comparisons with the cloth villages can only be tentative though the higher proportion of village-village movement, already noted above, may reflect the greater isolation of these non-cloth villages in the eighteenth century. Five towns are found in both the Removal Orders and Settlement Certificates and an analysis of village-town and town-town movement shows a comparable pattern (57), which is in agreement with the findings in Chapter 5. A comparison between the pre-1795 and post-1795 periods also shows a statistically similar pattern (58). Only Chipping Campden and Tetbury are common to both Tables 48 and 49, but the difference in results compared with Chapter 5 may reflect the particular economic changes in the cloth areas. The general townward movement in the late eighteenth and early nineteenth centuries noted in the cloth parishes is shown in a comparison of village-village movement for in-migration and out-migration. For both the earlier and the post-1795 periods a significant decrease in such movement is recorded for out-migration (59). At the town level, there is a statistically different pattern of out-migration compared with in-migration in the pre-1795 period. Townward movement, as in the cloth parishes, was greater for out-migration in both periods, but only Tetbury is common to Tables 48 and 51 (60).

Table 51

Migration flows from selected Gloucestershire  
parishes by Settlement class (Removal Orders 'to')

		1. Pre-1795													
Class	Parish	A		B <sub>1</sub>		B <sub>2</sub>		C <sub>1</sub>		C <sub>2</sub>		D			
		n	%	n	%	n	%	n	%	n	%	n	%		
A	Stinchcombe	15	55.6	5	18.5	6	22.2	-		1	3.7	-	27		
	Olveston	13	50.0	1	3.8	2	7.7	1	3.8	8	30.8	1	3.8	26	
	Bitton	17	54.8	-		2	6.5	4	12.9	8	25.8	-		31+	
	Westerleigh	32	65.3	5	10.2	3	7.5	1	2.5	8	16.3			49	
	Total	77	57.9	11	8.3	13	9.8	6	4.5	25	18.8	1	0.8	133	
B <sub>2</sub>	Tetbury	29	44.6	13	20.0	14	21.5	4	6.2	4	6.2	1	1.5	65	
2. Post-1795															
A	Slimbridge	31	54.4	11	19.3	4	7.0	5	8.8	6	10.5			57	
	Bitton	37	56.9	1	1.5	4	6.2	-		21	32.3	2	3.1	65	
	Total	68	55.7	12	9.8	8	6.5	5	4.1	27	22.1	2	1.6	122	
B <sub>1</sub>	Chipping Campden	26	54.2	7	14.6	5	10.4	5	10.4	4	8.3	1	2.1	48	
	B <sub>2</sub>	Tetbury	33	37.9	9	10.3	22	25.3	11	12.6	6	6.9	6	6.9	87
	Gloucester	8	27.6	2	6.9	6	20.7	9	31.0	1	3.4	3	10.3	29	
	Total	41	35.3	11	9.5	28	24.1	20	17.2	7	6.0	9	7.8	116	

+ one unlocated

see Table 19 for key.

An analysis of long-distance migration reinforces the conclusions from Chapter 5 of increased town orientated movement over both space and time. Table 47 shows that 33.1 percent of all in-migrants to Newark came from towns, but of the 204 long-distance movements, 46.6 percent are town orientated (Table 52). Birmingham shows not only a dramatic increase in urban migrants after 1697 but also an increase from 59 percent to 67.6 percent, if long-distance movements from towns are separated from all movement. Thomas, though not providing a definition of town, indicates that town-town movement characterised long-distance movement, whereas village-village and village-town moves were essentially local (61). Tables 53 and 54 represent long distance movement from the analysis of Removal Orders. Both Tables show an increase in urban movement over time and in space relative to all Removal Orders and an increase in the long-distance urban orientation of out-migration compared with in-migration.

Tables 47, 48 and 49 clearly show the towns as collecting centres for the surrounding villages and an indication that they acted as a source region for out-migration. Tetbury received 6/27 urban migrants from higher order centres before 1795 and 23/54 after that date. The separation of long-distance movement increases this trend to 5/10 and 21/35 migrants respectively. In Chipping Campden 11/17 in-migrants from urban areas after 1795, came from higher order centres, while 15/22 urban out-migrants were moving to higher order centres. Again, long-distance moves increases these proportions. Here is some indication of the step-wise process of migration envisaged by Ravenstein, Redford and Hägerstrand (see pages 23 and 24).

Randall also comments on this process in his work on the Kettering region in which the mean population of settlements acting as points of origin and destination is greater for the latter group (62). This is seen as an important indication of the process, but the generalisation is inadequately supported in the examples cited. Randall only concerns himself with the four zones that extend up to 12 kms. from Kettering, an area in which only one settlement has even half the population of Kettering itself (63). No evidence of actual upward migration is therefore presented. Randall uses quite small variations in mean population for a sub-group of settlements which has Wellingborough ( $B_2$  status), Rothwell ( $B_1$ ) and 51 villages (A) in it. Leaving aside the problem of using 1801 Census data and his different definition of in-migration, the use of small variations in mean population within what is really one class of settlement is open to question. Randall

\* and  $\frac{11}{44}$  after that date, whereas it provided 936 migrants to higher order centres pre 1795

Tables 52 - 54

Long distance movement to and from selected Gloucestershire parishes and to Newark and Birmingham

Table 52 Settlement Certificates

Gloucestershire parishes	n	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D
A	18	9	3	4	1	1	
B <sub>1</sub>	55	29	4	15	2	3	2
B <sub>2</sub>	53	18	8	11	2	3	1
C <sub>1</sub>	9	3	1	1	2	1	1
Newark	204	109	15	64	7	7	2
Birmingham pre 1697	12	2	4	4		1	1
post 1697	202	64	32	60	8	12	26

Table 53 Removal Orders 'from' (Gloucestershire parishes)

Pre 1795	n	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D
A	27	21	1	5			
B <sub>1</sub>	11	7	1	3			
B <sub>2</sub>	27	10	2	8	3	1	3
Post 1795							
A	45	24	9	8	1	2	1
B <sub>1</sub>	14	7		2		1	4
B <sub>2</sub>	54	22	4	10	8	7	3

Table 54 Removal Orders 'to' (Gloucestershire parishes)

Pre 1795	n	A	B <sub>1</sub>	B <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	D
A	11	6		3	1		1
B <sub>1</sub>		no data					
B <sub>2</sub>	16	6	1	4		4	1
Post 1795							
A	26	11	1	5	1	6	2
B <sub>1</sub>	15	3	2	1	4	4	1
B <sub>2</sub>	53	8	3	16	10	7	9

see Table 19 for key.

operationalises Olsson's hypothesis, that the lower the centre is located in the hierarchy the steeper will be the interaction slope of the migrants, to investigate further the validity of the central place analogue. The Surrey, Essex and Northamptonshire data are considered as if they all belong to a meaningful sub-system of the settlement hierarchy. The intra-city movement in Reigate is included, thereby lowering the size of its migration field, while three of Colchester's parishes are treated separately, though again intra-city movement is also present. The acceptance of the hypothesis is the basis for Randall's modification of his initial spatial hypothesis of migration (64). In particular, rational behaviour and distance minimisation are modified to embrace a concept analogous to the multi-purpose trip of central place theory. Migrants will therefore travel further to larger settlements, even though a job opportunity exists in a closer, smaller settlement. This is justified, in that if there is a failure to secure the prime opportunity, higher order centres provide alternatives that would be denied the migrant in a smaller centre. The hypothesis is tested by Spearman's Rank Correlation test to measure the strength of the relationship between parish population in 1801 and a measure of the slope of the migration field. This relationship is found to be significant (65). Randall is rightly concerned to exclude the influence of a very few long distance migrants, whose inclusion would distort the slope measurement (66), though one can argue that his 90 percent cut-off point creates a distance threshold of 40 kms., which may mask those slope variations he is trying to analyse (67). Randall does cast some doubt on the validity of the spatial hypothesis derived from central place theory that an inner and outer zone of migration can be established (see page 21). He notes that intra parochial movement cannot be identified from Poor Law data and, as a consequence, an inner zone cannot be established. The distance for the threshold of 90 percent migration varies from 18 kms. to 69 kms. (68) and in these circumstances despite 90 percent of the migrants coming from <42 kms., the setting of any threshold for an outer zone remains arbitrary. The very rapid decrease in the number of migrants beyond that distance and the concentration of movement within 10 kms. of the origin reinforces Patten's view that two related, but different migration mechanisms are at work (see page 27).

#### D - Migration differentials.

Occupations. Although the presence of well defined, long-distance migration streams could be identified for clothworkers in Chapter 5, this could not be substantiated statistically by the data available. Thomas does not attempt to quantify his hypothesis but notes that "when occupations are mentioned in the Reading Certificates it is almost always the skilled workers who have moved over the longer distances - tailors, glovers, combers, weavers, fellmongers, turners, websters, shoemakers and bricklayers". A similar pattern is reflected in the Oxford settlement Certificates (69). To Thomas, this is the cause of the essentially town-town orientation of long-distance movement (70). Where there is no direct evidence, Thomas uses the strong circumstantial evidence of the known importance of the centres as cloth producers (71). In contrast, although there was some long-distance movement to London and the prosperous Essex farming regions, the bulk of migration for agricultural labourers was both village to village and highly localised (72).

The list of Newark Certificates contains 85/892 documents with references to occupations (Appendix 14). The largest group is labourers, but the diversity of service employment and craft industry mark the town's importance as a market and nodal centre. For the 80 migrants, for whom the place of settlement can be identified, the median migration distance is 33.9 kms., though the median for the 21 labourers is only 25 kms (73). The separation of long-distance movement confirms the more localised movement of labourers (74) and this is at variance with the findings in Chapter 5, which isolated one particular group of skilled workers for which strong intra-regional flows existed. Although there is no simple explanation, it is a fact that the labourers and cloth workers identified in the Gloucestershire cloth parishes and in those Certificates which contain occupational data in Newark, travel greater median distances than that recorded for the rest of the data set.

Pelham noticed that where occupations are stated, skilled artisans are in the majority (75). This, in itself, should not be seen as support for a view that artisans were more likely to migrate than unskilled workers or that landlords were restricting the mobility of farm labour (76). Randall suggests that the absence of information on Certificates for the unskilled, may have been a subtle way of protecting this group and thereby increasing their chances of employment elsewhere. 94/392 Certificates list occupations in the Kettering collection, of which 42 are for worsted workers but only eight refer to labourers. For Reigate 96/415 documents contain occupational data, of which 41 are for labourers

and husbandmen. Randall interprets this contrary picture by suggesting that the differences between the two towns are a function of their employment structure (77). Further support for Randall's view that these occupations directly reflect dominant functions is found in the Birmingham data. Pelham notes that in the six percent of the documents which contain occupational data, the clothing and building trades are strongly represented as they reflect the needs of an expanding town, but equally important are the staple metal and leather trades (78). One should not read too much into this limited data, especially as Hobsbawm believes that the absence of particular categories of workers, amongst in-migrants, reflects the craft exclusiveness of the local people. In this way, he explains that the Newark Certificates record no single mason, printer or brushmaker and only one hatter and currier over more than a century (79). It may be the same factor that limits movement in the pre-1697 period into Birmingham from other towns (80).

Civil Status. Although the volume of data for Newark in Appendix 14 is restricted, it was decided to test the hypothesis that single males travelled greater distances than married couples with or without families. The Chi Square test reinforces the conclusions in Chapter 5 that any differences are not statistically significant. However, several other studies have commented on the differential effect of the law on differing civil status groups and thus the pattern for Removal Orders should be different from that of the Certificates. Table 55 lists the status of certificated migrants to the non-cloth parishes in Gloucestershire. Its overall similarity to Table 32 is most striking. Women are discriminated against, but the single male found it much easier to obtain a Certificate, though the married man obviously required its security. Table 56 draws on Oxley's work and the Newark listing. The high percentage of certificated married couples and families is corroborated, as is the relative infrequency of male Certificate holders. The main difference between the Gloucestershire data and that for these other two sources is the higher percentage of single men in the former data. The differences may be imaginary as 155/923 Newark Certificates and 33/190 for the West Derby Hundred contain the standard 'and family' clause. If these are regarded as single men then the discrepancy between these sources is negligible. Table 57 recasts the Certificate data for Kettering and Reigate and produces a comparable picture though Randall uses these data for different analyses. Firstly, by using a

Table 55

Civil Status of Certificated migrants to  
selected parishes in Gloucestershire.

Parish	M	MC	Mch						F	WSp	SpP	Wi	Wich	Wch	Ch	n		
	1	2	3	4	5	5												
South Cerney	10	11		7	5		1		5	3	1	1		4	48	+		
Chedworth	9	19		11	7	5	1	2	4	7	4	2		1	1	73	+	
Chipping Campden	39	26		5	9	4	1	2		12	4	2	1		1	106		
Tetbury	17	31	3	13	11	8	2	1	1	10	3		2	1	2	1	106	+
Badgeworth	2	10	1	6	4		2		1	1	1	1		2		31		
Stinchcombe	12	9	1	2		1		2		2	1	1		1	1	33		
Berkeley	20	24	2	12	12	8	4	2	2	10	5		4	4	4	113		
Chipping Sodbury	26	7	1	4	3	3	1	1	2	2	2		1	1	1	54		
Littledean	12	11		2	2					1	1		4			33	ø	
Mitcheldean	16	23	1	12	5	4	2	1	1	5	6		2			78		
Westerleigh	12	13	1	16	11	6	4		2	2	2			2	1	2	74	
Wickwar	7	19		9		3	1	1	1	5	2		1	1	1	51		
Cheltenham	25	57	5	31	18	14	12	4	4	17	3		4	3	4	201		
Gloucester	6	6	1	2	1		1			4	4	1				26		
n	213	266	16	132	88	56	31	17	18	83	41	8	19	13	21	5	1027	
%	20.7	25.9	1.6	12.9	8.6	5.5	3.0	1.7	1.8	8.1	4.0	0.8	1.9	1.3	2.0	0.5		

+ one document not located

ø one document multi-named

see Table 30 for key

Table 56 Civil Status of Certificated Migrants to parishes in the West Derby Hundred of Lancashire and Newark

Parish	M	MC	Mch	MCch				F <sup>2</sup>		WSp <sup>3</sup>	SpP	Wi <sup>3</sup>	Wich <sup>4</sup>	Wch <sup>4</sup>	Ch	n	
				1	2	3	4	5	5								
Parishes in West Derby Hd.	13	36	1	24	16	13	17	4	6	33	14	2	~	9	2	190	
	%	6.8	18.9	0.5	12.6	8.4	6.8	8.9	2.1	3.2	17.4	7.4	1.1	~	4.7	1.1	
Newark	89	287 <sup>1</sup>	5	126	82	36	18	17	9	155	12	43	6	6	17	15	923
	%	9.6	31.0	0.5	13.6	8.9	3.9	1.9	1.8	1.0	16.9	1.3	4.8	0.6	0.6	1.8	1.6

1 includes 46 named married couples and child(ren), but latter not named

2 F combines Oxley's 'and children' (ch), 'and family' (F)

3 Oxley combines these categories 4 Oxley combines these categories

see Table 30 for key

source see note 1 and Oxley, *op. cit.*, 395

Table 57 Civil Status of Certificated Migrants to Reigate and Kettering

Parish	M	MC	Mch <sup>+</sup>	MCch				F		WSp <sup>o</sup>	SpP	Wi <sup>o</sup>	Wich <sup>+</sup>	Wch <sup>+</sup>	Ch	n
				1	2	3	4	5	5							
Kettering I	80	122	9	45	32	14	2	2	4	75	5	n/d	~	~	~	392
	%	20.4	31.1	2.3	11.5	8.2	3.6	0.5	0.5	1.2	19.2	1.3	~	~	~	
Reigate	42	107	9	78	48	24	17	10	9	52	19	n/d	~	~	~	415
	%	10.1	25.8	2.2	18.8	11.6	5.8	4.1	2.4	2.2	12.5	4.6	~	~	~	

1 includes 2 unspecified in total

2 F combines all data for 'and family'

3 Mch combines all one parent and child(ren)

o W combines spinsters and widows

see Table 30 for key

after Randall, *op. cit.*, 198. Table 8.5

differential multiplier for the family unit in each town, he estimates the migrant population into Kettering and Reigate. Secondly, the 'and family' group is regarded as an indicator of marital status (82) and thus 78 percent of the Kettering migrants and 85 percent of those to Reigate are regarded as families, thereby re-emphasising the essentially youthful composition of migrants (83). In fact, the age selectivity of the group is maintained, even if one adopts the more realistic approach that the 'and family' group are unaccompanied males at the time that the Certificate was issued. Randall suggests that the Certificates reflect probable differences in migration behaviour between single males and single women. The single woman would be less migratory in that her age of marriage is lower than that of the male, and marriage is seen as a constraint in migration behaviour. The opportunity for domestic employment reduces the inclination to migrate but the operation of the Poor Law is seen as the major factor. The vulnerability of women to be returned to their parish of legal settlement, would, in Randall's opinion, induce them to move without a Certificate to the towns, especially London, or where the demand for labour was high. (84). Certainly, in the seventeenth century, a Certificate might be a liability, but it is the vulnerability of the migrant that the Certificate tried to reduce. Randall believes that the system favoured those migrants who might be a potential burden, but it is surely a mistake to include spinsters in this group (85) and this contradicts the previous statement. It may have been in the spinster's interest to carry a Certificate, but their paucity for this group suggests that it was not in the interest of parishes to issue one. Randall concludes that the inherent bias in the Certificate system prevents firm statements about the differing migratory habits of single males and females (86), thus reinforcing the view already proposed in this thesis.

The analysis of 310 Certificates for the Great St. Mary Church Cambridge, by Hampson, indicates that approximately 13 percent of the migrants were unaccompanied males, 25 percent married couples and over half were families. About 12 percent of the documents refer to women and women with children. These figures are not dissimilar to those found in other studies, though Hampson's figures for seven other parishes records a third of the volume related to the last two groups, a figure much closer to the proportion found in Removal Orders (87).

Table 58 lists the civil status of those migrants for whom Removal Orders were issued from selected Gloucestershire parishes and from the

Table 58

Civil Status of persons for whom Removal Orders issued from<sup>1</sup> selected  
Gloucestershire parishes and the West Derby Hundred of Lancashire.

Parish	M	MC	Mch	MCch					F	WSp	SpP	Wi	Wich	Wch	Ch	n	
	1	2	3	4	5	5											
South Cerney	9	6	1	7	3	1	2	2	1	28			2	3		65	
Chedworth	5	4		4	2	7	2	1	2	15		1	2	2		45	
Chipping Campden	20	23	1	31	15	7	6	5	5	30	3	2	3	10	4	167	
Kempsford	6	6		4	3	1	2		1	11	1	1	1	2		38	
Badgeworth	5	7	1	6	4	5	4		1	12	2	1	1		1	50	
Tetbury	15	22	1	27	14	18	7	4	1	41	12	6	10	6	11	198	
Berkeley	6	4	5	4	6	4	3	1	1	9		2	4	2	2	53	
Slimbridge	3	3	1	4	4	7				7	5	1	1	3	1	41	
Stinchcombe	3	7	2	6	14	5	2	1	5	21	2	1	5	3		82	
Chipping Sodbury	3	3	1		3	4	1			8		1	1	5		30	
Olveston	8	13		5	5	4	1	1		13	3	1	2	5	2	63	
Dymock	6	4	1	8	2		3	1		7	9			1		42	
Mitcheldean	6	7		4	6	6		2	1	7	1	3	2		2	45	
Bitton	16	14	3	6	8	7	6	8	2	1	29	7	8	10	7	132	
Pucklechurch	2	4	1	1	1		1	1	2	6	2	1	2	1		25	
Westerleigh	17	18	4	17	11	3	6	+	2	5	2	20	7	1	4	128	
Wickwar	7	2	2	2						11	2		2	3	1	32	
Cheltenham	6	6		9	6	11	4		5	1	22		3	3	4	84	
Leckhampton	8	7	1	2	4	4	3	3	2	7		1	4	7	1	54	
Gloucester	11	8	1	4	6	4	1	1	2	8		3	9	3	2	63	
n	162	168	26	151	117	98	54	31	34	19	312	56	33	57	40	1437	
%	11.3	11.7	1.8	10.5	8.1	6.8	3.8	2.2	2.4	1.3	21.7	3.9	2.3	4.0	5.5	2.8	
West Derby Hundred Y n	13	13	2	10	4	12	4	5	2	6	32	14			22	4	145
%	9.0	9.0	1.4	6.9	2.8	8.3	2.8	3.4	1.4	4.1	22.1	19.7			15.2	2.8	

+ includes one apprentice

Y from Oxley op. cit., 396 and 397 (combines pre and post 1795 Removal Orders)

see Table 30 for key

West Derby Hundred of Lancashire. Here there is less ambiguity over the civil status of the person(s) to be removed. About one tenth of these paupers were single men, a similar proportion married couples, but the most vulnerable group were families and women, without or with children. For the Gloucestershire parishes, 33.5 percent and 25.6 percent fell into these last two groups and for Oxley's study 37.4 percent and 47 percent respectively. The percentages shown in Table 58 closely reflect those for the cloth parishes in Table 33, but Oxley's study underweights the proportion of families subject to removal and shows a greater percentage of women, without or with children. This latter study is limited to the analysis of 145 documents and should therefore be treated with caution (88). Dorothy Marshall's analysis of the Quarter Session papers for Cambridgeshire for the period 1699-1749 is shown in Table 59 (89).

Table 59

Civil status of persons listed in Cambridgeshire  
Quarter Session Removal Orders, between 1699-1749

Period	M	MC and MC/ch	Sp	Wi	Wi/ch	Ch	N
1699-1715	17	63	33	12	14	23	162
1716-32	33	81	42	12	0	41	209
1736-49	16	80	31	21	0	13	161
N	66	224	106	45	14	77	532
%	12.4	42.1	19.9	8.5	2.6	14.5	

See Table 30 for key

These figures are not directly comparable to those used in this study as married couples are grouped with families. Nevertheless, the major categories are similar, with the exception of the very large group of pauper children, which may be a reflection of the source used by Marshall, which by its nature emphasises cases where litigation over settlement had occurred and in which minors would largely figure. Hampson analyses 1,155 Removal Orders for Cambridgeshire for the period 1665-1834, though the majority are for the nineteenth century. Single men made up one seventh of the total but single women some 40 percent of which 86 percent were pregnant (90). Body's work on 26 Dorset parishes included

1,122 Removal Orders for the period 1760-1834. Of these, 27 percent were for spinsters, of which 7 percent were pregnant and 41 percent for married couples with families. Unmarried men were least affected and non-resident relief no doubt saw them through temporary difficulties.

Summary. The analysis of Removal Orders and Certificates reinforces the findings for the Gloucestershire cloth parishes. These documents tell us more about the differential operation of the Law of Settlement and Removal than about migration differentials. The age selectivity of migrants is confirmed, though occupation, sex, and civil status are not seen in this study as significant factors in affecting migration distances. Furthermore, the short-distance nature of the great majority of moves masks any possible differences in the distances such groups migrate.

E - Volume of migration. Randall, has used Certificates 'to' and 'from' Kettering to make an estimate of the volume of migration. He acknowledges that although the law encompassed the great majority of people, many migrants would not have used the Certificate system. Nevertheless, he calculates that the annual average number of Certificates was 4 for in-migration and 2.3 for out-migration and that the average number of persons for each Certificate was 3. On this basis, he postulates that 6 people leave and 12 enter Kettering annually, and that for a total town population of 3,000, this would represent 180 Certificated migrants and a 6 percent decennial turn-over of population. Further assumptions are made. Firstly, that baptisms and burials are equal in mid-century, and secondly, that 900-1,000 are likely totals for any decade and that thirdly, the population of Kettering at mid-century was similar to that in 1801 (about 3,000). These assumptions produce a 40 percent turn-over of population (92), which he regards as conservative on the basis of the well known Clayworth and Cogenhoe data (93). Thus, 50 percent is adopted and certificated migrants account for about one third of the migration stream (94). Randall's view that such figures are speculative cannot be challenged. The evidence from Gloucestershire would suggest that the calculation of the volume of migration from Settlement Certificates is a most dangerous exercise. Firstly, the relationship between the extant data and the number of Certificates issued remain unknown. Secondly, an annual average total based on the very wide variations throughout the century is less useful than the adoption of the mid-century figures themselves. Thirdly, the rapid change in population towards the end of the century makes it unsafe to use the 1801 Census figure as a mid-century estimate.

Randall proceeds to test two hypotheses. Firstly, that there is a positive correlation between the number of Certificates received in a centre and the population of that centre in 1801. Secondly, the size of the population of a centre is proportional to the average number of in-migrants, expressed as a percentage of the population. Whereas as the first hypothesis is accepted the second is rejected (95). In fact, the relationship is inversely proportional, though Randall fails to realise fully that this is to be expected within the operation of the Law, the effectiveness of which diminished with the size of the centre. The first hypothesis was adopted for testing in the Gloucestershire cloth parishes using Rudder's population estimates and Randall's findings are confirmed (96). However, the test has omitted 15 cloth parishes for which there were <25 extant documents. Randall noted serious deficiencies in this respect, in the rural parishes around Kettering, but they are omitted from his calculations. (97).

F - The treatment of time. Randall, in examining Lee's theory of migration (Appendix 3), also hypothesises that the rate and volume of migration would increase during the latter half of the eighteenth century as economic development and associated changes in the transport network helped to surmount intervening obstacles (98). In more general terms, this relates to Lee's hypothesis 'that unless severe checks are imposed, both the volume and rate of migration tend to increase with time' (Appendix 3, hypothesis 1f). Randall, aware of the difficulties of measuring volume, operationalises this hypothesis by aggregating all the Essex data for Settlement Certificates into quinquennia (1701-90) and calculating slope exponents, the values of which should decrease over time as migration distances increase. An  $r_s$  value equalling 0.0361 is not significant (99). Randall omits the first decade of the century and a retest produces a significant result at the 90 percent level (100). He suggests that the greater migration distances in this first decade, which resulted in the rejection of the initial hypothesis might be attributed to parish officers, at the place of legal settlement, becoming increasingly reluctant to issue Certificates for long-distance migrants as the cost of removal fell to that parish. No evidence is provided to support this assumption while it is impossible to test statistically the data in the form in which Randall presents them, to see if there was a significant difference in migration distances between the period 1701-10 and later. Randall isolates 90 percent of the migrants to calculate the slope exponent, but in the process limits his

observation of distances to a maximum of 69 kms. (mean 40.3 kms., median 36 kms.) which are essentially short and medium distances and, by definition, omit the longer distances which might prove significant. The Pareto values, which in fact do not measure average distance, are themselves mathematical abstractions, in that all the Essex parishes are grouped together irrespective of destination. The apparent objectivity in using quinquennia may not only create differences but also mask others. Randall rejects this approach for an analysis of the changing fortunes of the Kettering worsted industry as the proposed three phases would create groups too small for analysis (101). Consequently, on the basis of cumulative percentage frequency distribution of migration distances, he modifies his initial hypothesis that the expansion of the industry in mid century would be accompanied by an expansion of the migration field (102). Given that there are 397 Certificates for Kettering, the following data can be derived from the cumulative percentage frequency table in Randall (Table 10.4)(103).

Table 60

Kettering Migration distances

<u>Period</u>	<u>short</u>	<u>long</u>	<u>n</u>
1697-1740	135 (110)	36 (61)	171
1741-1770	127 (121)	3 (9)	130
1771-1794	78 (72)	0 (6)	78

1. long distance > 81 kms.
2. figures in parentheses are based on the use of 33 kms. as the threshold for long distance to match as closely as possible that used in this thesis.

Chi Square test shows, that irrespective of the definition of long-distance, in Table 60, there was a significant and unexplained reduction in the migration field in mid-century (104). However, Randall's hypothesis that there was a further contraction of the migration field accompanying the decline of the industry is not supported statistically (105).

Finally, to test the validity of treating time as a constant, Randall compares the slope values for the Essex parishes with those derived from the quinquennial aggregation of the same data. He concludes that the greater fluctuation of the parish values, compared with the

temporal ones, provides support for this approach in which the Settlement Certificates for any one parish are regarded as a meaningful data set, in which time is held constant (106). It is this approach that underpins the analysis of Certificates in this present study.

## II. The Evidence of Marriage Registers.

It was suggested in Chapter 1, that the usefulness of the Poor Law documents, for the study of migration, could only be fully established if comparison was made with other contemporary sources. Anglican Registers provide the most important single source for such a study in pre-industrial England. Recent developments in research technique have extended the analysis of Registers from relatively simple aggregation techniques and the derivation of crude rates and trends to computer-assisted methods of family reconstitution (107). It is beyond the scope of this thesis to reiterate, in any detail, the problems associated with the different approaches or those inherent in the Registers themselves. A limited exercise in the analysis of Marriage Registers, for a sample of cloth parishes in Gloucestershire, will allow the calculation of distance-decay indices which can be compared with those derived from the Poor Law data in Chapter 5. Each partner, from outside the parish in which the marriage took place, is identified and aggregated by decades to identify the total number of marriages and the proportion involving outsiders (Table 61). It is assumed that where no mention of the parish of origin is made the individual is a local resident. Marriages are abstracted for the period from May 1st 1697 to June 21st 1795 to coincide with the two Poor Law Acts that established and effectively nullified the Settlement Certificate system (108). Distances are measured, as straight line distances, between the main parish settlements (109). Table 62 summarises the cumulative frequency distribution for the origins of marriage partners in these selected Gloucestershire cloth parishes (110). To ensure comparability with the Poor Law data, only those marriages involving a partner from outside the parish are used in these tables.

Before proceeding to the analysis, comment is necessary on the initial collection of the data and the limitations of Registers as they affect migration study. In most cases, especially for the period under consideration the original Registers are still available, either in the parish, but increasingly in County Record Offices. Where the originals do not exist, Bishops' Transcripts may be of importance though

Table 61

## Origin of marriage partners for selected Gloucestershire cloth parishes, 1697 - 1795 \*

Period	Bisley				Painswick				Stonehouse				Stroud			
	BL	BF	LF	LM	BL	BF	LF	LM	BL	BF	LF	LM	BL	BF	LF	LM
1697-1700	244				36	4	5		12	6	10		42			1
1701-10	438		3	21	106		14	1	38	8	18	3	176	4		39
1711-20	688	4	20	1	274				50	8	16	6	96	2	8	2
1721-30	1012		39	6	196	4	1	8	56	2	16	2	106	16	12	2
1731-40	880	14	37	28	230		1	3	62	8	16	11	114	2	9	8
1741-50	1252	28	17	32	322	2		1	60	6	20	4	78	4	8	6
1751-60	770	4	8	1	344		19	2	44	2	21	3	406	4	35	6
1761-70	638		4		402		23	7	114	4	28	5	650		58	10
1771-80	514		3		340		34	4	84		32	6	592	2	41	13
1781-90	632				396	6	17	3	148		30	4	648		61	8
1791-95	266				174		16		74		13	3	356		17	4
n	7334	50	131	89	2820	16	130	28	742	44	220	37	3264	34	249	99
Total marriages																
Observed	3912					1577				630				1997		
Expected $\phi$	4169					2805				645				3400		
Marriages including an outsider		245				166				279				365		
% of marriages incl. outsider		6.3				10.2				42.3				18.3		

\* Marriages from May 1st 1697 - June 22nd 1795.

 $\phi$  see note 117, Chapter 6 on Razzell.

BL Both Local  
BF Both foreign  
LF Local female  
LM Local male

Table 61 continued

Period	Cam				Dursley				Hawkesbury				Kingswood			
	BL	BF	LF	LM	BL	BF	LF	LM	BL	BF	LF	LM	BL	BF	LF	LM
1697-1700	20	4	7		78		3	3	36	2	2	2	38		1	
1701-10	86	12	20	7	230	4	2		48	8	14	2	104		1	
1711-20	66		2	4	254	94	5	3	64	6	32	7	126		8	1
1721-30	102	8	7	3	266	148	6	1	58	8	12	5	78		9	6
1731-40	120	10	8	8	230	74	6	1	46	18	24	10	84		4	1
1741-50	118	8	3	2	304	30			86	28	9	16	54		11	7
1751-60	120	2	9	6	296		17	2	102	22	24	6	30		14	7
1761-70	120		18	7	296		22	7	114		25	6	84		14	9
1771-80	122		28	4	274		22	5	88		22	9	82		15	3
1781-90	124		15	4	308		26	2	128		25	2	88		16	
1791-95	58		11		182		11	1	62		7	2	56		2	1
n	1062	42	128	45	2718	350	120	25	832	92	196	67	824	18	112	35
Total marriages																
Observed		725				1679				725				568		
Expected ♂		909				1700				762				510		
Marriages including an outsider		194				321				309				156		
% of marriages incl outsider		26.8				19.1				42.6				27.5		

see page 266 for key.

Table 62

Cumulative frequency distribution of Marriage Horizons  
for selected Gloucestershire cloth parishes.

Region	Parish	Distance ( < kms.)												n	median
		8	16	24	32	40	48	56	64	72	80	80	80		
6a	Bisley (1)	151	227	248	253	259	262	263	265	265	265	4	269	7.2	
	Painswick (2)	93	140	150	155	159	168	168	168	168	170	4	174	7.2	
	Stonehouse (3)	229	273	280	283	289	289	289	289	289	289	6	295	3.7	
	Stroud (4)	239	312	338	342	348	357	358	359	360	361	20	381	5.1	
6b	Cam (5)	152	197	210	211	212	213	213	213	213	213	1	214	5.3	
	Dursley (6)	92	125	135	138	144	146	147	149	149	149	7	156	4.8	
	Hawkesbury (7)	197	289	316	331	337	337	338	338	338	338	8	346	7.7	
	Kingswood (8)	104	129	135	146	148	150	150	150	150	150	3	153	5.1	

This table excludes in

1 1 unlocated  
 2 1 unlocated  
 3 6 strangers/sojourner  
 4 1 unlocated

5. 1 stranger  
 6 1 unlocated and 340 foreigners, a term frequently used before 1754  
 7 4 strangers and 5 unlocated  
 8 8 strangers and 4 unlocated

Eversley points out that inherent in their origin is the probability that they record less information than the original Register (111). For Gloucestershire two other series of transcripts exist, those by Phillimore, published at the turn of this century and more recently those by Roe (112). For convenience these have been used as the source for this limited exercise and a sample check was carried out to establish their accuracy against the original Register (113). Irrespective of the source used, there are important limitations to the Registers for the study of migration. Firstly, they do not actually record migration (114). Eversley has noted that during the eighteenth and early nineteenth centuries there is a tendency for the number of marriages involving outsiders to decrease. This may not only reflect increasingly inadequate registration, but also the fear that an outsider might be liable to removal if his true place of Settlement was known (115). Table 61 shows the proportion of such marriages varies widely between parishes and reflect the size of the parish, its hierachal status and accessibility, as well as the actual distribution of farms, cottages and nucleated settlements in adjacent parishes (116). This problem would prove of greater significance in a study of mobility, but is regarded of less importance in the study of marriage horizons. In this sense, the evaluation of under-registration is not crucial, though the practice of dissenters using the parish church for the marriage ceremony, but preferring their own baptism and burial rites suggests that errors from this source are few (117). Similarly, under registration associated with the fast expansion of urban centres in the late eighteenth and early nineteenth centuries is not relevant (118).

A comparison of Table 8 of Settlement Certificates for the Gloucestershire cloth parishes, and Table 62 shows a very similar highly localised pattern of movement. No median value  $> 7.7$  kms. and only 114/1,883 (6.1 percent) individuals travelled further than 32 kms. to be married. If all local marriages are included this falls to  $< 1$  percent. Although Table 63 shows somewhat higher Pareto slope values than were observed for the Certificates, the null hypothesis which compares these two sources is accepted in all parishes (119). The separation of long-distance movement produces a less conclusive result (120). In Stroud and Painswick marriage partners came further than Certificate holders, but the reverse is true of Dursley where the existence of a long-distance Certificated migration stream from Frome has already been noted. The Dursley result may also reflect its proximity to Cam and North Nibley

for which a great number of marriage partners are derived, but from where non-Certificated day labour could also be obtained.

Table 63 Distance-decay function. Pareto-slope values for marriage horizons for selected Gloucestershire cloth parishes.

Parish	'b' value	r	Certificate 'b' value
Bisley	-3.65	-0.92	-4.05
Painswick	-3.55	-0.86	-3.49
Stonehouse	-4.52	-0.94	-3.96
Stroud	-3.03	-0.98	-2.93
Cam	-4.28	-0.96	-2.29
Dursley	-2.95	-0.92	-2.68
Hawkesbury	-4.40	-0.91	-2.69
Kingswood	-4.05	-0.93	-3.72

all values of r  $\geq$  -0.549 are significant,  $\alpha = 0.05$ , df = 8.

In spite of the enormous growth of interest in historical demography, very few studies deal with migration distances as opposed to mobility. Maltby's analysis of the Easingwold Registers, for the period 1644-1812, is based on marriages and not partners. Of these 9.4 percent involve distances  $> 20$  miles (32 kms.), but 70.7 percent fell within 10 miles (121). Her subsequent analysis of selected Wharfdale parishes placed 74.1 percent in this latter category and 15.5 percent exceeding 15 miles (122). In both studies, these results represent less restrictive horizons than those for the Gloucestershire cloth parishes, in which 85.4 percent came from within 16 kms. (10 miles) and 6.1 percent from beyond 32 kms. Buckatzch shows that between 1653 and 1660 of those partners originating beyond Sheffield, 70 percent travelled  $< 10$  miles and 7.7 percent beyond 20 miles (123). Constant analysed the mean distances of male partners originating beyond a parish. In the seven separate studies she quotes the mean marriage distance ranged from 1.7 miles (2.7 kms.) to 4.3 miles (6.9 kms.) (124). Peel's study of four Northamptonshire parishes identifies the proportion of 'immediately local' male partners (i.e. intra-parochial and inter-parochial moves of  $< 5$  miles). For the village of Lamport this was as low as 65-70 percent, but for the other parishes much higher figures are recorded (125). The proportion of

spinsters in this category was even higher, usually over 90 percent. (126). Perry re-emphasises the point that marriage horizons are not migration movements (127). In his study of 27 Dorset parishes, he identifies two best-fit lines of differing slope within a marriage field of 20 miles. The breaking point is 4 miles, "an hours walk for a young countryman ... this distance being that which most workmen might be prepared to undertake on the frequent occasions that courting demanded" (128). Both Peel and Perry note that such limits had class differences within them (129). Perry deals specifically with working class mobility and this may appear to compliment the data derived from the Poor Law documents (130). He argues that the bicycle in the mid 1880's heralded a new period of expanding horizons for the countryman and that the period 1837-1886 can be treated as uniform in terms of mobility (131). Kuchemann reinforces this constancy in marriage horizons up to 1850 and calculates mean distances of 10-13 kms. (132). This study of parishes in Otmoor, in Oxfordshire, emphasises the significance of cultural ties in inter-parish marriages. The inverse-square law is invoked to describe the pattern of movement, in which villages closest to the destination contribute proportionately more partners than is to be expected from their size. Interestingly, the Cherwell is seen as marking a cultural breaking point (133), in a manner similar to the Kingscote watershed between the two Gloucestershire cloth regions. From Perry's work <sup>it</sup> can be calculated that 76.5 percent of marriage partners, originating beyond the parish came from within 12 miles (19.2 kms.), which is again less restrictive than the Gloucestershire parishes.

These few studies all emphasise short-distance movement, the mobility of population in the eighteenth and early nineteenth centuries, and the need to seek the causes of variations in local conditions. Eversley suggests that

"generally speaking marriages between persons resident in the same parish, and those involving a partner from an adjoining parish or one within a five mile radius, account for 75-80 percent of all marriages and if we extend the radius to fifteen miles we are likely to include all except an insignificant fraction of places of origin of partners." (134)

Such movements were only one type of movement, but can be regarded as typical of all types of movement at this time (135).

The general conformity of the marriage horizons in the Gloucestershire cloth parishes to those derived from other studies suggest that this data source can be used as a population against which to measure Poor Law migration distances. In this context, the acceptance of the null-hypothesis that Marriage Registers and Settlement Certificates express similar migration distances, is of great importance.

### III. The evidence of Enumerators' Returns.

The difficulties in using early nineteenth century Marriage Registers requires that any corroboration of pattern with the post-1795 Removal Orders depends on an alternative contemporary source. From 1841, the Enumerators' Returns for the Census contain birth-place data. At this time, detail of whether residents were born in that county, elsewhere in England and Wales, in Scotland, Ireland or Foreign Parts was all that was required. In 1851 the parish and county were required, thus giving greater precision and value to this information. It is for this reason and the limitations of the hundred year rule that historical geographers have concentrated much of their attention on the mid-nineteenth century Returns at the Public Record Office. It is these 1851 Returns that are analysed for selected cloth parishes. Only heads of household are abstracted to maintain broad comparability with the Poor Law documents. Other members of the family are regarded as 'forced migrants'. The methods of aggregation and analysis are comparable to those used elsewhere in this study, but as with other sources specific limitations need identification.

Firstly, direct movement is implied in using birth-place and that of current residence (136). The step-wise migration of individuals can only be partly deduced in the case of families, the children of which were born at differing locations. The limited exercise here does not consider this aspect of the migration process. Removal Orders also register origin-destination as a single move. Secondly, there is no indication of when the actual move occurred. It is assumed that such movements average out over the previous half century in the manner in which Removal Orders are aggregated for the same period.

Table 64 compares the Pareto-slope values from this source and contemporary Removal Orders and Table 65 summarises the cumulative frequency distribution of migration distances from the 1851 Enumerators' Returns. No clear pattern is discernible in these tables. It was decided not to use the Kolmogorov-Smirnov test to compare the migration patterns from these two sources as > 12 percent of the Enumerators Returns originate beyond 80 kms. Long-distance movement was isolated at both the 32 kms. and 80 kms. thresholds, to test the null hypothesis that there was no significant difference in the migration pattern between these two sources. Using the lower value, little difference is observed, but the picture alters for the higher value (137). Although the alternative hypothesis is not accepted in every parish,

Table 64

Distance-decay function  
A comparison of Pareto-slope values. Enumerators'  
Returns (1851) and post-1795 Removal Orders

Parish	'b' value Enum. Return	<sup>l</sup> r	'b' value Removal Orders
Bisley	-3.04	-0.90	-2.72
Painswick	-2.36	-0.99	-2.84
Stonehouse	-3.08	-0.91	-2.22
Stroud	-2.40	-0.99	-2.61
Cam	-2.97	-0.92	-3.42
Dursley	-3.00	-0.91	-3.70
Kingswood	-3.57	-0.87	-2.96

1. all r values  $\geq -0.549$  are significant

Table 65

Cumulative frequency distribution. Migration distances for selected Gloucestershire cloth parishes, based on birth place data from the 1851 Census Enumerators Returns <sup>+</sup>

Region	Parish	Distance (< kms.)											Born in median	% born in parish		
		8	16	24	32	40	48	56	64	72	80	n				
6a	Bisley (1)	119	171	191	198	208	217	219	220	220	222	36	258	9.6	867	77.1
	Painswick (2)	101	149	183	194	202	205	209	213	216	219	30	249	11.8	326	56.7
	Stonehouse (3)	239	314	331	345	348	360	369	373	375	375	43	418	7.1	129	23.6
	Stroud (4)	537	661	711	743	757	798	820	831	841	847	150	997	6.3	741	42.6
6b	Cam (5)	110	123	131	142	147	148	149	150	150	152	3	155	5.1	211	57.7
	Dursley (6)	133	166	188	195	203	212	215	218	219	219	53	272	8.5	303	52.7
	Kingswood	119	140	146	154	169	180	184	184	184	184	11	195	6.4	98	33.4

This table excludes

- 1 8 unlocated
- 2 3 unlocated
- 3 4 unlocated
- 4 115 (listed by county of birth 82, unlocated 33)
- 5 4 unlocated
- 6 9 unlocated

<sup>+</sup> Head of household as defined in the Returns and wife where no male head noted.

the importance of identifying movement > 80 kms. is confirmed. There is a tendency for Removal Orders to appear as a factor in the under-representation of long-distance movement. It must be remembered that parishes issuing such orders had been responsible since 1795 for the costs incurred in their execution. Further testing of the relationship between the migration patterns revealed by these two sources is required in other areas before one can be sure that the administration of the Law operated in this manner.

1. Blagg, T.M. (1943), 'Newark Certificates of Settlement 1697-1822', Thoroton Society Record Series XI, 68-109.

The Newark listing includes

- a. 3 Certificates 'from' Newark to Rotherham, Sutton in Ashfield and one unspecified destination.
- b. 6 duplicate Certificates
- c. 1 Removal Order to Winthorpe
- d. 32 Certificates, the parish for which is not listed in Bartholomews Survey Gazeteer of the British Isle (9th ed. 1950) or is ambiguously stated, for example, Barkston, no county stated (Lincs. or W. Riding) Bottesford, no county stated (Lincs. or Leics.) Beckingham, no county stated (Lincs. or Notts.) Norton, Staffs. (Cold Norton, Norton Canes, Norton Bridge or Norton in the Norton in the Moors) Holm(e), Rolleston, Horsley, Normanton and Carlton all have more than one location.
- St. Margaret's Lindsey, Hough (Lincs.) Biskam (Lincs.) Stroxton (Lincs.) are all unlocated.

2. Pelham, R.A. (1940), 'The immigrant population of Birmingham 1686-1726', Birmingham and Midland Institute Archaeological Society Transactions 61-63, 48-80.

3. Ibid., 49-50

4. G.R.O. P154. There are 36 intra-city Certificates which are excluded from these calculations.

5. Law, C.M. (1972), 'Some notes on the urban population of England and Wales in the eighteenth century', Local Historian 10, 22-26. Law estimates Birmingham's population as 23,700 at mid-century and that for Newark as 3,100. In 1801 Birmingham (including Edgbaston and part of Aston) had reached 72,670 and Newark 6,730.

6. Rudder, S. (1779) History of Gloucestershire (Cirencester), 819.

7. Ibid., 269

8. Ibid., 727.

9. Pelham, op. cit., 51-2.

10. Ibid., 50.

11. Kolmogorov-Smirnov test for two independent large samples,  $\alpha = 0.05$ , two-tailed test, critical value of  $D = 0.15$ . Calculated  $D = 0.17$ . See note 20, Chapter 5.

12. Pelham, like most other writers on the Poor Law, does not distinguish

between the number of Certificates issued and those extant.

13. See note 5 above.  
 14. Court, W.B.H. (1938) The rise of Midland industries, 1600-1838 (Oxford University Press)., 47.

15. Pelham, op. cit., 52-53.

16. Hypothesis There is no significant difference in migration distances revealed by Settlement Certificates and contemporary Removal Orders.

Parish	D value	Critical D value	Accept null hypothesis
Chipping Campden	0.12	0.22	+
Tetbury	0.14	0.21	+
Stinchcombe	0.07	0.28	+
Berkeley	0.09	0.23	+
Chipping Sodbury	0.09	0.31	+
Cheltenham	0.04	0.18	+

Kolmogorov-Smirnov test. See note 20, Chapter 5.

17. Hypothesis There is no significant difference in the proportion of short and long-distance migrants in Settlement Certificates and Removal Orders.

Parish	$\chi^2$	Accept null hypothesis
Chipping Campden	0.64	+
Tetbury	0.01	+
Stinchcombe	0.00	+
Berkeley	0.07	+
Chipping Sodbury	0.21	+
Cheltenham	0.67	+

long-distance defined as  $> 32$  kms.

Chi Square test.  $\alpha = 0.05$ ,  $df = 1$ , one tailed test, table value  $\chi^2 = 2.71$ .

18. Rudder, op. cit., 671-2 (Chipping Sodbury), 727 (Tetbury).

19. Hypothesis There is no significant difference in the pattern of in-migration shown by Removal Orders before and after the 1795 Amendment.

Parish	D value	Critical D value	Accept null hypothesis
Chipping Campden	0.07	0.22	+
Tetbury	0.213	0.207	x
Bitton	0.12	0.25	+

Kolmogorov-Smirnov test. See note 16.  
The separation of long-distance and short-distance migration for the three parishes revealed no significant difference in pattern when the Chi Square test was applied. Calculated  $\chi^2$  = 0.12, 0.09 and 0.27 respectively.

20. Hypothesis There is no significant difference in the pattern of out-migration as shown by Removal Orders 'to' before and after the 1795 Amendment.

Parish	D value	Critical D value	Accept null hypothesis
Tetbury	0.13	0.24	+
Bitton	0.10	0.30	+

Kolmogorov-Smirnov test. See note 16.  
The separation of long-distance and short-distance migration revealed no significant difference in pattern when the Chi Square test was applied. Calculated  $\chi^2$  = 1.51 and 0.40 respectively.

21. Hypothesis There is no significant difference in patterns of inward and outward migration, before and after 1795, as shown by Removal Orders.

Parish	D value	Critical D value	Accept null hypothesis
--------	---------	------------------	------------------------

1. Pre 1795

Tetbury	0.25	0.24	x
Stinchcombe	0.12	0.31	+
Olveston	0.23	0.34	+
Bitton	0.13	0.32	+
Westerleigh	0.02	0.24	+

Parish	D value	Critical D value	Accept null hypothesis
--------	---------	------------------	------------------------

2. Post 1795

Chipping Campden	0.20	0.25	+
Tetbury	0.09	0.21	+
Slimbridge	0.07	0.31	+
Bitton	0.10	0.24	+
Gloucester	0.28	0.35	+

Kolmogorov-Smirnov test. See note 16.

<u>Hypothesis</u>	There is no significant difference in the pattern of short and long-distance in-migration and out-migration before and after 1795, as shown by Removal Orders.
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Parish	$\chi^2$	Accept null hypothesis
--------	----------	------------------------

1.Pre 1795

Tetbury	0.86	+
Stinchcombe	0.04	+
Olveston	0.39	+
Bitton	0.13	+
Westerleigh	0.45	+

2.Post 1795

Chipping Campden	8.00	x
Tetbury	1.33	+
Slimbridge	0.03	+
Bitton	0.09	+
Gloucester	0.01	+

Chi Square test. See note 17.

22. Melville, R. (1954), 'Records of apprenticeship and settlement in a Berkshire village in the 18th century', Newbury and District Field Club Journal X, 32-42.
23. Oxley, G.H. (1966) The administration of the Old Poor Law in the West Derby Hundred of Lancashire, (unpub. M.A. thesis, University of Liverpool).

24. Both hypotheses are rejected.  $\chi^2 = 9.67$  and 16.29 respectively.  
Test details note 17.

25. Thomas, E.C. (1971) The treatment of poverty in Berkshire, Essex and Oxfordshire 1723-1834, (unpub. Ph.D. thesis University of London).

26. Ibid., 220-1.

27. Ibid., 220 et passim.

28. Randall, H.A. (1971) Some aspects of population geography in certain rural areas of England during the eighteenth and early nineteenth centuries, (unpub. Ph.D. thesis University of Newcastle), 139-141.

29. Thomas, op. cit., 221-3 and 232.  
Randall, op. cit., 241. 11/39 Certificates to Kettering originating beyond 81 kms. are from London.

30. Thomas, op. cit., 242.

31. Ibid., 226.

32. Ibid., 253-55.

33. Randall, op. cit., 220.

34. Ibid., 225.

35. Ibid., 228.

36. Loc. cit.

37. Hypothesis There is no significant difference in migration distances as revealed by Settlement Certificates and Removal Orders.

	$\chi^2$	Accept null hypothesis
i. Certificates 'to' and Removals 'from'	4.22	x
ii. Certificates 'from' and Removals 'to'	2.92	x

note :

Chi Square test. See note 17.

Data dichotomised at 33 kms.

Pre-1795 and post-1795 data cannot be separated.

Data derived from Randall, op. cit., Tables 9.6 and 9.7.

The alternative hypothesis is that Certificates restricted migration.

38. Hypothesis There is no significant difference in the patterns of in-migration and out-migration as revealed by Settlement Certificates and Removal Orders.

	$\chi^2$	Accept null hypothesis
i. Removals 'from' and Removals 'to'	0.32	+
ii. Certificates 'from' and Certificates 'to'	0.29	+

test details see note 37.

39. Randall, op. cit., 222-3, Table 9.6.

40. Hypothesis There is no significant difference in the pattern of short and long-distance migration(1) for in-migration and out-migration as shown by Settlement Certificates and Removal Orders.

	Migration		Migration	
	in(2)	out(3)	in(4)	out(5)
short	336	208	377	163
long	106	69	124	55

1. Long distance defined as the upper quartile.
2. Certificates 'to' and Removals 'to'
3. Certificates 'from' and Removals 'from' (2 and 3 from Table 9.6, Randall)
4. Certificates 'to' and Removals 'from'
5. Certificates 'from' and Removals 'to' (4 and 5 from Table 9.7 Randall)

Chi Square test. See note 17.

41. Christmas, E.A. (1974) Administration of the Poor Law in some Gloucestershire unions, 1815-47, (unpub. M.Litt. thesis, University of Bristol), 116 and 312.

42. B.R.O. P/W/OP. Westerleigh collection.

43. Christmas, op. cit., 312.

44. Ibid., 317-8. Christmas notes that non-residents nearer home were more likely to be offered a minimal allowance or threatened with removal. In these circumstances the links noted may represent a bias towards towns and middle distance locations. It also reflects the very different attitudes of each union to non-resident relief.

45. Evidence of a Beckett, G.A. (1850) for East Anglia and Berkshire. Report to the Poor Law Board on the Laws of Settlement and Removal of the Poor. B.P.P. (1850) XXVII, 1-2.

46. Fraser, J. (1867-8) Commission on the employment of children, young persons and women in agriculture. B.P.P. (1867-8) XVII, 110.

47. Thomas, op. cit., 244.

48. Ibid., 236 and 245.

49. Ibid., 234 and 238-9.  
Redford, A. (1926) Labour migration in England 1800-1850 (2nd ed., 1964); Manchester University Press), 54.

50. Redford, loc. cit.

51. Thomas, op. cit., 238-40.
52. Ibid., 241-2.
53. Randall, op. cit., 237-40.
54. Ibid., 242.
55. Ibid., 241.
56. Ibid., 238-9.
57. Chi Square test.  $\chi^2 = 2.0$ . Table value 2.71 when  $\alpha = 0.05$ ,  $df = 1$ , one tailed test.
58.  $\chi^2 = 0.53$ .
59.  $\chi^2 = 13.5$  (in-migration)  
 $\chi^2 = 10.25$  (out-migration)
60.  $\chi^2 = 4.8$  (pre-1795)  
 $\chi^2 = 36.0$  (post-1795)
61. Thomas, op. cit., 233.
62. Randall, op. cit., 232.
63. Ibid., 229-30, Table 9.8.
64. Ibid., 254.
65. Ibid., 253.  $r_s = 0.359$  when  $\alpha = 0.10$  is regarded as significant, but it is in fact not significant as a test value  $> 0.368$  is needed for a two tailed test when  $n = 21$  (see Ebdon, D. (1977) Statistics in geography (Oxford : Blackwell), 184.)
66. Ibid., 248-9.
67. Randall uses a 90 percent cut-off point in preference to a distance threshold. This reduces the standard deviation at 40 kms. (39.1 - 42.0 kms. distance band) to < 5 percent which he finds acceptable. Appendix 9.3 of Randall, also shows that if 81 kms. is used as a cut-off point the standard deviation is reduced to 2.2 percent, and the loss of data for all parishes is reduced from 10 percent to 4 percent.
68. Randall, op. cit., 254-5.
69. Thomas, op. cit., 242 and 252.
70. Ibid., 279.
71. Ibid., 237.
72. Ibid., 220.
73.  $\chi^2 = 3.78$ . Test details as in note 57.
74.  $\chi^2 = 3.23$ . Test details as in note 57.
75. Pelham, op. cit., 48 and 62.
76. Ibid., 54-5.
77. Randall, op. cit., 202-6.
78. Pelham, op. cit., 62.

79. Hobsbawm, op. cit., 304. Actually the Newark data contains two masons, one from Grantham and the other from Lea, near Gainsborough.

80. Pelham, op. cit., 59.

81.  $\chi^2 = 1.96$ . Test details as in note 57. The data were dichotomised at 32 kms., but the inadequacy of the data restricted the test to these categories. If occupations were not to be held constant, further testing of civil groups would be possible.

82. Randall, op. cit., 197.

83. Ibid.

84. Ibid., 200.

85. Ibid., 198.

86. Ibid., 206.

87. Hampson, E.M. (1926-28) 'Settlement and Removal in Cambridgeshire 1662-1834', Cambridge Historical Journal 2, 285. It is assumed that the category 'married man and family' is based on named children.

88. Oxley, op. cit., 400.

89. Marshall, D. (1926) The English poor in the eighteenth century (London : Routledge and Kegan Paul), 164.

90. Hampson, op. cit., 281.

91. Body, G. (1964) The poor law in Dorsetshire 1760-1834, (unpub. Ph.D. thesis, University of Southampton), 127-9.

92. Randall, op. cit., 178-80.

93. Laslett, P. and Harrison, J. (1963), 'Clayworth and Cogenhoe' in Bell, H.E. and Allard, R.C. (eds.) Historical essays 1600-1750 (London : Black), 157-184.

94. Randall, op. cit., 180-1. It is difficult to argue that the mid-century population would be the same as in 1801. No natural growth is assumed, yet certificated in-migrants are double those leaving Kettering. Only if one assumes under registration of the out-migrants, a common feature of this data, can no growth be hypothesised. The turnover of population should be based on the four certificated in-migrant families (12 people) and the natural turnover 1,000. This produces a 4 percent turnover of population through migration which coupled with the 1,000 turnover from natural causes results in  $1120/3000 = 37.3$  percent turnover. The decision to raise the combined turnover rate to 50 percent on the basis of the one data set from Clayworth and Cogenhoe is questionable. Equally dangerous is the assumption that of the 1,500 people involved in a 50 percent turnover in Kettering, 500 must be from migration. This does not allow for any under registration in the Registers. Even so, the

certificated in-migrants would equal 12/50 in any one year and not 18/50 as is suggested.

95. Ibid., 182. The use of Spearman's Rank Correlation test masks the absolute values, which are really required to test this hypothesis, but which Randall ignores as a sample. The correlation of the 1801 Census data with Certificates from the mid eighteenth century makes the test result of doubtful value.

96.  $r_s = 0.70$ . Critical value  $r_s = 0.648$ , when  $\alpha = 0.05$ ,  $n = 10$  in a two tailed test.

97. Randall, op. cit., 137.

98. Ibid., 32.

99. Ibid., 277-8.

100. Randall, loc. cit.,

101. Ibid., 279.

102. Ibid., 278.

103. Ibid., 280, Table 10.4.

104.  $\chi^2 = 21.37$  (long-distance  $> 81$  kms.)  
 $\chi^2 = 32.6$  (long-distance  $> 33$  kms.)  
 Test details as in note 57.

105.  $\chi^2 = 0.56$  (long-distance  $> 81$  kms.)  
 $\chi^2 = 0.00$  (long-distance  $> 33$  kms.)  
 Randall (279) tests these hypotheses by the visual inspection of the ogives for the three periods. Implicitly he regards the data as the population rather than a sample.

106. Randall, op. cit., 282.

107. Wrigley, E.A. (1966) (ed.) An introduction to English historical demography (London : Weidenfeld and Nicolson)  
 Glass, D.V. and Eversley, D.E.C. (1965) (eds.) Population in history (London : Arnold).  
 These two books contain important collections of papers which establish the basis for much of the work in this field.

108. It is appreciated that this only provided the legal limits of the system and that the inclusion of some Indemnity Bonds for the late seventeenth century, would mask direct comparability with the Settlement Certificates analysed in Chapter 5. Nevertheless, in relation to migration distances, this is assumed to be of no significance.

109. Maltby, B. (1971), 'Parish Registers and the problem of mobility', Local Population Studies 6, 32-34. See page 20 above and note 1 Chapter 5.

110. The selection here is based on the subjective inspection of the parish index in the County Archives to establish the existence of relatively complete and large data sets. It was not felt necessary to investigate all the parishes for which substantial collections of Settlement Certificates exist.

111. Eversley, D.E.C. (1965), 'The exploitation of Anglican Parish Registers by aggregative analysis', in Glass and Eversley, op. cit., 46-7.

112. Phillimore, W.P.W. (ed.) Gloucestershire Parish Registers. (London) Cam (1902), vol. VIII, 126-54; Dursley (1899), vol. V, 55-99; Hawkesbury (1899), vol. V, 17-41; Kingswood (1903), IX, 113-32; Painswick (1902), vol. VIII, 126-54; Stonehouse (1897), vol. II, 35-64.

Roe, E.A. (ed.) Marriage Index. Stroud, (1973)

The Bisley data is taken from the Bishop's Transcript (G.R.O. GDRVI/36), though this is in poor condition.

113. The County Archivist, Brian S. Smith, in a personal communication, believes Phillimore's transcripts to be entirely accurate and the sample check generally substantiates this view. There is a serious omission in the case of Dursley, in that the transcript ignores the wedding Registers consequent on Hardwicke's Act (26 Geo. II) in which the origins are noted. See IN 1/5, 1/6 and 1/8 which are pro-forma covering the post-1754 period in Dursley. Confusion is compounded by Phillimore making partial use IN 1/8.

114. Perry, G. (1967), 'Working class isolation and mobility in rural Dorset', Trans. Inst. Br. Geogr. 46, 122.

115. Eversley, D.E.C. op. cit., 64. In these circumstances it is suggested that where a large number of local marriages exist, then a check through baptism records, some 25-35 years before, may be useful and that a minimum of 50 percent identification would be needed to accept the face value of the term 'of this parish'. Perry, op. cit., 123, notes that the definition of the place of residence and Settlement were liable to be blurred especially in the eighteenth century and he believes that it is the former that is usually stated.

116. Maltby, loc. cit.

Eversley, D.E.C. (1957), 'A survey of population in an area of Worcestershire from 1660-1850 on the basis of parish records', Population Studies X, 272. Eversley suggests that the smaller parishes would require a greater proportion of marriages between partners of different parishes. Such a trend may be true of the

large parishes of Bisley and Painswick, but is not substantiated for the large parish of Hawkesbury, which was very accessible, or the small market town of Dursley. The high proportion of local marriages before 1753, may of course, be purely a matter of the non-recording of residential detail, but the absence of outsiders in Dursley after 1753 is unexplained. In Bisley it may reflect the incomplete copying onto the Bishop's transcript.

117. Eversley, (1957) op. cit., 254-6. Later (page 272), Eversley suggests that the Settlement Laws operated less strictly as the eighteenth century progressed and this would seem to contradict the implications of the previous statement (note 115). Sogner, S. (1963), 'Aspects of the demographic situation in seventeen parishes in Shropshire 1711-60. An exercise based on parish registers!', Population Studies XVII, 132, believes that the Law was operated more strictly if the evidence of the Marriage Registers is valid, as the tendency for local marriages increased during the first half of the eighteenth century.

Razzell, P.E. (1965), 'Population change in the eighteenth century. A reinterpretation', Econ. Hist. Rev. 18, 313. On pages 314-5 Razzell establishes a stable rate of marriages per 1,000 population, for the eighteenth century, as a whole and for particular classes of settlement. The rate of approximately 8.5/1,000 has been applied to the parishes in Figure 63 as a simple check on the completeness of the Register. Rudder's population estimate is used and an estimate of 600 for Kingswood (ex-Wiltshire). These are very close except for Painswick and Stroud where there appears to be a major under-registration of marriages. The low number in the first half of the century may reflect this, though it would be too simple to explain these gaps in terms of the abuses that led to Hardwicke's Act and the requirement to state ones place of settlement. General under-registration of ten percent from the factors already identified and from inaccurate entries, absentee clergy, the Commonwealth, accidental loss and deliberate avoidance are suggested by Sogner, op. cit., 127.

Krause, J.T. (1965), 'The changing adequacy of English registration, 1690-1837', in Glass and Eversley, op. cit., 383, believes Marriage Registers to be highly accurate.

Eversley (1966) op. cit., 63, notes that the pressures of rural life ensured that Marriage Registers were highly accurate even before Hardwicke's Act.

118. Krause, op. cit., 385. This was more true of baptisms and burials than marriages.

119. Hypothesis There is no significant difference between the patterns of migration as shown by Settlement Certificates and contemporary Anglican Marriage Registers.

Parish	D value	Critical D value	Accept null hypothesis
Bisley	0.07	0.14	+
Painswick	0.06	0.14	+
Stonehouse	0.06	0.18	+
Stroud	0.03	0.10	+
Cam	0.08	0.20	+
Dursley	0.154	0.157	+
Hawkesbury	0.11	0.22	+
Kingswood	0.03	0.21	+

Kolmogorov-Smirnov test. Test details see note 16.

120. Hypothesis There is no significant difference in the pattern of short and long-distance migration, as shown by Settlement Certificates and Anglican Marriage Registers.

Parish	$\chi^2$	Accept null hypothesis
Bisley	0.02	+
Painswick	4.5	x
Stonehouse	0.5	+
Stroud	5.7	x
Cam	1.5	+
Dursley	7.6	x
Hawkesbury	2.4	+
Kingswood	0.3	+

Chi Square test. Test details see note 17.

The alternative hypothesis is that Settlement Certificates restrict movement.

Retesting the hypothesis, but using 80 kms. as the threshold of long-distance reaffirms the results for Stroud ( $\chi^2 = 6.4$ ) and Painswick ( $\chi^2 = 2.9$ ). It might be argued that the greater power

of the Kolmogorov-Smirnov test over Chi Square (Siegl, op. cit., 130), points to the acceptance of the null hypothesis, but it must be remembered that the data was limited to movement < 80 kms. In the case of Painswick, the chance factor of just three of the marriage partners coming from within 32 kms. rather than beyond that distance would be sufficient to remove the statistical difference observed in the Chi Square test. The inclusion of marriage partners from beyond 81 kms. in the case of Stroud is of much greater significance and may reflect its growing importance as an urban centre.

121. Maltby, B. (1969), 'Easingwold Marriage horizons', Local Population Studies 2, 36.

122. Idem (1971) 40,41. Some errors in computation occur between Tables II and III in matching the number of marriages involving outside partners. E.g. 364 such marriages are recorded for Burnsall in Table II and 354 in Table III. The Ilkley discrepancy is larger. Comparison is based on Table III in this thesis and the two small chapelries have been excluded.

123. Buckatzch, E.J. (1951), 'Constancy of local populations and migration in England before 1800', Population Studies 5, 65.

124. Constant, A. (1948), 'The geographical background of inter-village population movements in Northamptonshire and Huntingdonshire, 1754-1943', Geography XXXIII, 81.

125. Peel, R.F. (1942), 'Local inter marriage and the stability of rural population in the English Midlands', Geography XXVII, 25.

126. Ibid., 28.

127. Perry, op. cit., 121.

128. Ibid., 130.

129. Ibid., 124,  
Peel, op. cit., 28.

130. Actually, the Marriage Registers analysed in this study are based on all partners who originate beyond the parish and not just working class partners. Perry omits some craftsmen, yeomen and tradesmen because of the difficulty in defining the class to which they belong. (Perry, op. cit., 123)

131. Perry, op. cit., 126.

132. Küchemann, C.F., Boyce, A.J., and Harrison, G.A. (1967), (eds.) 'A demographic and genetic study of a group of Oxfordshire villages', in Drake, M. (1973) Applied historical studies (London : Methuen), 211

133. Ibid., 212-3.

134. Eversley, (1966) op. cit., 22.

135. Ibid.

136. Bryant, D. (1971), 'Demographic trends in south Devon in the mid-nineteenth century', in Gregory, K.J. and Ravenhill, W. (eds.) Exeter essays in geography (Exeter University Press), 137.

Lawton, R. (1970), 'The population of Liverpool in the mid-nineteenth century' in Baker, A.R.H. et al. (eds.) Geographical interpretation of historical sources (Newton Abbot : David and Charles), 395.

137. Hypothesis. There is no significant difference in the pattern of short and long-distance movement as shown by post-1795 Removal Orders and the 1851 Enumerators' Returns.

Parish	A		B	
	$\chi^2$	Accept null hypothesis	$\chi^2$	Accept null hypothesis
Painswick	4.3	x	9.3	x
Bisley	2.4	+	1.3	+
Stonehouse	0.0	+	3.9	x
Stroud	0.0	+	6.8	x
Cam	2.5	+	0.0	+
Dursley	2.3	+	4.6	x
Kingswood	0.4	+	2.6	+

Chi Square test. Test details see note 17.

A long-distance  $> 32$  kms.

B long-distance  $> 80$  kms.

The alternative hypothesis would be that Removal Orders show a more restricted pattern.

## Chapter 7

Conclusion

This thesis has been concerned with two main and inter-related themes. Firstly, the evaluation of the documents generated by the Law of Settlement and Removal for a study of migration between the late seventeenth and mid-nineteenth centuries. Secondly, it has sought to display the potential of these sources in establishing geographical patterns of migration by using a general model, in a specific group of parishes.

The Settlement Certificates, Examinations and Removal Orders provide a substantial body of data for the study of migration at the parish level in this period. Their greatest value lies in their cross-referencing to provide important biographical detail for a substantial section of the population, by age, sex, civil status and occupation, in a wide variety of geographical locations. The Certificates directly record the outcome of a decision to migrate, whereas Removal Orders may indicate an earlier move or record a forced migration. Singly, the latter may be regarded as indicating individual failure, but in aggregate the Removal Orders provide an index of local and regional economic distress.

The value of these documents has to be gauged not only in terms of their intrinsic quality but against other sources available for migration study in the period 1662-1865. Ecclesiastical Depositions are no longer significant and Apprentice Indentures are biased in terms of age, sex, social status and occupation. Parish Registers, despite the problems of under-registration, remain the only other national source for such study. In the eighteenth century they provide a more complete record than the Poor Law documents, though parish detail was frequently missing before Hardwicke's Act and the Registers do not record migration events as such. In the first half of the nineteenth century urbanisation had resulted in gross inadequacies in the Registers, thus restricting their value for the analysis of population movements. In this same period, birth-place data was not a significant element of the Census and only after the introduction of civil registration in 1837 is it possible to identify net migration flows at union level, by comparing natural changes against inter-censal change. Even in 1841, birth-place data are recorded very simply, and only in 1851 are actual birth-places recorded. There is as a consequence a gap at the individual level, for the early part of the century, which

Removal Orders can help to fill.

The analysis of changing patterns of migration leads to a consideration of the underlying processes, which are best understood within the conceptual framework of a total migration model. Most studies of migration concentrate on particular facets, such as migration differentials, the role of distance and mean information fields or the value of analogue models such as central place theory. There is a real danger that such partial studies do not view migration as a sub-system within a wider political and socio-economic environment. The model used here isolates the major elements of this sub-system, the directional links and flow regulators, though the volume or energy flowing through the system cannot be measured from the available data. The model illuminates the two-way relationship between the sub-system and the wider environment. In particular, migration at this time can only be understood within the legal framework which generated the data upon which this study is based. Equally, the evaluation of the data for migration study depends on an appreciation of this relationship.

The documents arise from the administration of the Law and their existence today is not only a function of the chance factors of survival, but the initial decision of parish officers to issue or withhold them. Certificates, in particular, could be withheld, whilst Removal Orders seem to have become redundant in the last decades of parochial administration. Although a great deal of biographical detail is found in the documents, it is partial as only those aspects that had a bearing on the legal settlement were regularly recorded. Not all the population were directly affected by the Poor Law and even though the artisan, servant and labourer, representing a major section, were well recorded, some skilled workers, tenant farmers, tradesmen, as well as professionals and the gentry are rarely found in the documents. Further biases are also found. Certificates were less likely to be needed for a move to the growing manufacturing towns and their general buoyancy, during this period, and the greater anonymity of the individual, result in relatively fewer Removal Orders from the larger towns and more from the economically stagnant rural parishes. Whereas there is no shortage of Removal Orders from 'close' parishes, Certificates are infrequent. Similarly, there are biases at the individual level which reflect the differential vulnerability of spinsters, single men and families under the Law. Certificates are not common for spinsters, though with families they are dominant in Removal Orders. These data therefore tell us more about the differential effect of the Law than migration differentials.

Occupation, sex, civil status and age were all examined, but only the latter can be regarded as a significant migration characteristic. In spite of the volume of biographical detail, the documents are disappointing as a source from which the migration motives of individuals can be derived. Nevertheless, the nature of the Certificate implies a strongly economic determinant in free migration.

The substantial collections of data are not uniformly spread over space nor time and represent an unknown proportion of the total issued. However, even large collections only represent a small proportion of all movement, though extrapolated measures of the volume of migration from this source are dangerous. The unequal survival of Poor Law documents requires that they are treated as a sample and not as a statistical population. It also demands that despite their inherent weaknesses, Marriage Registers and Enumerators' Returns, should be used to evaluate the migration patterns derived from this source. A comparison of Certificates and Marriage Registers revealed similar patterns, reinforcing Eversley's view that the latter, though not recording migration, reveal movements that are not atypical of this time. The short-distance movement common to both sources is in line with the general body of research for this period and suggests the value of Certificates in this context. Certificates cannot be regarded as a constraint on migration distances. Removal Orders, after 1795, showed a similar pattern of movement to that derived from Enumerators' Returns, when 32 kms. was used as the threshold for long-distance movement, but the existence of real differences between these two sources when the threshold was set at 80 kms., suggests that long-distance, town orientated movement is under-registered in the nineteenth century Removal Orders.

A comparison of the Poor Law documents in the Gloucestershire cloth parishes with those in other parts of England produced mixed results. In other Gloucestershire parishes there was general agreement with the patterns isolated in the cloth parishes, but data derived from Oxley and Randall suggest that Certificates may have restricted movement. The different aggregation techniques used by these authors may account for these differences, but further testing of the hypotheses is needed. Certainly, the reworking of Randall's data does not support his conclusion that the patterns of in-migration were more restricted than those for out-migration. Pelham's belief that Certificates encouraged mobility is rejected in favour of economic and urban growth stimulating a more extensive migration field around Birmingham. The corollary that the

1795 Amendment acted in a manner similar to that proposed by Pelham for 1697, is rejected for both inward and outward movement in all the Gloucestershire parishes in which it was tested. The only exception was seen in Stroudwater when a lowering of the long-distance threshold revealed a tendency for migration distances to increase after 1795. However, the difference in economic fortunes rather than the Poor Law are preferred to explain these differences. The evidence suggests that the Poor Laws may have had little effect on migration distances, or the volume of movement, though it did have a real effect on the mobility of some individuals. What cannot be resolved is the number of potential moves that were prevented by the drugging effect of a secure settlement and the fear of family disintegration in the face of removal.

Given the limitations described above, the total migration model provides a framework within which the data, derived from this source could be analysed and particular aspects of the migration process examined. Short-distance movement was dominant throughout the period reflecting the restricted mean information field derived from the oral transfer of employment opportunities. Only coastal regions and the major through routes of navigable rivers provided evidence of long-distance movement. Information traversed an asymmetric and fragmented field in which family ties and regional occupational similarities played significant roles in strengthening specific migration streams. Nevertheless, distance proved a major symptom of this control over movement and much movement was not related to specific occupational links but, as Redford suggests, to the opportunity itself. The lack of movement between the two neighbouring cloth regions of Gloucestershire may provide support for Lee's hypothesis that the efficiency of stream and counter-stream tend to be low if origin and destination are similar.

Ravenstein proposed that a wave-like process effected the shift in population towards the expanding urban centres. This could not be identified in Gloucestershire from the Settlement papers, though there is some support for Hagerstrand's 'chain-migration' by which towns absorb people from the immediate countryside but lose population to higher order centres. Long-distance movement was shown to be town orientated and especially important after 1795. The usefulness of a central place analogue in explaining migration at this time is rejected. It is not possible to operationalise the concepts of an inner and outer zone of migration and the analogies of a migration centre as a central place and migration as a multi-purpose trip cannot be sustained. The existence

of substantial movement downward in the settlement hierarchy reflects the widespread existence of rural manufacturing at this time and a strong symbiotic flow of migrants between town and country. Patten's identification of two separate processes for short and long-distance movement finds more support than a central place analogue in this thesis. The spatial geometry of this twentieth century model is rejected, but the model does help to illuminate the reality of eighteenth century movement. Nevertheless, the limited range of the settlement hierarchy in Gloucestershire makes it desirable to examine this model in a region of contiguous parishes for which detailed patterns of in and out-movement can be established. There is an obvious need for further studies which draw on these documents in contrasting regions, so that their potential value can be fully realised. Equally, such studies will provide a fuller picture of specific migration streams and the processes underpinning movement in this period of transition, from a pre-industrial to an industrial, urbanised society. In the two hundred years before birth-place data are fully recorded in the Census, the biographical detail of the Poor Law documents is of great importance. The availability of computer technology has made family reconstitution possible from contemporary Parish Registers and this suggests that a fuller understanding of migration processes may come from the use of Registers and Poor Law documents together in regional studies.

Appendix 1.ISettlement Certificate

To the Churchwardens and Overseers of the poor of the parish of Painswick in the County of Gloucester or to any or either of them.

Gloucestershire. We whose names are herewith subscribed, Churchwardens and Overseers for the poor of the parish of Miserden in the county of Gloucester aforesaid Do hereby own and acknowledge Samuel Wheeler to be an inhabitant legally settled in the parish of Miserden aforesaid Witness whereof we have hereunto set our hands and seals this Tenth day of October in the sixth year of the reign of our Sovereign Lord George by the grace of God of  
 Britain France and Ireland King defender of the faith

Anno Domini 1719

Sealed and delivered Thomas Haigh Churchwarden of the poor  
 in the presence of us Thomas Backimill Overseer of the poor

William Dudley

We whose hands are hereunto subscribed  
 Two of his Majesty's justices of the  
 peace of the County of Gloucestershire  
 aforesaid do allow of the certificate  
 above with over date the Tenth day of  
 October. Anno Domini 1719.

Valentine Jones

Nathaniel Stephens

J. Swynfer

Appendix 1. IIExamination

The Examination of James Beverstock now residing in the parish of Painswick in the County of Gloucestershire Broadweaver taken upon his oath before Thomas Cooke and Giles Gardner Esquires two of his Majesty's Justices of the Peace of and for the said County of Gloucester the 19th day of February in the year 1740.

This examinant deposeth and saith that he was born in the parish of Winfield in the County of Wilts and that when he was about eleven years of age he was bound on apprentice by Indenture to John Rogers of the parish of Bradford in the said county of Wilts Broadweaver and served him in the same parish of Bradford during the whole term of his apprenticeship and that about four years since he came to live in this parish of Painswick aforesaid but hath not gained any settlement in the said parish of Painswick or in any other parish or place unless as aforesaid to the best of his knowledge.

Sworn the day and year above mentioned  
before us :

Thomas Cooke

The mark of

G. Gardner

James X Beverstock

Appendix 1.IIIRemoval Order

Gloucestershire To the Churchwardens and Overseers of the poor of the parish of Painswick in the said County of Gloucestershire to Execute and Convey and to the Churchwardens and Overseers of that parish of Old Sodbury in the same County to Receive and Obey.

To Wit

G.Gardner

Whereas complaint is now made unto us whose hands and seals are here unto sett two of his Majesty's Justices of the Peace for the County of Gloucester one of us being of the Quoram by the Churchwardens and Overseers of the Poor of the Parish of Painswick aforesaid that William Nicholls and Elizabeth his wife now reside within the said Parish of Painswick by virtue of a Certificate under the Hands and seals of the Churchwardens and Overseers of the Poor of the said Parish of Old Sodbury owning the said William Nicholls and his Family to be Parishioners legally settled in the said Parish of Old Sodbury which said Certificate is signed and allowed by two of his Majesty's Justices of the Peace for this County and the said William Nicholls and Elizabeth his wife and become chargeable to the said Parish of Painswick .....

And so the said Justices having seen and perused the said Certificate and also Examined the Overseer of the Poor of the said Parish of Painswick upon his Oath Do Adjudge that the said William Nicholls and Elizabeth his wife are become actually chargeable to the said Parish of Painswick and that the place of their last legal settlement is in the Parish of Old Sodbury aforesaid .....

These are therefore to require you the Churchwardens and Overseers of the Poor of the said Parish of Painswick some or one of you forthwith to Remove and Convey from the said Parish of Painswick unto the Parish of Old Sodbury aforesaid and deliver them to the Churchwardens and Overseers of the Poor there or to some or one of them (together with this Order or a time copy thereof) who is and are hereby required to receive and provide for their and the Law Directs Hereof fail not Given under our Hands and Seals the Seventeenth Day of November in the year of our lord 1748.

Appendix 2Ravenstein's Laws of Migration

It does not admit of doubt that the call for labour in our centres of industry and commerce is the prime cause of those currents of migration which it is the object of this paper to trace. If therefore, we speak perhaps somewhat presumptuously of "laws of migration", we can only refer to the mode in which the deficiency of hands in one part of the country is supplied from other parts where population is redundant.

1. We have already proved that the great body of our migrants only proceed a short distance, and that there takes place consequently a universal shifting or displacement of the population, which produces "currents of migration" setting in the direction of the great centres of commerce and industry which absorb the migrants.

In forming an estimate of this displacement we must take into account the number of natives of each county which furnishes the migrants, as also the population of the towns or districts which absorb them.

2. It is the natural outcome of this movement of migration, limited in range, but universal throughout the country, that the process of absorption would go on in the following manner :-

The inhabitants of the country immediately surrounding a town of rapid growth, flock into it; the gaps thus left in the rural population are filled up by migrants from more remote districts, until the attractive force of one of our rapidly growing cities makes its influence felt, step by step, to the most remote corner of the kingdom. Migrants enumerated in a certain centre of absorption will consequently grow less with the distance proportionately to the native population which furnishes them and a map exhibiting by tints the recruiting process of any town ought clearly to demonstrate this fact. That this is actually the case will be found by referring to maps 3, 4, 8 and 9. These maps show at the same time that facilities of communication may frequently countervail the disadvantage of distance.

3. The process of dispersion is the inverse of that of absorption, and exhibits similar features.

4. Each main current of migration produces a compensating counter-current.

5. Migrants proceeding long distances generally go by preference to one of the great centres of commerce or industry.

6. The natives of towns are less migratory than those of the rural parts

Appendix 2 - continued

of the country.

7. Females are more migratory than males.

Lee, op. cit., 47, suggests that Ravenstein identifies two further laws in his second paper.

1. Technology and Migration. "Does migration increase? I believe so ... wherever I was able to make a comparison I found that an increase in the means of locomotion and a development of manufactures and commerce have led to an increase in migration". (p.288)
2. Dominance of the economic motive. "Bad or oppressive laws, heavy taxation, an unattractive climate, uncongenial social surroundings and even compulsion (slave trade, transportation), all have produced and are still producing currents of migration, but none of these currents can compare in volume with that which arises from the desire inherent in most men to 'better' themselves in material respects". (p. 286).

### Appendix 3

#### Lee's Migration Hypotheses

##### 1. Volume of Migration

- a. .... within a given territory varies with the degree of diversity of areas included in that territory.
- b. .... varies with the diversity of people (in terms of race, or ethnic origin, education, income or tradition).
- c. .... is related to the difficulty of surmounting the intervening obstacles.
- d. .... varies with fluctuations in the economy (i.e. volume increases with economic prosperity.)
- e. Unless sever checks are imposed, both the volume and rate of migration tend to increase with time.
- f. Volume and rate of migration vary with the state of progress in a country or area (i.e. general level of economic development).  
Migration would be heavy in developed countries and internal migration also would be at a high rate.

##### 2. Stream and Counter-stream

- a. Migration tends to take place largely within well defined streams.
- b. For every major migration stream, a counter-stream develops.
- c. The efficiency of the stream (rates of stream to counter-stream or the net redistribution of population effected by the opposite flows) is high if the major factors in the development of a migration stream were minus factors at origin.
- d. The efficiency of stream and counter-stream tends to be low if origin and destination are similar.
- e. The efficiency of migration streams will be high if the intervening obstacles are great.
- f. The efficiency of a migration stream varies with economic conditions, being high in prosperous times and low in times of depression.

##### 3. Characteristics of migrants

- a. Migration is selective.
- b. Migrants responding primarily to plus factors at destination tend to be positively selected (i.e. selection for migrants of high quality).
- c. Migrants responding primarily to minus factors at origin tend to be negatively selected; or, when the minus factors are overwhelming to

Appendix 3 continued

enter population groups, they may not be selected at all.

d. Taking all migrants together, selection tends to be bimodal. (For any given origin some of the migrants who leave are responding primarily to plus factors at destination and therefore tend to be positively selected, while others are responding to minus factors and therefore tend to be negatively selected. Therefore, if we plot characteristics of total migrants along a continuum ranging from poor to excellent, we often get a J-shaped or U-shaped curve. Such curves are found, for example, where the characteristic is either occupational class or education.

e. The degree of positive selection increases with the difficulty of the intervening obstacles.

f. The heightened propensity to migrate at certain stages of the life cycle is important in the selection of migrants.

g. The characteristics of migrants tend to be intermediate between the characteristics of the population at origin and the population at destination.

Appendix 4

Population in Gloucestershire  
c. 1701, 1771, 1811, 1841 and 1851.

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish
						ownership
						1841
						a.
<u>1. Oxford Clay Vale</u>						
Down Ampney	180	248	324	425	443	A+
Lechlade	500	925	993	1300	1373	0
Meyseyhampton	360	265	333	410	376	A
Siddington St. Mary	60	74	321	469	502	A+
Siddington St. Peter	60	153				?
South Cerney	500	806	784	1077	1103	0
<u>2. North Cotswolds</u>						
Addelstrop	200	200	228	200	196	S+
Aldsworth	120	120	282	365	379	H A+
Ampney Crucis	350	357	470	591	662	S+
Ampney St. Mary	80	118	168	121	125	H A+
Ampney St. Peter	100	105	203	196	206	?
Aston Blank	120	171	247	302	310	A
Bagendon	60	139	125	172	183	S
Barnsley	160	217	279	305	322	S+
Great Barrington	120	393	427	553	545	S+
Little Barrington	82	124	137	208	128	S+
Batsford	80	87	86	79	107	H S+
Baunton	70	56	105	187	134	H A+
Bibury (incs. Winson)	500	780	952	1077	1116	A+
Bledington	260	251	326	354	391	0
Bourton on the Hill	250	269	301	542	550	S+
Bourton on the Water	350	500	663	943	1040	0
Brimpsfield	200	283	320	417	443	0
Broadwell	126	245	282	345	388	0
Charlton Abbots	60	63	99	101	112	H A+
Chedworth	500	787	896	983	963	0
Cherington	120	158	167	220	220	H S+
Chipping Campden	1618	n/d	1684	2087	2351	m

Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership		
						1841	a.	b.
Cirencester	4000	3878	4540	6014	6096		m	
Clapton on the Hill	80	112	104	117	112		A+	
Coates	120	200	259	373	400		0	
Colesbourne	120	254	237	256	269	H	S+	
Coln St. Aldwyn	300	392	380	428	492		A+	
Coln St. Dennis	80	112	162	200	229	H	A	
Coln Rogers	70	125	139	137	156	H	A+	
Compton Abdale	130	130	180	260	256	H	A+	
Condicote	80	105	124	165	174		A	
Cowley	160	268	270	317	317		A+	
Cranham	170	170	317	428	354		S	
Cubberley	80	178	164	231	243	H	A+	
Daglingworth	138	184	230	302	320		A+	
Didbrook							S	
Pinnock	124	125	201	292	142			
Dowdeswell	120	199	185	249	304	H	S	
Driffield	120	137	136	148	161		A+	
Duntisbourne Abbots	180	176	263	354	371	H	A	
Duntisbourne Rous	60	72	100	138	160	H	A+	
Eastington (Northleach)	n/d	n/d	146	350	421		A+	
Eastleach Martin	120	313	215	186	197	H	A+	
Eastleach Turville	200	400	370	421	446		A+	
Ebrington	341	469	359	583	594		A	
Edgeworth	120	106	123	149	148	H	A+	
Elkstone	160	178	285	335	336		A+	
Eyford	n/d	25	70	83	48	H	S+	
Fairford	660	1200	1444	1672	1859		S+	
Farmington	100	195	232	359	339	H	S+	
Guiting Power	300	375	613	672	690		0	
Hailes	80	90	122	120	90	H	A+	
Hampnett	60	78	82	195	211	H	A+	
Harnhill	80	89	65	97	77	H	S	
Hatherop	150	204	269	358	375		A+	
Hawling	100	132	209	217	212	H	A+	
Hazleton	100	} 161	111	193	189	H	A+	
Yanworth			113	93	89	H	A+	

## Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership 1841 a. b.
Iccomb	30	9	13	16	9	H S+
Church Iccomb	n/d	n/d	130	146	131	?
Kempsford	340	493	657	998	1003	A+
Lemington	36	59	63	53	58	H A+
Longborough	400	389	502	625	656	A+
Mickleton	375	231	565	698	829	m
Moreton in the Marsh	526	579	928	1345	1512	0
Naunton	140	258	460	523	568	S
North Cerney	190	384	530	668	689	S
Northleach	900	683	647	939	931	0
Notgrove	150	218	211	181	195	A+
Oddington	250	338	412	525	545	0
Poulton	n/d	n/d	305	371	408	?
Preston	70	171	176	220	218	H A+
Prestcote	50	31	47	62	51	S+
Prinknash Park	n/d	n/d	7	7	13	H A+
Quenington	120	267	311	371	369	A+
Rendcombe	120	139	163	248	264	H S+
Great Rissington	277	252	361	483	493	A+
Little Rissington	160	176	220	318	279	S
Wick Rissington	120	182	214	207	219	S+
Rodmarton	180	241	286	431	416	H A+
Roel	n/d	n/d	42	20	12	H A+
Salperton	60	155	162	206	145	S+
Sapperton	320	300	368	585	646	A
Sevenhampton	180	288	334	471	553	A
Sezincote	30	43	95	67	111	H S+
Sherborne	300	360	506	637	674	S+
Shipton Oliffe	80	130	207	222	241	A+
Shipton Sollars	120	133		126	96	H A+
Side	70	47	33	43	42	H S+
Lower Slaughter	150	194	232	222	230	A+
Upper Slaughter	150	178	216	231	218	S+
Snowshill	192	236	272	298	303	A

Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership	
						1841	a. b.
Southrop	170	216	268	403	425		A+
Stanley Pontlarge	n/d	32	49	75	66	H	S+
Stanway	240	260	403	384	359	H	S+
Stow on the Wold	1300	1180	1544	2140	2250		m
Stowell	5	5	34	42	28	H	S+
Stratton	150	173	175	546	622		A+
Lower Swell	160	213	235	352	431		A
Upper Swell	82	69	96	80	83	H	A+
Temple Guiting	191	428	450	523	525		S
Todenham	160	450	363	474	462		A+
Turkdean	120	113	164	246	278		0
Westcote	160	120	131	240	242		0
Whittington	126	n/d	198	231	233		A+
Windrush	140	190	289	313	332		A+
Winstone	100	160	169	262	252		A+
Withington	320	500	650	818	823		0

2b. South Wolds

Acton Turville	80	90	180	311	323		A+
Great Badminton	176	n/d	409	552	521		S+
Beverstone	164	144	162	178	199	H	S+
Boxwell and Leighterton	104	175	254	334	285		A+
Cold Ashton	142	213	268	414	479		0
Didmarton	56	72	95	95	101		A+
Kingscote	180	134	246	295	297		S+
Marshfield	800	1237	1415	1674	1648		0
Newington Bagpath	120	354	205	278	239	H	A+
Nympsfield	250	497	532	466	417		A+
Oldbury on the Hill	80	232	317	483	485		A+
Ozleworth	70	80	123	106	88	H	S+
Shipton Moyne	250	234	298	353	403		S
Tetbury	1200	3500	2533	2982	3325		0

Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership 1841	
						a.	b.
Tormarton	130	207	252	462	463		A+
Owlpen	140	196	181	94	82		S
West Littleton	44	67	88	158	161		O
Westonbirt and Lasborough	85	120	122	166	234	H	A

3a. Vale of Tewkesbury

Alderton	200	172	264	411	486		0
Alstone	n/d	n/d	83	89	89	H	?
Ashchurch	308	436	571	743	786		A
Ashelworth	350	n/d	503	594	590		O
Aston Somerville	60	51	88	89	89	H	A+
Aston sub Edge	104	63	120	134	132		A+
Aston under Hill	200	n/d	325	342	396		A
Badgeworth	500	549	642	903	874		S
Barnwood	180	n/d	306	383	358		O
Beckford	250	403	460	461	450		S+
Bishops Cleeve	875	1252	1416	1944	2117		m
Boddington	180	95	338	414	443		A+
Brockworth	200	253	376	409	425		O
Brookthorpe	200	107	137	169	191		O
Buckland and Laverton	250	316	324	377	368		A+
Childs Wickham	340	306	352	469	466		A+
Churcham	340	309	753	870	1025		m
Churchdown	400	630	783	999	1043		O
Clifford Chambers	320	249	244	309	305		A
Cow Honeybourne	156	156	286	327	343		A
Deerhurst	620	530	741	937	892		m
Dorsington	100	90	103	141	115		S+
Dumbleton	200	200	315	497	457		A+
Elmore	300	300	312	379	393		S+
Elmstone Hardwicke	150	144	324	410	391		A
Forkhampton	160	208	477	460	468		S+

## Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership	
						1841	a. b.
Down Hatherley	100	100	122	212	240		A+
Haresfield	500	500	552	576	627		0
Hasfield	200	175	265	304	300		A+
Hinton on the Green	100	105	194	178	192	H	S+
Kemerton	150	225	496	561	528		0
Lassington	45	33	79	82	80		A
Leigh	160	245	300	489	470		0
Maisemore	200	210	408	421	471		0
Long Marston	190	199	253	337	332		0
Matson	50	45	55	61	53	H	A+
Minsterworth	300	300	420	498	494		0
Norton	300	240	356	427	467		0
Oxenton	120	n/d	141	139	139		A+
Pebworth	400	436	591	829	737		A
Prestbury	445	450	667	1283	1314		A
Preston on Stour	200	n/d	291	394	421		S
Quinton	500	547	554	666	587		0
Saintbury	240	135	147	133	138	H	A+
Sandhurst	300	260	399	540	494		0
Shurdington and Up Hatherley	70	80	102	220	223		A+/A
Stanton	300	310	244	319	307		S+
Staverton	200	120	230	296	278		A
Sudeley	90	23	76	84	77	H	A
Swindon	90	105	162	204	221		A
Tewkesbury	2500	3000	4820	5862	5878		m
Tirley	300	280	405	550	526		0
Toddington	200	154	261	229	189	H	S+
Tredington	100	169	167	163	143		A
Twyning	600	567	813	970	1011		S+
Up St. Leonards	450	300	713	893	1124		0
Walton Cardiff	56	28	55	69	60	H	A
Great Washbourne	60	60	99	100	117		A+

Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership	
						1841	a. b.
Little Washbourne	n/d	n/d	55	37	29	H	?
Welford	450	450	477	608	605	A+	
Weston on Avon	60	75	96	91	93	H	A
Weston sub Edge	300	197	283	342	358		A
Whaddon	110	123	114	132	120	A+	
Willersey	250	n/d	256	375	372		A
Winchcomb	2715	1960	1936	2613	2814		m
Witcomb	90	96	135	179	167		S+
Woolstone	90	100	83	78	86	H	A+
Wormington	80	85	81	73	62		A+

3b. Vale of Gloucester

Arlingham	400	372	571	793	737		0
Berkeley and Stone	2700	2054	3236	4405	4344		m
Champton on Severn	500	600	848	1051	994		S+
Fretherne	125	96	160	242	267		0
Frocester	250	262	367	344	299		A
Hardwicke	280	250	423	540	564		0
Harescombe	60	74	100	132	147		0
Hempstead	140	129	128	224	251		S
Longney	260	217	379	490	504		0
Moreton Valence	150	169	312	344	307		0
Quedgeley	170	166	233	276	401		S
Saul	130	151	365	477	550		0
Slimbridge	560	800	794	866	859		0
Standish	500	400	474	540	534		0
Stinchcombe	500	450	371	393	354		0
Westbury on Severn	1200	1300	1765	2225	2498		0
Whitminster	200	231	339	391	380		S

3c. Vale of Berkeley

Almondsbury	530	n/d	1284	1584	1680		m
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Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership 1841
						a. b.
Alveston	240	198	524	841	847	0
Compton Greenfield	20	37	35	65	64	H S+
Dodington	56	98	113	143	135	H S+
Doynton	200	340	342	529	499	A
Dyrham and Hinton	270	350	476	530	474	S+
Elberton	104	122	191	190	204	H S+
Filton	80	125	168	276	245	0
Henbury	880	1200	2134	2439	2525	m
Hill	200	146	228	227	216	H S+
Horton	320	332	373	466	461	0
Littleton on Severn	80	84	132	195	190	H 0
Olveston	240	593	1093	1725	1669	0
Rockhampton	120	122	152	208	235	0
Chipping Sodbury	650	800	1235	1273	1195	0
Little Sodbury	90	115	83	125	128	A+
Old Sodbury	200	200	765	871	820	0
Thornbury	1100	1971	2770	4353	4292	m
Tytherington	320	310	441	496	465	m
Tortworth	240	241	303	240	237	A+
Wapley and Codrington	180	200	276	366	305	S
Shirehampton in Westbury on Trym	n/d	n/d	490	671	632	0

3d. Over Severn

Bromsberrow	80	138	274	283	260	S+
Bulley	85	51	203	229	241	0
Corse	300	253	410	482	586	0
Dymock	1000	1282	1342	1776	1771	0
Hartpury	300	300	682	877	884	S+
Huntley	240	269	357	511	555	A+
Kembley	180	257	286	342	305	A+
Newent	1110	1560	2538	3099	3306	m
Oxenhall	200	202	347	292	288	A+

Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership 1841
						a. b.
Pauntley	115	87	230	249	256	A
Preston	60	40	90	75	80	H ?
Rudford	106	106	172	230	232	A
Taynton	200	250	416	634	631	O
Tibberton	150	230	252	344	361	O
Upleadon	100	100	183	250	275	A

4. Forest of Dean

Abbenhall	88	158	201	239	224	A
Alvington	200	n/d	213	340	370	A
Awre and Blakeney	700	755	1035	1277	1512	m
Blaisdon	180	137	207	264	299	S+
English Bicknor	300	500	500	576	584	O
Flaxley	200	196	158	229	242	A+
East Dean	n/d	n/d	2039	6243	7482	O
West Dean	n/d	n/d	2034	4449	6084	O
Hewesfield	200	253	349	531	497	O
Little Dean	320	423	754	828	947	O
Mitcheldean	600	590	535	665	662	O
Longhope	500	470	646	929	1070	O
Lydney and Ayburton	700	661	1160	1885	2577	A+S+
Newland	2200	2997	3147	4085	4574	O
Newnham	400	1000	952	1105	1288	m
Ruardean	500	758	735	929	1033	O
St. Briavels	400	766	867	1287	1194	O
Staunton	220	220	171	188	211	A+
Tidenham	600	500	918	1443	1753	O
Woolaston	400	459	646	1022	1110	O

5. South Gls. Coalfield

Bitton (incl. Oldland and Hanham)	1150	4634	6061	9338	9452	O
Cromhall	360	316	567	732	766	S+
Frampton Cotterell	300	393	1419	1991	1837	O

Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish
						ownership
						1841
						a. b.
Iron Acton	240	460	897	1342	1265	0
Mangotsfield	750	2000	2901	3862	3967	0
Pucklechurch	250	460	535	862	931	0
Rangeworthy	150	120	265	353	322	A+
Siston	450	n/d	833	1014	926	0
Stapleton	700	1280	1921	3944	4840	0
Stoke Gifford	200	283	315	480	488	A+
St. George	n/d	3435	4909	8318	8905	0
Westerleigh	400	930	1632	1776	1679	0
Wickwar	1000	850	805	1125	966	0
Wick and Abson	230	400	671	794	826	A+
Winterbourne	500	567	2333	3151	2876	0
Yate	320	412	717	1057	1080	0

6a. Northern Cloth Region

Avening	600	856	1602	2227	2321	0
Bisley	3200	4905	4757	5339	4801	0
Eastington	450	767	1223	1871	1886	0
Horsley	1200	n/d	2925	3064	2931	0
Kings Stanley	1000	1257	1722	2200	2095	0
Leonard Stanley	400	512	538	874	861	A+
Minchinhampton	1806	4000	3246	4890	4469	0
Miserdine	250	477	502	509	489	S+
Painswick	n/d	3300	3201	3730	3464	0
Pitchcombe	80	90	204	243	145	A
Randwick	400	650	748	979	959	0
Rodborough	750	1481	1628	2147	2208	0
Stonehouse and	500	759	1711		2711	0
Haywards Field					2598	H ?
Stroud	3000	4000	5321	8680	8798	0
Woodchester	460	792	845	908	893	0

6b. Southern Cloth Region

Alderley	120	157	197	174	145	A+
Cam	800	1070	1501	1851	1640	0

Appendix 4 continued

Region/Parish	c. 1701	c. 1771	1811	1841	1851	Parish ownership 1841
						a. b.
Charfield	145	200	250	471	515	0
Coaley	500	598	909	979	788	A+
Dursley	2500	2000	2580	2931	2752	0
Hawkesbury and Little Badminton } Kingswood	598	896	1482	2231	2185	m
North Nibley	n/d	n/d	963	1321	1227	0
North Nibley	1000	1700	1290	1305	1133	0
Uley	900	1310	1912	1713	1327	0
Wotton under Edge	3500	4000	3800	4702	4224	0

7a. Cheltenham

Charlton Kings	550	458	1005	3232	3174	0
Cheltenham	1500	1433	8325	31411	35051	0
Leckhampton	120	142	242	1770	2149	S+

7b. Gloucester

Gloucester inc.	4990	5291	6220	11726	13554	
North and South Hamlet						
Ville and Littleworth						

7c. Bristol suburbs

Clifton	450	1367	6981	14177	17634	0
Horfield	100	125	146	620	1221	A
Westbury upon Trym	650	900	2545	4358	6096	0

Notes

1701 data from Atkyns. 1771 data from Rudder.

Parish ownership. a. after Holderness.) b. after Mills ) see Figures 14 and 15.

Region 2a. Eastington probably in Northleach total in 1701 and 1771.  
Hazleton probably in Yanworth in 1701  
Stanley Pontlarge in Toddington (Region 3a.) in 1701.

Region 3c. Thornbury excludes Rangeworthy (region 5) and probably includes Falfield and Oldbury on Severn in 1701 and 1771.

Region 6b. Hawkesbury probably includes Little Badminton in 1701 and 1771  
Bristol includes the out parishes of St. James, and St. Philip and Jacob, which are excluded from region 7c.

Region 7c. Westbury probably includes Shirehampton in 1701 and 1771.

Appendix 5.IGloucestershire Economic Regions<sup>1</sup>Population c. 1701-1851Summary Table

Region	c.1701 <sup>2</sup>	c.1771 <sup>2</sup>	c.1811	1841	1851
1. Oxford Clay Vale	1660	2471	2755	3681	3797
2a. North Cotswold	23739	27528	36201	46594	48324
2b. South Wolds	4071	7552	7680	9401	9750
3a. Vale of Tewkesbury	20604	19401	28336	35877	36169
3b. Vale of Gloucester	8125	7741	11900	13733	13990
3c. Vale of Berkeley	6120	7584	13608	17813	17518
3d. Over Severn	4226	5125	7782	9673	10031
4. Forest of Dean	8708	10843	17267	28594	33713
5. South Glos. Coalfield <sup>3</sup>	7000	16540	26781	40139	41126
6a. Northern Cloth Region	14096	24702	30173	40372	38918
6b. Southern Cloth Region	10063	11931	14884	17678	15936
7a. Cheltenham <sup>4</sup>	2170	2033	9572	36413	40374
7b. Gloucester	4990	5291	6220	11726	13554
7c. Bristol suburbs in South Glos. <sup>5</sup>	1200	2282	9672	19155	24951
Total	116622	151024	222831	330849	348151

Appendix 4 gives the totals for each parish by economic region.

1. See Figure 7.
2. These dates have been adopted as representative dates for the bulk of the data.
3. Cromhall is counted within the coalfield as the 1821 notes to the Census refer to the opening of a new pit in the area and a consequent increase in population.
4. Charlton Kings and Leckhampton had become part of suburban Cheltenham before 1851.
5. St. George is counted within the coalfield though its growth so close to Bristol might warrant its inclusion in region 7c. The two processes of growth are different, though it could be argued that proximity to the city stimulated growth at a faster rate than other coalfield parishes. Clifton Horfield, and Westbury upon Trym (excluding Shirehampton) were suburban by 1851.

This table included all parishes within the county as defined by 7 and 8 Vic. c. 61, 1844 (for which data was available. In particular Widford, Lower Compton, Shenington, Minety, Lea, Sutton under Brailes, and Lark

Appendix 5.I continued.

Stoke were transferred out of the County by that Act. Kingswood, Poulton, Church Iccomb, Alstone and Little Washbourne were added to it. The totals cannot be directly compared because the two eighteenth century estimates are incomplete. Appendix 5.II removes those parishes from the totals to enable growth rates to be estimated.

Appendix 5.II

Gloucestershire Economic Regions. Population and rates of growth C.1701-1851.

Region	C.1701	C.1771	1811	1841	1851	1701-71	1771-1811	1811-41	1841-51
1	1660	2471	2755	3681	3797	6.97	2.87	11.2	3.15
2a	21995	27471	33716	43574	45060	3.54	5.7	9.75	3.41
2b	3895	7552	7271	8849	9229	13.41	-0.93	7.23	4.29
3a	19304	19401	26376	33524	33775	0.07	8.99	9.03	0.75
3b	8125	7741	11900	13733	13990	-0.68	13.43	5.13	1.87
3c	5590	7584	11834	15558	15206	5.10	14.1	10.49	-2.26
3d	4026	5125	7782	9673	10031	3.9	12.96	8.1	3.7
4	8508	10843	12981	17562	19777	3.92	2.82	11.76	12.61
5	6550	13105	21039	30807	31299	14.29	15.14	15.48	1.6
6a	12896	21402	24047	33578	32523	9.42	3.09	13.21	-3.14
6b	10063	11931	13921	16357	14709	2.65	4.17	9.83	-10.0
7a	2170	2033	9572	36413	40374	-0.9	92.7	93.47	10.88
7b	4990	5291	6220	11726	13554	0.86	4.39	29.51	15.59
7c	1200	2392	9672	19155	24951	12.88	80.96	32.68	30.25
n	110972	144342	199086	294190	308275	4.30	9.48	15.92	4.79

Appendix 5.II continued

\*.

Parishes excluded from this table are all those in Appendix 5.I for which data were not available for one or both of the eighteenth century estimates. In the case of the Vale of Berkeley, the absence of Almondsbury may depress slightly the growth rate in the period up to 1811, as its decennial growth between 1701-1811 was 12.93 percent whereas it was 10.58 percent for the rest of its region. More serious is the lack of data for East and West Dean. Even allowing for the peripheral early growth in the Forest area, these figures up to 1811 are too low. The emphasis on primary production rather than secondary would inter-alia result in the lower rate of growth than that experienced in the South Gloucestershire coalfield in the eighteenth century. The removal of St. George and Siston, both close to Bristol's market and the Avon Valley metal industries must similarly depress the growth for this region between 1701-1771.

It is the data from this table which forms Figure 18.

Appendix 6Net Migration Rate and Natural Population Change  
Gloucestershire 1841-51

Registration District		1841-51		Change	Net migration
		Natural	Census		
Bristol	329.1	1232	-237	-1469	
	2	-591	350	941	
	3	1562	408	-1154	
	4	-784	103	887	
	5	1142	826	-316	
Clifton	330.1	405	3457	3052	
	2	586	2397	1811	
	3	1273	587	-686	
	4	2881	3371	490	
	5	652	1759	1107	
	6	ww -317	598	915	
Chipping Sodbury	331.1	449	-226	-675	
	2	393	-12	-405	
	3	556	-95	-651	
	4	w 515	-367	-882	
	332.1	207	80	127	
Thornbury	2	w 531	-62	-593	
	3	501	-31	-532	
	333.1	473	-744	-1217	
Dursley	2	247	-638	-885	
	3	w 494	-436	-930	
	334.1	1962	1771	-191	
Westbury on Severn	2	w 437	578	159	
	335.1	w 903	469	-434	
	2	581	419	-162	
Gloucester	336.1	230	558	328	
	2	w 441	568	127	
	3	632	1295	663	
	4	953	2809	1856	
	337.1	383	72	-311	
Wheatenhurst	2	w 549	-45	-594	

Appendix 6 continued

## 1841-51 Change

Registration District		Natural	Census	Net migration
Stroud	338.1	464	-146	-610
	2	485	-458	-943
	3	433	-538	-971
	4 w	520	118	-402
	5	496	-59	-555
	6	350	-421	-771
	7	518	-39	-557
Tetbury	339.1	185	-96	-281
	2 w	410	459	+49
Cirencester	340.1	614	194	-420
	2 w	1146	83	-1063
	3	545	322	-223
Northleach	341.1	w	1102	225
	2			98
Stow-on-the-Wold	342.1		582	-479
	2 w		354	-47
Winchcombe	343.1	w	666	5
	2		505	-374
Cheltenham	344.1		1079	-771
	2 w		2416	+1224
Tewkesbury	345.1		615	-671
	2		404	-266
	3 w		501	-410

Parts of the county outside registration county

where Gloucestershire parishes constitute over 50% of the sub-district's population.

In Somerset	327.1	747	-118	-865
	2	1479	274	-1205
In Warwickshire	406.1	492	421	-71
In Monmouthshire	576.3	850	683	-167
	577.1	1116	2133	+1017

w workhouse

Appendix 6 continuedNotes

334.1 after 26.6.1845 part of East Dean township in Ross district (347) annexed.

335.1 Newent sub-district includes Aston Ingham and Linton (Hereford) which constitute 23% of the total population 1851.

335.2 Redmarly sub-district includes Redmarly D'Abitot and Staunton (Worcs.) 31% of 1851 population.

339.2 Tetbury sub-district includes Long Newton and Ashley (Wilts.) 8% of 1851 population.

340.2 Cirencester sub-district includes Kemble, Poole Keynes, Somerford Keynes and Shorncote (Wilts.) 10% of 1851 population.

340.3 Fairford sub-district includes Marston Maisey (Wilts.) 4% of 1851 population.

342.2 Stow sub-district includes Daylesford and Evenlode (Worcs.) 7% of 1851 population.

343.1 Guyting sub-district includes Cutsdean (Worcs.) 3% of population in 1851.

345.1 Deerhurst sub-district includes Chaseley and Pendock (Worcs.) 15% of 1851 population.

345.2 Overbury sub-district includes part of Overbury and part of Bredon, 75% of 1851 population. Not divided until 1.4.1849.

327.1 Bitton sub-district includes Kelston and North Stoke (Somerset) Hanham, Siston and part of Bitton. Somerset parishes make up 9% of 1851 population.

327.2 Oldland sub-district includes Mangotsfield and part of Bitton.

406.1 Campden sub-district includes Ilmington which was largely in Warwick and makes up 18% of 1851 population.

576.3 Lydney sub-district )  
577.1 Coleford sub-district ) totally within geographical county

Source : 1841 Census (7th June)

1851 Census (30th March)

1861 Census (8th April)

Registrar General's reports  
(Calendar years)

Appendix 7

Calculation of volume of movement,  
Weighted for area of migration zone.

1. Gloucestershire.

Distance Band Kms.	mid class	ring area kms. <sup>2</sup>	multiplier <sup>*</sup> value 1000 km. <sup>2</sup>
0 - 7.9	4	201.14	4.972
8 - 15.9	12	603.43	1.657
16 - 23.9	20	1005.46	0.995
24 - 31.9	28	1408.26	0.710
32 - 39.9	36	1810.29	0.552
40 - 47.9	44	2212.57	0.452
48 - 55.9	52	2614.86	0.382
56 - 63.9	60	3017.14	0.331
64 - 71.9	68	3419.43	0.292
72 - 79.9	76	3821.71	0.262

It is the weighted values that are used in the Pareto-slope calculations. Table 9 is derived from the raw data from which Table 8 is also constructed. The Table 9 is the exemplar of the intermediate step before the calculation of the 'b' value in this thesis. Zero is replaced by 0.01 in the calculations based on the logarithmic transformation.  $\log Y = \log a - b \log D$ .

2. The weightings for the data derived from Randall's research are different as a result of the aggregation zones used in that thesis. See Appendix 13.

\* multiplier x total documents in zone = weighted value/1000 kms.<sup>2</sup>.

Appendix 8

Removal Orders 'from' selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region by quinquennia.

Parish	Date	1661-65	1666-70	1671-75	1676-80	1681-85	1686-90	1691-95	1696-97	1697-00	1701-05	1706-10	1711-15	1716-20	1721-25	1726-30	1731-35	1736-40	1741-45	1746-50	1751-55	1756-60	1761-65	1766-70	1771-75	1776-80	1781-85	1791-95	1796-00	1801-05	1806-10	1811-15	1816-20	1821-25	1826-30	1831-35	1836-40	1841-45	1846-50	1851-55	1856-60	1861-65
6a Bisley						1	1	3	4	3	1	10	10	10	2	4	2	1	6	12	9	6	5	12	5	2	1	2	8	6	21	16	13	10						186		
Painswick		1				4	3	3	5	4	3	6	1	3	16	7	14	7	9	4	12	19	24	8	12	4	1		6	16	19	30	28	14	13	5		304				
Stonehouse								1	1	1	1	1	6	2				3	4	5	6	2	4	7	6	3	4		3	8	8	30						112				
Stroud		1	4		1	4		2	3	1	6	6	5	4	3	1	4	4	9	14	4	2	14	8	4	2	8	3	12	4	42	24	7	19	3	2	1	231				
6b Cam										1								1	1		1	5	2		5	5	2	2	2	13	8	38	17		7	1			111			
Dursley						1	2		2			5	3	4	6	2	21	17	10	3	13	22	9	21	7	9	9	6	5	6	8	6	47	22	1		267	+				
Hawkesbury											2	2	4	2	3	1		1	2	2	1	3	1	3	7	2	5	4	1	5	6	2	20	20	5	1	2		107			
Kingswood						1				1		1	3	2	7	7	4	2				2	4	1	1	3	3	4	4	3	32	20	14	11	6		136					
North Nibley		1					2				1		1	4	11	4	5	3	6	10	9	8	3	2	1	4	4	9	4	26	18	3	1	1		141						
n		1	1	1	9	5	7	13	13	13	8	17	23	16	50	32	58	42	40	23	53	91	60	54	59	49	34	23	30	35	84	60	286	165	57	61	16	3	2	1	1595	

+ includes register data for which no documents survive

n.b. row totals vary from Tables 36 and 38 when date or location of document not established.

Appendix 9

Removal Orders 'to' selected parishes in the Gloucestershire Woollen Cloth Manufacturing Region, by quinquennia.

Parish	Date	1661-65	1666-70	1671-75	1676-80	1681-85	1686-90	1691-95	1696-97	1697-00	1701-05	1706-10	1711-15	1716-20	1721-25	1726-30	1731-35	1736-40	1741-45	1746-50	1751-55	1756-60	1761-65	1766-70	1771-75	1776-80	1781-85	1786-90	1791-95	1796-00	1801-05	1806-10	1811-15	1816-20	1821-25	1826-30	1831-35	1836-40	1841-45	1846-50	1851-55	1856-60	1861-65	
ea Bisley						2												1	4	1	3	6	5	1	1	2	6	6	1	10	9	3	12	12	17	23	4	1	1			131		
Painswick						1	1	1										4	10	6	5	6	9	6	14	11	3	4	7	1		6	19	15	34	24	14	21	13	8	12	1	259	
Stonehouse									1									2		3	1	1								3	3	9	16	21	4		1			65				
Stroud						1	1	1	2	2							11	1	12	8	4	8	3	6	6	2	2	4	2	2	3	3	4	10	7	11	13	4	10	7	2	4	3	159
cb Cam																				1		2	3	3	5	2	2	7	1	5	3	14	3	1	10	3	4			69				
Dursley																		1		1	1	2	1	1	2	3	10	1	5	9	2	10	10	4	22	12			97					
Hawkesbury																												2	4	2	7	7	3	14	13	4	6	1	3	6	1	105		
Kingswood																		1		2	1	1	4	2			2	1	1	3	1	4	9	9	6	16	16	12	8	1	4	2	106	
North Nibley						1			2	1							2	1	3	1	5	5	2	1	6	9	5	5	1	3		1	4	3	12	8	23	19	10	9	1			
n						2	2	4	1	4	2	4	1	1	16	8	28	15	22	19	22	15	26	34	22	18	22	24	21	21	25	53	81	65	171	116	62	88	30	22	25	5	2134	

Appendix 10I Occupations and civil status of migrants to Bisley

	M		MC		MCh		Sp	
	a	b	a	b	a	b	a	b
Burler								
Cardboard maker								
Cardmaker								
Cardwinder	2							
Clothworker		5	1		3		2	4
Combmaker								
Dyer								
Feltmaker								
Fuller								
Jennyspinner								
Scribbler							1	2
Sheargrinder								
Shearmaker								
Shearman								
Soapboiler								
Weaver	2	11			4		2	16
Woolcomber					1			
Woolsorter								
Woolworker								
Breechesmaker								
Collarmaker								
Cordwainer		2	1		1			
Tailor	2	1	1		2			3
Blacksmith								
Gunsmith								
Tinker/Grinder								
Watchmaker								
Basketmaker						1		
Bricklayer								
Cabinetmaker			1					
Carpenter								
Cooper	1							1
Glazier								
Mason		1						
Plasterer							1	
Sawyer								
Slaymaker								
Stonecutter								
Wheelwright								
Baker					1			
Butcher					1			
Miller							1	
Victualler								
Barber								
Perukemaker			1				1	
Farm labourer		1			1			2
Footman								
Furzecutter								
Gardener								
Labourer	1	7	3	4	2	10		
Servant		3			1	4		2
Armed forces								
Carter		1						
Schoolmaster								
	n	8	33	7	18	8	45	3

Appendix 10II Occupations and civil status of migrants to Painswick

	M		MC		MCh		Sp	
	a	b	a	b	a	b	a	b
Burler								
Cardboard maker								
Cardmaker								
Cardwinder	1							
Clothworker	1	7			2	2		
Combmaker								
Dyer		1						
Feltmaker								
Fuller								
Jennyspinner								
Scribbler		6			1	3		
Sheargrinder								
Shearmaker								
Shearman								
Soapboiler								
Weaver	3	10	2	4	3	8		1
Woolcomber				1				
Woolsorter								
Woolworker								
Breechesmaker								
Collarmaker		1					1	
Cordwainer			1	1	1	1	1	
Tailor	1						1	
Blacksmith		1					2	
Gunsmith							1	
Tinker/Grinder		1						
Watchmaker								
Basketmaker								
Bricklayer								
Cabinetmaker								
Carpenter	1	1					1	
Cooper	1		1					
Glazier					1			
Mason		1						
Plasterer		1						
Sawyer			1					
Slaymaker			1					
Stonecutter					1			
Wheelwright					1			
Baker								
Butcher								
Miller								
Victualler	1							
Barber		1						
Perukemaker		1	1					
Farm labourer		2						
Footman								
Furzecutter					1			
Gardener								
Labourer	3	11		2	1	6		
Servant	1	8		1	1	1		
Armed forces								
Carter			1					
Schoolmaster								
	n	13	55	5	13	9	27	1

Appendix 10III Occupations and civil status of migrants to Stonehouse

	M		MC		MCh		Sp	
	a	b	a	b	a	b	a	b
Burler								
Cardboardmaker								
Cardmaker								
Cardwinder								
Clothworker	20			1			7	
Combmaker								
Dyer								
Feltmaker								
Fuller				1				
Jennyspinner		1						
Scribbler		9						
Sheargrinder						1		
Shearmaker						1		
Shearman		4				3		
Soapboiler								
Weaver	1	20		8	1	16		
Woolcomber						1		
Woolsorter					1			
Woolworker		7				8		
Breechesmaker								
Collarmaker								
Cordwainer		3			1			
Tailor		1			1		1	
Blacksmith		4	1				1	
Gunsmith								
Tinker/Grinder								
Watchmaker								
Basketmaker						1		
Bricklayer								
Cabinetmaker								
Carpenter		4	1			2		
Cooper								
Glazier		1						
Mason		1				1		
Plasterer		3					2	
Sawyer							2	
Slaymaker								
Stonecutter							2	
Wheelwright								
Baker								
Butcher		1						
Miller		1						
Victualler								
Barber		3						
Perukemaker								
Farm labourer						1		
Footman		1						
Furzecutter								
Gardener						1		
Labourer		17		4		8		
Servant		3						5
Armed forces	1		1					
Carter								
Schoolmaster								
	n	2	104	3	16	2	57	5

Appendix 10IV Occupations and civil status of migrants to Dursley

	M		MC		MCh		Sp	
	a	b	a	b	a	b	a	b
Burler	1							
Cardboardmaker	1							
Cardmaker	10	8	3			2		
Cardwinder			1					
Clothworker	3	2			1	1		
Combmaker	1							
Dyer								
Feltmaker	2							
Fuller								
Jennyspinner								
Scribbler	1	1	1	1				
Sheargrinder								
Shearmaker								
Shearman								
Soaphoiler						1		
Weaver	7	2				1	1	
Woolcomber								
Woolsorter								
Woolworker								
Breechesmaker						1		
Collarmaker								
Cordwainer	2	2	2	1				
Tailor	3		1			2		
Blacksmith	2		1	1				
Gunsmith								
Tinker/Grinder							1	
Watchmaker								
Wiredrawer		1	1					
Basketmaker								
Bricklayer								
Cabinetmaker								
Carpenter								
Cooper			1					
Glazier								
Mason								
Plasterer								
Sawyer				1				
Slaymaker								
Stonecutter								
Wheelwright								
Baker								
Butcher								
Miller								
Victualler								
Barber								
Perukemaker								
Farm labourer	1							
Footman								
Furzecutter								
Gardener								
Labourer	1	2				1		
Servant								
Armed forces		1			2		2	
Carter								
Schoolmaster								
	n	34	20	11	7	7	6	



## Appendix 10

### Notes

1. This table is based on an analysis of Settlement Certificates and Examinations for the parishes of Bisley, Painswick, Stonehouse and Dursley. These parishes were chosen on the basis of the volume of extant data.
2. The identification of the origin of each migrant followed the rules listed below
  - a. The place of legal settlement in a Certificate. The law of derivative settlement and step-migration have an unquantifiable effect on the accuracy of the identified links.
  - b. In Examinations, only the final link in a known step-migration is used. In other cases the settlement in which an apprenticeship was served is used. If only a birthplace is given and the legal settlement of the father can be determined then this is used to identify the settlement of a son.
  - c. For unskilled workers, the last place of service mentioned in an Examination or the place of legal settlement in a Certificate are used.
  - d. Where Certificates have been issued retrospectively following an Examination they are included in the latter category. This is to imply that the original migration was not constrained by the Certificate system. Two Certificates for Bisley, issued on the same day as the Examination, are regarded as retrospective. In the Painswick collection, of the Certificates and Examinations stating occupations, there is an overlap of 19 documents. Eight Certificates were issued retrospectively within six weeks of the Examination and seven were issued at a much later date. Only four Certificates pre-date the Examinations. For Bisley there was a similar overlap of 19 documents with 7, 12, and 0 falling in the respective time categories.
3. The number of categories identifying civil status has been reduced to four broad groups
  - a M Unaccompanied married man, bachelor.
  - MC Married couples
  - MCh Married person or couples with child(ren)
  - Sp Spinster, widow or unaccompanied female

Appendix 10 notes continued

4. In several cases details of civil status are more fully shown on the Certificates than in related subsequent Examinations. It would seem unwise to accept the latter too literally in this respect as lack of information against a male name may not indicate bachelor status.

Appendix 11Migration distances. Settlement Certificates  
from parishes in the West Derby Hundred of Lancashire.

Parish	number < 10 miles (16 km)	Percentage of all documents	n
Atherton	22	91.7	24
Burslough	31	70.5	44
Cronton	6	100	6
Halewood	17	94.4	18
Haughton	2	66.7	3
Lowton	38	95	40
Newton	3	100	3
North Meols	28	73.7	38
Parr	41	91.1	45
Prescot	2	100	2
Sankey Great	2	66.7	3
n	192	85.0	226

(after Oxley 399)

Migration distances. Removal Orders 'from'  
parishes in the West Derby Hundred of Lancashire

Parish	number < 10 miles (16 km)	Percentage of all documents	n
Atherton	53	77.9	68
Cronton	1	100	1
Halewood	3	75	4
Lowton	20	66.7	30
North Meols	7	70	10
Parr	12	52.2	23
Poulton F.	6	75	8
Sankey Great	1	100	1
n	103	71.0	145

(after Oxley 399)

nb. 1. pre and post 1795 Removal Orders are not specified.  
2. Quarter Session Removal Orders not included.

Appendix 11 continuedMigration distances. Removal Orders 'to'  
parishes in the West Derby Hundred of Lancashire.

Parish	number <10 miles (16 km)	Percentage of all documents	n
Atherton	56	42.7	131
Cronton	6	100	6
Halewood	4	66.7	6
Houghton	10	100	10
Lowton	34	47.2	72
North Meols	3	37.5	8
Parr	18	81.8	22
Poulton F.	12	48.0	25
Prescot	51	51.5	99
Sankey Great	2	40	5
n	196	51.0	384

(after Oxley 400-401)

n.b. pre and post 1795 Removal Orders are not specified.

Appendix 12Migration distances for selected Essex,Berkshire and Oxfordshire parishes

	total	from county	in county	mean (kms)	extra county	mean (kms)	overall mean (kms)
<u>Settlement Certificates 'to'</u>							
<u>Essex</u>							
Rural parishes	139	122	12.8	17	78.4	20.8	
Textile villages	1737	1538	9.6	193	60.8	14.7	
Textile towns	1690	1249	11.6	441	46.1	20.6	
Chelmsford	334	273	16.0	61	80.0	27.7	
Rochford	217	185	16.0	32	80.0	25.4	
<u>Berkshire</u>							
Rural parishes	196	146	9.4	50	61.3	22.6	
Cookham (near London)	152	81	6.4	71	19.2	12.4	
Textile villages	419	215	14.4	204	41.8	27.8	
Reading	222	84	17.6	138	38.4	30.5	
<u>Oxfordshire</u>							
Rural parishes	386	303	8.5	83	19.7	11.0	
Textile villages	72	56	9.3	16	31.4	14.2	
Textile towns (incl. Oxford)	563	370	9.3	193	48.7	22.8	
Oxford	214	122	12.8	92	59.2	32.8	
<u>Removal Orders 'to'</u>							
<u>Essex</u>							
Rural parishes	781	677	12.6	104	51.4	17.8	
Textile villages	332	267	15.5	65	40.5	23.2	
Textile towns	539	338	17.5	201	61.3	36.1	
Chelmsford	149	99	12.8	50	52.8	26.2	
<u>Berkshire</u>							
Rural parishes	126	74	11.5	52	41.8	24.0	
Textile villages	587	265	11.7	322	38.5	27.1	

Appendix 12 continued

TOTAL	from in county	mean (kms)	extra county	mean (kms)	overall mean (kms)
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Removals 'to' (continued)Oxfordshire

Rural parishes	144	88	8.8	56	42.5	21.9
Textile villages	45	28	9.0	17	42.3	22.7
Textile towns	113	49	13.1	64	72.2	46.6
Oxford	44	15	12.0	29	75.2	53.7

Removal Orders 'from'Oxfordshire

Rural parishes		9.6		32.0	17.6
Towns		11.2		48.0	24.0

After Thomas, op. cit., Appendix T.

The calculations for Textile villages in Essex for Settlement Certificates omits the parish of Great Leighs as no mean mileage was stated.

The data for Removal Orders 'from' provided no totals, only mean values.

Appendix 13

Certificates/1000 kms.<sup>2</sup> for selected parishes in  
Northamptonshire, Surrey and Essex.

Distance Band (kms)	0.1-3	3.1-6	6.1-9	9.1-12	12.1-15	15.1-18	18.1-21	21.1-24	24.1-27	27.1-30
mid class	1.5	4.5	7.5	10.5	13.5	16.5	19.5	22.5	25.5	28.5
Ring area (kms. <sup>2</sup> )	28.28	84.86	141.43	198.00	255.00	311.14	367.72	424.28	480.86	537.43
Kettering	1131.5	777.5	127.3	348.5	94.1	73.8	40.7	61.1	26.9	9.3
Reigate	4313.9	777.5	466.6	207.1	105.8	28.9	29.8	25.9	20.7	26.0
Bocking	2758.1	223.8	459.6	217.2	58.8	22.5	54.2	84.6	29.0	16.7
Braintree	3536.0	164.9	134.3	197.0	39.2	28.9	35.2	42.3	14.5	9.3
Castle Hedingham	742.6	329.8	49.5	85.9	43.1	0	21.7	9.4	2.1	3.7
Chelmsford	2298.4	447.6	374.7	131.3	121.5	70.6	35.2	42.3	53.8	18.6
Chigwell	565.8	164.9	141.4	15.2	54.9	22.5	5.4	2.4	4.1	3.7
Colchester St. Botolph	12411.4	212.0	120.2	60.6	39.2	28.9	19.0	14.1	18.6	1.9
St. James	6223.4	82.5	28.3	121.2	35.3	22.5	13.6	2.4	12.4	0
St. Leonards	2864.2	176.7	77.8	45.5	51.0	9.6	5.4	14.1	4.1	1.9
Dedham	742.6	459.4	106.1	197.0	35.3	44.9	10.8	7.1	8.3	1.9
Earls Colne	565.8	624.3	240.4	106.1	66.6	19.3	19.0	4.7	10.4	3.7
Great Bardfield	1520.5	200.3	91.9	55.6	43.1	16.1	5.4	4.7	0	0
Great Clacton	601.1	294.5	106.1	40.4	19.6	25.7	37.9	4.7	8.3	5.6
Great Coggershall	707.2	801.0	318.2	111.1	325.4	44.9	32.5	40.0	35.2	16.7
Halstead	35.36	801.0	367.6	242.4	39.2	70.6	146.3	18.8	18.6	13.0
Ingatestone	919.4	200.3	106.1	70.7	19.6	6.4	2.7	4.7	10.4	3.7
Kirby le Soken	1308.3	270.9	155.5	20.2	31.4	6.4	16.3	21.2	2.1	1.9
Rayleigh	565.8	247.4	141.4	50.5	58.8	35.3	24.4	9.4	8.3	3.7
Thorpe le Soken	459.7	270.9	70.7	30.3	39.2	12.8	27.1	4.7	6.2	7.4
Witham	141.4	765.7	212.1	141.4	74.5	32.1	111.1	21.2	10.4	7.4

Appendix 13 continued

Distance Band (kms)	30.1-33	33.1-36	36.1-39	39.1-42	42.1-45	45.1-48	48.1-51	51.1-54	54.1-57	57.1-60
mid class	31.5	34.5	37.5	40.5	43.5	46.5	49.5	52.5	55.5	58.5
Ring area (kms. <sup>2</sup> )	594.00	650.57	707.14	763.72	820.28	876.86	933.43	990.00	1046.57	1103.14
Kettering	20.2	9.2	14.1	1.3	1.2	1.1	1.1	3.0	1 1.0	0.9
Reigate	21.8	7.7	2.8	1.3	1.2	1.1	0	2.0	0	1.8
Bocking	8.4	10.7	0	2.6	3.6	4.6	1.1	0	2.9	1.8
Braintree	1.7	4.6	2.8	1.3	3.6	1.1	1.1	0	0	0
Castle Hedingham	0	0	4.2	2.6	1.2	0	0	1.0	0	0
Chelmsford	13.4	26.1	9.9	6.5	12.1	18.2	6.4	2.0	0	3.6
Chigwell	3.4	0	2.8	0	0	3.4	0	0	0	0.9
Colchester St. Botolph	10.1	4.6	2.8	0	2.4	0	1.1	0	0	0
St. James	3.4	3.1	0	2.6	1.2	1.1	1.1	0	0	1.8
St. Leonards	1.7	1.5	1.4	0	1.2	0	0	0	0	0
Dedham	13.4	3.1	1.4	1.3	1.2	0	1.1	2.0	1.0	0.9
Earls Colne	3.4	4.6	1.4	1.3	0	1.1	0	0	0	1.8
Great Bardfield	1.7	1.5	0	1.3	0	1.1	0	0	1.0	0
Great Clacton	3.4	6.1	4.2	6.5	1.2	5.7	1.1	3.0	3.8	0.9
Great Coggershall	6.7	4.6	5.6	2.6	1.2	1.1	0	1.0	1.0	0
Halstead	10.1	7.7	4.2	3.9	2.4	2.3	1.1	1.0	1.0	0.9
Ingatestone	1.7	1.5	1.4	1.3	0	0	1.1	1.0	1.0	0
Kirby le Soken	1.7	1.5	1.4	1.3	2.4	3.4	0	3.0	1.0	0.9
Rayleigh	3.4	1.5	0	2.6	0	0	5.4	1.0	0	1.8
Thorpe le Soken	5.0	4.6	4.2	3.9	1.2	1.1	0	0	2.9	0
Witham	5.0	9.2	4.2	1.3	2.4	3.4	0	0	1.0	2.7

Appendix 13 continued

Distance Band (kms)	60.1-63	63.1-66	66.1-69	69.1-72	72.1-75	75.1-78	78.1-81
mid class	61.5	64.5	67.5	70.5	73.5	76.5	79.5
Ring area (kms. <sup>2</sup> )	1159.72	1216.28	1272.86	1329.43	1386.00	1442.57	1499.14
Kettering	3.4	0.8	4.7	0	0	0	0.7
Reigate	0	0	0	0	0.7	0	1.3
Bocking	3.4	0.8	0	0.8	0	0.7	0
Braintree	3.4	0.8	0.8	0	0.7	0	0.7
Castle Hedingham	0	0	0	0	0	0	0
Chelmsford	0.9	0.8	0.8	1.5	0.7	0	0
Chigwell	0	0.8	0	0	0	0	0
Colchester St. Botolph	1.7	0.8	0	0	0	1.4	0.7
St. James	0	0	0.8	0	0	0.7	0
St. Leonards	0	0.8	0.8	0	0.7	0	0
Dedham	0	0	0	0	0	0	0
Earls Colne	0	1.6	0	0	0	0	0.7
Great Bardfield	0	0	0	0	0	0	0
Great Clacton	0.9	0	1.6	0.8	0.7	0.7	0
Great Coggershall	1.7	2.4	4.7	0.8	0	0	0
Halstead	0.9	0.8	1.6	2.2	0	0.7	0
Ingatestone	0	0	0.8	0.8	0	0	0.7
Kirby le Soken	0.9	0	1.6	0	0	0.7	0
Rayleigh	0.9	1.6	1.6	3.0	0	0	0
Thorpe le Soken	0	0	0.8	0.8	0	0.7	0
Witham	1.7	0	0	0.8	0.7	0.7	1.3

Appendix 13 continued

Parishes	Total documents	N 81 kms.	N 33 kms.	median band mid class (kms)	1801 pop.	settlement status
Kettering	379	39	76	13.5	3011	B 2
Reigate	415	8	25	7.5	2246	B 2
Bocking	353	11	40	10.5	2680	A
Braintree	260	6	25	7.5	2821	B 1
Castle Hedingham	112	6	13	7.5	1065	B 1
Chelmsford	402	19	92	13.5	3755	B 2
Chigwell	100	10	17	7.5	1351	A
Colchester St. Botolph	466	6	20	1.5	1206	
St. James	254	2	13	1.5	1058	
St. Leonards	155	5	11	1.5	650	
Dedham	175	8	18	10.5	1537	A
Earls Colne	178	2	13	7.5	972	A
Great Bardfield	110	1	5	4.5	833	A
Great Clacton	139	3	36	13.5	904	A
Great Coggershall	343	8	32	13.5	2469	B 1
Halstead	323	11	38	10.5	3380	B 2
Ingatestone	102	3	12	7.5	645	A
Kirby le Soken	136	5	22	7.5	664	A
Rayleigh	140	6	26	13.5	897	A
Thorpe le Soken	113	8	25	13.5	974	A
Witham	248	4	30	10.5	2186	B 2

The Colchester data is incomplete as only three parishes are listed.

Derived from Randall, op. cit., Appendix 9.2 and Table 7.4.

For settlement status see Table 19.

Appendix 14Occupations and Civil Status of migrants certificated  
to Newark

Occupation	M	MC	MCh	Sp
Blacksmith +	3	2		
Boatman		1	1	
Boatwright	1			
Bricklayer +		1		
Butcher	1			
Carpenter	2		2	
Chairmaker	1			
Cooper	1	1		
Cordwainer		5	1	
Clothier		1		
Currier	1			
Dyer/clothworker		1		
Feltmonger	1		1	
Gentleman	1		1	
Glover		1		
Hatter		1		
Innkeeper +				
Joiner/cabinet maker +	2			
Labourer +	1	11	8	
Linen weaver			1	
Mason		2		
Militiaman			1	
Millwright +				
Ostler		1		
Painter	1			
Perukemaker/hairdresser	4		1	
Pewter spoon maker		1		
Postboy		1		
Tailor/breechesmaker +	2	1	1	
Tanner	1			
Tobacco pipe maker		1		
Weaver	1	1	1	
Wheelwright	1			
Yeoman			1	
n	25	33	20	0

+ Civil status ambiguous, excluded from totals.  
see Appendix 10 for key.

Appendix 15Map of the Gloucestershire parishes

This map is included by the kind permission of the Institute of Heraldic and Genealogical Studies, Canterbury, Kent.

" Sources for compilation

Parochial boundaries have been followed from parish maps where they have been found in the parishes; from tithe surveys and related sources in the Public Record Office.

Dates of commencement have been taken from the 1831 House of Commons report and checked in all cases with county lists, diocesan records and incumbents as far as possible. Many registers have been personally inspected and local antiquaries have greatly assisted in providing up to date information. Probate jurisdiction boundaries have been supplied by diocesan or county archivists or record keepers."

## Appendix 15

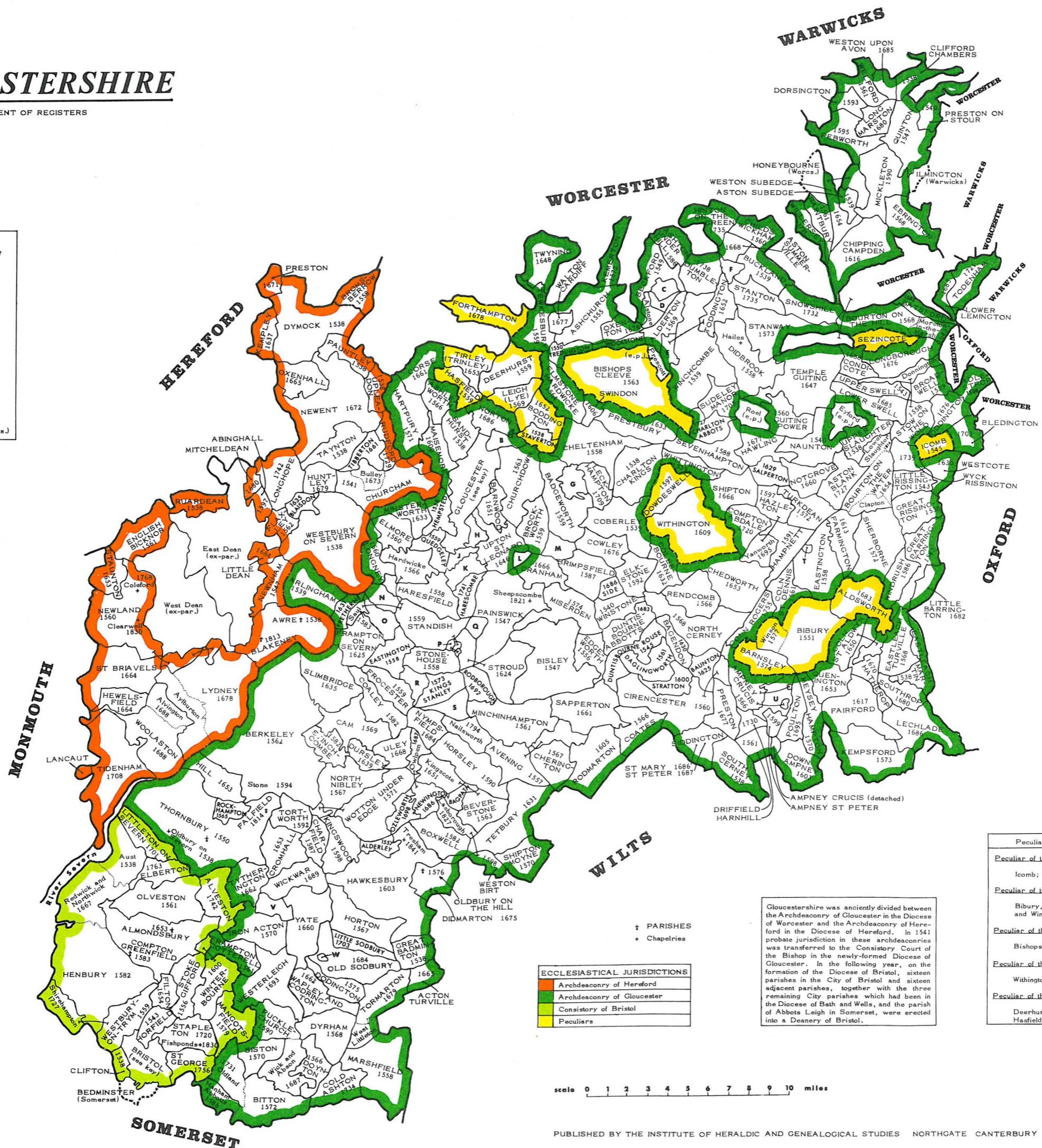
# GLoucestershire

WITH DATES OF COMMENCEMENT OF REGISTERS

A	LASSINGTON 1655
B	DOWN HATHERLEY 1563
C	GREAT WASHBOURNE 1757
D	Little Washbourne*
E	Stabley, Ponderige
F	WORMINGTON 1719
G	SHURDINGTON 1556
H	MATSON 1553
J	WHADDON 1674
K	BROOKTHORPE 1730
L	Prinknash Park (ex-par.)
M	GREAT WITCOMBE 1749
N	MORETON VALENCE 1681
O	WHEATENHURST (WHITMINSTER) 1538
P	RANDWICK 1662
Q	PITCHCOMBE 1709
R	LEONARD STANLEY 1575
S	WOODCHESTER 1563
T	NORTHLEACH 1556
U	AMPNEY ST MARY 1602
V	RANGEWORTHY 1704
W	CHIPPING SODBURY 1661
*	Chapelry of OVERBURY (Worcs.)

GLoucester	
Cathedral	1661
Holy Trinity	1557
Littleworth (ex-par.)	
St Aldate	1572
St Catherine	1687
St John the Baptist	1559
St Mary de Crypt with St Owen	1653
St Mary de Lode	1656
St Mary Magdalene with St Margaret	1790
St Michael	1563
St Nicholas	1558

BRISTOL	
All Saints (City)	1560
Christchurch (City)	1538
Holy Trinity (St Philips)	1834
St Augustine the Less	1577
St Ewen	1538
St George (Brandon Hill)	1832
St James	1559
St John Baptist (City)	1558
St Leonard	1689
St Mary le Port (destroyed)	1669
St Mary Redcliffe	1559
St Michael the Archangel	1653
St Nicholas	1538
St Paul (Portland Square)	1794
St Peter (baldy burn)	1611
St Philip and St Jacob	1576
St Stephen (City)	1559
St Thomas	1552
St Werburgh	1558
Temple or Holy Cross	1558



Peculiar Jurisdictions	
Peculiar of the Bishop of Worcester	
Icomb; Sezincote	
Peculiar of the Rector of Bibury	
Bibury, Aldsworth, Barnsley and Winstone	
Peculiar of the Rector of Bishops Cleeve	
Bishops Cleeve	
Peculiar of the Rector of Withington	
Withington and Dowdeswell	
Peculiar of the Vicar of Deerhurst	
Deerhurst, Boddington, Fonthamton, Hasfield, Leigh, Staverton and Tirley	

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List of abbreviations

B.R.O.	Bristol Records Office
G.C.L.	Gloucester City Library
G.R.O.	Gloucester Records Office
P.R.O.	Public Records Office

Agr. Hist. Rev.	Agricultural History Review
Ann. Ass. Am. Geogr.	Annals of the Association of American Geographers
B.G.A.S.	Transactions of the Bristol and Gloucester Archaeological Society
B.P.P.	British Parliamentary Papers
Econ. Hist. Rev.	Economic History Review
Geogr. Annlr.	Geografiska Annaler
Geogrl. J.	Geographical Journal
Geogrl. Rev.	Geographical Review
Geogrl. Stud.	Geographical Studies
Jl. R. Statist. Soc.	Journal of the Royal Statistical Society
Trans. Inst. Br. Geogr.	Transactions of the Institute of British Geographers.