APPRENTICESHIP MIGRATION TO THREE PRE-INDUSTRIAL ENGLISH TOWNS

Thesis submitted in accordance with the requirements of the University of Liverpool for the degree of Doctor in Philosophy by Peter John Stiff.

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Tudor and Stuart England was a mobile society. The generally high levels of geographical mobility went hand in hand with various degrees of social and occupational mobility. Some of the most important movements were of people from the countryside to the town, as they were significant as a transfer of resources and an agency of social mobility; their chronological and geographical flows provide an index of both changing urban fortunes and of the levels of spatial integration and economic development upon which these changing fortunes were based. Amongst the types of rural-urban migration, the movement of teenagers to a town to serve an apprenticeship is a particularly valuable topic for study. The training of labour is important in any society and in pre-industrial England output could only be raised in many industries through a greater input of labour. The areas from which the apprentices were drawn represent the scale of organisation, economic social and spatial, current in sixteenth and seventeenth century England. This gives an indication of the level of development of the country as it underwent the transition from a society largely based on the discrete daily and weekly contacts around the provincial central places, through an increase in scale to a regional integration based upon county towns, to a cohesive national system.

Three county towns were selected, Chester, Gloucester and Shrewsbury, as they each had a good series of apprenticeship records; they represented the foci characteristic of the regional scale of integration and they were associated one with another along the England-Wales border, thus forming a convenient spatial system. The results of the study confirm the findings on mobility in sixteenth and seventeenth century England. Most migrants moved over short distances and a few made long journeys. The propensity to move varied with the status of the apprentices' backgrounds; generally the higher the status the longer the distance moved. Many apprentices trained in an occupation different to that of their fathers and some of these represented a significant degree of social mobility. Nevertheless, association within the same sub-group was common, either based upon the same raw material or upon the type of work undertaken. The three towns organised a regional scale of integration around themselves, reinforcing their roles as important suppliers of goods and services to their hinterlands, the extent of which remained constant throughout the period studied.

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Chapter 1

INTRODUCTION

It has often been assumed that the obstacles to spatial mobility exerted a stronger force than the opportunities for it in English society before the Industrial Revolution. Legal restrictions, slow and arduous transport and incomplete personal and corporate knowledge must have presented difficulties to those contemplating a move. However, whilst factors such as these cannot be dismissed altogether, mobility does seem to have been commonplace.[1] The type of movement which has been most studied is that from the countryside to towns. This is mainly due to the abundant documentation of such moves, but there are other substantive reasons why attention should be given to rural-urban mobility. Movements of this type represented a significant transfer of resources and an important agency of social mobility; their chronological and geographical flows provide an index both of changing urban fortunes and of the levels of spatial integration and economic development upon which these changing fortunes were based.

Rural-Urban Migration

The movement of people from the countryside to the towns was vital for the towns because it represented an inflow of resources necessary for their functioning. Its significance is perhaps best understood when it is set in the wider context of the population geography of England in the sixteenth and seventeenth centuries.

The estimation of population totals, patterns and processes of change from sources which only indirectly represent demographic

characteristics is a hazardous affair. Documents such as ecclesiastical, fiscal and military returns have to be relied upon and the inconsistency of their spatial coverage further complicates the task. The work recently undertaken by the SSRC Cambridge Group for the History of Population and Social Structure has used the technique of aggregative analysis of parish registers and a model that projects backwards from the mid-nineteenth century to overcome the problems that had previously diminished the reliability of estimates.

The Cambridge Group's figures suggest that the century from 1550 to 1650 was one of substantial growth in population, the gross figure rising from just over 3 million to almost 5.5 million. From that time, however, the total population declined slightly before resuming a trend of slow growth at the end of the seventeenth century.[2] The time period in which this study of apprenticeship migration is set coincides with the later period of overall population growth.

As would be expected, this growth in total population was achieved by an excess of births over deaths (represented in the parish registers as an excess of baptisms over burials), rather than any prolonged and substantial immigration from overseas. Population growth was reduced during the 1590s and 1620s, but prolonged stagnation did not become established until the mid-seventeenth century, when the birth and death curves moved close to each other and when, on occasions, deaths exceeded births.[3]

The importance of the transfer of people through apprenticeship migration is most clearly seen in the spatial variations that existed within the trends described above. It is now apparent that the areas

most susceptible to high levels of mortality were the towns and cities, and this was so across the full spectrum of urban communities.

> "For example, both in terms of child and adult mortality it appears that small market towns such as Gainsborough in Lincolnshire and Banbury in Oxfordshire with populations of around 2500 in 1600 were environments of considerably higher mortality than most rural parishes".[4]

The figures for infant mortality during the first half of the seventeenth century were 243 and 165 per thousand for Gainsborough and Banbury respectively. In the upper levels of the urban hierarchy, Norwich had nearly 10,000 more deaths than births between 1582 and 1646, and London, the largest urban community, suffered from equally high death rates.[5] These high urban death rates were reflected in the expectation of life. For example, in Worcester men who reached the age of twenty could expect to live to their mid-forties, whereas in the rural areas surrounding the city the mean expectation was some 10 years longer.[6]

One of the major factors behind these rates was the relative frequency and virulence of epidemics, whether of typhoid, cholera, smallpox or plague, in the towns. The 1558 epidemic in Worcester removed the previous 8 years' growth; the 1609 epidemic removed the previous 6 years' growth, whilst the epidemic of 1637 caused the growth of the previous 16 years to disappear.[7] The high levels of overcrowding, poor sanitation and nutritionally deficient diets also contributed to the loss of life in urban areas.

This was not a completely invariant trend: some urban areas did not suffer from the very high levels of mortality, and some rural areas experienced the high levels usually associated with urban communities. Moreover, intra-urban patterns of mortality could

show considerable spatial variations between the wealthy parishes, with favourable expectations of life, and the poor parishes with considerably shorter life expectancies.[8]

Notwithstanding these qualifications, most towns were relatively unhealthy and it is clear that the adverse balance of births and deaths in most towns meant that natural urban population growth would be rare. It needed either a long period of natural increase, which was itself unusual and, as the example of Worcester illustrates, could so easily be lost in a single epidemic, or a constant and quantitatively significant input of migrants from rural area. Even as late as the mid-nineteenth century, urban population gains were still heavily dependent upon migration.[9]

The dependence of urban communities upon migration for growth is illustrated in extremis by the case of London. Between the early sixteenth century and the start of the seventeenth century London's population increased some four fold from between 50,000 and 60,000 inhabitants to about 200,000; the capital's population had doubled by the mid-seventeenth century and in 1700 the figure stood at around 575,000.[10] These figures demonstrate a much more rapid growth of London compared with the rest of the country. The share of the national population possessed by London increased from about 3 per cent in 1550 to around 5 per cent in 1600; by 1650 the figure was 7 per cent and by 1700 it stood at some 10-11 per cent.[11] Throughout this period, London experienced a generally high background mortality, especially among infants and children, as well as some calamitously high mortality peaks. The gap between the crude birth and death rates is difficult to estimate accurately

and varied considerably spatially and temporally. The difference between the two rates is most unlikely to have been less than 10 per one thousand per annum. In one of the poorest parishes in London, St. Botolph without Bishopsgate, the infant mortality figure was 256 per thousand live births in the early seventeenth century. Years of 'crisis' mortality, whether due to epidemics, disease or harvest failure and famine, were features of London's demography, when mortality rates commonly reached 10 per cent but could rise to 30 per cent. Epidemics in 1593, 1603, 1625 and 1665 removed between a fifth and an eighth of the capital's inhabitants.[12] London's growth was, therefore, entirely dependent upon a continuous stream of immigrants, a feature which influenced the entire country as London may have absorbed up to half the natural increase of the total population.

The provincial towns had different experiences. During the sixteenth century only a few of them achieved rates of growth that were significantly higher than the rate for the country as a whole. Most towns experienced varying degrees of 'demographic attrition' with, in some urban centres, an absolute decline in population - for example in Coventry, Lincoln and Winchester. Demographic contraction has been cited as an indication of urban 'decay' from which the 'old-established and medium sized towns' (of which Chester, Gloucester and Shrewsbury were prime examples) suffered acutely.[13] As counters to this impression of decay, Exeter, Worcester and York can be cited as examples of towns which increased their populations quite vigorously over the century from 1550.[14] The patterns of urban population development were complex and, when either growth or decline happened, it was not necessarily

continuous. Of the three towns in this study it would seem likely that Shrewsbury belonged perhaps to the group of towns which were not growing but probably not declining all that much, whilst Chester and Gloucester were if anything slightly increasing their numbers of inhabitants.[15]

The decline of the majority of the provincial towns and cities relative to the countryside was reversed by the late sixteenth and first half of the seventeenth centuries. The populations of individual towns grew quite rapidly as did the proportion of the population living in towns. At the beginning of the sixteenth century there were only half a dozen towns with over 5,000 inhabitants but by the end of the seventeenth century towns of a similar size numbered over thirty. The contrast between town and country is exemplified by the East Anglian region, where between 1603 and 1670 the urban population increased by 50 per cent compared with a rural growth rate of 11 per cent.[16] More specifically, the city of Norwich increased its population roughly two-fold in the period between the 1570s and early 1620s from 10,000 to 20,000. Subsequently the city's population grew little until the second half of the seventeenth century and by 1700 Norwich probably contained about 30,000 inhabitants.[17] A very different kind of town, Plymouth, also experienced population growth, from about 4,000 in 1550 to over 7,000 by 1603. The rest of the seventeenth century saw little increase but from the 1690s to the mid-eighteenth century Plymouth again experienced growth and had some 8,400 inhabitants by 1740.[18] Worcester's population doubled between 1563 and 1646 from just over 4,000 to about 8,000 and then remained at this level throughout the second half of the seventeenth century.[19] The population

of the northern 'capital' of York grew from about 8,000 in the 1520s to about 12,000 in the mid-seventeenth century.[20]

No equally precise figures exist for Chester, Gloucester or Shrewsbury, although it is clear enough that all three grew during the late sixteenth and the first half of the seventeenth centuries. Chester probably grew from about 4,000 to between 8,000 and 9,000 inhabitants in the period 1550-1700, whereas Gloucester and Shrewsbury perhaps started with some 3,000 to 4,000 people each in 1550, and had over 5,000 by 1700.[21]

Although exact measurement of the volume of population movement to towns is impossible, it is abundantly clear from what has already been written that at least some towns were unable to grow by the forces of natural population increase alone. Indeed, for some towns immigration was necessary even to ensure the replacement of their inhabitants because of a consistent excess of deaths over births and out-migration. It has been calculated that approximately 8,000 people per annum were required to account for London's growth between 1650 and 1750. This figure represented the twenty year old survivors of a group numbering 12,000 at birth, which was the natural increase of a population of some 2.5 million. The total population of England excluding London only amounted to some 5 million and not every region had a natural increase as some areas, especially in the north and west, experienced a natural decrease.[22]

Although these figures are only rough estimates, they do indicate something of the volume of immigration into London. Movement to the provincial towns was quantitatively much less, but to the individual towns it was of the greatest importance. In some towns the majority of adults seem to have been immigrants. Evidence

from ecclesiastical court cases, for example, indicates that only just over 10 per cent of the witnesses living in Canterbury in the later sixteenth and early seventeenth centuries were actually born there.[23] Towns that were neither growing nor declining relied upon immigrants to maintain their population: for example, nearly half the adult men who lived in Maldon in Essex - an urban centre at the lower level of the hierarchy - in the late sixteenth century have been identified as immigrants.[24]

Immigrants did not simply make up a shortfall in numbers brought about by an excess of deaths over births, but they also replaced those people who left the towns. The problems of quantifying the scale of this out-migration are large, and its incidence has usually been identified by the absence after a period of office-holding of members of families in the upper tiers of the social hierarchy. The usual time-span spent by the successful merchant or industrial families once their wealth had been established was of the order of three generations. After this the family usually moved out of the town, securing for itself a country estate.[25]

Migration was as important to the source areas as it was to the destinations: the lack of opportunities at home; inheritance arrangements such as primogeniture; a search for a marriage partner, as well as the forcible removal of undesirables such as vagrants, supplied the 'push' forces necessary to overcome the initial inertia which must be destroyed before a move could take place.

In the second half of the sixteenth century population growth was general over England and it is clear that there were important

spatial variations in the pattern, even though the details of these differences are as yet uncertain. It was in the marginal regions which had only small populations that the greatest relative growth took place. Areas already possessing high densities lost a proportion of their surplus populations to these rural areas which had a capacity to support more people. In Cambridgeshire, for example, the Fens became very densely populated as there were good opportunities for making a living from a comparatively small unit of land. To the south of the county, however, the population fell by 6 per cent between 1524 and 1563.[26] In the north west of England, which was probably even more marginal in economic terms, the population of parts of Cumbria expanded considerably during the second half of the sixteenth century.[27] The increase in population of the marginal areas, a response that may be viewed in the context of the pressures placed upon a technologically inefficient agricultural industry by an expanding population, might suggest that urban areas were not perhaps immediately attractive to potential migrants. In the early sixteenth century, the source areas did not need the towns as outlets for surplus population to the same degree as they did in the late sixteenth and first half of the seventeenth centuries. It should be remembered that for much of the sixteenth century urban growth was sporadic and in many cases negligible in amount. From about 1600, however, some rural areas experienced a decline in population, for example Sussex and Nottinghamshire, whilst others such as Norfolk Suffolk, Hertfordshire and Leicestershire grew very little.[28] Over the same period, urban populations were increasing, so that it is possible to see a link between the demographic expansion of the

countryside and the towns. Variations in this pattern do occur, such as in Staffordshire, where the growth of rural industry and joint occupations (farming plus a manufacturing task) were able to provide opportunities for otherwise under-employed people.[29] The towns and cities did, however, possess enough social and economic magnetism to attract large numbers of migrants from the rural areas, and without the urban outlets the pressures upon even the sparsely populated regions would have been considerably greater. The movement of people from the 'regions of difficulty', the upland areas of the north and west, to the south and east, in particular to the urban centres there, "was a feature of towns of all sizes".[30]

The Transfer of Labour Resources

Apprenticeship migration was a significant component of this general transfer of labour resources to the towns. The principal role of apprenticeship was to train a previously unskilled person in a skilled operation, be it manual (cooper, wiredrawer or weaver) or non-manual (barber-surgeon, draper or merchant). The vast majority of the apprentices who migrated to Chester, Gloucester and Shrewsbury, and indeed to any town or city in England, came from a rural background. Many came with the experience of an agricultural upbringing which, whilst being fundamentally practical, was perhaps not capable of introducing the putative apprentice to the subtleties contained within the manufacture of textiles or metal products or the intricacies of buying and selling or arranging finance for deals. Those apprentices who came from a background where their father was of independent means may not even have had the practical experience of the sons of yeomen or husbandmen.

Many of the fathers of independent means were not dependent on their own labour for sustenance but on incomes from rents and/or investments, and their sons were, therefore, probably not completely versed in the practicalities of economic activity. The sons of craftsmen were likely to possess certain skills associated with their fathers' work, but these may not always have been directly of use in the trade to which they were apprenticed. Without the training offered to the apprentice by the master to whom he was indentured, most of the young men were little more than unskilled labourers. At the start of their term of indenture this is probably the function and status they assumed, but as the years passed the apprentice's knowledge and practical skill grew so that at the end of his term, often a matter of about 7 years, he was able to practise the occupation of his master as an equal.

The supply of skilled labour in the manufacturing, professional and service industries was vitally important to the processes of economic development at work in the English economy during the sixteenth, seventeenth and early eighteenth centuries. Just as in the developing countries of the world today, a major cause of economic growth must be an increasing supply of skilled labour of all kinds.[31] These skilled workers, whether craftsmen or entrepreneurs, were integral to the process of economic growth.

An increased labour supply, both skilled and unskilled, was important because in the absence of major technological innovations increased production could only really be met by increased inputs of labour. Productivity-raising capital investment associated with new methods of production was rare. Labour continued to be, and was normally seen to be, the most important factor in industrial

production. Most industry was labour intensive rather than capital intensive. Many of the labour force were probably under-employed, although their numbers varied spatially and temporally according to the type of agriculture or the structure of non-agrarian employment in particular regions, or according to fluctuations within population trends. In particular, agriculture suffered from a seasonally under-employed labour force, but these agrarian wage labourers and small holders did not often become full-time industrial workers through urban migration and apprenticeship, and their role was generally in the 'putting out' system of industrial organisation. However, the migration of some of the agriculturally under-employed and the sons of landholders who would, if they had remained in rural areas, have swelled their numbers, to full-time manufacturing occupations via an apprenticeship would have benefited those who remained working the land; there would be more work per person during the times of the year when farming activity was at a comparatively low ebb, and although agriculture could have found itself without sufficient labour, at peak times such as harvest in consequence, the links between town and country were still strong enough to allow reciprocating labour movements at such times.[33]

The entrepreneurs, whilst being a quantitatively small group amongst the apprentices, perhaps had a disproportionately great qualitative impact. The entrepreneur brought together "in one person the functions of capitalist, financier, works manager, merchant and salesman",[34] and most clearly and most successfully combined the organisation and transaction components as he focussed demand and supply through his hands.[35] Such people were the Drapers of Shrewsbury, who in their specialist field of cloth

dealing controlled the Welsh woollen industry. Their scale of operation was national rather than international like the merchants at Blackwall Hall in London, who controlled the export trade in cloth, but many of the Shrewsbury men had strong links with the London merchants and their interests were almost mutual.

There was, however, no point producing manufactured articles or organising their distribution and marketing, without a demand to sustain the supply. Up to the mid-seventeenth century industrial expansion was sustained by the increase in population and by inflation. In absolute terms the inflation rate seems comparatively mild, although a measure of its importance to contemporaries is to be seen in the fact that food prices had increased by some six-fold since the end of the fifteenth century. A composite index of both agricultural and industrial prices, whilst inevitably reflecting more the former, shows that there was a steep upward movement of all prices in the 1520s, followed by a period of some 2 decades during which prices fluctuated at a high but stable level. Around mid-century, prices again rose considerably with sharp increases recorded in years when there were disastrous harvests or a severe epidemic. Thereafter, there was a steady increase in prices which continued up to the mid-seventeenth century apart from a check in the decade 1620-30.[36]

The combination of inflation and an increase in population had the effect of enlarging the labour force, thereby creating more under-employed unskilled labour, and lowering the real wages of those unable to take advantage of the rising prices. But on the other hand, inflation enabled a wide range of society involved in the production of agricultural goods, from minor yeomen to peers, to

increase their incomes in both money and real terms, thereby providing them with the means to purchase more manufactured products, especially those of higher quality and intricacy of workmanship such as were produced by the trained labour of the towns. The evidence suggests that some urban economies shifted away from a structure based on the manufacture and marketing of everyday goods to one more concerned with luxury items, a trend that began around the mid-sixteenth century and rapidly accelerated from the end of the seventeenth century.[37] Those unable to gain from the forces of inflation, that is those with land holdings too small to produce surpluses large enough for them to reap a net benefit from higher food prices, or those with no land, turned increasingly to industry to try and make up the shortfall in their incomes, either through urban apprenticeships or, more usually, by the production of cheaper goods on a large scale, mainly for the export market, in rural areas. These incentives to industrial growth brought no concomitant incentive to substitute capital for labour as a means of increasing productivity. Thus, the transfer of resources from agriculture to industry and from country to town inter-played with both the growth of rural domestic industries and with the training of a skilled labour force, which combined to form a major driving force behind economic growth.

Social Mobility

The sixteenth and seventeenth centuries were a time of social as well as economic change. Social mobility is an automatic concomitant of economic and social change and a basic characteristic of any non-feudal society. It is also frequently associated with spatial mobility, or 'horizontal mobility' as Stone terms it.[38] The two are interrelated as spatial movements are often undertaken

either in the hope of moving up socially ('vertically') or to avoid slipping downwards. Spatial mobility therefore reflects social aspirations though not necessarily rising achievements. Many of the rural-rural movements probably took place in an attempt to avoid a retrogressive social progression as people moved from areas that were densely settled to under-developed land in the forest, fen and upland areas. Many people who moved from the towns to the countryside did so to increase their social rank by acquiring an estate to confer landed status upon their family. Movements between towns could be either a means of achieving improved status or of avoiding a drop in status. Rural-urban movements were also associated with both upward and downward social mobility. The migration of apprentices could fit into either the rural-urban or the urban-urban types of movement, but in both cases the essence of the move was that it was aimed to bring social improvement or, at least, social stability for younger sons who would otherwise have slipped downwards in rank on the inheritance of their elder brother. It is this aspect that has led apprenticeship migration to be termed 'betterment' migration as compared with the 'subsistence' movements of groups such as vagrants.[39] Geographical mobility did not increase greatly, if it increased at all, the vagrant's chances of improvement, but merely allowed a greater chance of still marginal survival. On the other hand, movement for a craftsman was probably more rewarding, because an urban craftsman, usually independent of dealers and selling high quality goods to the wealthier end of the social spectrum, was more likely to have a higher income than his rural counterpart.

For the rural non-craftsman, the potential to achieve a social rise was constrained by the position he already held. Sons of yeomen could rise to the ranks of the lesser gentry through the manipulation of the agricultural produce market, an aim that could have been helped by apprenticeship to a dealer or merchant based in the town where the demand and supply elements (the organisation and transaction components) met in the market place.[40] For sons of yeomen and fathers already ranked as 'gentlemen', apprenticeship to a prominent merchant was a common way to rise quite high in the social scale.

> "By the middle of the seventeenth century the old view that the younger son of a gentleman lost his gentility by becoming an apprentice was still held only by a few legal pedants, heralds, and other social conservatives".[41]

Sons of husbandmen, on the other hand, occupied a rung of the social ladder below that of the yeoman and so were prevented, on the whole, from climbing as high, although occupations such as craftsmen were commonly available to them, and this could still ensure upward mobility even if it did take a number of generations to achieve.

Just as they can chart upward social movement, apprenticeship indentures can also indicate the decline in social status of an individual or family, recording, for example, a 'gentleman's' son indentured to a blacksmith or carpenter. Such moves are not often recorded in indentures and the predominant direction of social mobility recorded by apprenticeship was upwards.

Social mobility reinforced itself. As industry and commerce developed, so did the diversity of occupations, resulting in increasing numbers of children following different occupations from their parents. Even in a society characterised by <u>change</u> rather than dramatic expansion, the ranks of the successful needed

constant replenishment because the urban elite rarely stayed longer than three generations in the town, frequently returning to the countryside and the country estates if their lineage survived so long. Disease and death claimed their victims from all ranks. "While some rose, others fell, but the ineluctable circulation of the social elements went on".[42]

The Urban System of Sixteenth and Seventeenth Century England

Apprenticeship is only one example of flows from country to town and town to town in a vast and complex system of such flows. Apprenticeship moves are to some extent incomprehensible, therefore, without reference to this larger system. How was it organised; how was the inter-linking of town and country related to economic and social changes in more general terms? Were these connections of growing importance or were they declining? Were towns growing or declining in consequence of changing interactions with other towns, or in consequence of changing interactions with their hinterlands? The apprenticeship catchment areas of towns can be expected to indicate changes in these wider aspects of the social, economic and spatial organisation of society.

The pervasiveness of an urban industrial way of life throughout English society was related to the size of urban centre. The urban population in the sixteenth and seventeenth centuries was quantitatively of minor importance compared to the mass of people, who led their lives in the countryside. There was, however, a wide geographical spread of moderately large towns, the county towns, throughout England. Many people saw in their county town a way of life different from their own. The people of Cheshire,

Shropshire and Gloucestershire looked towards their respective county towns, and the people of north-eastern Wales also saw Chester and Shrewsbury as their nearest 'large' urban centre. (Figure 1.1) The sociological differences between the rural population and the urban population of these middle-rank towns was perhaps not as great as might at first be thought. These towns contained much that was rural, both topographically and socially. Even in quite large urban centres, substantial areas of land were devoted to agricultural production, such as orchards and market gardens, although along the street frontages the scene would have been more characteristic of the popular image of a town. Houses, shops and workshops were juxtaposed and extended back from the street along narrow, often longitudinally subdivided, burgage plots. The lives of townspeople were still bound closely to the seasons in so far as the produce they used and consumed was seasonally produced and the amount of cash in their customers' pockets rose and fell with the annual harvest, wool-clip and slaughter, although perhaps the rigidity and amplitude of the seasonal variations in levels of employment in agriculture were missing, as were the rhythmic periods of under-employment, amongst the urban forges, carpentry sheds, tanning vats, looms and breweries.

The one urban centre that was considerably different from the rest was London, because it was so very much larger than any of the provincial urban centres, usually 10-15 times larger than the next largest town between 1500 and 1750. Life in London was unique and must have had a considerable impact on other towns and the countryside, encouraging changes there that would not have innately occurred. The calculation that one adult in six in England between

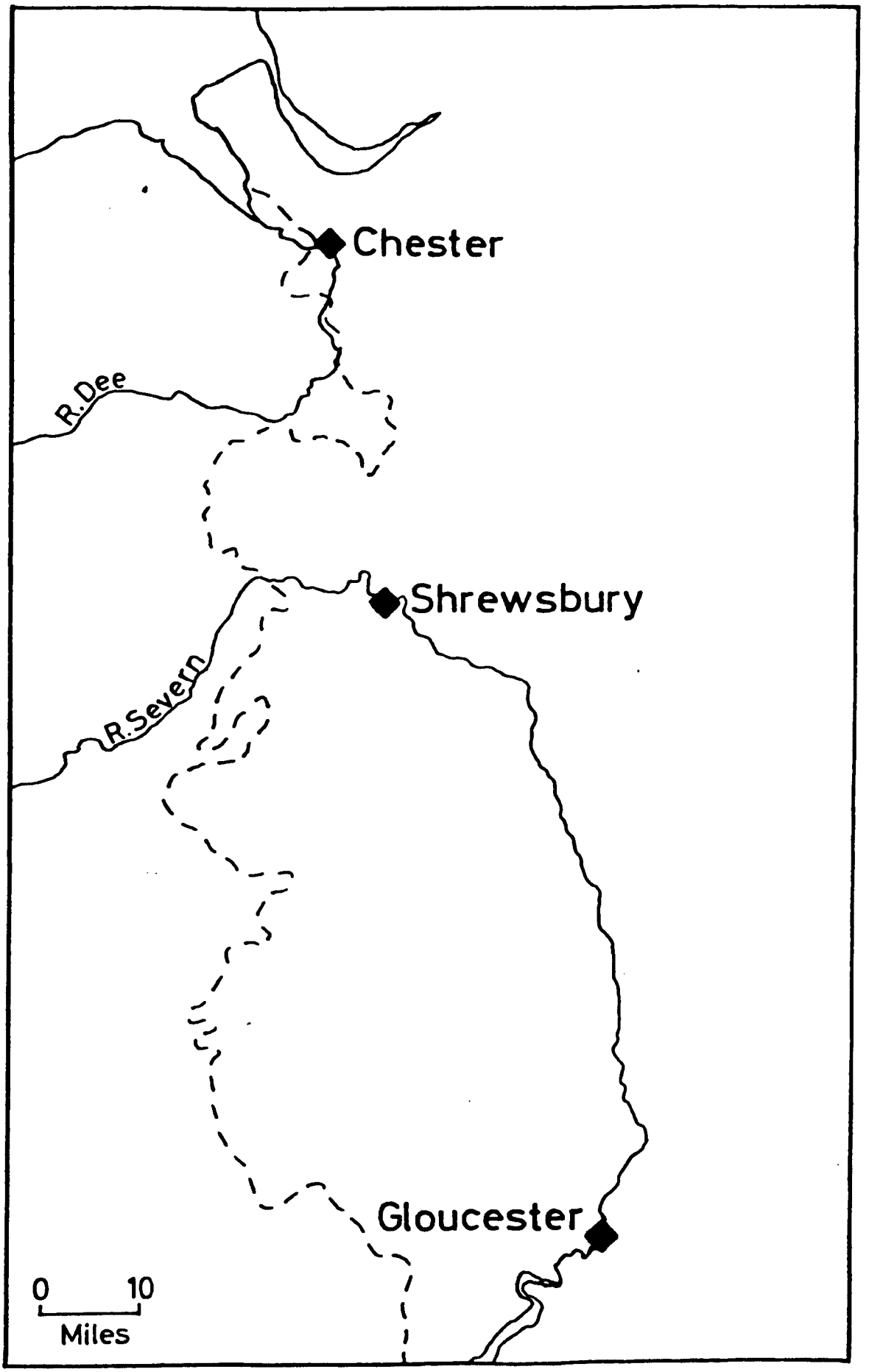

Figure 1.1 The Welsh Marches

1650 and 1750 had experience of London life suggests that "... this must have acted as a powerful solvent of the customs, prejudices and modes of action of traditional, rural England".[43] Family life was different, with relatives unlikely to live within the restricted area common in the countryside; households were large, mainly due to the presence of non-family members such as servants and apprentices, and daily contacts were more casual than in rural areas. The characteristics of the urban centre at the top of the hierarchy would perhaps have been present in other ranks of the hierarchy, although the lower in the hierarchy the town was the less strong were these characteristics likely to be. Thus, the provincial capitals such as Norwich, Bristol and York possessed them in a slightly less degree than London, and towns such as Chester, Gloucester, Shrewsbury, Leicester and Northampton possessed these characteristics to an even lesser extent. Market towns such as Nantwich, Oswestry, Tewkesbury and Banbury were so closely tied to rural society that any sociological differences were probably slight.[44] The serving of an apprenticeship in Chester, Gloucester and Shrewsbury did, then, bring the young person into contact with a different way of life, with different ideas and with a different occupation from those he could experience anywhere else within the likely range of his contacts. These must have had an influence upon the young men's attitudes and behaviour, although there was perhaps less likelihood of a dramatic impact than if they had moved to London to serve an apprenticeship.

During the sixteenth and seventeenth centuries England became economically developed: levels of productivity in the use of the economic resources of land, labour and capital, increased. Compared

with the levels attained in the nineteenth and twentieth centuries, the sixteenth and seventeenth centuries may appear 'pre-industrial', although confusion has arisen through the widespread use of this term. The characteristics of an industrialised society as they are familiar today include urbanisation, mechanised manufacture and the dominance of industry over agriculture in the generation of wealth. The fundamental economic characteristic is the dependence upon investment in fixed capital which produces a technology capable of raising productivity higher than it would have been without that investment. Societies without this were not necessarily without industry, capital or capitalism, they were simply without capital investment in the particular form associated with industrial societies. Characteristically, an undeveloped society possessed a much lower ratio of population to land, where most people lived in small rural communities; the predominant occupations were agricultural and many of the manufacturing processes depended upon agricultural products for their raw materials, and productivity was low as investment in technology was generally absent. Capital investment tended to be tied up in circulating materials as they passed through various stages of processing; production techniques were labour intensive and tended to remain such as long as a vast pool of underemployed labour existed; technological advance was sporadic and could be described in modern terms as 'intermediate'; national income distribution was very unequal with the great mass of the population dependent upon small incomes of which a large part was spent upon basic necessities such as food, clothing and housing, and markets for goods were imperfect, although output did react to rising or falling prices. All factors were in large part influenced by the success or failure of the harvest and one interpretation

could see this pre-industrial economy as basically susceptible to Malthusian forces.[45]

Certainly England's economy in the early sixteenth century was characteristically undeveloped according to these criteria. Most people were employed in agriculture and the main manufactured product, cloth, was directly dependent upon agriculture. At least cloth instead of raw wool was now the chief export, although much of the value added to the cloth in the form of the finishing processes (for example, dyeing and making into garments) were carried out by Continental craftsmen. Most of the remaining exports were raw materials from agriculture and the extractive industries such as tin and lead. Manufactured products, in particular luxury items (high quality furniture, clothing, glassware), were imported from Continental Europe, which was the heartland of an economic system within which England's role was very much a peripheral supplier of raw materials.[46] But during the sixteenth and seventeenth centuries, England's economy underwent a considerable change so that by the early eighteenth century Daniel Defoe was able to describe it as "...the most flourishing and opulent country in the world".[47] These years witnessed industrial expansion sustained by population increase and inflation. Agriculture had improved, although most people still found employment in this sector and lived in rural areas; the manufacturing sector was still dependent in large part upon agricultural products; English exports were still dominated by raw materials; accumulated fixed capital was scarce, and the harvest was still the single most important force in people's lives. In other words, England continued to display most of the signs of a pre-industrial economy.[48]

But this does not mean that industry was unimportant. English manufactured goods, which included a considerable diversity of products from foodstuffs to chemicals, metals and machinery, contributed increasing amounts of national products so that by the early eighteenth century manufacturing, mining and building contributed about one quarter of the net national product.[49]

The increase in scale of economic organisation went hand in hand with an increase in scale of spatial organisation. In order for the products of agriculture and industry to reach the necessary larger markets, spatial organisation evolved into a system that made possible the "bringing together of diverse and distant places and resources into reciprocation".[50] In medieval England the system was essentially one of local economies overlain by the all-pervasive force of London. The economy could not truly be called national as places and resources tended to remain economically and spatially disconnected. By the middle of the eighteenth century there was a more truly national economy, integrated by the growth of regional economies during the sixteenth and seventeenth centuries. London was still a major force in the system, but the intermediary scale of organisation brought about a far more effective degree of integration than before, one that was more characteristic of a developed economy.

The growth of agriculture and rural industry, comprised an important part of the means by which England's economy developed. At the same time towns and cities increased in size with London's growth outpacing all provincial centres to become an extreme example of urban primacy. Thus there appears to be a paradox between the generation of wealth in the countryside and the growth of towns and cities. The assocation only remains incomprehensible if either

the rural and urban systems or London and the provinces are considered as separate entities, which they were not. The relationship between them was not parasitic, it was essentially symbiotic and represented the reciprocal transfer of resources between the countryside and the town and between the capital and the provinces. It is now recognised that spatial integration plays a major role in the development process, in other words, development is achieved by inter-dependence rather than independence.[51]

Characteristically, the county towns became the hubs of these regional market areas, their role being to focus the resources contained within the region around them, and through them these resources, either raw, semi-finished or complete, were channelled up the urban hierarchy to London or for export. Reverse flows also took place from the capital to the provincial centres and from the provincial centres throughout their spheres of influence. In this sense these flows exhibit features characteristic of the ideas expressed within modern development economics. Once growth has begun in a region, spatial flows of resources (labour, commodities and capital) develop to support it. These flows operate 'backwash' effects upon the remaining regions, which tend to lose resources, which tends to restrict their ability to develop. In addition, goods and services produced in the developing central economic nexus flow into other regions, thereby outcompeting any local industry.

These 'backwash' effects, however, are not the only interregional flows which this model suggests. Also of significance are centrifugal 'spread' effects, emanating from the centres of development. These tend to initiate growth in the peripheral regions and if the impact

of 'spread' effects overcome 'backwash' effects the process of cumulative causation is said to be underway, which leads to self-sustained growth.[52] (Exact counterparts of Myrdal's 'spread' and 'backwash' effects are the 'trickling down' and 'polarisation' effects of Hirschman's 'North-South' model.[53])

Both Myrdal and Hirschman were working towards models that encompassed ideas about the spatial integration of a society. Friedmann's work in Venezuela led him to propose more explicitly the role of spatial integration in development, and the importance of the urban system within this process. Cities organise the economy. They are centres of activity and of innovation, focal points of the transport network and locations of superior accessibility. Agriculture is more efficient in the immediate surroundings of cities. Two major elements in this spatial organisation of economic activities exist: a system of urban centres arranged in a hierarchy based upon the functions possessed by each town and city, and areas of urban influence, urban 'fields' surrounding each of the towns or cities in the system. Economic growth takes place in a matrix of hierarchically organised urban regions through which the space-economy is organised.

The idea of an urban region as the key unit within the process of economic development explicitly or implicitly suggested the concept of a 'growth pole' or 'growth centre'. This concept arose as a result of the observation that economic growth does not take place everywhere at the same time. Growth takes place only at certain points within the space-economy and occurs with variable intensity.[54] Perroux identified one industry, 'une industrie motrice', as responsible for the existence of a growth pole, as growth in this

industry attracts linked industry which either supplies it with inputs or provides a market for its output. Agglomeration economies operate within the pole and as spatial proximity encourages further development the growth pole becomes firmly established and self-sustaining. Growth poles were thus implied to have a profound reciprocal effect with their surrounding region, a feature common with the ideas of centrifugal 'spread' and 'trickling down', although Perroux himself conceived of these relationships in 'economic' rather than 'geographic' space.

These ideas also exist in the concept of centre-periphery. This reflects the Marxist argument that the centre appropriates to itself the surplus of the periphery for its own development.[55] The centre-periphery concept is appropriate to a number of geographical scales. At the world scale it is difficult to translate the concept into the sixteenth and seventeenth centuries as there was nothing like the global economy which now exists. There was what has been called a 'European world economy', "... that is a vast arena within which a sophisticated division of labour existed based on a network of trade, both long-distance and local".[56] It was an economic entity but not a political unit as it encompassed countries within its boundaries and the term 'world' system, is applied, not because it included the whole world but because it extended across juridicially-defined political units. The basic flows within the system were economic, although these were reinforced to some extent by cultural and political links.[57] Tentatively, one could suggest that the centre was the heartland of Western Europe which drained the colonial periphery of resources, although this is probably to under-rate grossly the scale of organisation extant in areas of the world beyond European influence.

On a more restricted scale the centre can perhaps be more easily seen in the Western European communities of France, Spain and the Netherlands, with the periphery represented by countries such as England. This situation, as has already been noted, changed during the sixteenth and seventeenth centuries. On a national scale the centre can be identified as London, with the provinces as the periphery. On an even more restricted scale, the relationship between a regional centre, a county town and its hinterland, could be placed in the context of a centre-periphery relationship. At each stage of decreased spatial extent, the centre, although of less absolute power, remained sufficiently strong to appropriate to itself a smaller but still sizeable fraction of surplus value produced within the region it dominated. The centre could be a single town or a region encompassing several towns that stood in an advantageous relation to a common hinterland. Even in remote peripheral areas there were likely to be local and regional imbalances, with some areas growing and others stagnating or declining.

The alternatives are, therefore, to view towns such as those which existed in pre-industrial England as centres from which the benefits of change flowed outwards, or as places which extracted resources from hinterlands to the benefit of the centre and to the disadvantage of the periphery. Marx identified the conditions which could lead to an urban centre and region remaining undeveloped as those in which

> "...the city ... remained an administrative and political centre and the centre of a robber economy, failed to develop industrially, and failed to establish complex economic linkages with its agricultural hinterland. Economic activity remained tied to nature and the only links between town and country were political, therefore brittle and easily changed by political factors".[58]

Marx also identified towns as centres of production and therefore as accumulations of capital, which within feudalism separated themselves out as centres of manufacture from the countryside, which was characterised by agriculture. Marx saw this separation as crucial to the development of feudalism into capitalism and referred to this as the greatest division of labour. He saw in this parting the beginning of the existence and development of capital independent of landed property. Money became capital as it was used to set labour to work. Wage labour developed hand in hand with the growth of towns as markets and centres of production, which in England Marx identified as beginning during the late fifteenth and early sixteenth centuries and continuing thereafter. This development was marked by the break up of the large estates, including ecclesiastical property with the dissolution of the monasteries, the enclosure and depopulation of the countryside, and the clarification and expansion of the law relating to private property. Thus a small group of the population appropriated land and helped to create the conditions favourable to the release of labour from agriculture and the creation of a wage labour force footloose, with no ties to the land and, as Marx put it, "at liberty for the uses of industry".[59] Apprenticeship was simply an institutionalisation of the channelling of those 'footloose' young people to the use of industry.

In Marxist terminology, therefore, the conditions brought about by these changes were propitious for the geographical concentration of socially designated surplus product. This means a geographical circulation of surplus goods, money (investment and credit) and people. The fortunes of particular towns rest to a

large degree upon their location with respect to this geographical circulation of the surplus. Variations in the total quantity of surplus, as well as the degree to which the surplus is available in a form suited to concentration influenced the precise nature of towns and cities.

The geographical circulation of surplus can be disrupted by a variety of reasons, accidents and natural processes. A major fire or the silting up of a port's channel, for example, have been cited as causes of decline in many a town, such as the gradual extension of the salt marshes along the banks of the River Dee's estuary, which contributed to the decline in Chester's port function.

In an economy where the market exchange mode of economic integration pre-dominated, capitalism has tended to be an inherently expansionary force. This is because its survival depends upon ensuring that surplus value is put into circulation to 'reproduce' itself. Expansion necessitates increased concentration on market exchange, more accumulated surplus and the ability to redirect the circulation of surplus value as new opportunities are perceived, new technologies achieved and new resources opened up. The role of the town in this process is important. It functions as a generative centre, a 'growth pole' for the surrounding economy, which can change the direction and quantity of flows within the economic and spatial systems. The particular geographical pattern of the urban system at any given time can therefore be conceived only as a moment in a process. Certain towns and cities attain positions based upon the functioning of the circulation of surplus value, which at the next moment in the process are changed. The economic, social, urban and spatial systems should

therefore be viewed as systems within, between and around which, flows of goods, money, ideas and people circulate.

The pattern of movement of these flows tends to be dendritic in form rather than random and at each intersection there is a potential for a town to develop. The flows coalesce and form larger flows in the same way that a drainage basin contains rivulets, streams and rivers. The more substantial the flows which meet, the larger the settlement, so that hamlets and villages received and dispatched goods and services that met people's daily needs. Market towns and the county towns, the regional capitals and London itself supplied those functions characterised as high order and were required only infrequently. In addition just as larger rivers receive water from rivulets, so large towns and cities receive flows from hamlets and villages. Thus there exists an ordering of settlements into a system of cities, and within this system a close connection exists between functional specialisation and urban growth.

The term 'system of cities' is here taken to include

> "all those individual urban units, however defined, in a country or large region, which are economically linked to one or more other individual urban units in the same country or large region. More precisely, a system of cities is defined as a national or regional set of cities which are interdependent in such a way that any significant change in the economic activities, occupational structure, total income or population of one member city will directly or indirectly bring about some modification in the economic activities, occupational structure, total income or population of one or more other set members".[60]

Systems are defined as either open or closed. A system of cities tends to be an open system as some of the individual cities belonging to the system must possess direct links with cities outside the system in other regions or countries, and with the rural

areas around them, for example, the migration of apprentices to Chester, Gloucester and Shrewsbury from the market towns, villages and farms of their surrounding regions. The system as a whole may, therefore, be affected by processes occurring outside itself, and may through these intersystem linkages effect changes elsewhere. If a system of cities were to be 'closed' then no interaction would take place betwen itself and any other systems in other regions or countries.

The nature of the system, its degree of openess or closure, tends to change in time and space as the processes of growth and development take place, as do the extent and structural composition of its internal interdependencies. For example, in order for economic change in one city to affect economic change in another there must be some form of interaction between the two. This may take the form of flows of various types, such as goods, money, services, information and population. The joint consideration of the characteristics of internal interaction and closure of a regional or national system of cities identifies four generalisations which reveal something of the level of development of the system.

A strong degree of closure combined with a lack of internal interdependency give rise to a pattern of cities the individual members of which exist in isolation from each other and from cities outside the region. Without links amongst cities this is not a true system of cities. In such situations, the existence of an urban settlement depended upon the exploitation of a hinterland which supplied agricultural products. In this respect the relationship between the city and the region in which it is located can be seen to be characterised by the appropriation of 'socially designated surplus product' from the hinterland to the city.

This first generalisation applies to the cities of medieval northern Europe, set as they were in a rural matrix of feudalism.

> "The urban centres that did exist were, for the most part, fortresses or religious centres; sometimes church and fortress could combine to form a centre of considerable significance. But much of the surplus extracted was not concentrated geographically in an urban form - it remained dispersed throughout the manorial system".[61]

A weak degree of closure combined with a lack of internal interdependency give rise to a pattern of cities which have strong links with cities in another region or country but which have little interaction amongst themselves. Characteristic of this situation is a lack of integration either regionally or nationally within the system of cities. Instead the cities exist as components of geographically separate systems. Examples of this generalisation were to be found in the ports of eighteenth century North America and nineteenth or twentieth century Africa, Asia and Latin America. Within the second group many were the legacy of a colonial administration and have retained their pre-independence pattern of linkages through the forces of inertia. In West Africa a number of ports function as links between their hinterland and their former colonising country. The economic links tend to be in the form of the movement of primary products from the hinterland through the port where some processing may take place to the foreign country where the majority of value is added. Accra, Bathurst and Dakar are examples of such cities in West Africa. In Western Europe and North America some cities had or still have a 'colonial' relationship with other cities in the national system. The lack of regional linkages can be in part attributed to physical barriers to movement such as in Appalachia or Norrland in Sweden.

The level of economic development represented in this generalisation tends to be largely determined by external decisions and actions. The degree of spatial integration is therefore very weak within a group of cities.

A weak degree of closure combined with a strong degree of internal interdependency give rise to a pattern where the regional or national system of cities are well integrated. They exchange goods, people and information freely amongst themselves and with other cities. This generalisation can be seen in the city systems of the Western European countries, Japan, Australia and New Zealand. Tangible expression of this relationship can be found in the relatively large proportion of the gross national product entering international trade amongst these nations. The decisions regarding the interactions are taken by domestic and foreign organisations. Some countries have such large geographical areas that city systems of the third type exist within a region of that country. The U.S.A. for example possesses two such city systems as one in the North East and the other along the Pacific Coast.

Under the conditions of this generalisation change in one city is brought about by the influence of other cities in the system and influences outside the system.

The fourth generalisation identifies a city system with a strong degree of closure and a strong degree of internal inter-dependency. Only a few examples occur and even these do not fit easily into the typology. The national city systems of North America (U.S.A. and Canada) and U.S.S.R. can be seen as fitting into this generalisation, as can the countries of Western Europe. The economies of these areas depend in large part upon supply and

demand from within the system. The economy is well integrated and the scale of spatial organisation is concomitant with the high level of development. Change in individual cities tends to be brought about by change in other cities in the system. The influence of external forces tends to be secondary if it is felt at all.[62]

As the processes of growth and development take place the nature and scale of the interactions between cities alters. The first generalisation applies to a region or country which is described as less developed, and as the region or country develops it passes through the second category to the third type of city system.

England belonged to the first category in the medieval period when the urban settlements existed to a considerable degree in isolation from one another. London perhaps provided some measure of integration through the court, political and administrative functions but this unifying force was weak. The country largely existed outside the flows circulating within Continental Europe, a peripheral island to the core region of France, Spain and Northern Italy.

As the degree of closure relaxed a few cities grew, namely the ports such as Bristol, Southampton, Newcastle, Chester and London. Within the country movement was still restricted and a truly national city system was absent. At a regional scale some urban settlements did grow as the degree of internal interdependence grew throughout the sixteenth, seventeenth and eighteenth centuries. By the nineteenth century the national urban system had passed into the third category of city systems. Links with countries, regions

and individual urban settlements were encouraged by the colonial organisation and the rapid developments in North America. Internal interdependence was encouraged by the growth of a national rail network and the specialisation and resultant exchange of goods and services between parts of the urban system.

For the transition to be made from the city system characterised by high closure and low internal interdependence to one characterised by low closure and high internal interdependence, the scale of integration needed to change from the local to the national. On the way to achieving such a change, the scale of organisation passed through a phase of regional integration based upon towns such as Chester, Shrewsbury and Gloucester. As the urban system evolved, some of these regional centres grew, while others declined relatively, if not absolutely.

The plotting of apprenticeship moves can indicate something of the scale of spatial organisation, and therefore of the position of the urban system of pre-industrial England along this developmental continuum, and the summary results of these moves can be used as a basis for inferences about the relations both within the urban system and between towns and their hinterlands.

This is the general context into which my analysis of the patterns and processes of apprentice migration to Chester, Gloucester and Shrewsbury should be placed. Suggestions about the import of my findings about particular aspects of these migrations for broader questions concerning the structures of the English urban system of the time will form a leitmotif of generalisation which, I hope, is as significant in its own particular way as the substantive conclusions drawn about the forces which directly influenced the migration patterns

such as distance, direction and the social status of fathers and masters - and about the social mobility effected through them. Nonetheless, such speculations must, necessarily, provide a mainly ulterior theme. It is primarily as a contribution to understanding of that particular kind of resource transfer represented by the movement of young adults to craft occupations that this thesis is intended, and it is the requirements of this primary concern which have dictated the ways in which the research was approached, effected and presented. Before directly pursuing these major objectives, it is appropriate to deal briefly with the material on the economic structures of the towns and on the terms of apprenticeship indentures which can be derived from the records consulted.

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Chapter 2

APPRENTICESHIP DATA AND METHODOLOGY

The essential purpose of many documents kept by urban authorities was the control and regulation of their internal economics. Admissions to town freedom; various lists of trades; censuses of the poor, and enrolments into apprenticeship were taken at intervals, albeit often irregularly and with varying degrees of accuracy. The compilation of these records often included information about the occupation of the individual and where he had come from if he was an immigrant. These documents were, therefore, essentially means of checking who did what and where they came from.[1]

Those towns which were corporate, that is, those which had municipal rights over the area defined as within their boundaries, tended to keep records which were likely to be more complete.[2] Many English towns were, however, not corporate and therefore did not keep records to any great extent. The larger towns tended to have a more intricate system of control because of their size and municipal status, so that a greater volume of records was made and there is an increased probability that some of them have survived.

Apprenticeship registers were selected as the main source for the purposes of this study as outlined in the previous chapter. They were likely to be available in substantial numbers in the larger towns, especially those which were corporate, and they also included information which could be used to analyse spatial and occupational mobility, although some degree of coding was necessary to make the information suitable for computer analysis.[3]

The emphasis placed in this study upon the geographical scales of economic and social organisation led to the need for a number of towns within a fairly easily definable urban system. One possibility was to restrict the analysis to within a region equivalent to a county, with the urban system centring on the county town and including as many as possible of the levels of the hierarchy beneath. The main problem with this approach is the scarcity of substantial series of apprenticeship records for the market towns. The need for a number of towns of similar size. status and position within the urban hierarchy which were in some form of spatial association led to a consideration of the area stretching south from the Dee to the Severn estuary. Included within this region were a number of county towns of similar size and status which might have possessed sufficient apprenticeship records. Chester, Shrewsbury, Worcester, Hereford and Gloucester were therefore chosen, although after preliminary searches in the respective record offices the choice was narrowed down to Chester, Shrewsbury and Gloucester. Worcester and Hereford do not possess apprenticeship records in anything like the numbers needed for the period of the second half of the sixteenth and first half of the seventeenth centuries. In the three towns finally chosen, the institution of apprenticeship during this time period does seem to have been actively used and it has provided an abundant series of records from which to abstract information useful in answering the questions outlined in the preceding chapter.[4]

The Apprenticeship System of the Sixteenth and Seventeenth Centuries

The economic and social importance of the apprenticeship system is perhaps one of the more ubiquitous yet uncertain features of studies of English towns of the sixteenth and seventeenth centuries. Much has been made of the notion that the gild system of industrial organisation became a reactionary force within the changing urban scene and that the functions gilds maintained most successfully were of a social nature.[5] This implies, by extension, that apprenticeship declined as a means of industrial training; that the institution only survived where it served as a means of social and political advancement. However, much of what is said to have been taking place nationally has, in fact, been inferred from evidence collected from towns of very different sizes, with diverse economic, social and political structures, which are scattered throughout the country: a snippet of information from Tewkesbury is seen as substantiating claims made about Newcastle; evidence from Carlisle is seen as applicable to London. But this does not mean that a national trend is clearly visible. Evidence, where it is to be found in large quantity and of high quality (which is rare) does, of course, need to be seen in the context of events elsewhere, but the gild system and apprenticeship were subject to many local peculiarities which also demand careful investigation.

The sixteenth and seventeenth centuries are a most challenging period to consider the role of gilds and apprenticeship. The volume of trade was increasing and regions and towns were specialising in particular products, thereby necessitating marketing operations of increased scale. The craft gilds are often seen as anachronistic

bodies, declining in flourishing towns and contributing to the decline of those towns which still held to this system of industrial organisation.

> "It is apparent that many gilds became obstinately conservative and exclusive and hence may have helped to deflect new enterprise from their town".[6]

> "It is certain, however, that the elaborate machinery of protectionism failed to reverse the downward economic trend in numerous established centres. By the mid-seventeenth century gilds were themselves often falling into decay".[7]

Statements proclaiming gild decline as part of the widespread process of urban decay in the early modern period are often based upon a far from representative selection of evidence. Much has been made of the decline in economic effectiveness of the London companies with the growth in numbers of suburban manufacturers, yet the situation in the capital was atypical of the country as a whole. Where the breakdown of company power in London has been charted it has been found that it was not until the late seventeenth and eighteenth centuries that <u>real</u> economic decay set in.[8] In Newcastle-upon-Tyne, the 12 companies founded at the beginning of the thirteenth century had found it necessary to loosen their restrictions upon trade as population growth and increased demand built up economic pressures within the existing industrial organisation. The result was not a complete dis-integration of the Newcastle company system, rather the opposite as 17 'Bye Trades' arose to cater for the increased industrial diversification, with 9 other companies coming into existence during the seventeenth century, and the Company of Upholsterers, Tinplateworkers and Stationers being founded as late as 1675.[9] The companies operating in the important brass and pewter industries

of Wigan were still busily dividing and regrouping during the 1660s and 1670s.[10]

Apart from the founding of entirely new companies to cope with changes within urban economies, there also arose new associations of what had previously been diverse groups of craftsmen. Amalgamation has been claimed as an indication of weakness amongst companies, representing the shoring up of decaying institutions.[11] But amalgamation is not always the combining of weak partners, for it can represent the coming together of strong groups to form an even more powerful association. The merger of two or more groups of traders and/or craftsmen might have been an attempt by those groups to combine in a more powerful business association, enabling them to compete economically over a wider spatial area as a scale of economic organisation increased.

Amalgamation could also be due to a change in the relative use of one commodity compared with another. The sixteenth century saw a fall in the consumption of wax, which was superseded by the use of tallow for making candles. In Chester, as the wax chandlers fell in numbers the tallow chandlers increased, with the end result that they amalgamated. It is likely that some wax chandlers diversified their interests or went over completely to trading in tallow.[12] The tallow chandlers of York were in a position to found their own company by the first decade of the seventeenth century.[13]

Where two or more groups of traders or craftsmen worked in the same field sharing a raw material such as leather or wood, association seems a most reasonable path to follow. The negotiation for the securing of raw material supplies, the dissemination of information and representation to local and national authorities

could have been carried out most effectively through a body representing all the workers in a particular field. The joiners, carvers and turners and the cordwainers and shoemakers formed two joint companies in Chester, and the weavers and clothiers in Shrewsbury.

Disputes amongst companies and between companies and civic authorities are another aspect of company life cited as indicating overt smothering protectionism. They were, however, frequently due to disagreement over non-economic problems.

> "The bitterest clashes between gilds (in York) occurred over precedence in processions by which great store was set, rather than over demarcation disputes".[14]

When one company occasionally disagreed with its role in a ceremony there was usually an acceptable settlement in the end, but often not before what was essentially a social clash spilled over into other aspects of company life.

It was not the case, though, that economic struggles were absent from gild life. During the century after 1550 an acrimonious dispute developed between the Shrewsbury Drapers' Company and the townspeople of Oswestry and Chester. The Drapers held the monopoly of buying and selling Welsh cloth, although it was not until the 1630s that Shrewsbury firmly established itself as the principal cloth marketing centre. In 1556 Chester attempted to have the staple transferred from Shrewsbury, but was unsuccessful, the Shrewsbury Drapers wielding enough power and influence to retain their controlling interest over the lucrative Welsh cloth trade. Nine years later a number of Shrewsbury clothworkers were attracted to Chester in an attempt by the company and civic authorities there to set up a rival cloth industry; this, too, failed. 1582 saw

the third and final major bid from Chester to depose Shrewsbury as the staple town for Welsh cloth, when once again the Shropshire men saw off the challenge, in the process strengthening their hold on the trade. The willingness of the company and civil bodies of Chester to combine in an attempt to attract new trade and industry is an important illustration of continuing company economic activity during the sixteenth and seventeenth centuries. Instead of acting in ways that restricted new enterprise, the Chester companies actively encouraged 'foreign' craftsmen to settle in Chester.[15] Both sides in the dispute, the Shrewsbury Drapers and the companies and civic authorities of Chester, showed themselves to be actively engaged in pursuing economic objectives. They had not degenerated into organisations concerned only with arranging drinking sessions.

Decline in the economic activity of urban companies has been seen in an increasing preoccupation with social concerns and the sponsoring of convivial activities. Such a trend would be most likely to occur amongst those companies already possessing a relatively high social status, mainly the mercantile companies. Membership of these companies would have given a degree of status and possibly helped pave the way for public office. If the concentration on non-economic activities was a predominant feature of company life in the sixteenth and seventeenth centuries, the craft companies would be expected to show evidence of decline due to their relatively low social status. The Coopers' Company of Chester, a craft association possessing no particularly great social stature, maintained an annual record of the numbers belonging to the company.[16] The list survives for the period 1616 to 1696,

and shows no appreciable decline in numbers of brothers over the 80 years. Within this overall general stability, periods of change did occur, such as the lower numbers for the period 1646 to 1666. The records provide some clue as to why this should be and indicate non-economic causes. Several members have 'mort' written alongside their names; Civil War casualties may be one contributory factor, the siege of Chester taking place in 1645, as might the serious outbreak of plague in 1647. Numbers subsequently recovered steadily reaching a peak of 25 brothers in 1682.

Numbers of journeymen coopers were also recorded in Chester, and they gradually rose over the 80 years so that by the end of the century the numbers of journeymen equalled those of the masters. It is unlikely that decreasing economic activity by the coopers would have resulted in an increase in the number of journeymen, whose position was essentially that of wage-earners unable to raise enough capital to set up as masters in their own right. An increase in their numbers may have been due to an alteration in the rules governing the numbers of journeymen any one master might have, which would suggest an attempt to benefit from increased economic opportunities, although the records make no reference to this matter. There may have been a relationship between numbers of apprentices and numbers of journeymen: an increase in the former might have meant more journeymen if few opportunities to set up as a master existed at the end of a term of indenture. Without the necessary capital and opening to start a business the fully trained apprentice would have little alternative but to become a journeyman, usually for the master under whom he trained. This situation would not indicate declining

fortunes in the trade either, because the number of masters did not decline, but rather the number of apprentices and journeymen increased. The apprentice records are not sufficient to allow analysis of this idea, which must therefore remain a hypothesis, but whatever the reasons for it, the increase in numbers of journeymen, a position of indifferent social status, indicates that there was no appreciable degeneration of the company's organisation or fortunes during the seventeenth century.

Technological innovations have also been held responsible for the demise of craft gilds, the new systems of industrial organisation they required proving too much for the gild structure to bear. An example from the East Midlands counters this argument. During the eighteenth century the number of stocking frames increased greatly, first in London and then in the East Midlands. In Nottingham the industry witnessed a four fold increase, between 1727 and 1753. The dramatic rise in numbers of stocking frames was mirrored by the rise in numbers of apprentices indentured in Nottingham during the eighteenth century. For 100 years after 1700, just under 2,500 apprentices were indentured as framework knitters, accounting for 53 per cent of all apprentices indentured in Nottingham. In numerical terms the next two significant groups were the bakers (242 or 5.1 per cent) and the cordwainers (216 or 4.6 per cent).[17] Recruitment figures such as these suggest that the gilds were not automatically made to adjust to changes in production technology by becoming moribund.

Even without a strong degree of over-all gild control, the enforcement of a term of indenture through an apprenticeship, the companies' most potent economic function, continued well into the

eighteenth century. Throughout the century from 1550, apprenticeship was still the principal means by which large numbers of craftsmen and dealers were trained. Where individual gild authority had waned, the civic authorities were keen to maintain a system that kept a degree of control of the urban population in their hands. Urban society demanded frequent supplies of labour to make up the shortfall caused by an excess of burials over baptisms and out migration, as well as to provide the extra pairs of hands needed when the urban economy was growing. The administrative problems in coping with concentrations of people relying on each other for their well-being in economic, social, political and religious senses, were considerable. The necessary regulation of new labour and especially of a potentially volatile sector of society in age and sex terms, was chiefly affected through apprenticeship. Thus, whilst company evidence from Gloucester is sparse, a town register records copious details of indentures, and remains as a potent symbol of the way in which the enforcement of apprenticeship was maintained to serve the town's interests.

To all parties, apprenticeship and its correct observance offered a security of status which was important in sixteenth and seventeenth century England. Various legislative attempts were made to impose the apprenticeship system throughout England. The use of informers, both informal and professional, to support the requirements of the Statute of Artificers has been studied in considerable depth. Davies found that,

> "Apprenticeship in Elizabethan and Stuart England was the rule and not the exception in economic and social life except in certain well-defined employments at both ends of the industrial scale".[18]

The exceptions quoted were unskilled labour in mining, quarrying and transport, and entrepreneurs managing capital investments, although the list could be extended considerably at either end of the spectrum.

From evidence that has been systematically examined it seems more likely that the collapse of the gild system did not come until the eighteenth century. It was capable of modification when necessary, either by the gilds themselves or by the corporation if the gilds were unwilling to act. From his study of the York gilds in the sixteenth and seventeenth centuries Palliser concludes that,

> "It is reasonably certain from the surviving evidence that the system was fairly effective and by no means in decay. That is to say, in spite of evasions there was a reasonably firm enforcement of the freeman's monopoly of trading and shopkeeping, and within that monopoly, of the smaller monopolies of the individual gilds. This pattern, which can be borne out in other Tudor cities, is worth stressing, since the belief dies hard that the gild system was essentially medieval, and something of an anachronism in the expanding economy of Tudor and Stuart England".[19]

The Apprenticeship Records of Chester, Gloucester and Shrewsbury

The history of the gilds of Chester, Shrewsbury and Gloucester is complicated by the lack of gild data from the latter town. The data employed for Gloucester were taken from a town register of apprenticeship (the significance of this in the absence of gild records will become apparent).

In both Chester and Shrewsbury, the apprentice registers used in this study were all kept by the gilds and companies of the two towns. With reference to these terms, it is perhaps appropriate that the discussion diverges slightly at this point on the matter

of nomenclature. Much of the literature uses the terms 'gilds' and 'company' synonymously, with an implication that there was uniformity within and between institutions bearing these names. Yet, "... just because words like guild, fraternity and society, were used so widely, the associations they describe could be various",[20] and the misuse of terminology has probably compounded the problems of defining gild and company activities and the ways in which they changed. The use of one term in one place may have had very different connotations from the use of the same term elsewhere. The convention proposed by Miss Reynolds is to employ the term used in the sources; hereafter in this study, therefore, the trading and craft associations will be referred to as companies.

The Chester companies still continue to exist in many cases, albeit in abbreviated form with a membership far more worthy of the designation 'decay' than was the case in the sixteenth and seventeenth centuries! Their records are kept either in the Guildhall Museum or by the respective company stewards. A few have been deposited with the city record office, as have all the Shrewsbury company records.

It is apparent from the surviving books that the companies in Chester and Shrewsbury were actively engaged in economic as well as non-economic pursuits during the period under study. As a result, the registration of indentures continued throughout the sixteenth and seventeenth centuries, although obviously the vagaries of time and the varying attitudes of clerks towards their work have meant that the registers are not all that one might hope them to be. Nevertheless, the information they yield is substantial, with a total

number of individual entries for all three towns of 3,679. This is made up of 1,980 from Gloucester, 933 from Chester and 766 from Shrewsbury. The dominance of Gloucester in the total (53.8 per cent) needs to be borne in mind when considering the results obtained from using the total data set, but the samples from Chester and Shrewsbury are of sufficient quantity and quality to be considered representative.

The form of the entries reflects the purposes for which apprenticeship was designed. The name of the apprentice was recorded, as were the Christian name, surname, occupation and place of residence of the father (or mother if widowed), and the names and occupation of the master to whom the youth was to be apprenticed. In addition, certain terms of service were noted, most commonly the number of years the apprentice had to serve his indenture, as well as particulars of fees to be paid and how the apprentice was to be looked after by the master. All this information was not present in every entry, and there are particularly frequent omissions of occupational details and place of residence. As a result, different totals are used during the course of the following analysis, the exact number in each case depending upon which particular kinds of entries are being dealt with.

Methodology

In the analysis of the spatial mobility, the location of places recorded in the documents was found on the Ordnance Survey 1:50,000 First Series sheets. Many places mentioned in the register proved difficult to trace and reference was made to various gazetteers.[21]

The Welsh place names proved to be the most difficult, but such entries often included both the village or town and the county which did restrict the alternatives available. If any doubt existed as to which particular place the apprentice belonged, then no locational information was recorded in the computer file against that individual entry. Once the place of origin had been found, a six figure grid reference based on the Ordnance Survey grid network was assigned to each entry. This enabled the straight line distance between this point and the town where the apprentice was indentured to be calculated by computer using the Pythagoras formula.

The migration paths of apprentices were treated in this way to render the information into exact distances. This is preferable to the arbitary use of divisions such as 'within county' and 'beyond',[22] or the use of counties of origin over a certain distance away from the destination.[23] In the absence of detailed evidence about the routes actually traversed by the migrant apprentices, straight line distances were the only feasible measures of the separation between origins and destinations. The resultant distances were then entered as separate variables for each case, and could then be aggregated or disaggregated according to town, occupation, or other variables, as the analysis proceeded.

The six figure grid reference for Chester, Gloucester and Shrewsbury were obtained in an arbitary manner from the historic geographical centres of the towns, for example, High Cross at the junction of Northgate, Southgate, Eastgate and Westgate in Gloucester. The same procedure was adopted when the apprentice came from another medium or large sized town, a lack of precision which could have made

a difference of only a few tens of yards to the length of the migration paths.

The registers usually gave information on the occupations followed by the fathers of the apprentices and the masters. These details make it possible to study socio-economic as well as spatial mobility, but only after the grouping of occupations into a manageable number of classes. The majority of occupational classifications used in the study of pre-industrialised economies fall into two main types, those that rely on the type of raw material used (wood, leather, iron, textiles), and those that differentiate on the basis of type of economic activity (manufacturing, distribution, service). A recent examination of the problems involved in classifying occupational information has suggested that "no one scheme, it appears, could or should be suggested as an ideal".[24]

Two schemes are used in this study, one based upon the type of work a person did and the other upon the type of raw material he worked with.[25] The former classification used three sub-groups; service, professional and people of independent means; dealers; and artisans and artisan-retailers. For the fathers' occupations two further sub-groups were identified as yeomen and husbandmen. This classification based upon the type of work also reflects a division based upon social status, with the service, professional and independent group possessing high status, the artisans and husbandmen lower status, and the dealers and yeomen in between. The system of occupational classification suited this study as it allowed spatial mobility to be correlated with socio-economic status and socio-economic mobility to be studied.

Within each of these broad groups, sub-groups were defined where appropriate to separate out people using different kinds of raw material. Categories such as wood, iron, non-ferrous metals, textile, leather and food and drink could be differentiated in both the craftsman and merchant groups; thus, using this scheme the drapers, mercers, weavers and dyers can be recombined into one single 'textile' group if desired. This avoided thorny problems of assignment such as that posed by the classification of cordwainers, who under the first kind of scheme are listed as manufacturers or manufacturers/retailers and in the second as leather workers along with glovers, tanners and saddlers. In the present scheme both combinations can be achieved, the first by using the original classes, the second by simply recombining the sub-groups defined according to raw materials under a number of classes.

The adoption of this method of using the occupation data contained within the registers enabled the investigation of correlations between distance migrated and what a person did or the raw material he used. The two types of classifaction employed are similar to the two main types used in may other studies of urban occupations in the pre-industrial period. Many of these classifications reflect the different aims of the studies but the basic dichotomy seems to lie between schemes devised with the comparability of different towns in mind or with the study of one particular town in mind. This scheme is aimed at being useful for comparability and has been used with good effect in a number of cases.[26] It also benefits from its capability of regrouping within broad categories to fit more efficiently a particular aim. The study of migration

distances demands that large groups are used so that significant average figures can be calculated. For this reason, the classification of different kinds of economic activity and hence social status uses only four categories rather than the twelve or thirteen possible under this scheme. The problem posed by very small numbers of individual entries is particularly acute with some of the raw material sub-groups.

After the choice of classification, the problem of occupational meanings arises. It is not clear what the use of certain terms implied about what their holders actually did. Particularly fine was the distinction between manufacturer/ artisan and retailers. Many craftsmen sold their products from a shop which was an integral part of their premises. The categories of 'dealers' and 'craftsmen' are, therefore, not mutually exclusive. The dealers group in this study is composed, in the main, of men whose jobs entailed little actual production but demanded considerable enterpreneurial skill; men who often did nothing but buy and sell one particular good, the Shrewsbury drapers for example, or a range of goods, for example mercers. The dealer's way of adding value to a good was by bringing together supply and demand which were often geographically widely separate.

The smallest group numerically were those occupations designated as service, professional or of independent means. They were spread thinly throughout the population and serve as good examples of how one individual performed a number of functions. Amongst the services and professions three main groupings are identifiable; legal (attornies, notaries and barristers); medical (barber-surgeons, physicians, apothecaries); and education (school masters).[27]

Some of these occupations, such as the apothecaries, linked manufacturing, dealing and service activities within one individual. They could import and sell goods such as herbs and spices; they made up medicines, and they often gave medical advice and perhaps practice with their preparations. In small towns, grocers and mercers could perform tasks similar to the apothecary's.[28] The barber-surgeons were another group whose activities are hard to pin down as it is not clear how much surgical activity or barbering (including dental treatment) they practised, or how much retailing of drugs and remedies they undertook. The clergy by the seventeenth century were comparatively easy to define, although any study based in any earlier period would perhaps need to look closely at differences between individuals so designated, because local communities could rely on monasteries, abbeys and priories to supply goods and services such as brewing, baking, fish and milling. In a study of apprenticeship the clergy are only infrequently found as they made no use of the institution for their training. Those of independent means, the gentry, are difficult to define in an objective way. It is not clear at what income level or on the basis of how much property one became generally accepted as a 'gentleman'. Very few of the masters in this survey of apprenticeship were styled 'gent', and even those who were could have some occupational information, as their membership of a particular company gives some indication of the nature of their function. Most 'gentlemen' encountered in this study were fathers of apprentices, many from across the border in Wales. Only a few came from towns, indicating that the majority owned and lived on country estates. Thus they could well have occupied themselves as farmers,

perhaps mainly in an organisational way, or in consuming rents. They could also have represented former urban dealers who had emigrated from the town and who perhaps retained financial interests in various trading activities.

By far the largest single occupational group was the craftsmen. The majority of these were involved in manufacturing goods, although many also sold their products from a shop or market stall. These artisan-retailers could, however, range from merchant-employers whose day-to-day occupation involved entrepreneurial and managerial skills to workmen struggling to make a living with perhaps an apprentice to act as labourer.

Each occupational term was therefore numerically coded three times: with the code unique to that particular term (baker, weaver, apothecary, mercer, yeoman, gentleman); with the code relating to the occupation's socio-economic status and the type of work involved in it; and with the code distinguishing the raw material category (wool, leather, iron, food and drink). In this numerical form, the occupational information could be used to combine or separate and recombine various associations of fathers and/or masters. Thus one could select all the apprentices whose fathers were dealers in wool and who were apprenticed to artisan masters. The possibilities for manipulation were many, although a large number of the possible groups were numerically too small for any reliability to be placed upon the results derived from them.

In addition to the occupational information and the distance moved by the apprentice, several other factual items were numerically coded and included for each entry. Every individual entry in the registers was given a unique case number; the year of the start

of the term of indenture was entered, and the length of the term of indenture in years was recorded. In total twelve separate data items were coded for each apprentice recorded in the registers of the three towns.

Nearly all the computer analysis was undertaken using programmes available under the Statistical Package for the Social Sciences (SPSS). In the developmental sequence that this package has gone through, the version Update 5 was available at the Liverpool University Computer Centre when the calculations were made.

The information abstracted from the apprenticeship registers was easily coded in a numerical format to suit SPSS. The statistics available and the degree of manipulation offered by SPSS were sufficient for the demands of the analysis. The statistical analysis tended to divide into two; the basic statistics (mean, mode, median, standard deviation) for all the apprentices in the various occupational categories, which allowed the analysis of migration distances; and the cross-tabulation of various combinations of apprentices chosen according to the occupational data of either their father or master or both. Thus the computer facilitated the handling of a relatively large data matrix of 3,679 x 12 and produced a variety of statistics upon which the analysis of spatial mobility and socio-economic mobility could be based. The succeeding chapters contain the results of this analysis together with detailed summary information relating to migration, apprenticeship, socio-economic mobility and other miscellaneous data specific to Chester, Gloucester and Shrewsbury.

CHAPTER 2 - NOTES AND REFERENCES

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23 PATTEN, J.H.C. (1976) 'Patterns of migration and movement of labour to three pre-industrial East Anglian towns', Jnl. Hist. Geogr. 2, pp. 111-29

24 PATTEN, J.H.C. (1977) op. cit., p. 307

25 See Appendix 1, Occupational Classification; KATZ, M.B. (1972) 'Occupational classifications in history', Jnl. Interdisciplinary Hist. 3, pp. 63-88

26 LANGTON, J. (1977) 'Late medieval Gloucester: some data from a rental of 1455', Trans. Inst. Br. Geogr. New Ser. 2 No. 3, pp. 259-77; 'Some aspects of the geography of Wigan and Wigan parish in the late seventeenth and early eighteenth centuries', unpubl. report of the fieldwork carried out by a group of second year students in the Department of Geography, Liverpool University, in 1974.

27 CHARLTON, K. (1969) 'The professions in sixteenth century England', Univ. of Birmingham Hist. Jnl. 12, pp. 20-41

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Chapter 3

THE ECONOMIC STRUCTURE OF CHESTER, GLOUCESTER AND SHREWSBURY

In addition to providing information about social and occupational mobility, the recording of enrolment into apprenticeship does permit the analysis of part of a town's economic structure by the use of the occupations of the masters. Whilst it cannot be claimed that this evidence is comprehensive, the fact that most towns were heavily dependent upon manufacturing industry and that apprentice registers predominantly recorded training in craft occupations mean that this data can add a useful contribution to a study of the economies of English pre-industrial towns.[1]

The nature of the urban economy is also useful as background information to the main aim of my thesis, the understanding of mobility of trainee labour. This movement was essentially from the countryside to the towns and this will be discussed in detail in later chapters. The migrations of apprentices reflects and complements the relationships between urban and rural environments, which were a response to the differences in economy and society that existed in the context of pre-industrial England. The contrast in terms of economic structure is clear as urban economies possessed a much more varied manufacturing base as well as a wide range of services, compared to the rural economies.[2]

The manufacturing economies of Chester, Gloucester and Shrewsbury, as indicated by the apprenticeship registers, highlight the specialities of the individual towns, in addition to a wide variety of manufacturing functions in common. This specialist element might have had a particular influence upon the attraction of surplus rural labour in terms of its quantity and quality. In

spatial terms, a strong individual craft might help explain the volume of movement of apprentices from a particular region in the town's hinterland or of apprentices from a certain type of background, perhaps due to a link through the supply of a raw material. The occupation of the masters also indicates something of the service function of the three towns, although the complete range of services is not likely to be represented, as not all of the various occupations used the apprenticeship system of training. Also, the ratio of dealers to manufacturers is difficult to establish, as some individuals combined both activities, whilst the dealers did not always adhere to apprenticeship as a means of training.

In this chapter, I will examine the three towns separately, so as to highlight their similarities and differences, and also as an additional explanatory factor to the patterns of mobility, which are the main focus of the thesis.

Chester

Of the recorded occupations of the masters, 68.0 per cent (or 471 out of 693) represented crafts, 28.4 per cent (or 197 out of 693) dealers and 3.6 per cent (or 25 out of 693) were either in the services or in the professions. The dependence of Chester upon manufactures is a feature found in most towns in sixteenth and seventeenth century England.[3] Those masters who were dealers needed the products of several craftsmen with which to trade, either with the surrounding rural region or with dealers in other towns.

A tabulation of masters' occupations gives an indication

of the structure of Chester's economy based upon raw material categories. (Table 3.1) Numerically strongest were workers using wood, and whilst some of these would have been employed in the building industry, such as carpenters and sawyers, many were members of the Joiners', Carvers' and Turner's Company and of the Coopers' Company. Many members of the former company would probably have been employed in working on the elaborate timber frontages of many of Chester's central building, some of which still exist, such as 'The Rows'.

The second largest group was textiles, about one in five apprentices being trained to use these materials, mostly as woollen weavers. Chester was not a noted textile manufacturing centre, and attempts to rival Shrewsbury in the control of the Welsh wool trade in the latter half of the sixteenth century proved abortive.[4] The demand for clothing from both the inhabitants of Chester and the surrounding region, however, would probably have ensured a substantial number of opportunities in this sector.

The third most important raw material category was leather. The significance of this material in the pre-industrial economy in general has been well established,[5] and it is clear that the leather industry was a major prop in the economy of Chester. More leather craftsmen became freemen than did the craftsmen of any other raw material category.[6] The importance of the leather industry to Chester was in part a result of its location in pasture farming country and of its role as a port trading with Ireland. Large quantities of animal skins were imported to Chester and many of these were probably processed in the city itself. In addition to

Table 3.1 Chester: Tabulation of masters' occupations based on raw material categories.

Raw material category	n	%
Wood	151	21.9
Leather	83	12.0
Iron	67	9.7
Non-ferrous metals	7	1.0
Earthenware and glass	77	11.2
Glue and Tallow	22	3.2
Textiles	136	19.7
Food and Drink	80	11.6
Mixed	40	5.8
Service, Professional, Independent	27	3.9
N	690	100.0

the skins imported direct from Ireland, some skins of Irish origin arrived at Chester from Liverpool during the 1590s: in 1592-3 over 38,500 sheepskins were transported from Liverpool to Chester by sea and such shipments became a fairly regular feature of the coasting trade between the two ports in the later 1590s and first few decades of the seventeenth century.[7] The large number of dealers demanding these raw materials and craftsmen working on them in Chester was out of proportion to the demand from the local market; the glovers, in particular, served a regional, national and possibly even international market, through the agency of London factors.

The food and drink sector was perhaps under-represented in the apprenticeship records, an example of an area of the economy which did not necessarily use this formal training system to any great extent. Bakers, brewers and butchers probably largely served the needs of the Chester townspeople, and only on market and fair days would the people from the surrounding region avail themselves of these products. As the county town, a trans-shipment port for Ireland, an important ecclesiastical, military, political and social centre, Chester would have contained numerous inns, and innkeepers, benefitting from the confluence of people, provided business facilities as well as food and accommodation.[8]

Perhaps the number of apprentices entering trades using earthenware and glass as their raw material was surprising (11.2 per cent or 77 out of 690). Many of these apprentices were indentured to painters and glaziers. Both these occupations were perhaps in increased demand during the later sixteenth and seventeenth centuries, as the use of glass for windows increased

and as the traditional half-timbered buildings of Chester and the surrounding area needed painting.

One raw material category not usually associated with Chester was that of ferrous metals, accounting for 9.7 per cent of the apprentices indentured. Chester was not particularly noted as a centre for iron production, although the city must have possessed several workers engaged in supplying the basic needs for iron products of at least the townspeople. The majority of apprentices in this category were indentured to train as ironmongers. These dealers may have played a role in linking the North Wales iron producers with Lancashire manufacturers, as the Warrington ironmongers did at a later date.[9] Apart from wine, the main import from the continent into Chester was Spanish iron, although by the early seventeenth century this trade was at a significantly lower level than it had been for much of the previous century. The ironmongers may have turned their business interests to home supplies. In 1619, Chester's mayor claimed that "....nowe in regard of the store of English Iron made heere unto these parts that their is not vented here above 60 tonnes of Spanishe Iron".[10]

Gloucester

Amongst the occupations of the masters, the domination of the manufacturing sector was more complete in Gloucester than in either Chester or Shrewsbury, with 79.3 per cent being craftsmen (1247 out of 1572), 18.9 per cent dealers (297 out of 1572) and 1.8 per cent (28 out of 1572) in the services or professions. Whilst this in part reflects the nature of the source material (craftsmen were more likely to use the system of apprenticeship than were other

occupations), it does highlight the importance of the manufacturing sector to this provincial city. As mentioned previously, many of the craftsmen probably acted as retailers too, and thus a degree of overlap should be allowed for between the dealing and craft sectors.

The decomposition of Gloucester's economy into raw material categories as represented by the occupations of masters shows the importance of two groups in particular, textiles and leather. (Table 3.2) This retention of an urban woollen textile industry as illustrated by apprenticeship indenture is important, as much has been made of its decline:[11] "...the city was in decline as a centre for the manufacture of textiles", claimed Ripley.[12] This conclusion was based on an occupational classification that excluded drapers, mercers and tailors from the textile industry, whereas in exact raw material terms they should be included. Whilst it may be true that elements of the cloth manufacturing process had left Gloucester, middlemen such as clothiers and drapers were still based in the city and their 'labour' was just as important to the entire process of converting raw wool into finished cloth and clothing as that of any weaver or shearman. Adding further value to the cloth by manufacturing clothes from it was also as much a part of the textile industry and many of the apprentices entering Gloucester's textile sector trained as tailors.

Amongst the occupations based on the use of leather were large numbers of shoemakers, glovers, saddlers, tanners and curriers. Their supplies were partly obtained from places north of Gloucester along the River Severn. The role of the river in transporting goods to and from the city was a vital one, particularly for bulky

Table 3.2 Gloucester: Tabulation of master's occupations based on raw material categories

Raw material category	n	%
Wood	84	5.3
Leather	439	27.9
Iron	58	3.7
Non-ferrous metals	122	7.8
Earthenware and Glass	16	1.0
Glue and Tallow	45	2.9
Textiles	552	35.1
Food and Drink	195	12.4
Mixed	33	2.1
Service, Professional, Independent	28	1.8
N	1572	100.0

materials that were heavy such as animal skins.[13] Gloucester also lay in the middle of a mixed farming region which would have contributed more raw material to the city's leather workers. Just under half the apprentices to Gloucester's leather industry came from an agricultural background, probably a reflection of the links established between farmers and urban processors such as tanners as a result of the exchange of animal skins. Other leather workers' sons accounted for a further 21.4 per cent of the apprentices, some of whom were examples of sons apprenticed to their fathers.

The food and drink sector in Gloucester's economy represented some 12 per cent of the indentures, a similar figure to that of Chester. This probably denotes the comparability of function served by both towns at opposite ends of the Welsh Marches, as county towns, cathedral cities, local political, social and economic centres. This sector represented not only the supplying of day to day essentials such as bread, beer and meat, but also that of goods and services with greater thresholds and ranges as would have been supplied by vintners and innkeepers.

Amalgamating the two categories which comprise the metal working trades, the ferrous and non-ferrous metals, shows that Gloucester was a centre of some importance in this trade. Apprentices were indentured to pinners, wiredrawers, smiths, cutlers, pewterers, braziers and bellfounders. The tradition of metalworking was strong in the Forest of Dean, just to the west of Gloucester and the city itself was noted as a centre of import for the manufacture of bells. Gloucester's market area for bells extended mainly in a west to east belt, as to the north lay Worcester and the

the south Bristol, both of which were also centres of bell manufacture.[14]

Shrewsbury

The county town of Shropshire was one of the "middle sized centres",[15] whose role as the social, economic, religious and political focus of the county was perhaps more archetypal than that of Chester or Gloucester. Situated in a region without any prominent manufacturing industry, an inland town albeit on a major navigable river, the Severn, Shrewsbury might have been expected to display the characteristics typical of a town of its rank. The data from apprenticeship records do illustrate these characteristics to a limited extent, but they also highlight a feature of Shrewsbury's economy that went further than the purely local or even regional. The effective control of the Welsh wool trade by the Shrewsbury Drapers' Company gave the town an unique place in the organisation of the trade and this was reflected in other aspects of Shrewsbury's economy.[16]

Only dealing and craft occupations were recorded in the surviving apprenticeship records and of these the majority, 65.0 per cent (371 out of 571), were dealers and 35.0 per cent craftsmen (200 out of 571). The tabulation of the masters' occupations by raw material highlights the numerical dominance of textiles within Shrewsbury's economy. (Table 3.3)

To look at the functioning of Shrewsbury's textile sector and its dominance of the town's economy is to view a microcosm of English society in the sixteenth and seventeenth centuries. The drapers were one of the separate specialist gilds that evolved in

Table 3.3 Shrewsbury: Tabulation of masters' occupations based on raw material categories

Raw material category	n	%
Leather	58	11.0
Non-ferrous metals	6	1.1
Textiles	457	86.9
Mixed	5	1.0
N	526	100.0

the fifteenth century to replace the more all-inclusive earlier gild merchant, a result of specialisation of production and division of labour in the town's expanding trade. Two other bodies became actively concerned with the cloth industry: the mercers and the shearmen. Both challenged the drapers' dominance during the sixteenth and seventeenth centuries, but neither was able to take on successfully the role of middlemen between the Welsh cloth producers and the national and export market represented by the merchants at Blackwell Hall in London. The mercers represented an amalgamation of local retailers; they were too committed to retail trade in and around Shrewsbury, and became diverted in their attempts to compete for the cloth trade . The shearmen were by the early seventeenth century little more than 'employees' of the drapers, as they depended upon the drapers placing raw cloth with them to be finished. Although the working and dressing of the cloth added value to the product, the shearmen were too weak and too vulnerable to take advantage of this. Their 'craft' status, lower than that of the mercantile drapers, precluded the contacts needed in high places to wrest the merchants' grip from the trade. Their lack of entrepreneurial expertise handicapped their ability to take risks and conduct business between partners who were spatially distant. The conflict between draper and shearman probably reflected one between capital and labour as seen in Marxist terms. Capital implied organised production for a market. This in turn required developed monetary and credit systems and a wage labour force with no ties with the land, and no share in the ownership of the means of production. It also meant sustained organisation and management of raw materials and labour, so that

the form of the raw materials was changed into new products. The essence was production for exchange, neither by itself. The Shrewsbury drapers allowed the production for exchange of Welsh cloth, standing in the all-important gap between the Welsh producers and the London merchants. They were also close to industry, some drapers even dressing and dyeing cloth themselves, although by the early seventeenth century all the evidence shows that they habitually employed craftsmen to do this work. It was as commercial speculators of capital in the gap between the Welsh producers and the London merchants, even though they employed craftsmen to finish the cloth in the interval, that the drapers operated, an urban group which, because of its relations with the surrounding region, drew in men and possibly money from both urban and rural areas in the region. The exact value to the drapers of capital derived from landed connections has not been estimated. The entrance, however, of gentlemen's sons into the Company, as well as the tendency of drapers' families to marry into county families, suggests it must have been considerable.

Summary and Conclusion

This brief section about the economies of the three towns, as revealed by the occupations of masters in the respective apprentice registers, indicates the role of Chester, Gloucester and Shrewsbury as central places providing goods and services to a mainly rural hinterland and to their own inhabitants. They also possessed specialist functions, Chester's leather crafts, Gloucester's textile, leather and metal industries and Shrewsbury's role as an important centre in the organisation of the English

wool trade. This background information will be useful when I deal in detail with the attractions of the three towns for apprentices in later chapters.

CHAPTER 3 - NOTES AND REFERENCES

1 LANGTON, J. (1978) op. cit.; PATTEN, J.H.C. (1977) op. cit.

2 See LANGTON, J. (1978) op. cit., pp. 174-91, and in particular the comparison between Tables 7.1 and 7.3 in his article, which highlights the variety of urban manufacturing economies, compared with the specialisation of a number of Lancashire and Yorkshire parishes

3 Ibid., pp. 185-8

4 MENDENHALL, T.C. (1953) op. cit.

5 HOSKINS, W.G. (1963) op. cit., p. 80; COLEMAN, D.C. (1977) op. cit., p. 72

6 WOODWARD, D.M. (1968) 'The Chester leather industry 1558-1625', Trans. Hist. Soc. Lancs. and Cheshire 119, pp. 65-111

7 BUTLIN, R.A. (ed.) (1977) The development of the Irish town, Croom Helm, p. 69; CLARKSON, L.A. (1960) 'The organisation of the English leather industry in the late sixteenth and seventeenth centuries', Econ. Hist. Rev. 2nd Ser. 13, pp. 245-56; idem (1965) 'English economic policy in the sixteenth and seventeenth centuries: the case of the leather industry', Bull. Inst. Hist. Research 38, pp. 149-162; idem (1966) 'The leather crafts in Tudor and Stuart England', Agric. Hist. Rev. 14, pp. 25-39; WOODWARD, D.M. (1970b) The trade of Elizabethan Chester, Hull University Press

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9 AWTY, B.G. (1958) 'Charcoal ironmasters of Cheshire and Lancashire 1600-1785', Trans. Hist. Soc. Lancs. and Cheshire 109, pp. 71-124

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11 CLARK, P. and SLACK, P.A. (1976) op. cit., pp. 97-110

12 RIPLEY, P. (1976) 'The trade and social structure of Gloucester 1600-1640', Trans. Bristol and Glos. Arch. Soc. 94, p. 118

13 Ibid., p. 119

14 LANGTON, J. (1978) op. cit., p. 189

15 CLARK, P. and SLACK, P.A. (1976) op. cit., p. 103

16 MENDENHALL, T.C. (1953) op. cit.; BOWDEN, P.J. (1962) The wool trade in Tudor and Stuart England, London; EVANS, D.J. (1950) 'A history of the Shrewsbury Drapers' Company during the seventeenth century', unpubl. M.A. thesis, Univ. of Wales; LLOYD, T.H. (1977) The English wool trade in the Middle Ages, Cambridge University Press

Chapter 4

THE TERM OF INDENTURE OF APPRENTICESHIP

The Statute of Artificers of 1563 stated that,

> "...yt shall not be lawfull to any person or persons other then suche as nowe do lawfully use or exercyse any arte mystery or manuall occupancion to sett up occupye use or exercyse any crafte nowe used or occupyed within the Realme of England or Wales excepte he shall have bene brought uppe therein seven yeres at the least as Apprentyce.."[1]

The emphasis in this section of the act clearly lay upon the requirement of anyone in the manufacturing and commercial sectors to serve at least seven years as an apprentice. Until they had undergone this period of training they were forbidden to follow their chosen occupation. During their time as apprentices young men (and occasionally women) worked for the master who had a dual role as teacher and, as the apprentice lived with the master and his family, stood in loco parentis. Time spent in learning an occupation was therefore of considerable importance to and influence on a teenager. A social consideration of the length of term of indenture is the inability of apprentices to marry whilst still training. Thus, considerable numbers of young men were delayed from entering the family cycle. The number of years spent as an apprentice was also important to urban authorities, both company and civic, as they had vested interests in ensuring that training was carried out in full and to the required standards. Variation in the term of indenture is also an integral topic of concern for any study of urban economies as large numbers of individuals all capable of contributing to the production of wealth whether by manual or organisational skills to some degree were included amongst the apprentices. At the start of their training, apprentices would

have served largely as unskilled labourers but as the years passed and occupational skills were acquired they would have become increasingly able to contribute to the addition of value to the good or service. One master might have a number of apprentices training under him, often at different stages of their terms of indenture. Considerable numbers of young people could therefore be included within a town's population as apprentices. In economic terms the length of training was important as apprentices were a vital source of labour and the future generation of skilled workers. The social implications to a town council of large numbers of teenagers would also have been significant and at times actually explosive.[2]

This chapter investigates the length of terms of indenture as recorded in the registers consulted in this research. It analyses briefly findings for other provincial towns, compares these to the findings for Chester, Gloucester and Shrewsbury and tries to account for variations in the term of indenture by correlating the number of years served as an apprentice with three variables; the origin of the apprentice, native or immigrant to the town; the nature of the father's occupation; and the nature of the master's occupation.

Factors Influencing the Length of Term of Indenture

In theory, the length of the term depended upon the age of the apprentice when he started his term and where he was apprenticed. There were legal requirements as to the minimum age at which an apprentice could be free: in corporate towns this was 24, but elsewhere the age limit was set at 21.[3] If these limits were adhered to, then the factor influencing the length of term would be the age at which the apprentice started his training. Apprenticeship

commonly began at about 14, which would result in a term of 10 years in the corporate towns, and 7 years in the non-corporate towns. The important urban centres were nearly all corporate towns and the legislation concerning apprenticeship largely had the interests of corporate towns at heart. However, Merson concluded that the minimum age requirement at the end of the term was disregarded in Southampton as evidenced by the apprenticeship register of 1609-1740, with many apprentices completing their training by 21.

The data for the corporate town of Southampton show a trend during the seventeenth century towards the adoption of a standard 7 year term of indenture.[4] On the other hand, the Surrey apprenticeships for the second and third decades of the eighteenth century have " ...anything except the usual seven year: we have anything from two years and eight months or three years and ten months up to nine years".[5] The representativeness of these last examples is not made clear. The Chester, Gloucester and Shrewsbury evidence shows that many apprentices served terms of indenture longer than 7 years, but because the age of the apprentice was only rarely recorded, the relationship between age and length of apprenticeship can only be a matter of speculation. It may well be that variations in the length of term were affected by the occupation and/or the status of the apprentice and/or his master, as well as by the apprentice's age.

The Aggregate Data, Chester, Gloucester and Shrewsbury

The combined data[6] emphasise the preponderance of the 7 year indenture over the other lengths of apprenticeship, 53 per cent of

all apprentices serving this term (1901 out of 3581). Eight, 9 and even 10 year terms were not uncommon and the full range stretched from 4 to 16 years, although values towards the extremes of this range were rare (Figure 4.1). When the data for the three towns are examined separately, it becomes clear that Chester and Gloucester resembled the combined data pattern more closely than Shrewsbury. In Shrewsbury, nearly 70 per cent of apprentices served 7 years and another 20 per cent 8 years (524 out of 751 and 164 out of 751). The overwhelming dominance of the 7 year term of apprenticeship in Shrewsbury was brought about by the effectiveness of the Drapers Company regulations and the numerical dominance this company had amongst the apprentices indentured in the town. Evidently, the Drapers' Company tightened up its regulations in April 1608, in part as a means of increasing revenue for its new charter of 1609. The Company's Composition of 1612 reiterated the rules regarding apprenticeship, requiring every apprentice to be presented to the Master and at least one Warden within one month of being apprentices, ".. to the intent that notice may be taken as well of his age as also of the daye month yeare of his entrance into his apprentyshipp". The apprentice was also to be presented by the Clerk together with his Indenture;

> "And alsoe with a true Coppy of the register under the hand of the Minister where he or they were baptised, of the daye and yeare of his or their baptising, and that to be attested under the handes of two other honest neighbours, to the intent that his age with the indenture maye be inroaled and that the tyme of his service may compleate his age to be 24 yeares before he be a freeman according to the Articles".[7]

From the evidence of the term of indenture and the apparent insistence on the minimum age, most of the Drapers' apprentices

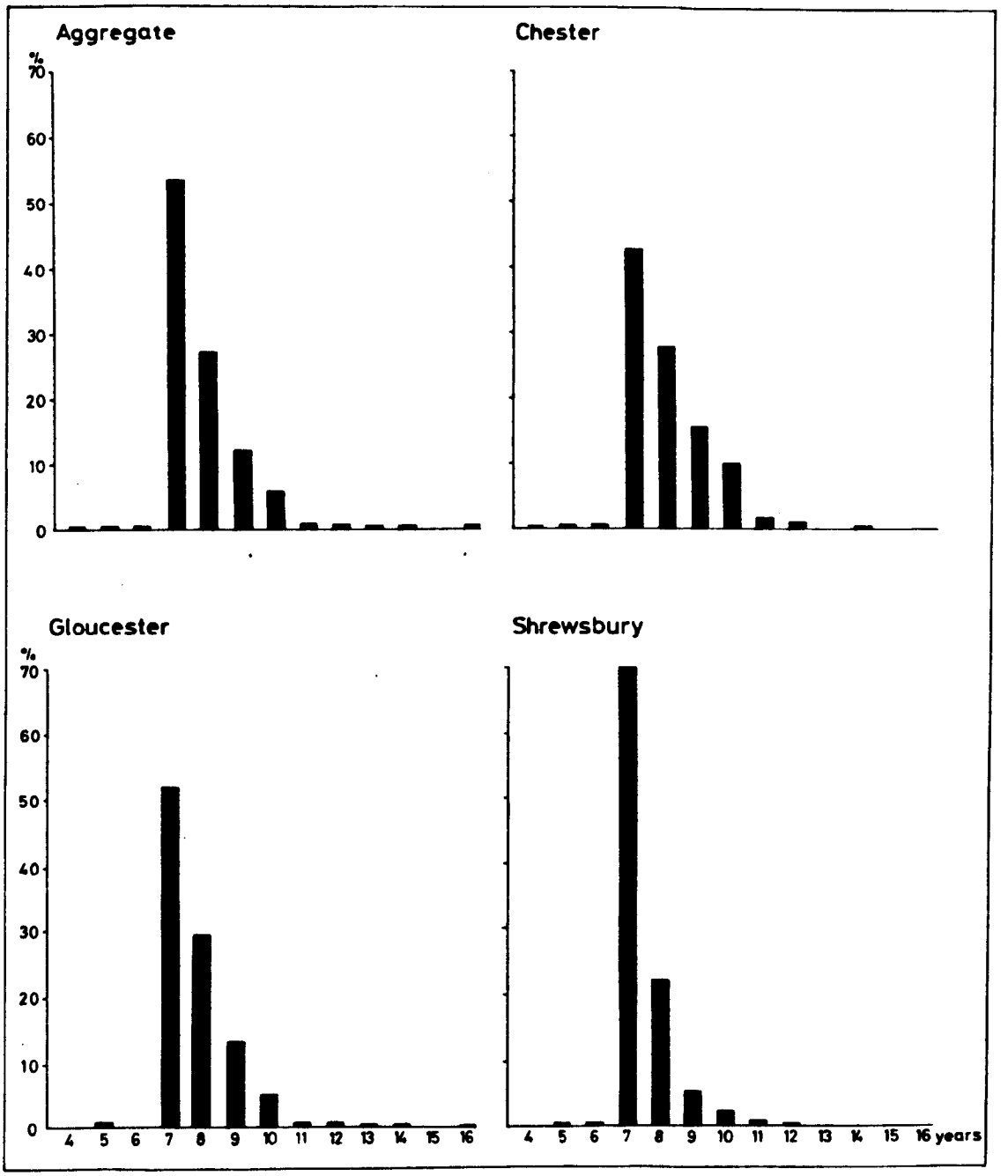

Figure 4.1 Term of indenture

must have been about seventeen when they started their training.

This has a number of implications for the background of the apprentices, if the assumption is made that apprenticeship was the first break from home for a teenager. For a man to remain at home until the age of seventeen could have been something of a burden for many families, but the type of families from which Drapers' apprentices came indicates that this may not have been so in their particular cases. In the first place there was a strong tradition of son following father in the cloth trade. Of the 53 Drapers' apprentices whose fathers were also members of the company, 46 served a 7 year indenture, a further 5 serving 8 years. These apprentices probably started their training before any formal indenturing, helping their fathers or relations as soon as they were old enough.[8] The majority of Drapers' apprentices whose parents' occupation is known, came from the service, professional and independent class. Of these, 4 were the sons of clerks and 108 the sons of gentlemen. Many of the latter group came from Wales, where the life-style associated with the ascription 'gentleman' may have been more like that of yeoman in England. Fifty-seven Drapers' apprentices were the sons of yeomen, the majority coming from England. That these apprentices were able to delay entry until they were seventeen is perhaps a reflection of the greater resources possessed by these groups compared with craftsmen.

Of greater importance was the increased chance that the apprentice, by the age of seventeen and coming from these higher social groups, would have standards of literacy and numeracy above the average for boys of this age in the sixteenth and seventeenth centuries. To have an apprentice with such attainments must have

been a considerable advantage, making it unnecessary for the master to perform the time-consuming teaching of basic educational skills. The importance of the apprenticeship system in raising educational standards is sometimes forgotten in historical debates. In those occupations that required less manual work and more application of literacy and numeracy, much of the early part of the apprentices's training may well have been concerned with learning these skills, especially in the dealing and service occupations. One possible expression of the above-average educational standard of many of the Drapers' apprentices was the practice of placing some apprentices at the London end of the cloth trade.[9]

Three further lines of enquiry were pursued in an effort to untangle some of the complications in the variable nature of the term of indenture. The attitude of towns towards 'outsiders' in the pre-industrial period was one of open suspicion, if not actual hostility. One consideration, therefore, was differences in the length of apprenticeship due to origin of the apprentices, whether they were from the town itself or from outside. The second consideration was the nature of the parents' occupation and the third the occupation into which the youth was apprenticed. Each alternative will be discussed in turn.

The combined data show that apprentices who came from outside the towns tended to serve longer terms than those from within them. (Table 4.1) This was most marked in Chester and Shrewsbury, and less so in Gloucester. This variation may be accounted for in a number of ways. The attitude of the individual gilds or companies and/or the town authorities may have had a considerable effect. The consistent application of regulations may have discriminated against the migrant

Table 4.1 Term of indenture: migrant and non-migrant apprentices

Years	Aggregate				Chester				Gloucester				Shrewsbury			
	Migrant		Non-Migrant		Migrant		Non-Migrant		Migrant		Non-Migrant		Migrant		Non-Migrant	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
5	0	0	2	0.2	0	0	0	0	0	0	1	0.2	0	0	1	0.4
6	1	0.1	1	0.1	1	0.2	0	0	0	0	0	0	0	0	1	0.4
7	1024	51.2	690	57.9	199	39.7	129	51.0	560	52.1	345	51.6	265	63.1	216	80.0
8	582	29.1	285	23.9	162	32.3	60	23.6	310	28.8	189	28.3	110	26.2	36	13.3
9	251	12.6	125	10.5	84	16.8	31	12.3	142	13.2	79	11.8	25	6.0	15	5.5
10	106	5.3	69	5.8	41	8.2	27	10.7	49	4.6	42	6.3	16	3.8	0	0
11	15	0.8	10	0.8	5	1.0	5	2.0	7	0.7	4	0.6	3	0.7	1	0.4
12	14	0.7	5	0.4	7	1.4	0	0	6	0.5	5	0.7	1	0.2	0	0
13	0	0	2	0.2	0	0	0	0	0	0	2	0.3	0	0	0	0
14	2	0.1	2	0.2	2	0.4	1	0.4	0	0	1	0.2	0	0	0	0
15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16	1	0.1	0	0	0	0	0	0	1	0.1	0	0	0	0	0	0
N	1996	100.0	1191	100.0	501	100.0	253	100.0	1075	100.0	668	100.0	420	100.0	270	100.0

apprentice, such as a stricter enforcement of the minimum age requirement. There is, however, no direct evidence to support the notion of discriminating action, at least none that would explain the differences in length of apprenticeship.

The possibility of differences arising due to the parents' occupation and the occupation entered were also examined for the craft and dealing sectors. (Figures 4.2 and 4.3) There was a slight tendency for apprentices whose fathers engaged in dealing to serve longer terms, as shown by the Chester and Gloucester graphs, but such differences as there are appear to be minimal, indicating the relative unimportance of the apprentice's background. Note should also be taken in this context of the minimum levels of wealth (and therefore status) of a father required by the Statute of Artificers, although these were perhaps not as universal in their implementation as has been assumed.

> "Apprentices - None to be received apprentice except his father may spend 40/- a year of freehold, none to be apprenticed to a Merchant except his father spend £10 a year of freehold or be descended from a gentleman or merchant".[10]

The influence of the occupation of the teenager's master appears more considerable. Apprentices training in craft occupations were more likely to serve 7 years: 58 per cent (1340 out of 2307) did so, compared with 42 per cent of apprentices enrolled in dealing occupations (432 out of 1008). The longer terms of 8, 9, 10 or even more years tended to be served by apprentices in the dealing occupations. This trait, seen in the data for the three towns combined, was particularly characteristic of Shrewsbury, where nearly 90 per cent of apprentices in craft occupations served 7 years (207 out of 233), compared with 56 per cent

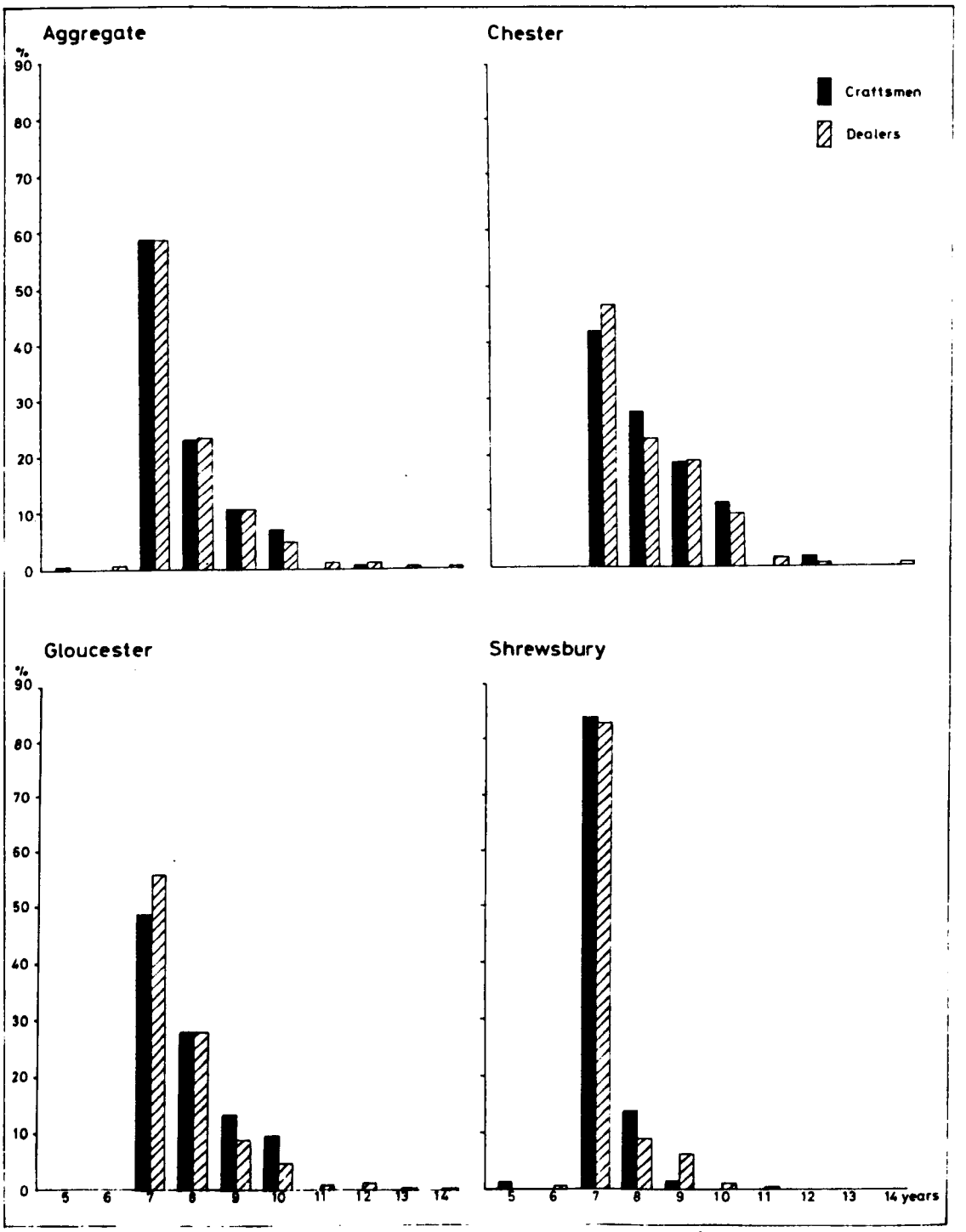

Figure 4.2 The influence of parents' occupation on term of indenture

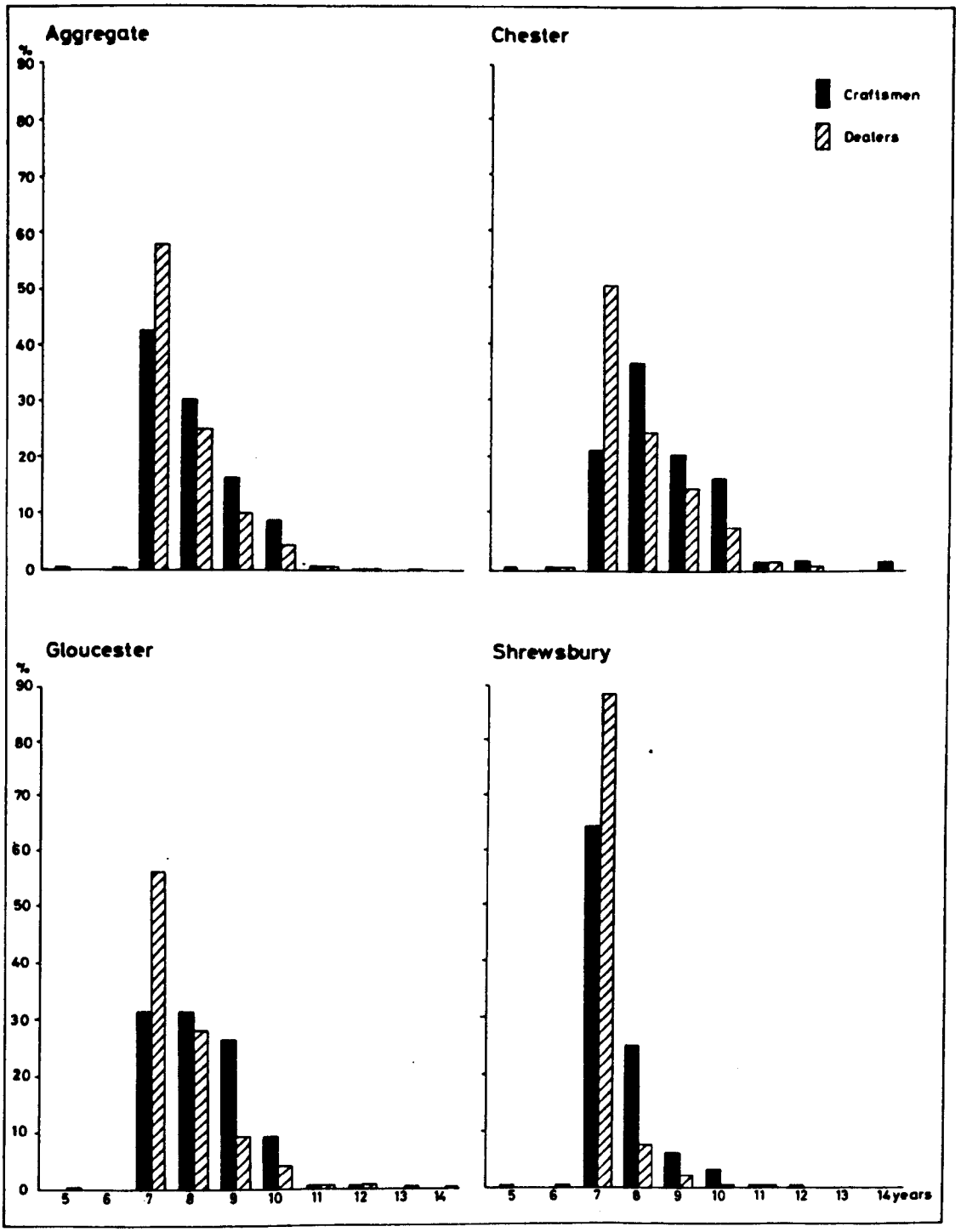

Figure 4.3 The influence of masters' occupation on term of indenture

(862 out of 1472) and 50 per cent (306 out of 601) in Gloucester and Chester respectively. It would seem that the master's occupation, the occupation in which the apprentice was trained, had a greater influence on the length of apprenticeship than the parent's occupation and resources, though its effect varied from town to town and was only particularly marked in Shrewsbury.

It is tempting to assume that the higher status occupations demanded longer training due to their need for a higher educational standard from the apprentices in terms of literacy, numeracy and even knowledge of a foreign language. In an age when the educational system was still in its infancy, and apprentice would learn much of his reading, writing and arithmetic from his master, always providing that his master could teach him. Evidence from the company books shows that many of the craftsmen were incapable of signing their name, their authority being indicated by a mark of some sort, usually a cross, whilst dealers invariably signed. It would need a more comprehensive survey than this to say with any certainty that men engaged in trade rather than manufacture were more likely to possess skills in literacy and numeracy, but the indications are inclined that way. The need for more time to teach an apprentice who would one day deal in his own right with the intricacies of book keeping and auditing of accounts as well as letter writing is therefore an attractive and plausible explanation for the longer terms of apprentices in dealing occupations.

In sum, then, although a 7 year term was often customary, just under 50 per cent of the cases treated in this study served other than the 7 year indenture stipulated by the Statute of Artificers. Generalisations, do, however, need to be seen in the

light of evidence from individual towns and the findings for the three towns in this study and other provincial towns suggest that local custom was a strong influence upon the length of term of indenture. It is likely that as local economic, political and social conditions changed over time so did the length of term of indenture. The evidence also suggests a tendency to discriminate against the outsider in that migrant apprentices tended to serve longer indentures than native apprentices.

The influence of the home background seems to have been less than that of the socio-economic status of the occupation in which the apprentice trained. This perhaps indicates that as long as the father could pay the necessary fee, entry to most occupations could be obtained and longer or shorter terms of indenture depended more upon the demands of the master's occupation. There is no reason why the expertise needed to handle capital and manipulate demand and supply should be less demanding in its training than the ability to manufacture a good, be it shoes, bread or bells. The increasing level of capitalisation of many aspects of English industry during the sixteenth and seventeenth centuries would have demanded a greater degree of entrepreneurial skills from any occupations.

The significance of the length of term of indenture is apparent when it is realised the amount of manpower tied up in the apprenticeship system at any one time. Very few masters had no apprentice and many had more than one. Most manufacturing processes needed greater inputs of labour to raise productivity and a master could raise his output by training more apprentices. There were, however, risks with this policy as if the demand for a good declined the

master would have to continue to train and support his apprentices. At the end of their term of indenture, apprentices would then be free to set up in their own right and compete with their master. Some companies restricted the number of apprentices a master could have at any one time in consequence of such considerations, although evidence from Chester and Shrewsbury is inconclusive on this matter as the company regulations make no mention of the numbers of apprentices allowed.

Rather than being a simple case of a uniform seven year term, the issue is complex and important to an understanding of the training of labour in sixteenth and seventeenth century England.[11]

CHAPTER 4 - NOTES AND REFERENCES

1 TAWNEY, R.H. and POWER, E. (1924) Tudor economic documents, Longmans, p. 347

2 SMITH, S.R. (1973a) 'The London apprentices as seventeenth century adolescents', Past and Present 61, pp. 149-61

3 DAVIES, M.G. (1956) op. cit.

4 MERSON, A.L. (1968) op. cit., p. xix

5 JENKINSON, H. (1929) op. cit., p. x

6 Throughout this study, data are considered on two scales, first as a complete set formed by the amalgamation of the entries for all three towns, and second as sub-sets comprising the data for each individual town.

7 PEELE, M. (1939) 'Shrewsbury drapers' apprentices', Trans. Shropshire Arch. Soc. L, p. 3

8 The number of drapers' apprentices whose fathers were recorded as drapers almost certainly understates the proportion of company members who followed their fathers into the trade. Many drapers' sons could have obtained freedom without apprenticeship by patrimony or redemption. Moreover, only cases where occupations were definitely stated in the records have been included in the analysis. In some cases where no occupation was listed, the father's occupation could be derived from other sources (lists of Company officials, for example) and such entries have also been included.

9 MENDENHALL, T.C. (1953) op. cit., p. 92

10 TAWNEY, R.H. (1972) 'The assessment of wages in England by the Justices of the Peace', in MINCHINTON, W.G. (ed.) (1972) Wage regulation in pre-industrial England, David and Charles, p. 50; KELSALL, R.K. (1972) 'Wage regulation under the Statute of Artificers', in MINCHINTON, W.G. (ed.) (1972) op. cit., pp. 93-197 and WOODWARD, D.M. (1980) 'The background to the Statute of Artificers: the genesis of labour policy 1558-63', Econ. Hist. Rev. 2nd Ser. 33 No. 1, pp. 32-44

11 DAVIES, M.G. (1956) op. cit.

Chapter 5

SPATIAL MOBILITY

Migration was a vital engine of change behind the urban geography of England during the sixteenth and seventeenth centuries. It has often been assumed that an economy and society characterised as 'pre-industrial' or 'less-developed' would contain more obstacles to spatial mobility than opportunities for it. Slow and arduous transport, legal restrictions, limited personal means above what was needed for life's essentials and incomplete personal and corporate knowledge must have presented difficulties to those contemplating a move. Indeed, they must have reduced the proportion of the population whoever even entered into such contemplation. But whilst factors such as these cannot be dismissed altogether, mobility does seem to have been commonplace.

Far from being a society tied to particular locations, the people of Tudor and Stuart England were highly mobile. This was

> "... a condition stemming from the interplay of certain basic characteristics of that society: rarely were the basic units of production and consumption composed of extended families or kin groups; the institution of service provided a mechanism whereby adolescents left the parental household to work in the households of others; production was primarily for exchange rather than for use; individual rather than kin or family group inheritance of property was the norm; a good deal of individual choice in the selection of marriage partners was permitted and neolocal residence by the newly formed conjugal unit took place after marriage".[1]

Establishing the details of population mobility for this period requiries reliance upon evidence which is often fragmentary and nearly always indirect. Nonetheless, some remarkable rates of change have been detected: a 15 per cent turnover in Towcester Hundred between 1524 and 1525;[2] 50-60 per cent of the population of Clayworth in Nottinghamshire and Cogenhoe in Northamptonshire

changed over periods of about a decade in the later seventeenth century.[3] The more recent systematic use of parish registers has presented stronger evidence, with the technique of family reconstitution demonstrating that between 1600 and 1679 only 6.3 per cent of marriages were between parties who were both born in the same village, Bottesford Leicestershire, and just over a quarter of marriages involved couples of whom one was a village native.[4] Early modern England was, therefore, a society where population mobility was a common occurence.

Studies using twentieth century data sources of greater quantity and higher quality than those of early modern England have attempted to categorise different types of mobility. Similar attempts to differentiate between types of mobility in sixteenth and seventeenth century England (for example between 'betterment' and 'subsistence' mobility) have all stumbled against the problem of their consistent applicability. A more detailed discussion of these terms follows in a later section. Perhaps the best categorisation to use initially to organise data and thoughts is a simple four way scheme of rural-rural, rural-urban, urban-rural and urban-urban types of mobility.

The Relationship between Spatial Mobility and Distance

Measuring the distances moved adds the spatial component to migration. Distance is not itself a causal variable, but a reflection of many of the behavioural factors influencing migration. It does, however, directly influence many of the dynamic processes and is often used as a general surrogate for them, having the basic advantage that it can easily be measured. The most frequently quoted

of Ravenstein's 'laws' states that the majority of migrants move over relatively short distances.[5] What is meant by 'short' or 'long' does depend upon the scale of approach used, but the work already completed on migration in early modern England shows a clear consensus of opinion that substantiates Ravenstein's statement. Many studies using different data sources and for various dates from the twelfth to the eighteenth century confirm that short distance migration was overwhelmingly important. Tables 5.1, 5.2 and 5.3 summarise the results of a number of studies, most of which investigate immigration to an urban centre.[6] Data from Chester, Gloucester and Shrewsbury, stated both individually and collectively, have been added to the figures published by other scholars. The overwhelming feature of the table is the preponderance of short distance movements.[7]

Over 50 per cent of Romney's freemen in the fifteenth and early sixteenth centuries originated within 10 miles of the town; 45.2 per cent of the migrants to Canterbury, Faversham and Maidstone in the period 1580 -1640 came from within the same radius of each of those towns; in the late seventeenth century, 53 out of 68 immigrants to the parish of Eccleshall in Staffordshire came from places no further away than 20 miles, and of the apprentices indentured into the cutlery trades of the Sheffield area in the seventeenth and eighteenth centuries 44.9 per cent travelled between 5 and 10 miles. The amalgamated data of the three towns in this study conform to these findings; 21.2 per cent of the apprentices migrated from villages within 5 miles of the three towns and a further 23.8 per cent from places between 5 and 10 miles away.

Despite the overwhelming predominance of short distance migration, considerable distances were travelled by a minority of

Table 5.1 Migration distance: a comparison of six studies

Distance (Miles)	Aggregate Data Apprentices 1554-1649 %	Aggregate Data Apprentices 1554-1649 %	Romney Freeman 1433-1523 %	Canterbury Migrants 1580-1640 %	Sussex Depositions 1580-1640 %	Sheffield Apprentices 1624-1799 %	Vagrants 1598-1638 %	Aggregate Data Apprentices 1554-1649 %
0.1- 5.0	21.2	45.0	37.9	16.3	43.9	N.A.	26.2	72.3
5.1-10.0	23.8		12.5	30.0	15.1	44.9		
10.1-15.0	12.2	27.3	8.3	27.4	11.8	19.9		
15.1-20.0	15.1		4.8	7.5	11.8	8.5		
20.1-25.0	6.3	9.9	5.1	14.3	8.6	15.9	23.3	15.7
25.1-30.0	3.6		2.9					
30.1-35.0	3.4	5.8	0	1.5	4.0	4.3		
35.1-40.0	2.4		0					
40.1-45.0	2.5	4.7	0	3.0	4.8	6.5	13.8	6.7
45.1-50.0	2.2		0.3					
50.1-55.0	1.2	2.0	28.2				8.8	1.4
55.1-60.0	0.6							
60.1-65.0	0.4	0.9						
65.1-70.0	0.5							
70.1-75.0	0.1	0.5						
75.1-80.0	0.4							
Over 80.0	3.9	3.9					27.9	3.9

Table 5.2 Migration distance: a comparison between three western towns and three East Anglian towns

Distance (Miles)	Aggregate Data Western Towns %	Aggregate Data East Anglian Towns %	Chester 1555-1649 %	Gloucester 1595-1649 %	Shrewsbury 1554-1649 %	Norwich 1600-1649 %	Great Yarmouth 1563-1655 %	Ipswich 1596-1651 %
0.1- 4.0	15.4	6.2	11.4	19.1	10.5	5.0	6.5	6.8
4.1- 8.0	21.2	12.6	20.4	23.6	16.1	12.5	8.2	18.3
8.1-12.0	14.4	22.5	12.5	17.0	9.8	21.5	17.5	32.6
12.1-16.0	10.5	17.5	11.5	8.6	14.5	20.5	5.4	21.7
16.1-20.0	10.8	16.2	11.7	7.2	19.1	16.5	23.6	4.7
20.1-24.0	5.8	9.8	5.6	5.5	6.5	10.8	10.4	4.7
24.1-28.0	2.8	5.9	2.6	2.7	3.3	4.8	10.4	4.7
28.1-32.0	2.7	3.5	3.2	2.5	2.6	1.7	9.8	2.7
32.1-36.0	2.5	2.4	2.4	2.9	1.9	2.5	3.2	0.6
36.1-40.0	1.9	3.4	2.6	1.3	2.6	2.9	5.4	2.7
40 +	12.0	N.A.	16.1	9.6	13.3	N.A.	N.A.	N.A.
N	2049	909	504	1112	433	580	182	147

Table 5.3 Migration distance: a comparison between three western towns and Sheffield

Distance (Miles)	Aggregate Data Western Towns %	Sheffield 1625-1649 %	Chester 1555-1649 %	Gloucester 1595-1649 %	Shrewsbury 1554-1649 %
6-10	30.2	47.4	23.2	39.2	18.3
11-15	15.4	9.1	20.1	12.3	16.9
16-20	19.2	7.8	18.5	15.0	29.5
21-30	12.6	13.6	11.5	13.2	12.6
31-40	7.3	15.6	7.7	7.1	7.1
40 +	15.3	6.4	19.0	13.2	15.6
N	1611	295	427	818	366

migrants. Small but significant numbers made journeys of over 50 miles: 6.5 per cent of apprentices in the Hallamshire cutlery trades and 12 per cent of the apprentices moving to Chester, Gloucester and Shrewsbury did so. Long distance links (over 40 miles) have also been noted by Patten in the case of apprenticeship migration to Norwich, Great Yarmouth and Ipswich. The townspeople of Romney seem to have been very welcoming to migrants coming from over 50 miles away, because 28 per cent of the town's freemen travelled over these comparatively 'long' distances. The records of vagrancy also show that long distance mobility was common for this particular and distinctive group of people, of whom 36.7 per cent were recorded as moving more than 60 miles. Records of vagrant moves are, however, not precise as to the details of vagrant mobility. Many vagrants may have been picked up in a town at some distance from their place of origin but several moves might have been made between these two points. Apprenticeship migration was, in contrast, nearly always 'one-step'.

The dominant influence on the national pattern of long distance migration was London. The pull of the capital was felt even in the most distant areas of the country, and its massive growth in the seventeenth century was only made possible by the absorption of half the natural increase of the population of provincial England.[8] It has been noted in many situations that flows of migrants between towns appeared to be directly related to the size of the towns involved and inversely proportional to the distance separating them. By the late nineteenth century Ravenstein had incorporated similar ideas into elementary 'laws' of migration. These ideas draw on the relationships formalised by Newton in his laws of universal

gravitation. This states that the two bodies attract each other in proportion to the products of their masses and inversely with the square of the distance between them.[9]

That London should attract people from distant places was in no small measure due to the primate position the capital occupied in the urban hierarchy. In 1600 London's population of about 200,000 was some 20 times the size of the next largest city, Norwich. In 1650, 7 per cent of the total population of England lived in London; by 1750 this proportion had risen to 11 per cent. A magnet of such size would exercise an effect in all aspects of the nation's life, social, demographic, economic and political. Wrigley has suggested that as many as one in six of the total population spent some time in London.[10] Even in the small Shropshire village of Myddle, one in six of the families at the end of the seventeenth century had at least one member who had spent some time in London.[11] A measure of the importance of the scale of organisation centred around the capital, as exemplified by population migration, indicates clearly the way London integrated and stimulated growth within England during the sixteenth, seventeenth and eighteenth centuries.

In the same manner, the other cities and towns of England acted as centres of attraction, though over spheres that were smaller than that of London in proportion to their size. The scale of activity was not as great as that working through London, but the difference was essentially one of degree and not of kind. The population of the areas surrounding the larger towns such as Norwich, Bristol, Newcastle, York, Exeter; the medium sized towns such as Chester, Gloucester, Shrewsbury, Worcester and Oxford, as well as smaller urban communities such as Banbury, Chelmsford, Northwich, Wigan

Ludlow and Tewkesbury, saw these settlements as points of opportunity. The volume of migration and the distances travelled do appear in a large part to be some function of the population size of the settlement. The small market town had a localised and restricted sphere of influence; the county town or regional capital had a source area of intermediate size, whilst London drew on the whole country.

The Aggregate Data

Research into pre-industrial England is often forced to depend upon data sources which are inconsistent in content and unsynchronised in time. This can result in samples which if strictly comparable are small, and therefore conclusions must be either tentative or misleading. Even though the number of cases is large and the sources are comparable the sample sizes are unfortunately small in some parts of this study, especially in the analysis of some occupational categories when only one town is being investigated. This is one of the reasons why a large data set was created by combining the data from Chester, Gloucester and Shrewsbury. The data from the three towns yielded a summary of 3679 individual indentures. Of these, 32.9 per cent were native to the town in which they were indentured (1211 out of 3679), whilst a further 11.4 per cent had no locational information recorded about them (421 out of 3679). This left a sample of 2049 indentures upon which to base the discussion concerning migration distances.

The bias towards short distance movement is clear, with nearly three quarters (72.2 per cent or 1480 out of 2049) of the apprentices moving distances of less than 20 miles. (Table 5.4)

Table 5.4 Aggregate data: Migration distance

Distance (Miles)	n	%	Cumulative %
0-10	921	45.0	45.0
11-20	559	27.2	72.2
21-30	204	10.0	82.2
31-40	117	5.7	87.9
41-50	97	4.7	92.6
51-60	40	2.0	94.6
61-70	19	1.0	95.6
71 +	90	4.4	100.0
N	2047	100.0	

Within these 20 miles radii of the towns, the zone extending to 10 miles was especially important because from it came just under half (45.0 per cent or 921 out of 2049) of all the apprentices. Beyond that distance, as the length of journey increased, the numbers of apprentices decreased. In contrast to the large numbers of apprentices travelling short distances, a small number moved very long distances, producing the long 'tail' characteristic of many pre-industrial migration patterns.[12]

It is difficult to compare these findings with the results of other research because different data sources apply to different and distinctive subgroups of the population, making it extremely difficult to be confident of drawing valid comparisons. Some sources are age and sex selective and often also selective according to socio-economic status. The synthesis required to build up a general picture of the overall pattern of movement is therefore often difficult to achieve. This particular study is specific as to the type of movement investigated, namely the movement of trainee labour to towns, and the only permissible comparisons are with studies using similar data sources, of which there have been two substantive instances. One looked at the patterns of apprenticeship migration to three East Anglian towns, Norwich, Great Yarmouth and Ipswich, and the other was a study of immigrant apprentices into Sheffield.[13] Another potential problem of comparison amongst sources is that of their dates, but the studies just cited have a significant degree of overlap with the data from Chester, Gloucester and Shrewsbury, which facilitates comparison.

The other main group of problems in comparing the results of other studies with my own is concerned with their methodology. Most

frequently, the values of the bands used in the classification of distances differ, which make direct comparison difficult if not misleading.[14] In addition, the variety of occupational classifications used can cause serious problems: the difficulty in unambiguously and consistently placing craftsmen who retailed as well as manufactured goods has been solved in different ways by different people, and so have the problems that abound when attempting to distinguish categories at the higher levels of the social hierarchy.[15] With these problems in mind, I attempted to maintain as great a degree of flexibility as possible within the categories used in the analysis. The facilities offered by the computer greatly aided this aim, allowing distance bands and occupation codes to be recoded and combined into different categories at will. For example, although my own analysis used distance bands of 10 miles extending to 70 miles, distances greater than this being combined in one band of over 70 miles, Patten's study of three East Anglian towns used bands of 4 miles in width extending up to a radius of 40 miles beyond which distances were not calibrated. Patten's system of distance classification could be, and was, used on the Chester, Gloucester and Shrewsbury data for comparison between East Anglia and the west.

Comparison with Norwich, Great Yarmouth, Ipswich and Sheffield emphasises that the preponderance of short distance movements amongst apprenticeship migrants was not unusual, and small differences between the patterns afforded by my data and those with which they have been compared seem quite readily explicable in terms of differences between source materials or urban economies. Whether or not the aggregate pattern for Chester, Gloucester and Shrewsbury

is a statistical chimera, made up of three diverse sets of data, will be revealed in the following sections of the chapter, in which the data for each town are separately analysed.

Chester

Of the 933 individual entries in the company and mayoral registers used for Chester, just over a quarter concern native young men (254 out of 933), and with a further 18.8 per cent (175 out of 933) recording no locational information, a sample of 504 migrant apprentices (53.8 per cent of the total) was left for analysis. (Figure 5.1)

Whilst they broadly conform to the main observation of many other migration studies that short distance movements predominate, the Chester pattern displays some features which deviate from the general distance-decay expectation. (Table 5.5 and Figure 5.2)[16] The vast majority of apprentices did originate from places within a radius of 30 miles (77.3 per cent or 389 out of 504), with two-thirds of those indentured coming from places up to twenty miles away from the city. Thereafter, numbers fell dramatically with increasing distance. The distance-decay effect is least noticeable within the first 20 miles, the first two 10 mile bands recording similar number of apprentices. The three distance bands (between 20 and 50 miles) record numbers of apprentices of the order of 5 to 7 per cent of the total, before the numbers moving drop to less than 5 per cent between 50 and 70 miles. The table indicates a rise in numbers in the last category, but as this band includes the vast area that lies more than 70 miles from Chester, an increase would be expected. The pattern for Chester is therefore one that is a stepped, rather than a continuous, decline in numbers with increasing

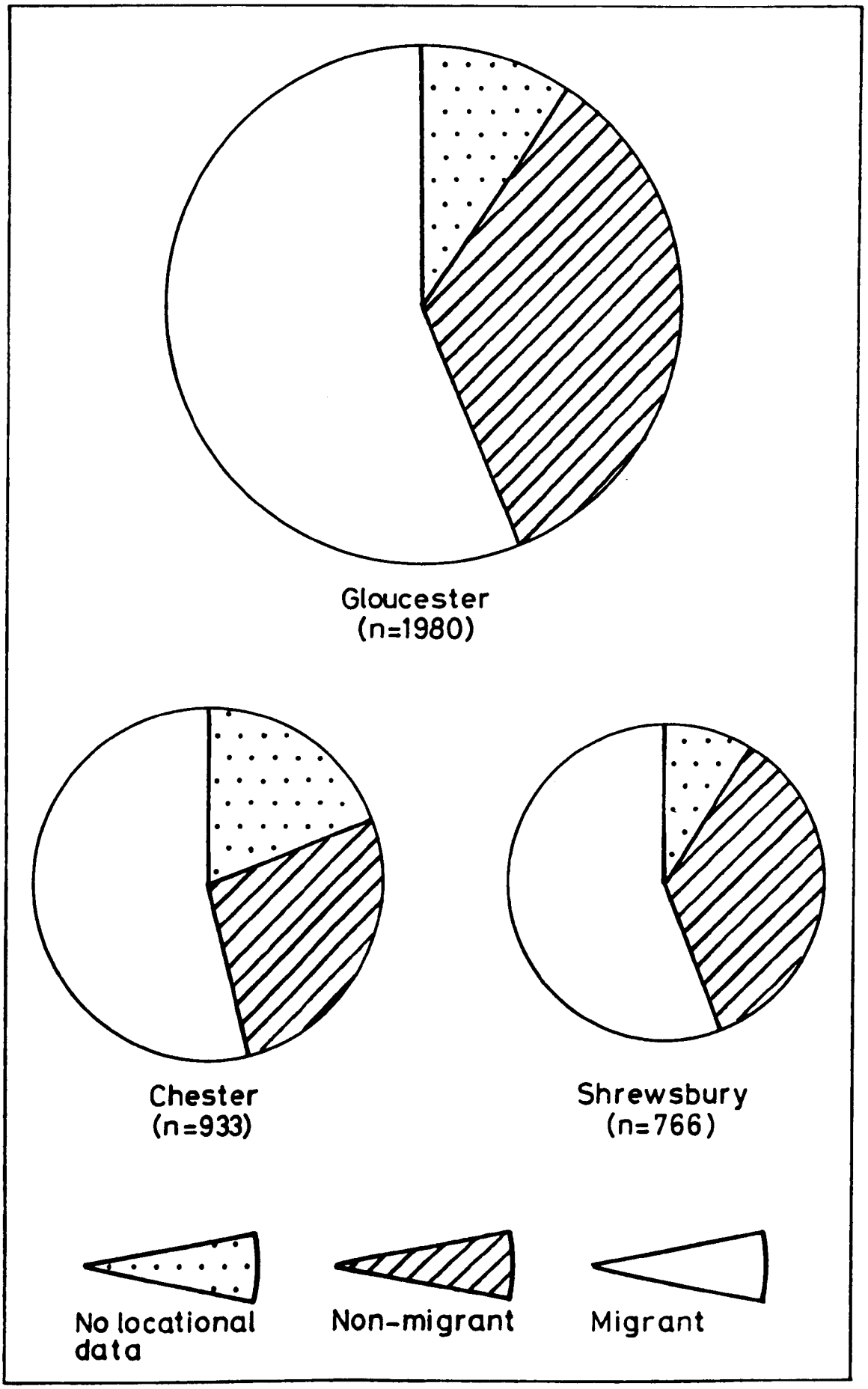

Figure 5.1 Migrant and non-migrant apprentices

Table 5.5 Chester: Migration distance

Distance (Miles)	n	%	Cumulative %
0-10	176	34.9	34.9
11-20	163	32.5	67.4
21-30	50	9.8	77.2
31-40	34	6.6	83.8
41-50	31	6.2	90.0
51-60	14	2.8	92.8
61-70	7	1.4	94.2
71 +	29	5.8	100.0
N	504	100.0	

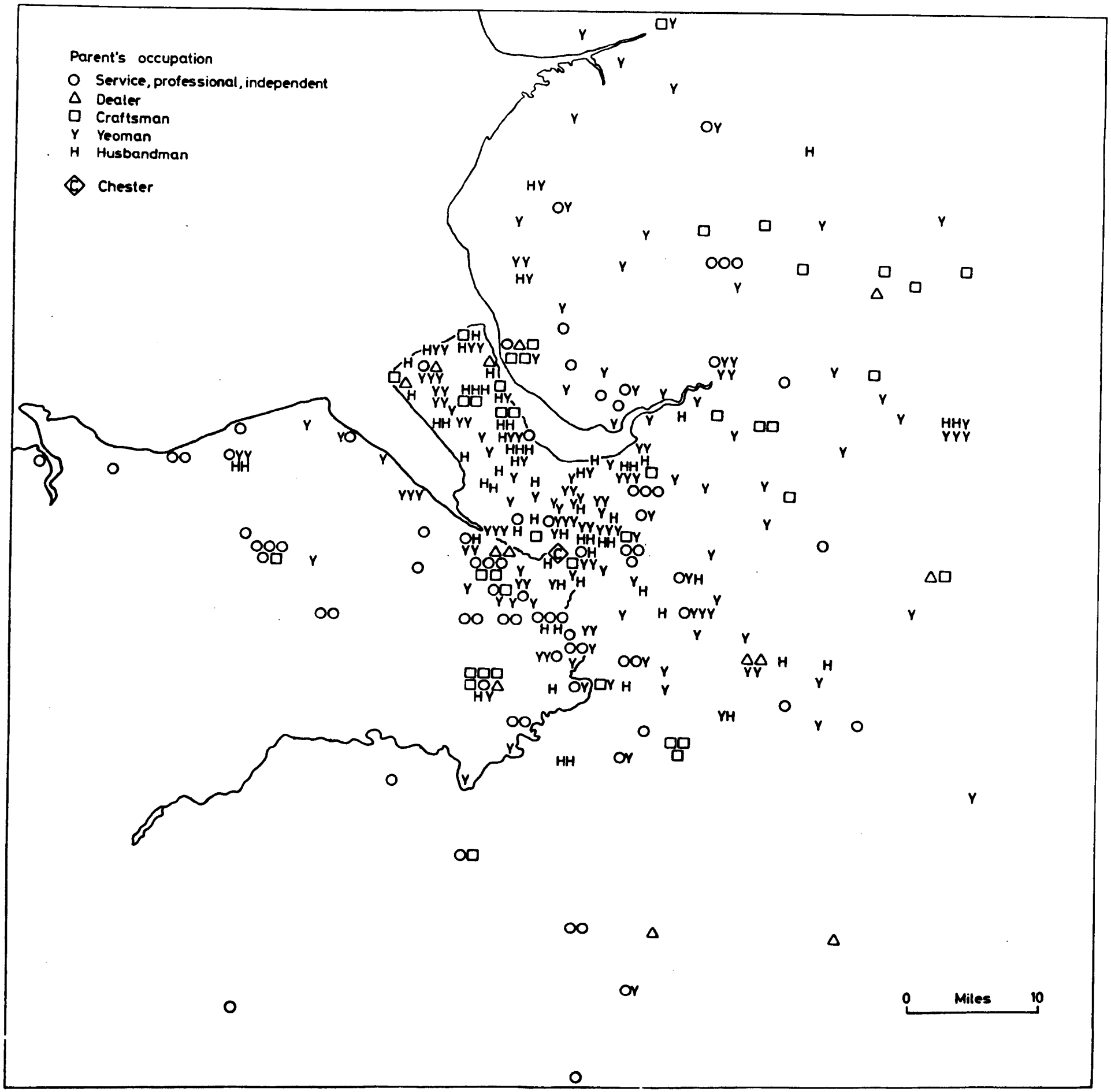

Figure 5.2 Chester: the places of origin of migrant apprentices

distance from the city. Simple distance does not provide sufficient explanation for Chester's pattern, and possible contributory factors are included in the sections on direction, occupation and social status, and the summary and discussion attempt to account for the pattern.

Gloucester

The Gloucester register of apprentices is the most complete of those used in terms of locational details. Only 9.2 per cent or 183 out of 1980 entries either did not register the place of residence of the apprentices' fathers, or recorded a place that could not be found on a map. Of the remaining entries, just over a third represented young men training in their home town, (685 out of 1980), leaving a sample of 1112 upon which to base this discussion of spatial mobility, (56.2 per cent). (Figure 5.1)

The greater proportion of apprentices whose place of residence was given as Gloucester may perhaps be accounted for by the higher quality of the source materials. Place of residence was nearly always recorded, and the majority of omissions occur during the period 1610-1613 when the register in general deteriorates in completeness. This is associated with a change in handwriting, suggesting that the indifference of a particular clerk may have been responsible. The comparable figures of native apprentices are perhaps under representative in the case of Chester and Shrewsbury because many apprentices who had no locational information recorded were probably natives of the town: as they were already known to the company clerk and other people in the town, he may well have thought it unnecessary to record their place of origin.

The Gloucester data originate from a town book and the clerk would have known fewer of the apprentices registering their indenture. This may have encouraged the greater number of place of residence entries, which means that a smaller proportion of the entries had no locational information. In Chester and Shrewsbury apprenticeship registration lay in the hands of the various company clerks. Their diligence may have relaxed when the apprentice was the son or relation of a company member, resulting in some information being omitted from the register. As these apprentices' fathers were company members their place of residence would have invariably been Chester or Shrewsbury. Thus the samples for these two towns perhaps underestimate the number of native apprentices. On the other hand in Gloucester the town authorities, being divorced to some extent from the apprenticeship system, were less inclined to skim over the biographical details and thus the entries in the town book tended to be more complete. This hypothesis is supported by the archivists of the representative record offices.

An overwhelming bias towards short distance movements is the major characteristic of the Gloucester data. (Table 5.6 and Figures 5.3, 4 and 5) Over half of the apprentices came from less than 10 miles away, with a further 20 per cent from places between 10 and 20 miles. The longer distances were travelled by decreasing numbers of apprentices. As for Chester and Shrewsbury, the region within 20 miles was the most important in quantitative terms for the recruitment of apprentices. Gloucester, however, had a spatially more restricted sphere of influence within the 20 mile band than did either of the other two towns. Beyond this watershed the characteristic long 'tail' of pre-industrial migration patterns was

Table 5.6 Gloucester: Migration distance

Distance (Miles)	n	%	Cumulative %
0-10	615	55.3	55.3
11-20	224	20.2	75.5
21-30	108	9.7	85.2
31-40	58	5.2	90.4
41-50	43	3.9	94.3
51-60	15	1.4	95.7
61-70	7	0.7	96.4
71 +	42	3.6	100.0
N	1112	100.0	

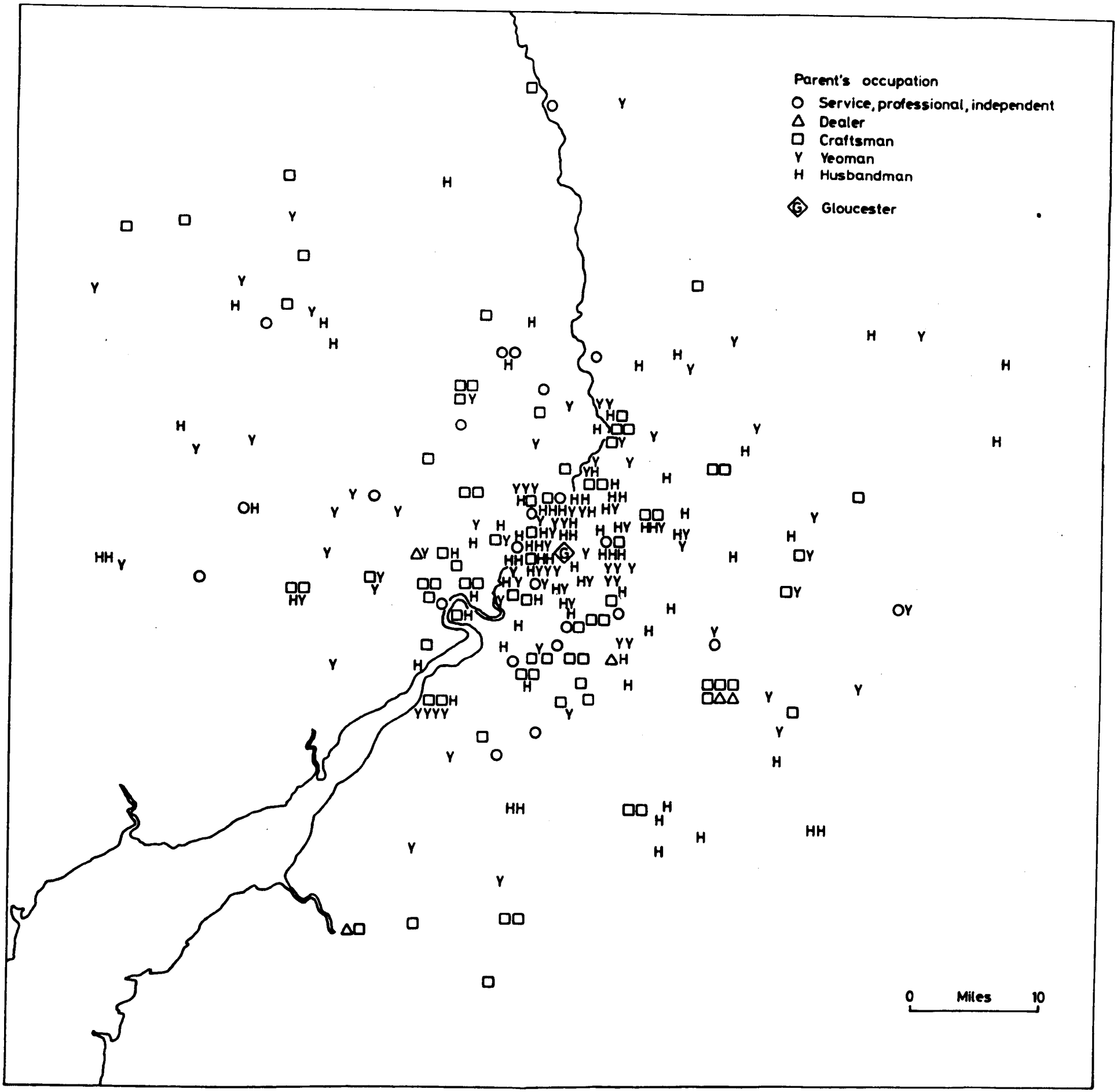

Figure 5.3 Gloucester: the places of origin of migrant apprentices 1595-1609

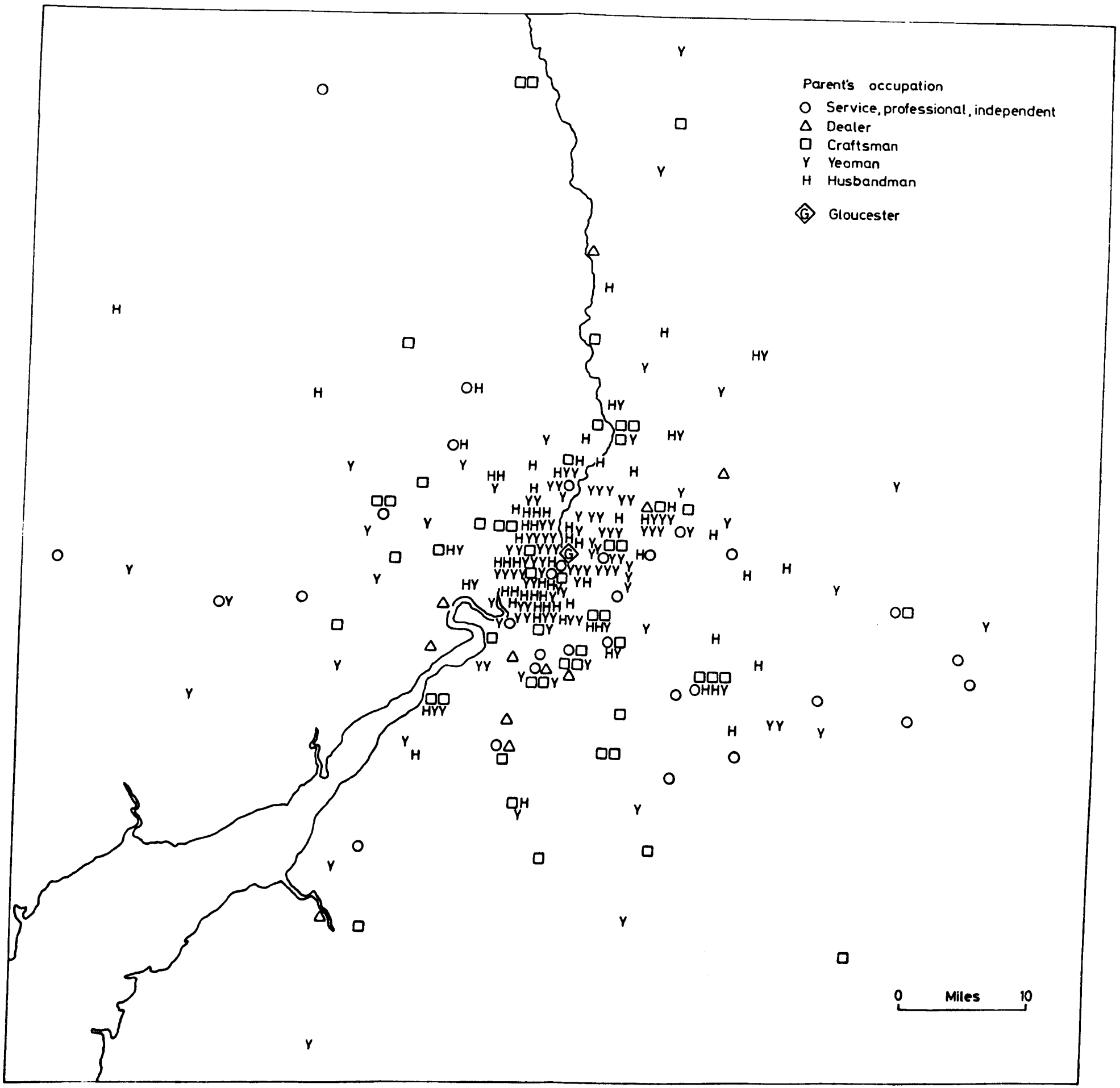

Figure 5.4 Gloucester: the places of origin of migrant apprentices 1610 - 1629

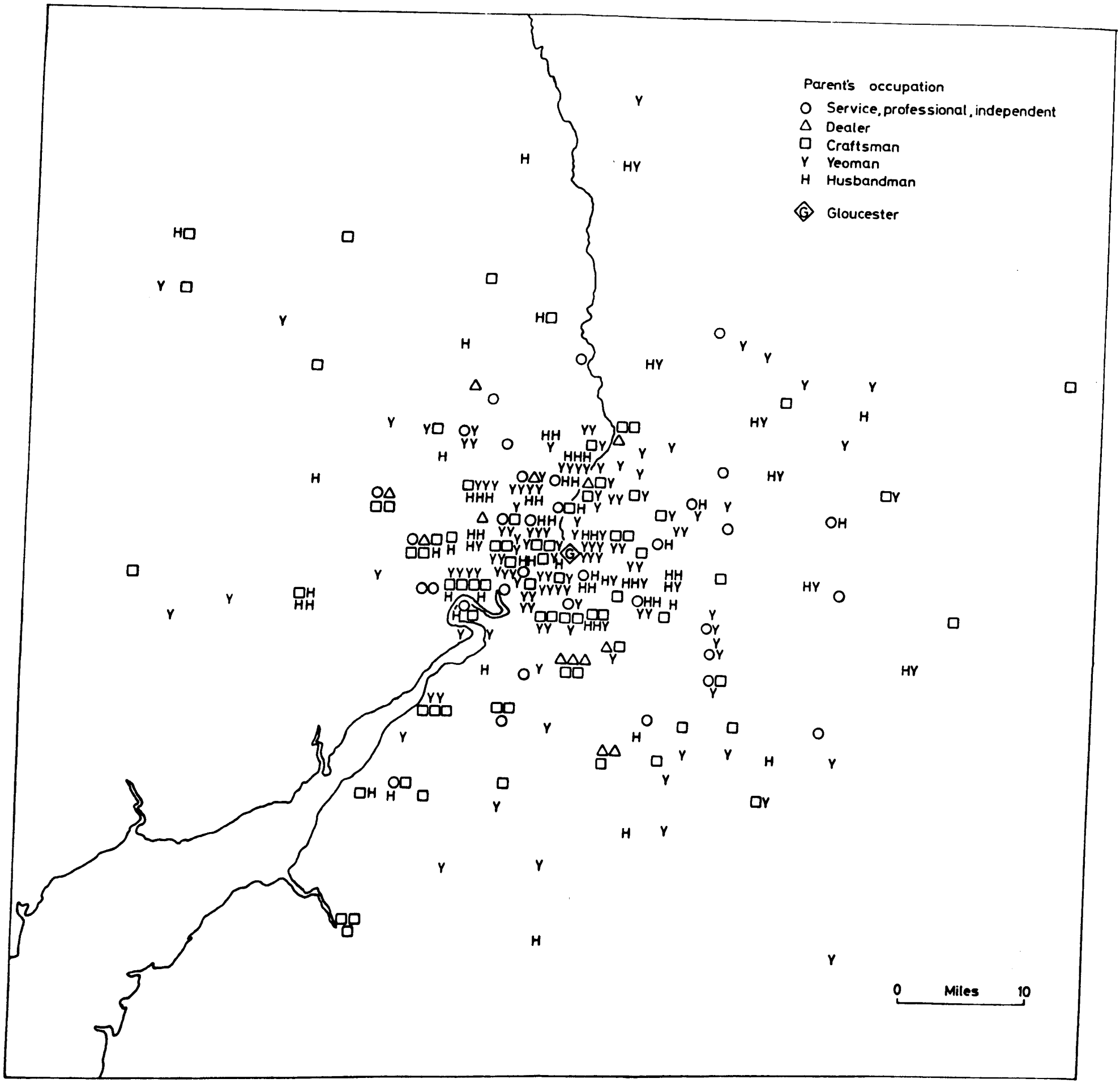

Figure 5.5 Gloucester: the places of origin of migrant apprentices 1630-1649

observed and was of a similar nature to those of Chester and Shrewsbury.

Shrewsbury

The surviving apprenticeship registers for Shrewsbury record details concerning 766 indentures during the selected time span. 8.7 per cent (73 out of 766) include no locational information, and 35.2 per cent (272 out of 766) represent native apprentices, leaving a sample of 433 apprentices upon which the analysis of migration patterns is based. (Figure 5.1)

As for Chester and Gloucester, the predominant feature was a strong distance decay function, with the majority of apprentices moving only short distances and a very small number moving long distances: just under three-quarters of the migrant apprentices travelled less than 20 miles (304 out of 433), and under 5 per cent made journeys of over 71 miles (19 out of 433). (Table 5.7 and Figure 5.6) Within a 20 mile radius of the city, the area between 10 and 20 miles supplied more apprentices than did the area immediately surrounding Shrewsbury. The Shrewsbury data, however, deviate from the 'normal' migration distance decay function, as the zone between 10 and 20 miles supplied more apprentices than the first ten mile distance band. Beyond 20 miles, numbers of apprentices fall consistently apart from the increase in the last distance band due to its vastness of area and therefore potential migrants. With the increase in numbers rather than decrease over the first 20 miles, variables other than distance must be looked to for explanation of Shrewsbury's pattern of apprenticeship migration.

Table 5.7 Shrewsbury: Migration distance

Distance (Miles)	n	%	Cumulative %
0-10	132	30.3	30.3
11-20	172	39.6	69.9
21-30	46	10.7	80.6
31-40	26	6.1	86.7
41-50	22	5.1	91.8
51-60	10	2.3	94.1
61-70	6	1.4	95.5
71 +	19	4.5	100.0
N	433	100.0	

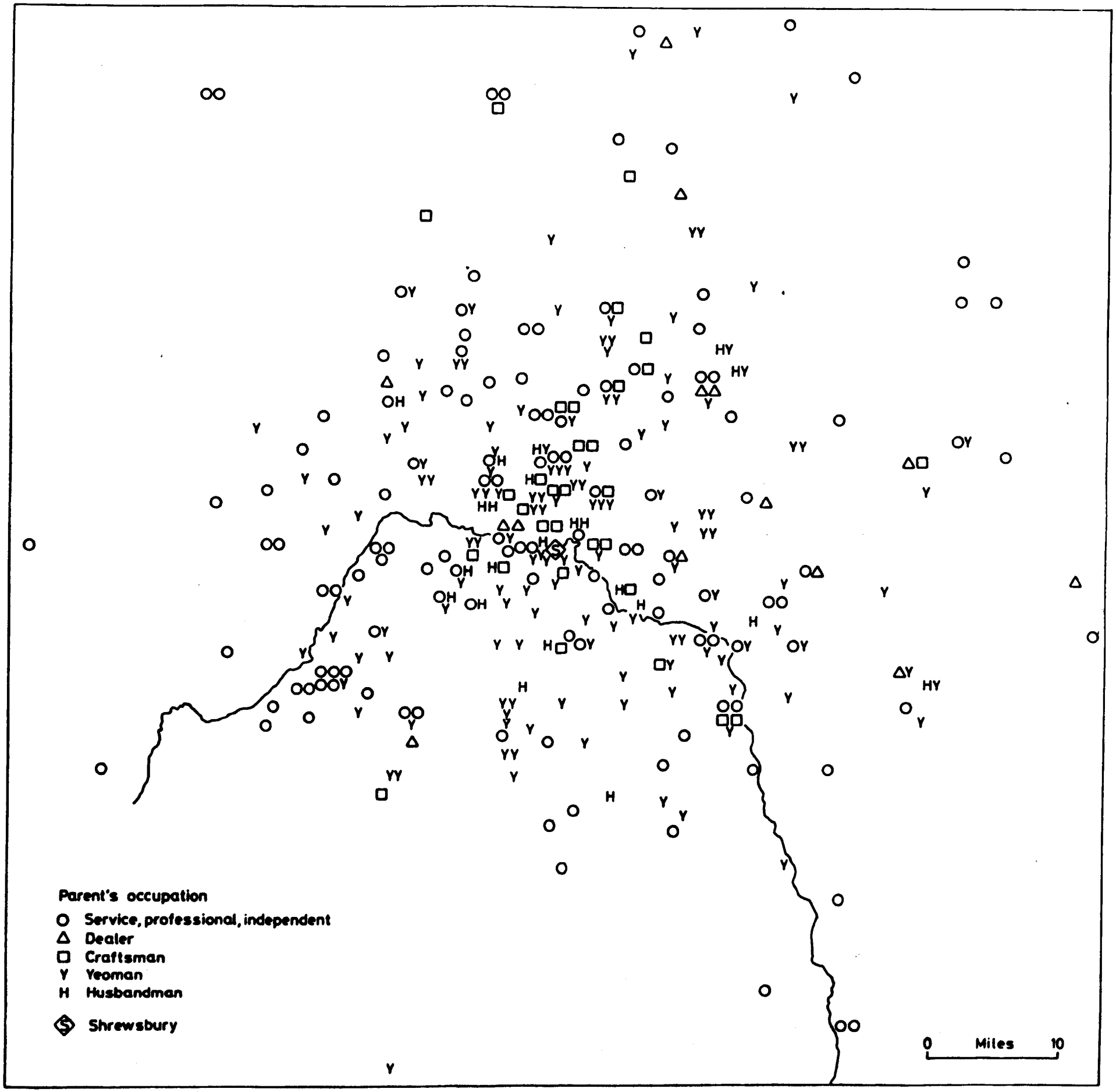

Figure 5.6 Shrewsbury : the places of origin of migrant apprentices

The Relationship between Spatial Mobility and Direction

The incorporation of directional trends to the analysis of patterns of population movements adds substance to the outline given by distance alone. It allows particular associations between places to be identified and subsequently aids in any assessment of the role of economic, social, demographic or political forces on the patterns of migration.

Whether relatively more or less migrants came from a certain direction is often discussed qualitatively but rarely quantified. I attempted a crude form of numerical analysis by dividing the area around each town into four quadrants, using the four cardinal points as the references for straight lines passing through the town centre. The number of apprentices moving from each quarter was recorded and the totals used to see if there was any directional bias in the migration patterns. The Chi-squared test compared the distribution observed against an assumed even spread of apprentices over the region surrounding each town.

One of the consistent conclusions concerning migration patterns in pre-industrial England has been that the majority of people moved from the north and west to the south and east. In particular, migrants moved from upland northern and western counties where environmental conditions were sufficiently difficult to encourage people to seek out an opportunity elsewhere. Not that the flow of migrants entirely comprised poor people from rural parishes because individuals from a variety of socio-economic classes and from urban settlements also contributed to the trend.[17]

This pattern is, however, hardly surprising for London, the capital city, focus of economic, social, religious and political

life in England and Wales, 'the great Wen', is located in the south-east corner of the country. London was the single greatest opportunity in the country for making a living on both sides of the law. Its influence permeated through every county, provincial capital, county town, market town and village. Wherever the capital had been located, the directional trend for the national pattern of movement would be towards that point. Had the capital been located in the midlands, then the directional forces perhaps would have been more evenly spread around the compass points. As the capital was located on a river estuary in the south-east, a far greater number of the potential migrants were inevitably located to the north and west.

At a more restricted scale, migration to the large towns also tended to be from the north and west. Here again, a methodological problem arises as most of the towns so far studied have tended to be located towards the south and east, which would inevitably bias the conclusion. Rural-urban migration within the northern and western areas has undergone relatively little investigation and one of the aims of this study has been to look at the relationship between spatial mobility and direction for Chester, Gloucester and Shrewsbury. Migration patterns to towns located in the north and west, in particular in the industrial areas of the eighteenth and nineteenth centuries, are important in contributing to an understanding of the changes in scale and nature of spatial organisation consequent on industrialisation.[18]

The Aggregate Data

The summary results for directional bias show that the two northern sectors were almost equally important as source areas for apprentices,

together accounting for over half of the migrants. North of the three towns lay upland areas such as the Cambrian Mountains and the Pennines, where making a living from agriculture was precarious and whence sons or even the head of the household could have viewed with some degree of expectation the opportunities in the towns. The proximity of the Welsh border did not seem to emphasise a western flow of migrants. This may be due to the predominance of short distance migrations (less than 30 miles), which meant that the majority of apprentices were not from the upland areas anyway. Instead, they came from the multitude of small settlements surrounding the three towns located throughout the comparatively lowland landscape of Cheshire, Gloucestershire and Shropshire. The least important sector in terms of numbers was the south-west, although in the Gloucester data this was the most important.

The Chi-square test showed no significance at the 0.05 level but it was significant at the 0.1 level. The following sections in which the data are disaggregated and examined separately for the three towns attempts to find out why there were some significant differences between the four sectors.

Chester

The distance decay pattern characteristic of the migrations of apprentices to Chester is evident in all directions from the city. (Figure 5.2) There were, however, interesting deviations from the trend, which, whilst not contradicting the broad pattern, do require explanation.

The sector from which the greatest numbers of apprentices were drawn was the north-east, with just over 30 per cent. (Figure 5.7)

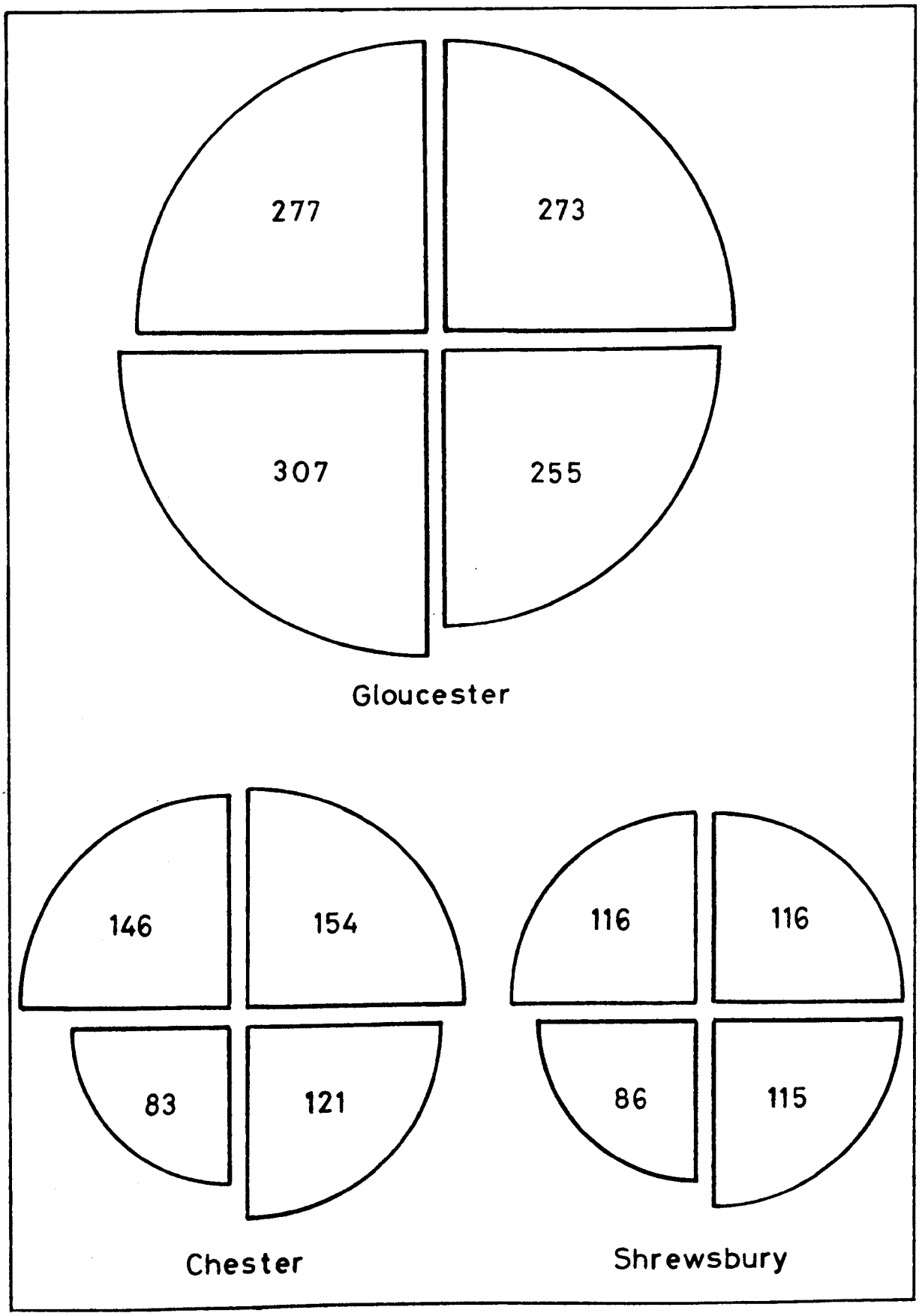

Figure 5.7 The influence of direction

Of only slightly less importance was the north-west sector which contributed 29.2 per cent, whilst the south-east sector supplied 24.1 per cent. The least important area in terms of numbers was the south-west sector, which provided only 16.3 per cent of the migrants.

Distance decay relationships, as well as numerical aggregates, also varied between quadrants. In the immediate vicinity of Chester, the north-east sector was the most important with apprentices coming from villages such as Upton, Mickle Trafford and Guilden Sutton. The second most important sector between these distances was the south-west. This was probably a function of the more densely populated area around villages such as Doddleston, Kinnerton and Mancott, a mixed farming area that was comparatively prosperous.[19]

At distances of around ten miles the south-east sector provided the largest number of apprentices from small settlements such as Bunbury, Tarporley and Tilston. At a similar distance to the north-west lay the area which included the southern part of the Wirral peninsula and the town of Flint on the River Dee's western shore, both of which contributed significant numbers of young men. The presence of Delamere Forest, with its more sparsely settled population, accounts for the decline of the north-east sector's role and at this distance to the south-west only Wrexham provided a concentration of population of about 1500 from which apprentices might move.

By around 20 miles from Chester, the north-west sector was clearly established as the main provider of Chester's immigrant apprentices. This area included the cluster of villages in the northern half of the Wirral, Heswall, Hoylake and Wallasey for

example. Even Liverpool contributed some young men to Chester's economy although it was not long before the roles reversed, as Liverpool assumed the position of main port and urban and industrial centre for this region of England and North Wales. North-east of Chester lay the agricultural area of the Cheshire Plain around the market towns of Northwich and Knutsford and the south-western part of Lancashire along the northern bank of the River Mersey. Although most of the market towns sent few apprentices in proportion to their size, perhaps offering sufficient opportunities themselves, the rural areas around them did send people to Chester to learn a craft. The established market town of Warrington sent a few young men to Chester for apprenticeship, a balancing example of urban-urban migration in what was otherwise a predominantly rural-urban pattern of movement. To the south-east and west, this latter type of migration accounted for nearly all apprentices, particularly in the south-western sector, where, as distance from Chester increased, more upland pastoral areas of Wales, the Clwydian and Berwyn mountain ranges and the Denbigh moors were included.

Beyond about 25-30 miles from Chester, the number coming from each sector is small. To the south-east, numbers drop sooner than in other directions, a function probably of the competing influence of Shrewsbury and the Black Country. The north-west and north-east again provided the most apprentices, these coming from along the North Wales and Lancashire coasts, probably as a result of coastal shipping contacts, and scattered over north-west England in general.

Gloucester

The main element in the directional tendencies of the migration

pattern of apprentices to Gloucester is the rough equality in the numbers supplied by each of the four sectors. (Figures 5.3,4,5 and 7) Over the 55 year time period the south-west did supply slightly more young people than any of the other three sectors, with the north-west, north-east and south-east following in descending rank order. This directional pattern is perhaps in part a reflection of the localised nature of Gloucester's sphere of attraction. Within a 5 mile radius of Gloucester, a number of small villages in all directions sent apprentices; Hardwicke and Quedgeley to the south-west; Maisemore and Tibberton to the north-west; Badgeworth and Norton to the north-east and Upton St. Leonards to the south-east.

Cheltenham, only 8 miles to the north-east, sent only a few apprentices to Gloucester, relative to its size, repeating the feature of marked rural bias noted in the discussion of Chester. Generally it was the multitude of villages scattered thinly around Gloucester in all directions along the valleys of the Severn and Avon, and in the 'upland' area of the Cotswolds and the Forest of Dean, which contributed towards this pattern of uniform attraction in all directions. Certain directional flows can be seen, for example, along the Severn, following the direction of trade, from settlements such as Tewkesbury, Upton-upon-Severn and even the major regional centre of Worcester. The proximity of the Forest of Dean to the south-west, with its emphasis upon charcoal burning and iron production, led to links with Gloucester and its metal workers being expressed in apprenticeship migration. The textile producers of the Cotswold region to the south-east sent young men to be apprenticed in Gloucester, too, although movement from this sector was the least important numerically, a possible indication of the employment

opportunities available within the Cotswolds, the paramount cloth manufacturing area in England at the time.[20]

Further afield, the main source areas lay to the west, stretching into South Wales and throughout Herefordshire. Although Hereford provided some measure of intervening opportunity. Gloucester's more powerful pull did attract young men from this area; in fact, in comparison with both Gloucester and Worcester, Hereford was something of a backwater in social, economic, political and religious terms, although, being a county town, it did of course act as a regional focus to some extent. Bristol, to the south-west, offered a complete contrast, being the major provincial capital in South West England.[21] The distance between Bristol and Gloucester is only some 35 miles, and this could explain the absence of apprentices moving to Gloucester from greater distances in this direction. However, generally, from the north-west, east and south-east as well, only a small number of apprentices came to Gloucester from distances over 40 miles.

Shrewsbury

The directional trend for Shrewsbury is not dominated by any one sector. (Figures 5.6 and 7) The North-east, south-east and north-west sectors account for 80 per cent of the apprenticeship migrations, the south-west sector supplying the least, the remaining 20 per cent. The former proportion was, however, more equally shared among the three sectors, compared with the Chester and Gloucester patterns, each of the three sectors supplying about 27 per cent. It is interesting to note that significant numbers of young people moved south from north of Shrewsbury, a direction in

which the competing influence of Chester must have been felt. Similarly, movement north from south of Shrewsbury would have been influenced by the pull of centres such as Worcester, and the West Midlands centred on Birmingham.

The tendency for the three sectors to display equal importance exists at virtually all distances from Shrewsbury, the south-west supplying the least number of apprentices in every case except over distances of less than about 10 miles. In this area settlements such as Moele Brace, Pulley and Handwood gave rise to more apprentices than was usual in this direction.

The roughly equal directional importance of the north-east, south-east and north-west sectors is perhaps an indication of the lack of physical barriers, although the upland area of the Cambrian Mountains lies north-west of Shrewsbury. In this direction, numbers were maintained by small clusters of apprentices coming from towns such as Chester, Denbigh and Dolgellau, an indication, perhaps, of the links established as a result of Shrewsbury's key role in the cloth trade, much of which emanated from Wales. To the east the pattern was one of more dispersed places of origin, a reflection in part of differences in population distribution. It might also have been due to the more widespread social and economic links between Shrewsbury and this eastern area, from where the largely agricultural community looked to Shrewsbury as their principal market and service centre.

The social and economic contacts that were well established between the "economically anglicised" lowlands of the Severn Valley around Montgomery were reflected in the considerable numbers of apprentices moving from these areas.[22] Welshpool with about 500

inhabitants in the mid-sixteenth century and Montgomery with some 300 people represent examples of 'urban' settlements in the Welsh Marches maintaining their links with Shrewsbury via apprenticeship migration.[23] This contrasts with the rural bias of apprenticeship migration in general. Examples of urban-urban moves were also recorded to Gloucester and Chester, mainly from market towns comparable in size to Welshpool and Montgomery. The problem in defining 'urban' makes comparison of respective proportions of urban and rural migrants difficult between the three cities. It seems, however, that the rural bias of migrants to Shrewsbury was less marked than was the case for Chester and Gloucester. This could be due to the social bias of Shrewsbury apprentices towards the higher status occupations, in particular, dealing and the Drapers' Company. Dealing was urban-based and as many apprentices remained within comparable socio-economic groups, migrants in dealing occupations tended to be urban-urban.

To the north-west the market town of Oswestry (for a period Shrewsbury's point of exchange with the textile producers of Wales) sent apprentices, as did other market towns such as Market Drayton, Whitchurch and Prees. Intrusion of Shrewsbury's sphere of attraction into the western part of Staffordshire was perhaps an early sign of the beginning of the decline of Stafford.[24]

The Severn Valley was an important routeway during the sixteenth and seventeenth centuries, with Severn trows transporting goods and people between Shrewsbury and Worcester, Gloucester and Bristol. It is not surprising, therefore, to find apprentices coming from settlements along the Severn, although the developments of the late seventeenth and eighteenth centuries in and around the Ironbridge Gorge were eventually to claim these people for itself.

Beyond about 50 miles, numbers of apprentices were at the low level characteristic of a strong distance-decay function. A few apprentices made their way from the Cheshire Plain, ignoring the attractions of Liverpool and Chester and the beginnings of growth in the South West Lancashire. The widespread potential for making a living in the Black Country was only just starting to develop, therefore the knowledge of these emerging opportunities would not yet have diffused over too wide an area.[25] Additionally, the attraction of being involved in the potentially lucrative Welsh cloth trade was still enough to make it worthwhile for young men to continue to go to Shrewsbury up to the middle of the seventeenth century.

The Relationship between Spatial Mobility and Social Status and Occupation

Migration may have been commonplace in early modern England, but the propensity to move was not shared to the same degree by all men. Some were more inclined to move than others; some moved long distances; some made only short journeys. Calculations based on a large number of pre-industrial listings indicate that the most mobile group in the population were servants, in particular servants in the age group of 15-25.[26]

Evidence has shown the proportion of servants' names appearing in two lists of consecutive years to be very low: persistence rates for servants in the seventeenth and eighteenth centuries were usually below 0.5 per cent.[27] Other low status groups such as wage earners were also amongst the most mobile members of society with a rate of migration some seven times higher than those taxed on goods or land.[28]

This does not necessarily mean that low status groups moved the long distances. Evidence from one source for three small towns in Kent does suggest an inverse relationship between status and distance,[29] but other studies using different records indicate the opposite was more common in pre-industrial England.[30] Table 5.1 represents the results obtained from a number of investigations using different sources which reflect variations of occupation and social status. The results are uniform in some ways: short distance moves predominated, and a characteristic long 'tail' of migrants existed. However, there are interesting variations within and between the groups isolated by these particular sources. Attention is drawn to this table only to give some parameters within which to view the results from this study of apprenticeship migration. The differences and similarities will be given a more thorough treatment in the summary and discussion section of this chapter.

The Aggregate Data

Taken as a homogenous group, apprentices can only be classified as 'betterment' migrants. The data from Chester, Gloucester and Shrewsbury, presented in the previous section without the compexities of occupational variation, illustrated the long distance nature of some moves. At this stage, the patterns discussed have been formed as a result of the aggregate activity of the complete sample of apprentices. It should be made clear, though, that these summary results have wide deviations around their means. The disaggregation of the apprentices into socio-economic groups reveals interesting differences amongst them. First, the apprentices will be discussed in terms of a classification according to the occupations of their fathers.

Combining the data for Chester, Gloucester and Shrewsbury, and selecting only those entries that include details of both the father's occupation and the place from where the apprentice migrated, makes 1729 individual entries available for analysis. The trend derived from this sample is unquestionably one of a positive correlation between distance migrated and social status. (Table 5.8) Whilst the dealing category moved longer distances than the service, professional and independent means group, the craftsmen, yeomen and husbandmen moved less than either of the first two groups. Although it cannot automatically be assumed that every dealer would have moved further than every craftsman, there is no denying the overall trend.

The main source of apprentices was rural, over one thousand being either the sons of yeomen or husbandmen, (698 and 351 respectively). The results show that there was a slight tendency for the sons of yeomen to move further than the sons of husbandmen, which might support the hypothesis that the former were of higher status than the latter, although the difference is not great.

Sons of dealers moved the greatest distances and were likely to travel more than twice the distance of craftsmen and two and a half times the journeys commonly made by yeomen and husbandmen. This possibly reflects the urban background of many of the dealers and, therefore, because towns were fewer and further apart, distances were automatically longer. The nature of dealing also necessitated wide-spread contacts which may also have encouraged longer distances as sons moved to business friends of their fathers in other towns.

The small number of dealers represented amongst the apprentices

Table 5.8 Aggregate data: Migration distance by parent's occupation

Distance (Miles)	Service Professional Independent		Dealing		Craftsmen		Yeomen		Husbandmen	
	n	%	n	%	n	%	n	%	n	%
0-10	93	27.5	21	27.6	109	41.0	338	49.4	211	60.1
11-20	109	32.2	22	29.0	79	29.7	188	27.5	77	21.9
21-30	47	13.9	7	9.2	32	12.0	59	8.6	21	6.0
31-40	22	6.5	5	6.6	21	7.9	35	5.1	15	4.3
41-50	31	9.2	3	3.9	5	1.8	32	4.7	10	2.9
51-60	14	4.1	1	1.3	5	1.8	10	1.5	3	0.8
61-70	6	1.8	1	1.3	3	1.1	9	1.3	1	0.3
70 +	16	4.7	16	21.0	12	4.5	27	3.9	13	3.7
N	338	100.0	76	100.0	266	100.0	698	100.0	351	100.0
Mean Migration Distance	25.0		39.2		20.4		16.5		14.5	

reflects their distribution throughout the economy. Dealing occupations were uncommon except in towns and specialist dealers were few in number, as many artisans were also retailers. In addition, dealers needed to have fairly close-knit associations with one another for their businesses to operate.

Craftsmen's sons were the second least numerous, although in absolute terms they were much more common in this sample than dealers' sons (266 compared with 76). Their mean migration distance represented a mid-point between dealers and yeomen and husbandmen. This probably reflects the craftsmen's socio-economic status, lower than the dealers, service, professional and independent means groups but higher than agricultural occupations. Also, as craftsmen were largely urban based, their distribution in geographically separate concentrations would automatically result in greater average distances than for yeomen and husbandmen who were more evenly distributed over the area. Most towns had a few craftsmen but only the larger towns, which were fewer in number and further apart, possessed dealers and service and professional groups, which meant these groups tended to record the greater average distances. It should not be forgotten that these are summary results not only for all three towns but also for all craftsmen. Undoubtedly the within-group variation would reveal more small-scale differences than are presented here. It cannot reasonably be assumed that all craftsmen were of a similar socio-economic status - pewterers and shoemakers, gold and silver smiths and bakers, for example. The craftsman category also includes many who retailed their own products, providing an area of work where they approached the function of dealers. These artisan-dealers might have established spatially wider contacts as a result

of their marketing activities.

The service, professional and independent means group represented apprentices sons of a higher socio-economic class than the other four groups and were the third most numerous group behind yeomen and husbandmen. As a group they tended to migrate further than the craftsmen yet not as far as the dealers. This is perhaps the most loosely bound group, comprising many sons whose fathers held the title 'gentleman'. This term held no precise definition but often implied the holding of an estate, and sons of such fathers were therefore part of the group of apprentices who came from a rural background. The service and professional sector was quantitatively small, in part a reflection of their generally low number throughout the economy and also perhaps due to the tendency for their sons to follow a similar occupation to their father, a choice that rarely necessitated the serving of a formal apprenticeship as entry to the company was available through patrimony. The growth in numbers of professional and service activities throughout the sixteenth, seventeenth and eighteenth centuries reflects the course of economic and social change, and perhaps if this study had been set in the second half of the eighteenth century more apprentices might have come from this socio-economic grouping. Those few apprentices whose fathers' occupations were in the professions or services tended to represent examples of migration from another urban centre. Their fathers' most likely place of residence would be at a central place where they could obtain the minimum threshold necessary for their specialised occupation.

Classifying the father's occupation on the basis of the raw material with which he mainly worked emphasises the importance of industries associatied with agriculture. (Table 5.9) The predominantly agrarian economy of the sixteenth and seventeenth centuries supplied raw materials, employment for urban and rural workers and essential consumer goods for both town and country dwellers. The most important raw material category was textiles, which was essentially concerned with woollen cloth production, for both the domestic and export markets. Fathers who worked in the leather industry were the second most numerous and "...there are good grounds for regarding this industry as second or third only to the manufacture of woollen cloth as an industrial occupation".[31] The third group comprised fathers employed in the supply of food and drink, either as manufacturers or retailers or both. This group was widespread throughout the economy as much of their activity concerned low order goods and services. Of the remaining raw material categories, most contained only a few cases with only the wood and iron workers each representing more than 1 per cent of the total sample of apprentices' fathers.

The mean migration distances show a remarkable degree of consistency amongst those categories with sufficient individual cases to give anything like a reliable figure. Just over 20 miles was the average distance travelled by apprentices from the main raw material categories. As the majority of apprentices came from families where the father was a yeoman, husbandman or a member of the service, professional or independent group, the remaining sample of craftsmen's or dealers' sons which could be placed in a raw material category was small (19.5 per cent or 336 out of 1723).

Table 5.9 Aggregate data: Migration distance by parent's occupation and raw material

Raw Material Category	n	%	Mean migration Distance (miles)
Wood	33	1.9	20.3
Leather	61	3.5	22.3
Iron	24	1.4	16.2
Non-ferrous metals	5	0.3	73.5
Earthenware & Glass	4	0.2	15.5
Glue & Tallow	3	0.2	13.3
Textiles	145	8.4	22.8
Food & Drink	47	2.7	23.9
Mixed	14	0.8	51.1
Agriculture	1049	60.9	15.5
Service, Professional, Independent	338	19.7	25.0
N	1723	100.0	

This meant that the number of individaul cases in some of the raw material categories was small and conclusions are therefore tenuous.

Classifying the distances migrated according to the apprentices' fathers' occupations does, of course, show the extent of the sphere of influence of each trade as organised from outside the town. It represents contact fields as defined by the activities of people from outside Chester, Gloucester and Shrewsbury. Reversing the approach, that is analysing the migration distances by dividing them up into categories based upon the masters' occupations, allows one to look at the town's spheres of influence as expressed by the contacts of the cities' craftsmen and traders.

The number of apprentices entering each of the three socio-economic groups indicates clearly that each of the town economies was based in processing and distribution. (Table 5.10)[32] 63.7 per cent were apprenticed to craftsmen (1228 out of 1927), 34.5 per cent to dealers (664 out of 1927) and only 1.8 per cent apprenticed in the service sector (35 out of 1927). Just under half (46.7 per cent) of all these apprentices were attracted from within the first 10 miles (899 out of 1927), with an additional 26.2 per cent travelling distances of between 10 and 20 miles (504 out of 1927). Thereafter, numbers fell, consistent with the distance decay model.

Disaggregation of the data down into the three basic occupational categories shows a tendency for craftsmen to draw their apprentices from slightly more spatially restricted areas than dealers. As craftsmen tended to attract their recruits from rural areas, distances moved by craft apprentices would almost automatically be smaller on average than those of dealers. It should be noted, however, that the differences between these two groups

Table 5.10 Aggregate data: Migration distance by master's occupation

Distance (Miles)	Service, Professional Independent		Dealing		Craftsmen	
	n	%	n	%	n	%
0-10	18		247	37.2	634	51.6
11-20	5		206	31.0	293	24.0
21-30	4		80	12.0	107	8.7
31-40	4		47	7.1	57	4.6
41-50	2		28	4.2	55	4.5
51-60	0		13	2.0	23	1.8
61-70	1		10	1.5	8	0.6
71 +	1		33	4.9	51	4.1
N	35		664	100.0	1228	100.0
Mean Migration Distance	19.2		21.9		17.8	

is not particularly great. This may be due to the craftsmen in the towns having to range over quite long distances to obtain raw materials in a similar manner to the dealers, whose widespread contacts were probably due to the long range and high threshold requirements of their trade. The similarity may also be due to many of the artisans practising some degree of retail function, thereby enabling them to establish these longer distance contacts. In both cases, however, the dominant feature is the restriction to settlements less than around thirty miles from which the majority of apprentices come.

Analysis based upon the raw material classification (Table 5.11) highlights the importance of the textile sector, with over 40 per cent of the masters involved in this area (771 out of 1899). This sector stands out partly due to the inclusion of Shrewsbury, whose economic base was heavily dependent upon the Welsh cloth trade (and for which only the Drapers' Company apprentices were available). The second most important raw material category was leather, and this illustrates well the part this material played in the pre-industrial economy. Not only was leather used to provide articles of dress (shoes, belts, hats, coats), but also many manufacturing processes used leather (for bellows, drive-belts, buckets). 21.9 per cent of the craftsmen were employed in occupations using leather (415 out of 1899). Leather and leather goods were made throughout England but it was primarily an urban occupation since the raw materials were available as a by-product of meat provisions and towns were important markets for leather goods.[33] The third most important category was food and drink (11.3 per cent or 214 out of 1899). Occupations such as baker, brewer or butcher were commonplace in pre-industrial towns,

Table 5.11 Aggregate data: Migration distance by master's occupation and raw material

Raw Material Cateogory	n	%	Mean Migration Distance (Miles)
Wood	155	8.2	22.1
Leather	415	21.9	16.8
Iron	102	5.4	20.1
Non-ferrous metals	64	3.4	21.1
Earthenware & Glass	33	1.7	28.9
Glue & Tallow	43	2.3	19.4
Textiles	771	40.6	19.7
Food & Drink	214	11.3	16.0
Mixed	66	3.4	28.4
Service, Professional Independent	36	1.8	18.9
N	1899	100.0	

mainly supplying the food and drink demands of the town inhabitants as their products were perishable and local communities tended to be self-sufficient in this sector. Wood and iron were the next two categories in order of number of masters (8.2 per cent or 155 out of 1899 and 5.4 per cent or 102 out of 1899, respectively), whilst the other categories contained yet smaller numbers.

As the sample sizes in some of the categories is so small, they have been omitted from any detailed analysis but included in the tables for information. The most distinctive feature of the five largest categories is the lack of any marked difference amongst them in terms of average distance of apprentice recruitment. The leather and food and drink categories had the most restricted sphere of attraction, the wood category the most extensive. These conclusions are based on the mean migration distrance: but the high standard deviations for each category indicate that caution is needed when analysing the means. It is perhaps appropriate to conclude that no significant differences were found amongst the raw material categories in terms of the distances over which they recruited apprentices; this is probably due to the inclusion of one or two very long distance migrant apprentices in each category, the effect of which is to increase both the mean and standard deviation to a greater extent than is appropriate to their overall numerical significance within the total sample of apprentices.

Chester

The number of entries that did not record occupational information about the apprentices' fathers amounted to 15.5 per cent (78 out of 504). The trend derived from the remaining sample

is, like that of the aggregated data, one of decrease in distance migrated with a decrease in social status. (Table 5.12 and Figure 5.2) The sons of dealers moved longer distances than the service, professional and independent means group, and the craftsmen, yeomen and husbandmen moved less than either of the first two groups.

It is clear that the main source of apprentices into Chester was rural, 193 being the sons of yeomen, 72 the sons of husbandmen. The results show that there was little difference between the two groups, although again the sons of yeomen tended to move further than the sons of husbandmen. This finding accords with the idea stated above that as personal status increases so does the propensity to move further. The difference between the two groups regarding their mean migration distances might be expected, as generally yeomen were more prosperous than husbandmen.

The third most numerous group of fathers were those who were either employed in the service or professional sectors, or who were of independent means. By far the majority of this group were those whose title read 'gentleman'. This 'umbrella' term covered all sorts of persons, particularly as a large number of the holders of this title came from Wales, where the title 'gentleman' often indicated a rank similar to yeoman in England. The fact that their sons migrated over greater distances than did the offspring of craftsmen, yeomen and husbandmen indicates the greater geographical scale of contacts they enjoyed, an implication of their higher socio-economic status and of their lower density of distribution in space.

The comparative lack of dealers and craftsmen amongst the fathers supports the notion of apprenticeship migration as being

Table 5.12 Chester: Migration distance by parent's occupation

Distance (Miles)	Service Professional Independent		Dealing		Craftsmen		Yeomen		Husbandmen	
	n	%	n	%	n	%	n	%	n	%
0-10	29	30.5	1		13	26.6	80	41.5	32	44.4
11-20	23	24.2	5		22	44.9	61	31.8	24	33.3
21-30	17	17.9	3		5	10.2	11	5.7	4	5.6
31-40	5	5.3	1		2	4.1	13	6.7	5	6.9
41-50	8	8.4	0		1	2.0	11	5.7	3	4.2
51-60	5	5.3	0		3	6.1	2	1.0	1	1.4
61-70	3	3.1	1		1	2.0	3	1.4	0	0
71 +	5	5.3	6		2	4.1	12	6.2	3	4.2
N	95	100.0	17		49	100.0	193	100.0	72	100.0
Mean Migration Distance	27.8		56.6		21.8		19.9		18.4	

predominantly rural-urban, as the majority of the processing and trading occupations were to be found in the towns, where sons had easy access to their fathers' companies through patrimony. Those potential migrant apprentices who lived in the small market towns within Chester's sphere of influence perhaps trained with their fathers or found opportunities within their own local urban economy. This line of argument does, of course, suggest that those artisans and dealers living and working in a rural setting could also train one or two of their children themselves, which would have similarly restricted the rural-urban flow. However, because a village could only support one or two blacksmiths, carpenters or wheelwrights, urban apprenticeship would be much more likely to offer better prospects of future income to the son of a rural craftsman than apprenticeship in another town would to the son of an urban craftsman.

Differences in the raw materials processed by craftsmen and handled by dealers are distinguished in the next list of occupational categories. (Table 5.13) Naturally enough, the most numerous group was that including the agricultural occupations. As the number of craftsmens' fathers was low, the number from each of the raw material categories was also small. Those involved in processing of trading textiles, leather, wood and food and drink were the largest groups, reflecting their widespread distribution throughout the economy in general. With such small numbers it is difficult to draw anything but the most tentative conclusions as regards differences in migration distances. The sons of textile workers moved further than the sons of food and drink workers, who in turn moved further than the sons of leather workers; the sons of fathers involved in the wood trade moved the shortest distances. Perhaps

Table 5.13 Chester: Migration distance by parent's occupation and raw material

Raw Material Category	n	%	Mean Migration Distance (Miles)
Wood	11	2.6	14.0
Leather	15	3.5	30.1
Iron	5	1.2	7.2
Non-ferrous Metals	1	0.2	27.0
Earthenware & Glass	0	0	0
Glue & Tallow	1	0.2	15.5
Textiles	17	3.9	40.7
Food & Drink	10	2.4	35.4
Mixed	6	1.4	44.2
Agriculture	265	62.3	19.7
Service, Professional Independent	95	22.3	27.8
N	426	100.0	

the most surprising of these figures is that of the food and drink group, traditionally an industry that was highly localised in towns.

Reversing the approach, so that the analysis is now based upon the masters' occupations, reveals the spatial extent of the contacts made by people in different trades in Chester. The numbers of apprentices entering each of the three socio-economic groups indicates clearly the processing and distributing basis of Chester's economy. (Table 5.14) Well over half of the masters were craftsmen, whilst one in three were involved in dealing either wholesale or retail. The service, professional and independent sector had little representation amongst the indentures, a feature not unusual as these occupations were infrequently organised into gilds and companies and often made little or no use of the apprenticeship system for formal training. Clergy and lawyers, for example, were trained on a national basis rather than at a local level. It is clear that the economy of Chester existed largely as a processing and distribution centre for the surrounding region and the town itself.

The areas over which the craftsmen and dealers recruited their apprentices, and therefore, presumably, made their contacts, were remarkably similar. (Figure 5.8) It might have been supposed that the dealers would have had a greater sphere of influence because to distribute their goods would require a larger threshold population and therefore a large range. Craftsmen, on the other hand, did not need so large a market, their volume of production being such that product disposal could be achieved either by selling to the town's native inhabitants, including the dealers, or to the population of the surrounding area who attended the town markets. Perhaps what the comparatively large distances

Table 5.14 Chester: Migration distance by master's occupation

Distance (Miles)	Service, Professional Independent		Dealing		Craftsmen	
	n	%	n	%	n	%
0-10	8		53	30.7	113	37.8
11-20	1		53	30.7	101	33.7
21-30	2		26	15.1	20	6.6
31-40	2		18	10.5	11	3.7
41-50	0		9	5.2	20	6.6
51-60	1		2	1.1	12	4.0
61-70	0		4	2.2	3	1.0
71 +	0		8	4.5	20	6.6
N	14		173	100.0	300	100.0
Mean Migration Distance	13.2		23.5		22.5	

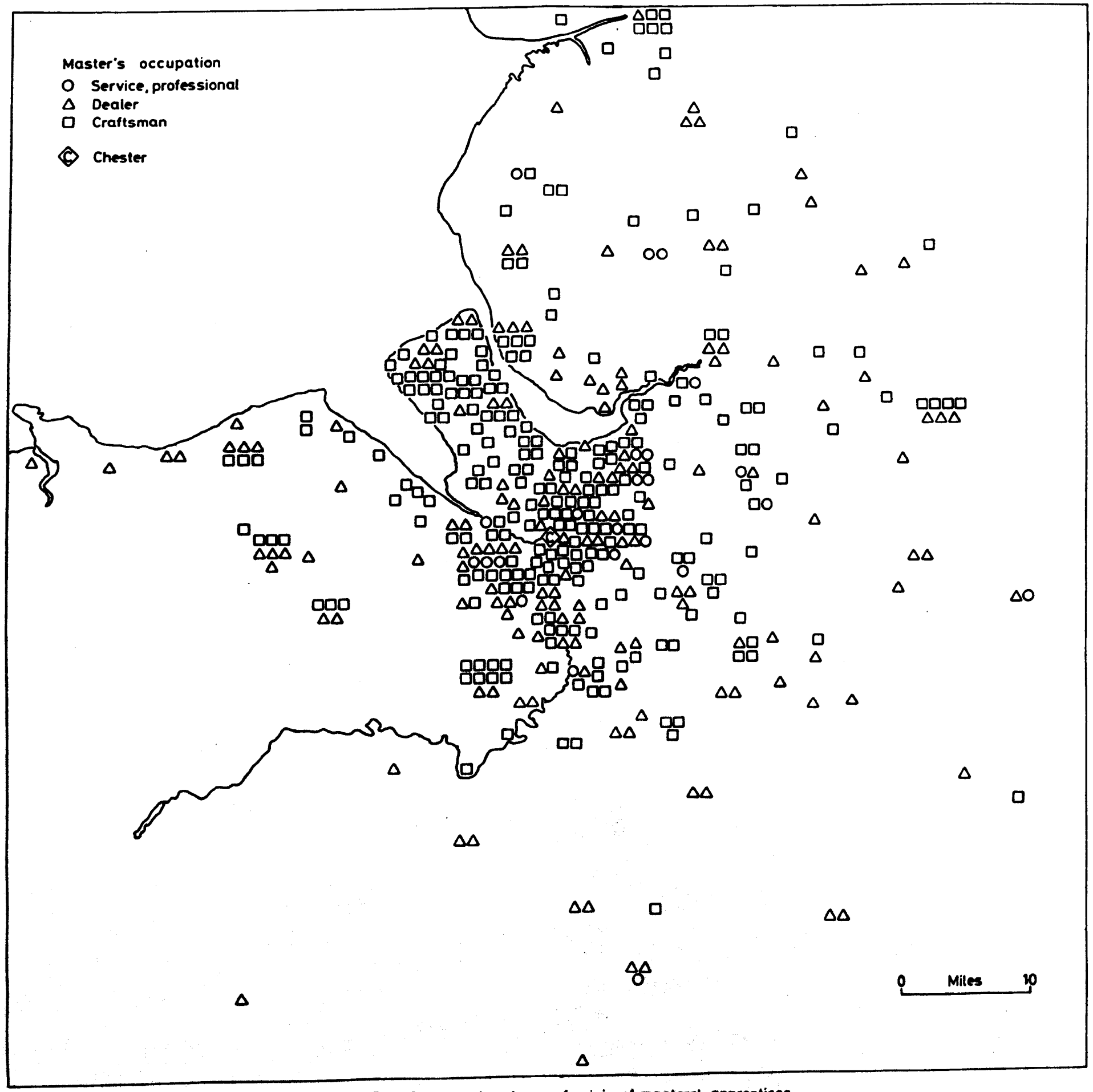

Figure 5.8 Chester: the places of origin of masters' apprentices

represented were the craftsmen's contacts made during the gathering of raw materials.

The most striking feature in distances migrated according to differences in raw materials handled by the masters, is the similarity amongst most of the categories, which again duplicates the conclusion of the aggregate analysis. (Table 5.15) It would appear that contact made in pursuit of business, whether one was a blacksmith, butcher, carpenter, glover, pewterer or weaver were made throughout regions of nearly identical geographical extent. The relative consistency of migration distance over which apprentices to the majority of the raw material categories travelled is perhaps best accounted for by Chester's role as a central place, serving the surrounding region and itself. Such differences as do arise amongst the socio-economic groupings suggests an overall correlation of short distance movement with lower status and a long distance movement with higher status.

Gloucester

The Gloucester data present a substantial number of cases where occupational data concerning the parents is included. 1112 apprentices came from outside Gloucester and only 15.9 per cent (177) of these had no occupational details recorded.

The overall trend is, again, one of decreasing distance migrated with decreasing social status, although in this case there is one anomaly. (Table 5.16 and Figures 5.3, 4 and 5) As in Chester, the dealing sector had the longest mean distance, greater even than that of the service, professional and independent means group, but in Gloucester the latter did, in fact, move on average only fractionally further than the sons of craftsmen. Sons

Table 5.15 Chester: Migration distance by master's occupation and raw material

Raw Material Category	n	%	Mean Migration Distance (Miles)
Wood	95	19.5	24.7
Leather	69	14.2	24.2
Iron	62	12.7	25.5
Non-ferrous metals	7	1.4	20.2
Earthenware & Glass	23	4.7	32.5
Glue & Tallow	10	2.1	10.7
Textiles	105	21.6	18.8
Food & Drink	67	13.7	16.7
Mixed	35	7.2	32.6
Service, Professional Independent	14	2.9	12.9
N	487	100.0	

Table 5.16 Gloucester: Migration distance by parent's occupation

Distance (Miles)	Service Professional Independent		Dealing		Craftsmen		Yeomen		Husbandmen	
	n	%	n	%	n	%	n	%	n	%
0-10	36	37.9	17	40.5	81	44.3	222	61.7	163	63.9
11-20	28	29.6	13	31.5	48	26.3	62	17.2	44	17.3
21-30	11	11.6	2	4.7	21	11.5	32	8.9	25	9.8
31-40	4	4.2	2	4.7	18	9.8	17	4.7	7	2.7
41-50	8	8.4	2	4.7	4	2.2	17	4.7	5	2.0
51-60	2	2.1	1	2.4	2	1.1	4	1.1	6	2.4
61-70	1	1.0	0	0	1	0.5	2	0.6	4	1.6
71 +	5	5.2	5	11.9	8	4.3	4	1.1	1	0.3
N	95	100.0	42	100.0	183	100.0	360	100.0	255	100.0
Mean Migration Distance	21.3		26.2		20.0		14.1		13.3	

of yeomen and husbandmen moved the shortest distances with the former group journeying slightly longer distances than the latter.

The importance of the rural source areas to Gloucester's demand for apprentices is highlighted by the large numbers of sons of yeomen and husbandmen in the sample. Together they account for 65.7 per cent of apprentices (615 out of 935) from outside the city itself. The yeomen group were more numerous than the husbandmen group, a feature not unexpected as yeomen were, by and large, more prosperous. Apprenticeship was something of a 'higher status' institution which yeomen were more capable of affording, both in terms of fiscal payments and in terms of losing a unit of manpower from the family holding.

Unlike Chester and Shrewsbury, the second most numerous group of apprentices' fathers were the craftsmen. (For both Chester and Shrewsbury the second most numerous group was the service, professional and independent means group.) 16.5 per cent of apprentices (183 out of 1112) came from this background. That this group should be quantitatively important is perhaps an indication of the economic base of the source areas. Regions such as the Cotswolds and Forest of Dean had established manufacturing industries, (textiles and iron respectively), so that apprentices coming from these areas were likely to have a father who was an artisan. The majority of these two regions falls within the mean migration distance of the sons of craftsmen, and the modal migration distance of slightly less than the mean perhaps suggests that the regions to the east and west of Gloucester were important for supplying apprentices from the craftsmen category.

The two socio-economic groups supplying the least number of apprentices were the service, professional and independent and dealing groups, with the former contributing just over half as many individuals as the latter. Sons of dealers moved the greatest distance, twice as far, in fact, as the sons of husbandmen. This was in part a reflection of the dealers' higher social status, resulting in their possessing a greater spatial range of contacts, made during the carrying out of their wide-ranging business activities.

Sons from the service, professional and independent means group were comparatively few, a feature noted and discussed for Chester.

For all these groups the mean migration distance has been used, but, as in the case of Gloucester, the wide ranging standard deviations suggest great caution in their interpretation.

Sub-division on the basis of the raw material categories produces some groups with very few cases, so that conclusions can only reasonably be based upon the few larger categories (Table 5.17). (The agriculture category is here disregarded, as the results have already been discussed.)

The three most important raw material categories in terms of numbers of apprentices were textile, leather and food and drink, in that order. Of these, sons of leather workers travelled the furthest and sons of workers in the food and drink category travelled the least, although the difference in means is only small. Apprentices from the wood and iron categories also travelled similar distances.

A classification by the occupational categories of the

Table 5.17 Gloucester: Migration distance by parent's occupation and raw material

Raw Material Category	n	%	Mean migration distance (miles)
Wood	19	2.1	21.7
Leather	43	4.6	20.1
Iron	15	1.7	17.9
Non-ferrous metals	4	0.4	85.1
Earthenware & Glass	4	0.4	15.5
Glue & Tallow	2	0.2	12.3
Textiles	99	10.6	18.9
Food & Drink	31	3.3	14.3
Mixed	7	0.7	51.9
Agriculture	615	65.9	13.7
Service, Professional Independent	95	10.1	21.3
N	934	100.0	

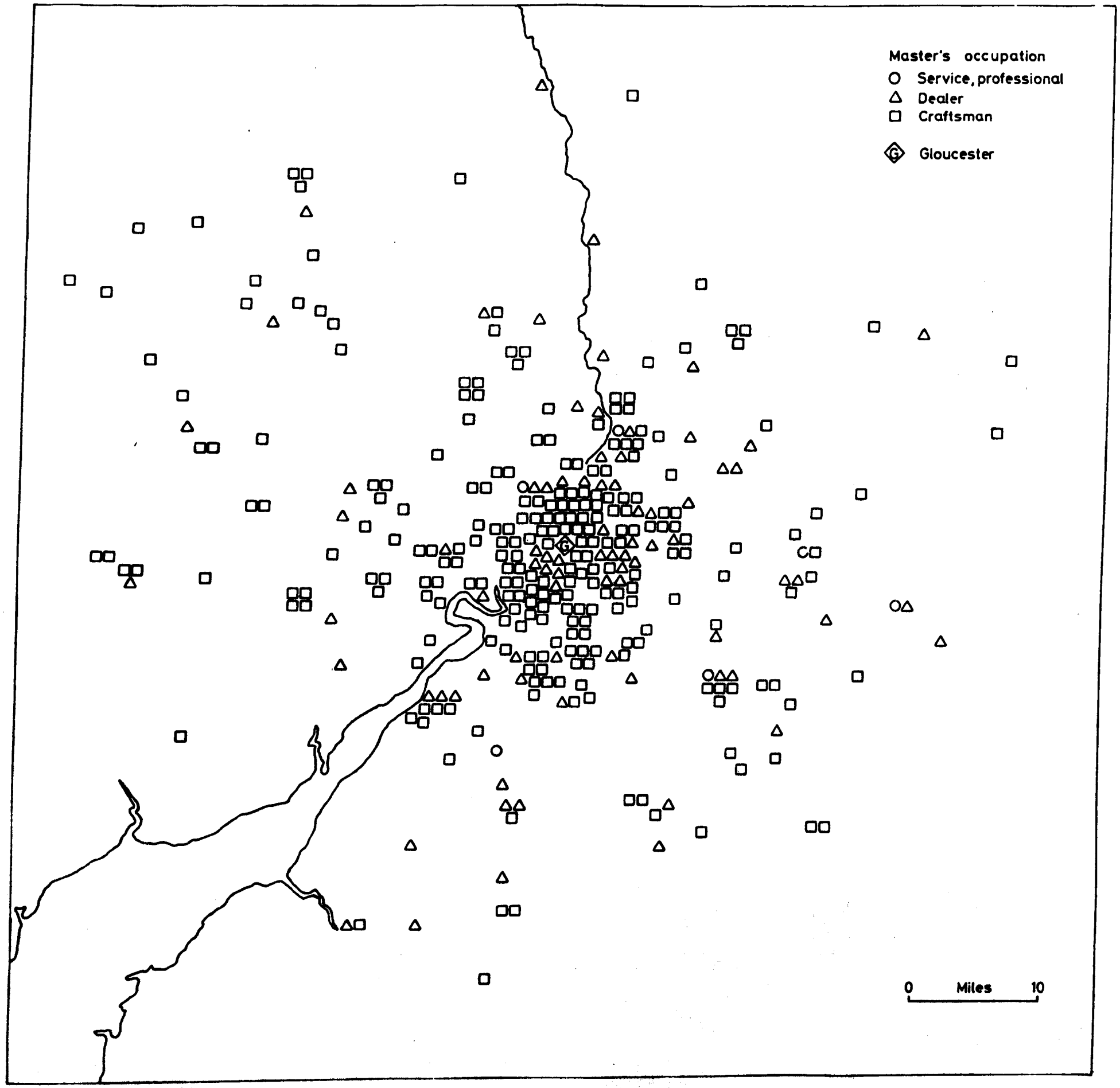

Figure 5 9 Gloucester: the places of origin of masters' apprentices 1595-1609

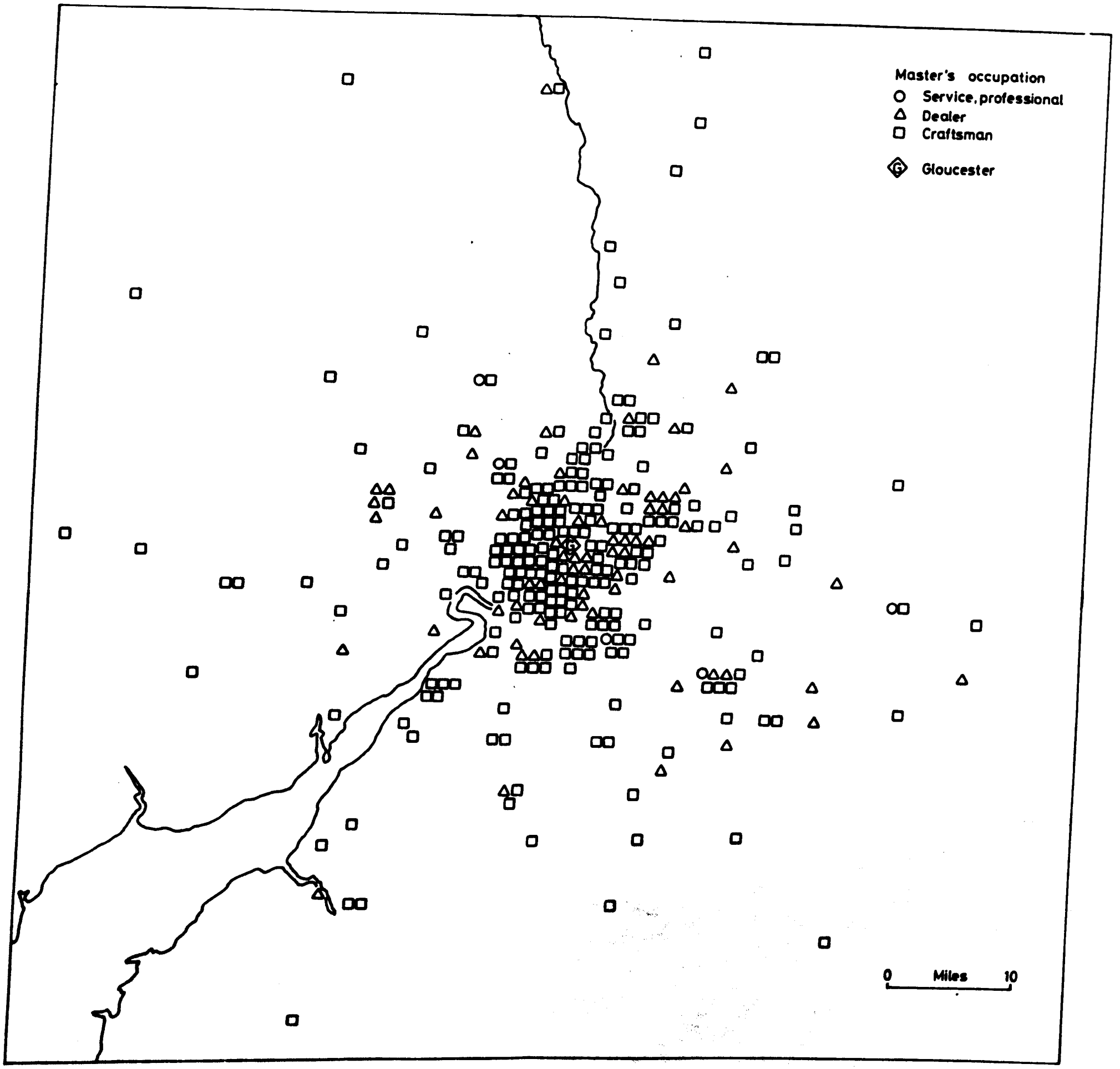

Figure 5.10 Gloucester: the places of origin of masters' apprentices 1610-1629

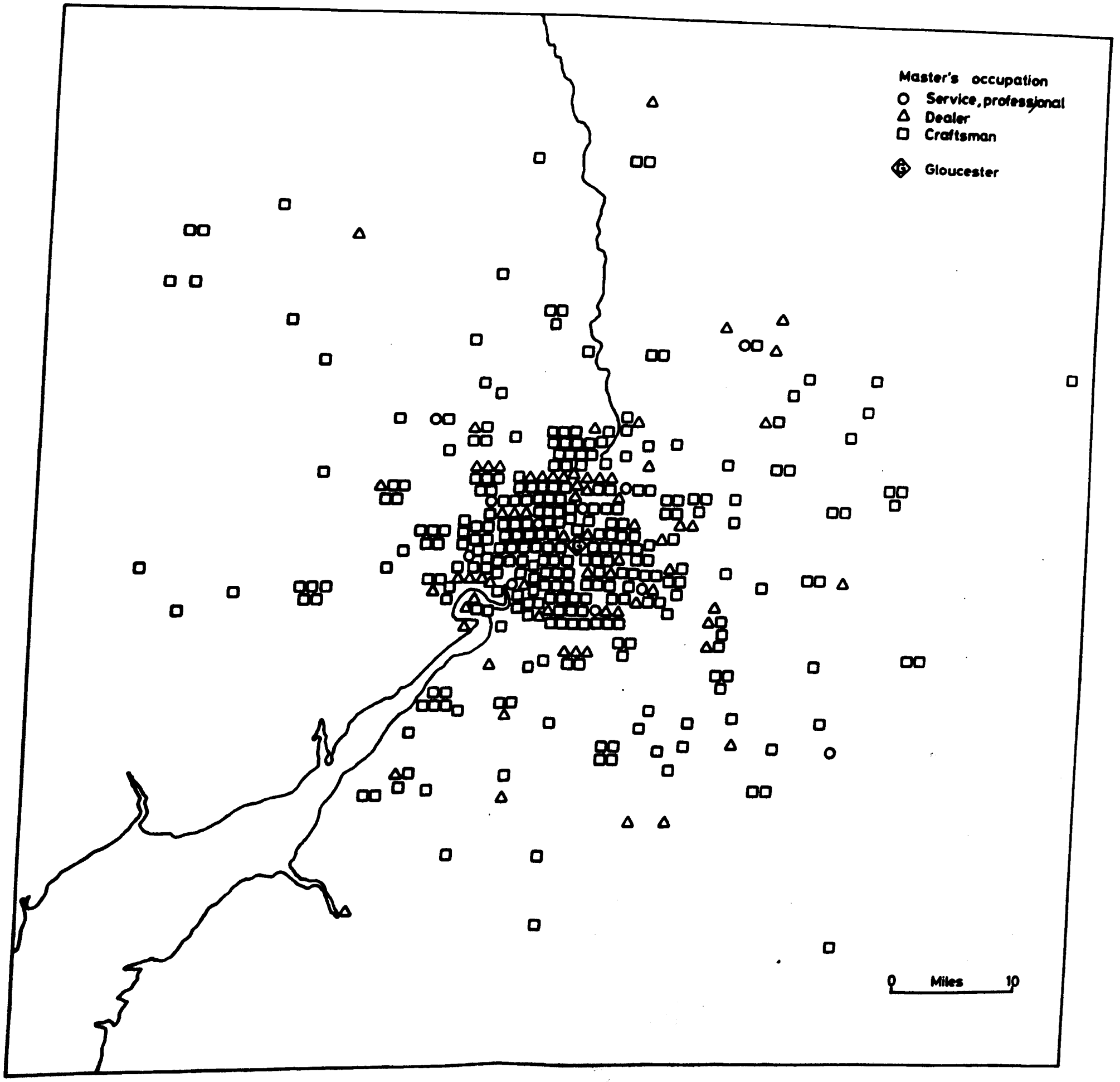

Figure 5.11 Gloucester: the places of origin of masters' apprentices 1630–1649

masters highlights the importance of the manufacturing sector in Gloucester's economy (Table 5.18). Over three quarters of the masters were craftsmen, 76.3 per cent (829 out of 1086). The mean distance travelled by apprentices entering this category was the smallest of the three, but only slightly less than the second most numerous category, the dealers, (21.6 per cent or 235 out of 1086) (Figures 9, 10 and 11). The service, professional and independent category was the least important numerically (2.1 per cent or 22 out of 1086), but the apprentices who entered this sector travelled the furthest. Most of the occupations to which apprentices were indentured in this category did, in fact, belong to the service category rather than the other two.

Subdividing the masters' occupations on the basis of the raw material categories emphasises the dominance of two groups in particular, textiles and leather (Table 5.19). Their mean migration distances were similar, as were their standard deviations. The third most numerous group, food and drink, also had a similar mean migration distance. The two metal-working categories were of similar numerical importance but the non-ferrous category attracted apprentices from further afield than that of iron. This is perhaps explained by the higher status of the non-ferrous metal occupations, such as goldsmith and pewterer, and also by the relatively large market areas over which bells were distributed; Gloucester was a noted centre of bell manufacture and supplied an area stretching some 75 miles west-east and 60 miles north-south from the city. It would not be unexpected to find apprentices moving to Gloucester from places within this area, attracted to the city as a result of contacts established by the bell trade.[34]

Table 5.18 Gloucester: Migration distance by master's occupation

Distance (Miles)	Service, Professional Independent		Dealing		Craftsmen	
	n	%	n	%	n	%
0-10	10		122	51.9	471	56.8
11-20	4		55	23.4	161	19.5
21-30	2		23	9.8	80	9.6
31-40	2		12	5.1	41	5.0
41-50	2		7	3.0	33	4.0
51-60	0		3	1.3	11	1.3
61-70	1		1	0.4	5	0.6
71 +	1		12	5.1	27	3.3
N	22		235	100.0	829	100.0
Mean migration distance	22.7		17.7		16.4	

Table 5.19 Gloucester: Migration distance by master's occupation and raw material

Raw material category	n	%	Mean migration distance (miles)
Wood	60	5.6	17.9
Leather	333	30.6	15.2
Iron	40	3.7	11.8
Non-ferrous metals	52	4.8	19.4
Earthenware & Glass	10	0.9	20.7
Glue & Tallow	33	3.0	22.0
Textiles	364	33.5	17.2
Food & Drink	146	13.5	15.7
Mixed	26	2.4	26.2
Service, Professional Independent	22	2.0	22.7
N	1086	100.0	

The more specialist occupational categories, though not necessarily of high status, tended to attract from a wide area, for example, the glue and tallow, earthenware and glass and 'mixed' categories. The mean migration distance of all of these was over 20 miles. This may have been due to the large area over which craftsmen in these categories ranged in search of raw material supplies, although artisans in the glue and tallow category probably would have had to go no further than Gloucester's butchers. The mixed category, which includes such occupations as instrument maker and clockmaker, may have combined manufacturing and dealing functions so that migration distances tended to be longer in reflection of the higher status nature of these occupations and large ranges of these goods.

Generally, the differences amongst raw material categories, whether based upon parents' or masters' occupations, are small and indicate the relative consistency in each group's ability to be attracted or to attract.

Shrewsbury

The sample of apprentices' fathers whose occupations were recorded was small compared with those for Chester and Gloucester, only 366 individual entries surviving. Of these, two socio-economic categories supplied nearly all the apprentices, the service, professional and independent and yeomen groups, with 147 and 145 apprentices respectively (Table 5.20). Of the two groups, the sons of the higher status group travelled further on average than the sons of the yeomen (Figure 5.6). Many of the former were the sons of fathers who were styled 'gentlemen' and as in

Table 5.20 Shrewsbury: Migration distance by parent's occupation

Distance (Miles)	Service, Professional Independent		Dealing		Craftsmen		Yeomen		Husbandmen	
	n	%	n	%	n	%	n	%	n	%
0-10	28	19.0	3		15		47	32.4	15	
11-20	58	39.5	4		9		66	45.5	6	
21-30	18	12.2	2		6		14	9.7	0	
31-40	13	8.8	2		1		5	3.4	1	
41-50	15	10.2	1		0		5	3.4	0	
51-60	7	4.8	0		0		6	4.2	0	
61-70	2	1.4	0		1		1	0.7	0	
71 +	6	4.1	5		2		1	0.7	1	
N	147	100.0	17		34		145	100.0	23	
Mean migration distance	25.6		53.8		20.3		17.8		14.5	

Chester, many of these came from Wales where the definition of this title could be even more ambiguous than it was in England. In both countries the conventional view was that the holding of the title 'gentleman' was concomitant with the holding of an estate. Whatever the precise nature of socio-economic definition, 'gentlemen' were usually regarded as relatively high status which would account for the comparatively high mean migration distance for this category. It is interesting to note that the equivalent figure for the yeomen group was significantly less, at 17.8 miles compared with 25.6 miles. This is perhaps surprising given that many of the yeomen group could have been wealthy by the standards of sixteenth and seventeenth century England and Wales, and therefore they would have possessed some degree of status. 'Gentlemen', however, formed a smaller proportion than yeomen within society and one would expect them to have larger average migration distances because of their lower density in space.

The craftsmen group, numerically the smallest, had a greater mean migration distance than the yeomen. One possible explanation was the prevalence of higher status crafts amongst the craftsmen fathers, crafts such as gold and silver smiths, pewterers and bell founders. Their widespread distribution throughout the economy and country would tend to produce a comparatively large migration distance.

The group with the longest mean migration distance was again the dealer group with a figure over double that of the second highest figure. There was, however, a very small number in this group and whilst this means that the magnitude of the distance should not be invested with too much significance the trend is

clear.

Sons of husbandmen tended to travel the shortest distances compared with all other groups, which is to be expected given their low socio-economic status and high density. It is at first sight surprising that apprentices from this background were so few in number in Shrewsbury compared with Chester and Gloucester. This is, however, in large part explained by the high status nature of the majority of the masters in Shrewsbury for whom records have survived. The predominance of these groups such as the Drapers, is investigated in more detail in the chapter on social and economic mobility.

The classification of parents' occupation on the basis of the raw material categories indicates that only one 'true' raw material group has any numerical significance, the textile group, and even this only made up 8.0 per cent of the sample (29 out of 366). Nothing worthwhile can, therefore, be concluded about the data in this classification (Table 5.21).

The surviving apprenticeship registers record masters only in the dealing and craftsmen categories, and of these two the dealers were far more numerous (Table 5.22). The mean distances migrated correlate with the tendency found for other groups: the high status masters tended to attract their recruits from over a wider area than the lower status craftsmen (Figure 5.12). This feature was, if anything, more pronounced in Shrewsbury than Chester and Gloucester, probably due to the dominance in the dealing sector of the drapers and mercers, who were two comparatively high status groups.

The overwhelming importance of the drapers is also high-

Table 5.21 Shrewsbury: Migration distance by parent's occupation and raw material

Raw material category	n	%	Mean migration distance (miles)
Wood	3	0.8	34.8
Leather	5	1.4	21.6
Iron	6	1.6	16.7
Textiles	29	8.0	25.3
Food & Drink	6	1.6	54.9
Mixed	1	0.2	86.9
Agriculture	168	45.9	17.4
Service. Professional Independent	148	40.5	26.3
N	366	100.0	

Table 5.22 Shrewsbury: Migration distance by master's occupation

Distance (Miles)	Dealing		Craftsmen	
	n	%	n	%
0-10	72	28.5	50	50.5
11-20	98	38.7	31	31.3
21-30	30	11.9	7	7.1
31-40	16	6.3	5	5.1
41-50	11	4.3	2	2.0
51-60	8	3.2	0	0
61-70	5	2.0	0	0
71 +	13	5.2	4	4.0
N	253	100.0	99	100.0
Mean migration distance	24.7		15.9	

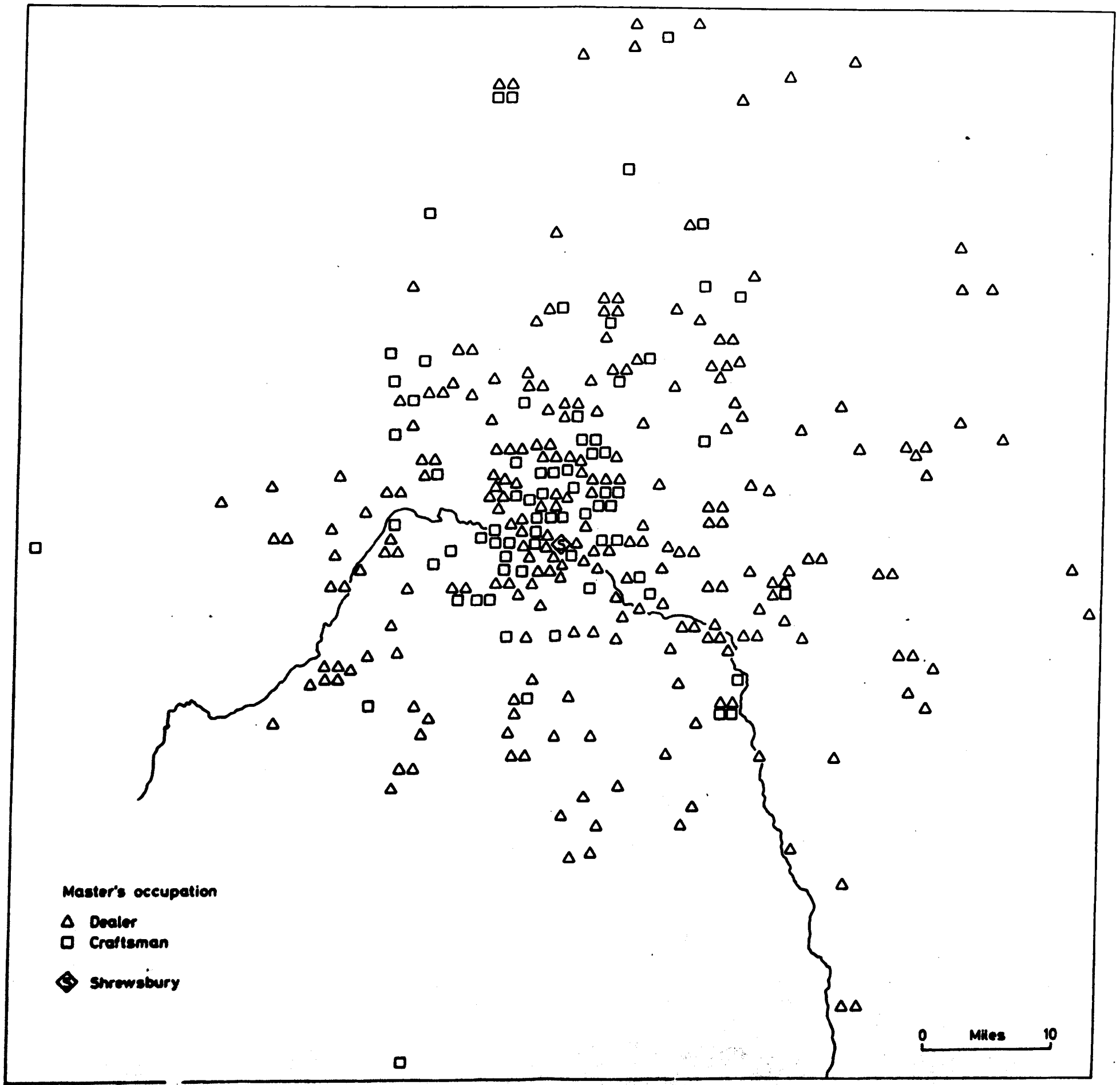

Figure 5.12 Shrewsbury : the places of origin of masters' apprentices

lighted in the occupational classification based upon raw material categories (Table 5.23). Their numerical superiority was extreme, which means that numbers in the relatively few remaining categories are too low to allow any confident conclusions. This imbalance of numbers is in large part a reflection of the non-survival of the apprenticeship indentures of the many craftsmen who did work in Shrewsbury, employed in the manufacture of goods using raw materials such as wood, iron, food and drink. Many craftsmen were also employed by the drapers to carry out various tasks on the 'raw' Welsh cloth. Occupations such as dyers, shearmen and fullers were common in Shrewsbury but their apprenticeship records have not survived. The lack of data with which to compare the textile sector should not, however, detract too much from the important point that Shrewsbury's economy was dominated by the cloth trade.

Summary and Discussion

Both the aggregate and individual data indicate that the spatial mobility of apprentices confirms some of the hypotheses of migration at the same time as deviating from some of the generally assumed patterns. This section attempts to draw together the arguments so far presented and to compare more explicitly the three towns not only with one another, but also with the two main studies comparable with mine, namely Patten's investigation of apprenticeship migration to Norwich, Great Yarmouth and Ipswich and Buckatzsch's work on apprentices' migration to Sheffield.[35]

Table 5.23 Shrewsbury: Migration distance by master's occupation and raw material

Raw material category	n	%	Mean migration distance (miles)
Leather	13	4.0	19.7
Non-ferrous metals	5	1.5	39.7
Textiles	300	92.7	22.9
Food & Drink	1	0.3	18.1
Mixed	5	1.5	11.2
N	324	100.0	

Distance

The main hypothesis of migration studies concerning the relationship between spatial mobility and distance is that the majority of migrants move only short distances. This study confirms the hypothesis, with the majority of apprentices moving distances up to between 20 and 30 miles. Beyond this zone there is an inverse relationship at the extreme between numbers and distance. Due to the nature of the distance bands used in the last category, distances of more than 70 miles, the pattern of decreasing numbers with increasing distance is reversed. This is because such a large area is included and therefore the potential number of migrants is increased. It is clear that a small number of apprentices moved long distances and extend the migration fields of the three county towns well beyond their regional setting.

Each of the three western towns reflects the aggregate pattern of large numbers of apprentices moving short distances and small numbers moving long distances.

The deviations, both from the aggregate data and of each town from others, possibly reflect subtle differences between the three towns in terms of their ability to attract apprentices. Differences are, however, small and difficult to quantify. Gloucester's mean migration field was the most restricted, Chester's the least, with Shrewsbury occupying a middle position. The principal area of disparity between the three towns occurs within the first 20 miles. This zone is sub-divided into two 10 mile bands. The patterns for both Chester and Gloucester are of a decrease in numbers of apprentices over the 20 mile zone, although

the rate of decrease varies markedly between the two towns. The two distance bands have almost equal numbers of apprentices coming from them to Chester, but to Gloucester the 0-10 mile band accounts for nearly three times as many migrants as the further band. Quite why Gloucester should have such a strong distance decay function compared with Chester cannot be explained in terms solely of distance. Both cities are situated on rivers close to their estuaries, with upland areas comparable distances away. Surrounding both towns are extensive areas of gently undulating land, that was used for a fairly prosperous agricultural economy in the sixteenth and seventeenth centuries. In many respects the two towns possessed similar physical situations, therefore other variables discussed in following sections are required to help explain the difference in pattern between them.

Shrewsbury does not show a decline in the number of apprentices attracted over the first 20 miles. The second band has a third as many again moving from it compared to the first. Here again, distance on its own cannot explain this feature as much of the region surrounding Shrewsbury possesses no major physical barrier to movement until one reaches the Cambrian Mountains to the west. It is more likely that this pattern is more the result of the influence of other factors, which are discussed later on.

Each of the three towns attracted apprentices in roughly the same proportions at distances beyond 20 miles, although Chester perhaps exerted a stronger pull over a wider area than the other two. By distances of over 50 miles only a few apprentices were attracted to any of the three cities,

Another influence on the distance moved by an apprentice

was his origin from either a rural or an urban background. Quantification of urban - urban migration is made particularly difficult in this study because of the problem of defining 'urban'. There was only a handful of apprentices from settlements that could unequivocally said to be truly urban, such as Preston, Bristol or London. The majority of apprentices from 'urban' backgrounds were from the smaller market towns which in terms of population numbers were similar to large villages. Settlements such as Knutsford, Oswestry and Dursley sent a few young men to their respective county towns, although perhaps not as many as might have been expected given their concentrations of population.

Apprenticeship migration was disproportionately rural - urban in type. This is interesting as it would tend to bias figures towards the shorter length of distances, as towns were few and far apart. Chester and Shrewsbury were located in regions which had few concentrations of population in their sphere of influence, only small market towns. The southern part of the Severn Valley and the areas to the west and east possessed more settlements which could be categorised as urban: Tewkesbury, Cheltenham, Stroud, Cirencester, as well as the higher ranked Worcester and Bristol, all contributed apprentices to Gloucester, which was itself part of a more dense urban network in the southern part of England, compared with the areas to the north. This comparative proximity to other towns, however, means that the expected longer distances suggested by urban origins would not be evident, and this is supported by the case of Gloucester, where distances travelled by both rural and urban migrants combine to give the most restricted sphere of influence of the three towns.

The aggregate pattern is similar to those of other cities, with migration heaviest from the area immediately surrounding the town, followed by other smaller towns or concentrations of population, and from areas or towns longer distances away, with which there was a special link.

The only other study to make use of a large sample of apprenticeship data is Patten's work on Norwich, Great Yarmouth and Ipswich.[36] A combination of the data for the East Anglian towns with that for the three towns in the west produced large samples, with the Chester, Gloucester and Shrewsbury records containing twice as many apprentices as their eastern counterparts. The 10 mile distance bands used in my study were recoded into 4 mile bands to facilitate comparison (Table 5.2).

The second main investigation of apprenticeship migration was undertaken by Buckatzsch, who studied the Hallamshire cutlery trades in the seventeenth and eighteenth centuries. Buckatzsch's work investigated one town only and will be compared mainly with the individual towns rather than the aggregate pattern. Five mile distance bands were used up to 20 miles, 10 mile bands between 30 and 40 miles, and no further division beyond 40 miles. Movements of less than 5 miles were excluded from the analysis. Only figures from the first 25 year period, 1625-49, were selected as this period was the only one to overlap the dates of the Chester, Gloucester and Shrewsbury data (Table 5.3).

Patten's study showed relatively few apprentices moving from the immediate vicinity of the town, an increase in numbers between 8 and 16 miles, and numbers falling consistent with the distance decay model as distance increased thereafter. The Sheffield data

show a large number of apprentices who came from between 5 and 10 miles; just under half (47.4 percent or 140 out of 295) came from places within this distance band. At distances of between 20 to 40 miles, the cutlery trades were able to attract over a quarter of their recruits. At the longer distances, beyond 40 miles, the Yorkshire town's ability to attract labour declined to a low level.

The first point of comparison between the three studies is their fundamental concordance with regard to an overall distance-decay function. The details of this trend, however, provide some interesting differences and these form the basis of the discussion that follows.

Compared with the towns of East Anglia, the spheres of influence of the western towns were more attenuated. As migration patterns are often a function of the size of the centre to which migrants are drawn, Norwich would be expected to attract more apprentices from places further afield. Norwich dominated the urban hierarchy of East Anglia, acting in the manner of a provincial capital with about 15,000 inhabitants in the early seventeenth century. In the southern part of the Welsh Marches, neither Gloucester, Hereford nor Worcester grew large enough in size and function to dominate the others. Just to the south, Bristol possessed the port functions that enabled it to claim the title of provincial capital of this part of England. Further north, neither Chester nor Shrewsbury acquired more than county town status, mainly because their respective hinterlands contained no more than a handful of market towns and many villages, which could not support a very high order centre. Great Yarmouth and Ipswich were ports; the halving of the area within a given

distance from them by their coastal locations, and the long distance contacts established as a result of the coastal shipping links, could also influence migration patterns and extend the sphere of attraction. Chester was also a port, although it was beginning to suffer a decline in the amount of coastal shipping by the late sixteenth century. Its position some 20 miles up the Dee estuary meant that the area potentially able to send apprentices extended further in all directions compared to Great Yarmouth, whose location was more truly coastal. Gloucester and Shrewsbury were both inland towns, thereby making long-distance contacts less likely, although Shrewsbury did represent the upstream terminal for river traffic on the Severn, a feature which probably led to the establishment of a few long distance contacts with people and places along the Severn. Gloucester also had some function as a Severn river port and was the lowest bridging point, but those long distance contacts established as a result of these functions were outweighed in the aggregate analysis by the large number of migrations made over shorter distances, which were the result of other factors.

Sheffield's comparatively restricted sphere of influence was probably partly due to its role in the urban system of that part of northern England, where it served as a central place to only a local area bounded by the Pennines almost immediately to the west and with the expanding centre of Leeds some 30 miles to the north. It did not lie on a major navigable waterway, although the Don was important as a source of power for the metal industries. Of greater significance in explaining the greater extent of the three western towns' migration fields is the contrast in the sort of

people who migrated and the occupations they went into. Before discussing these influences one other aspect of the distance decay function deserves attention.

Patten's use of 4 mile distance bands shows up the feature of fewer apprentices coming from the immediate vicinity of the town, and this pattern is also found in the west, although even then proportionately fewer apprentices moved to the East Anglian towns from within the first few miles. There is the methodological explanation of the very small area of the first distance band compared with rings at larger radii, meaning that fewer potential migrants were included in the nearer bands. Whilst this must have some influence, other factors can also be offered as contributing factors.

It is probably not a result of lax record keeping, for as in East Anglia, the Chester, Gloucester and Shrewsbury authorities were careful to note the place of residence of people from this area, and did not describe them merely as 'of Chester', 'of Gloucester', 'of Shrewsbury'. In 1595, Richard Coe, apprenticed to Edward Jones, wheelwright, was recorded as from Handbridge, a settlement just south of the River Dee only 1 mile from the city centre;[37] in the same year, Miles Robinson became an apprentice cooper and his home was given as Upton, a village just over 2 miles to the north of Chester.[38] Settlements just outside Gloucester were carefully discriminated in the town register, too, with, for example, Kingsholm, Hempsted and Wotton being specifically registered. The same happened in the records of Shrewsbury's companies, with places such as Kingsland, Meole Brace and Frankwell. Perhaps nearby settlement were entered as places of origin if they

were still separate from the city proper, but considered as part of the city when they were absorbed in suburban extensions. Suburbs were colonised in this period by people wishing to avoid paying fees such as poor relief contributions, commitments to civic ceremony, and company and civic regulations on trading and manufacturing. The problem of suburban expansion seems in part related to the size of the urban centre, as it was most pronounced (or given most publicity) around London.[39] Neither Chester, Gloucester nor Shrewsbury, therefore, were as affected by suburban expansion as Norwich, a city some six times as large, but would have roughly similar experiences to those of Great Yarmouth and Ipswich.

Within the area immediately surrounding the town people may have preferred to supply agricultural products of a highly perishable nature such as dairy or market garden produce. Some may have remained as outworkers for urban manufacturers while others may have travelled into the town each day for work. Movement within this zone was essentially 'mobility' rather than 'migration', as no permanent change of residence was planned, at least nothing like the 7 or so years of the apprentice.[40] This, then, is one possible explanation of the smallness of the numbers of apprentices who came from places in the immediate vicinity of the largest towns. The predominance of moves of between 5 and 10 miles for the apprentices to the cutlery trades may have been due to the spatially diffuse nature of the industry within Hallamshire, contacts being made throughout this area. The indentures were recorded at Sheffield and the migration distances calculated using Sheffield parish church as one base, but apprentices who did in fact live

between 5 and 10 miles from the parish church may have been living much closer to the master to whom they were indentured. Thus, apprenticeship mobility of the order of 0-5 miles appears within the 5 to 10 mile band. Without the evidence of precise locational data this aspect cannot be further investigated.

The differences in the migration patterns of apprentices to the different towns mentioned in this comparison were largely due to differences in the occupational and status affiliations of the trainee labour. Norwich's rank and dominance of the urban hierarchy both on a national scale and on a regional scale, would encourage the growth of the service sector, more so than would have taken place in Chester, Gloucester or Shrewsbury. These higher status occupations tended to possess a greater range of attraction and thus would have increased the numbers of apprentices coming from further afield. The three western towns held lower ranks in the urban hierarchy at both national and regional scales, and would, therefore, have possessed a small high-order service sector. The spheres of influence remained as large as that of Norwich but the numbers of apprentices travelling these greater distances would have been comparatively fewer. One additional point related to their comparative standing in the urban hierarchy may help to explain this difference. As well as possessing a larger service sector, Norwich probably also had more high status craftsmen, occupations such as gold-and silver-smiths and instrument-makers as well as a larger retail and wholesale (dealing) sector. These occupations tended to have a greater range of attraction for labour than the lower status craft occupations and this would, therefore, be reflected in the increased numbers migrating from

places further afield.[41]

The differences between the spheres of influence of Chester, Gloucester, Shrewsbury and Sheffield may be the result of omission from the Sheffield data of apprentices from any trades besides those involved in the manufacture of cutlery; the data from the three western towns included a whole range of crafts as well as service and dealing occupations. The increase in numbers of apprentices coming from beyond 40 miles may result from the inclusion of these latter two categories; it seems probable that their high status would have overcome the friction of distance more readily and any intervening opportunities would have been fewer.

Furthermore, the specialist nature of the Hallamshire cutlery trades may have encouraged a denser catchment between twenty and forty miles, compared with the more diversified and 'basic' nature of the crafts in Chester, Gloucester and Shrewsbury.

Comparison of the Gloucester data with the results of the study of apprentices in the Sheffield area show a remarkable similarity. Whilst the percentage figures for individual distance bands do show some differences, the cumulative figures for both towns are consistent throughout the six distance bands. The majority (i.e. over 50 per cent) of apprentices to both towns came from between 5 and 16 miles. Gloucester did tend to attract slightly more apprentices from the 16 to 20 miles and over 40 miles bands, while Sheffield attracted slightly more from the 5 to 10 and 31 to 40 mile distance bands.

The reason why these two patterns should be so similar is perhaps due to the nature of the occupations into which apprentices were indentured. The Sheffield study made specific use of the

records of the cutlery industry, a specialist sector of the metallurgical industry.[42] Gloucester, too, was a noted centre of this industry with considerable numbers of pinners, wiredrawers, bell founders and pewterers. This element probably made an important contribution to the comparable distances migrated by apprentices to the two towns. The Gloucester data did include many other occupations, but most of these were craft occupations and probably of similar status to the metal-working crafts, and it was these occupations that reinforced the element of similarity between the two patterns.

The Hallamshire cutlery industry had fewer long distance contacts compared with Chester. This was perhaps in some measure due to the composition of the two groups, the Chester apprentices being indentured into a wide variety of occupations including dealing, which tended to recruit over longer distances. Buckatzsch found that the proportion of cutlery apprentices migrating distances over 40 miles increased during the second half of the eighteenth century compared with the second quarter of the seventeenth century but it was only a small rise from 6.4 per cent to 7.8 per cent, and Chester's labour recruitment from places more than 40 miles away was still more than twice the larger figure for Sheffield.

Similarly, apprentices migrating to Shrewsbury appear to have travelled greater distances than apprentices in the cutlery trades in Yorkshire. Buckatzsch's results, when compared to those for Shrewsbury, clearly demonstrate the more restricted sphere of attraction for Sheffield compared to the Welsh March town. Perhaps the main factor influencing this pattern was the socio-economic

composition of the two sets of apprentices. Shrewsbury apprentices were dominated by those entering the cloth trade, in particular by entries into the Drapers Company. This 'exclusive' group of businessmen tended to be of higher socio-economic status than the metal-working craftsmen of the Sheffield area. This important contrast could go some way towards accounting for the longer distances travelled by Shrewsbury apprentices. This is also a contrasting feature with the other two towns. Neither Chester nor Gloucester had a company of the status of the Drapers, their apprentices being mainly trained in craft occupations. The influence of socio-economic status will receive more attention in a later section.

Direction

Clearly, towns in the sixteenth and seventeenth centuries attracted the vast majority of their apprentices from a zone extending to some 20 to 30 miles: only a few came from further afield. Within this main cource zone, directional trends related to specific local circumstances, such as reduced numbers of migrants from thinly populated areas, but generally there was no strong directional pull. This was so for each of the three western towns as well as settlements in different parts of the country such as East Anglia. Beyond this zone the influence direction had upon migration patterns was in part a response to the existence of special links such as similar manufacturing areas, or the supply of raw materials for manufacture. Movement was also marked from areas of high population and low agricultural opportunities. In this respect the national trend of movement from

the north and west to the south and east reflects the idea of areas of distress contributing disproportionate numbers of long distance migrants, particularly among the poorer groups in society.

This directional pattern of long distance migration is not clearly evident in the cases of Chester, Gloucester or Shrewsbury. This may be a response to their location in the west; although the comparatively high socio-economic status of apprentices may also have had some influence. The north-west to south-east flow of people seems to have been most marked amongst low status groups, the 'subsistence migrants', such as vagrants. They tended to search in a random fashion for employment, moving in a chain-like sequence, often with London as the ultimate attraction. Apprentices on the other hand tended to move in a single step, as they needed a definite offer of an opportunity, and his father required sufficient knowledge of the masters to confidently entrust his son to his care. Such knowledge was usually the result either of close proximity to a town, or frequent contacts between the apprentices' place of residence and his place of employment, for other reasons (such as those made in the course of acquiring raw materials in rural areas by urban craftsmen).

Social status and occupation

The inter-relationship between the two variables of distance and social status and occupation makes interpretation difficult. The findings of studies based on different data sources of different dates seems to suggest there was a positive correlation between distance moved and social status (Table 5.1).

The most striking anomaly was the tendency of vagrants to

move longer distances than any other group. Just under half of this sample moved less than 40 miles, with a larger percentage, 27.9 per cent travelling distances of over 80 miles. This compares with the more restricted movements of Romney freemen, deponents in Kent and Sussex courts, and apprentices to Sheffield, Chester, Gloucester and Shrewsbury. Defining who was a vagrant presented contemporaries with considerable problems, as it still does. Records of vagrancy exist because Tudor and Stuart society made vagrants the scapegoats for many social and economic ills. Security, stability and status in life were revered in a society where the prevalence of disease and death often afflicted rich and poor, young and old, rural and urban. Apprehended and punished, vagrants tended to be young adults, usually male, the very components of society expected to be considered the most subversive. They were expelled from parish to parish, many eventually arriving in the growing suburbs of large towns, outside municipal jurisdiction. London was their major destination, as would be expected of the capital, the largest concentration of population in the country and the place where the opportunities for making a living, legal or otherwise, were greatest.

> "For every migrant whipped as a vagrant, there must have been several who were accepted into the expanding populations of towns and areas of rural industry. Those who were punished were either unfortunate in being caught or exceptional because sought out by more efficient authorities as particularly unwelcome".[43]

A study of intra-county movements to three towns in Kent, Canterbury, Faversham and Maidstone, found that long distance movements correlated with low status and short distance migrations with high status. In this respect the low status migrants were classified as 'subsistence' migrants, in contrast to the 'better-

ment' moves of people further up the social hierarchy. 60 per cent of the migrants in the poorer leather trades in Faversham had come from outside Kent. There are, however, a number of points which place this hypothesis in perspective. The towns investigated tend towards the smaller end of the urban scale, Canterbury being no larger than 5-6000 population, whilst Faversham and Maidstone could not claim 2000 inhabitants each. They were all central places, supplying goods and services to their own populations and that of limited surrounding areas. They also lie to the south-east of London, the greatest intervening opportunity of all to migrants from all but a restricted area of Kent. The correlation between occupational groups and places of origin at various distances from the towns is based on a occupational classification which is not explicit as to its aim and is vague and ambiguous in its categories. There may be intrinsic merits in the conclusions reached but they cannot be confidently applied to migrations of different occupational groupings to towns of differing sizes.

By way of contrast, the data for the three East Anglian towns of Norwich, Great Yarmouth and Ipswich show that many of the higher status migrants, the 'betterment' migrants, came from long distances. These towns were much larger than their Kentish counterparts. Norwich had some 12,000 people by the middle of the sixteenth century, reaching nearly 30,000 by the end of the seventeenth century. Great Yarmouth grew from 5000 to 10,000 over the same period. Ipswich was slightly smaller with 4,000-8,000 people. Norwich, the second largest city in England until some time during the second half of the seventeenth century, was a major worsted manufacturing centre and the regional capital of East Anglia; Great

Yarmouth and Ipswich were both important ports functioning as distribution points for imports and exports into and out of their hinterlands. As noted earlier, examples of long-distance movements by apprentices to the three East Anglian towns were far from rare, with evident coastal links to the two ports and even some apprentices moving from London to Norwich to receive their training. As might be expected, the data for the three western towns shows results similar to the East Anglian towns. Apprentices were amongst the higher status migrants and were capable of travelling long distances. Analysis of the relationship between distance and social status and occupation was not undertaken in the East Anglian study, therefore no comparison can be made on this basis.

Comparison between the aggregate data and Chester, Gloucester and Shrewsbury clearly demonstrated the similarity of the distances moved by various occupational groups. Differences between the frequency distributions of migration distances were tested using the Kolmogorov-Smirnov test. The dealing, craftsmen and husbandmen fathers showed no significant differences in any of the twelve two-sample tests. Apprentices whose father's occupations were placed in the service, professional and independent category and who trained in Gloucester tended to come from within the first 20 miles, a degree of mobility significantly less than the aggregate and Shrewsbury patterns at the 5 per cent confidence level. Apprentices moving to Gloucester whose parents were yeomen overwhelmingly came from within a 10 mile radius of the city. This was significantly less than the aggregate, Chester and Shrewsbury patterns at the 1 per cent, 0.1 per cent and 0.1 per cent levels respectively. This indicates perhaps that yeomen were more densely distributed around

Gloucester compared with the areas around Chester and Shrewsbury. These results may also reflect the greater number of alternative opportunities for younger sons of yeomen in the wider region of the lower Severn Valley. Cities like Worcester or Bristol were important places of manufacture and trade, whilst the major textile producing area of the Cotswolds lay just to the east. Yeomen living further than about 10 miles from Gloucester would, therefore, have been nearer to other openings. On the other hand, Chester and Shrewsbury existed in more isolated regions and they were very much the place to which fathers would look to provide a living for their younger sons.

The significant difference (at the 1 per cent confidence level) between the Shrewsbury pattern of movement of yeomen apprentices and the aggregate pattern highlights the slightly more extensive migration field of this occupational group. It appears that many of the younger sons of yeomen trained with the Draper's Company in Shrewsbury. Some of the fathers probably established trading links with drapers, and consequent on the formation of a business relationship a younger son went to learn the entreprenurial skills of a draper. As the drapers drew extensively on Welsh suppliers of cloth, some of the yeomen probably lived over the border and, therefore, the average migration distance of yeomen was extended, in comparison with the aggregate pattern.

The ways in which distance and social status and occupation interact are really just the tip of a more general problem: how far were the differing mean distances of migrants, with fathers from different status groups and occupations, simply a reflection of the differing spatial distributions of those groups and

occupations? In addition this would also work 'in reverse', for status and occupation classified by master, to the extent that 'like recruited like'. Stated simply the spatial distribution that would be expected was that husbandmen were densest on the ground, then yeomen, then gentlemen in rural areas, and craftsmen and professional and service people were condensed in towns at considerable distances apart. Given this pattern, one would expect, for purely distributional reasons, the average migration distances to vary in the same way: because there were many yeomen around a town, their sons would tend only to migrate short distances; because gentlemen were more thinly spread, their sons were bound to move further on average, and because towns only existed at relatively long distances apart, social groups and occupations based in urban settlements would have correspondingly greater mean migration distances. Except native apprentices, there could be no possible short mean migration distances for apprentices from towns.

It is, therefore, difficult to draw firm conclusions about the influences of any one variable because of their inter-relationship. This is a very important issue which has been largely ignored by other work on migration in pre-industrial England. More attention has perhaps been paid to this problem in work based on data from later periods when information is more reliable and complete.

Two difficulties exist in trying to solve these problems. Undertaking some experiments using samples from the main body of data requires one to distinguish between apprentices from towns and those from the countryside. As was mentioned earlier the

problems in defining 'urban' are significant, and I feel would only add ambiguity to any conclusions. The size of the sample is the second hurdle; by selecting apprentices on the basis of whether they were from rural or urban areas and in which status and/or occupational group their father fell, resulted in the reduction of the sample size, so that differences may have been simply random effects in relatively small samples.

The indenturing of a younger son for a long period of time, which involved the transfer of parental responsibility to the master, was unlikely to come about unless father and master were fairly closely acquainted. Access to widespread sources of information and contacts established through business probably accounted for many apprenticeships. Mean migration distances would, therefore, reflect the extent of 'contact fields', either of the father or of the master. If the higher status groups had wider 'contact fields' the average distances moved would perhaps be expected to be similarly longer. The distribution of the higher status groups meant that contact with people of similar standing would take place over long distances. Merchants in one town would have business links with many other towns. Their knowledge of opportunities for an opening for a young man would therefore extend throughout this large area, and their sons would be apprenticed when an opportunity arose. He would, most likely as not, have to travel some distance to his master.

Masters would also be expected to have contact fields related to the nature of their activities: dealers would have ranged over wide areas in the search for goods as well as in the selling of products: craftsmen required raw materials which may not have

always been available in the town, and sometimes they supplied demand which existed over a wide area, for example specialist craftsmen such as goldsmiths, pewterers and glovers. It is tempting to speculate about the wider 'contact fields' of higher status people in general being related to their distributions, as well as the nature of their activities. The problem is that the nature of their activities required such a distribution anyway. Dealers brought together places and resources that were diverse and separate, and to achieve this successfully they required locations at the confluence of flows of people and goods, which were the towns. Towns were few and far between so that dealers' sons were bound to travel long distances on average. Craftsmen operated in towns and in the surrounding countryside so that their average migration distances were shorter.

Although this study cannot provide sufficiently precise evidence as to the reasons why higher status groups moved further on average compared with lower status groups, it has revealed trends which concur with the results of studies using similar data. The research reported here is limited by the deficiencies of the data, with their inevitable problems of imprecise locational and occupational information. Further research requires the drawing of more specialised samples which are sufficiently large to permit more complex cross-tabulations.

CHAPTER 5 - NOTES AND REFERENCES

1 SMITH, R.M. (1978) op. cit., pp. 221-2

2 SHEAIL, J. (1972) 'The distribution of taxable population and wealth in England during the early sixteenth century', Trans. Inst. Br. Geogr. 55, p. 123

3 LASLETT, P. (1977) Family life and illicit love in earlier generations, Cambridge University Press, pp. 50-101

4 LEVINE, D. (1977) Family formation in an age of nascent capitalism, London, pp. 58-87

5 RAVENSTEIN, E.G. (1876) 'Census of the British Isles 1871; birthplaces and migration', Geographical Magazine 3, pp. 173-7, 201-6, 229-33; idem (1885) 'The laws of migration', Jnl. Stat. Soc. 48, pp. 167-227; idem (1889) 'The laws of migration', Jnl. Stat. Soc. 52, pp. 214-301. For a detailed study of Ravenstein's ideas and the way in which they have been used by geographical studies, see GRIGG, D.B. (1977) 'E.G. Ravenstein and the 'laws of migration'', Jnl. Hist. Geog. 3, pp. 41-54

6 Tables 5.1, 5.2 and 5.3 were drawn up from BUTCHER, A.F. (1974) 'The origins of Romney Freemen 1433-1523', Econ. Hist. Rev. 2nd Ser. 27, pp. 16-27; BUCKATZSCH, E.J. (1949) 'Places of origin of a group of immigrants into Sheffield 1624-1799', Econ. Hist. Rev. 2, pp. 303-6; CLARK, P. (1972) op. cit.; CORNWALL, J. (1967) 'Evidence of population mobility in the seventeenth century', Bull. Inst. Hist. Research 40, pp. 143-52; SLACK, P.A. (1974) 'Vagrants and vagrancy in England 1598-1664', Econ. Hist. Rev. 2nd Ser. 27, pp. 360-79; PATTEN, J.H.C. (1976) op. cit. These studies used distance bands of varying radii and I have tried to accommodate these in the tables. J. Cornwall's study of Sussex depositions gives details on moves of less than 5 miles: 26.3 per cent of the deponents moved to an adjoining parish; 17.8 per cent moved distances of between 1 and 5 miles. E. Buckatzsch does not consider moves of less than 5 miles. P. Clark's study uses a rather awkward distance framework. Only male deponents who were born in Kent were considered for analysis of the straight line distance and were quantified. So the figures given in Table 5.1 represent the mileage travelled by male immigrants between birth-place in Kent and Canterbury. Deponents born outside Kent are only recorded by county. Aggregate data refers to my own data combined for the three towns.

7 It is also the feature of other studies of migration such as HANLEY, H. (1975) 'Population mobility in Buckinghamshire 1578-83', Local Population Studies 15, pp. 33-9; CRESSEY, D. (1970) 'Occupations, migration and literacy in East London 1580-1640', Local Population Studies 5, p. 57

8 WRIGLEY, E.A. (1967) op. cit.

9 HAGGETT, P. (1972) Geography: a modern synthesis, Harper and Row, pp. 406-9

10 WRIGLEY, E.A. (1967) op. cit.

11 HEY, D.G. (1974) An English rural community: Myddle under the Tudors and Stuarts, Leicester University Press

12 SMITH, R.M. (1978) op. cit., pp. 223-4

13 BUCKATZSCH, E.J. (1949) op. cit.; PATTEN, J.H.C. (1976) op. cit.

14 See table 5.1 and note 6, (Chapter 5)

15 PATTEN, J.H.C. (1977) op. cit.

16 Figures 5.2, 3, 4, 5, 6, 8, 9, 10, 11 and 12 show the apprentices' places of origin up to a radius of 40 miles from the town concerned. Reducing the scale of the map to include those isolated few from further afield would have obliterated the detailed information that is illustrated at the given scale and added little to the patterns depicted on the maps. Entries for Gloucester were far too numerous to draw on one map at this scale and so have been separated according to three time periods. Entries that gave no details of occupation have been omitted, from the maps.

17 PATTEN, J.H.C. (1973) op. cit.

18 LAWTON, R. (1978) op. cit; CARTER, H. (1978) 'Towns and urban systems 1770-1900', in DODGSHON, R.A. and BUTLIN, R.A. (eds.) (1978) op. cit., pp. 367-400

19 In the sections on the relationship between spatial mobility and direction for each of the three towns, my comments draw on THIRSK, J. (1967) 'The farming regions of England', and EMERY, F. (1967) 'The farming regions of Wales', both in THIRSK, J. (ed.) (1967) The agrarian history of England and Wales 4, Cambridge University Press, pp. 1-112 and pp. 113-60; YELLING, J.A. (1978) 'Agriculture 1500-1730', in DODGSHON, R.A. and BUTLIN, R.A. (eds.) (1978) op. cit., pp. 151-72

20 BOWDEN, P.J. (1962) op. cit.

21 Although it discusses Bristol's role at a later date, the following is useful in providing an indication of the city's dominance of south-west England. MINCHINTON, W.E. (1954) 'Bristol - metropolis of the West in the eighteenth century', Trans. Royal Hist. Soc. 5th Ser. 4, pp. 69-89

22 EMERY, F. (1967) op. cit., p. 133

23 Ibid; OWEN, L. (1959) 'The population of Wales in the sixteenth and seventeenth centuries', Trans. of the Honourable Society of of Cymmrodorion, pp. 99-113

24 ADEY, K.A. (1973) 'Seventeenth century Stafford: a county town in decline', Midland History 2, pp. 152-67

25 ROWLANDS, M.B. (1975) Masters and men in the West Midlands metalware trades before the industrial revolution, Manchester University Press

26 LASLETT, P. (1977) op. cit.

27 SMITH, R.M. (1978) op. cit., p. 223

28 SHEAIL, J. (1972) op. cit.

29 CLARK, P. (1972) op. cit.

30 PATTEN, J.H.C. (1976) op. cit.

31 CLARKSON, L.A. (1966) op. cit.

32 Where the column or row total is 40 or less, the percentages have not been entered in the tables as the addition or subtraction of only one or two cases to the sub-groups has a disproportional influence on the relative counts.

33 CLARKSON, L.A. (1966) op. cit.

34 LANGTON, J. (1978) op. cit., pp. 188-9

35 BUCKATZSCH, E.J. (1949) op. cit; PATTEN, J. (1976) op. cit. I am grateful to Dr. J. Patten for allowing me to consult his Ph.D. thesis: PATTEN, J.H.C. (1972) 'The urban structure of East Anglia in the sixteenth and seventeenth centuries', unpubl. Ph.D. thesis, Univ. of Cambridge

36 PATTEN, J.H.C. (1972) op. cit.; idem (1976) op. cit.

37 CCRO G14/1

38 CCRO M/Ap/B/1

39 KELLET, J.R. (1957) op. cit.

40 PATTEN, J.H.C. (1976) op. cit., p. 118

41 POUND, J.F. (1966) 'The social and trade structure of Norwich 1525-1575', Past and Present 34, pp. 49-69; CORFIELD, P. (1972) op. cit.

42 HEY, D.G. (1972) 'The rural metalworkers of the Sheffield region: a study of rural industry before the industrial revolution', Univ. of Leicester, Dept. of English Local History Occasional Papers 2nd Ser. 5

43 SLACK, P.A. (1974) op. cit., p. 377; BEIER, A.L. (1974) 'Vagrants and the social order in Elizabethan England', Past and Present 64, pp. 3-29

Chapter 6

SOCIAL AND OCCUPATIONAL MOBILITY

It is clear that there was a constant social movement up and down in Tudor and Stuart society, which was qualitatively important even if it was quantitatively small. Some of the most important changes in an individual's life were accompanied by a change in residential location, such as marriage or the start of a new job.[1] Movement to a new place of residence was quite often accompanied by a movement of a socio-economic nature. Just as the assumption of a geographically static society has been dismissed,[2] so must its concomitant of an essentially stable social structure.

Contemporary comment, albeit frequently prejudiced, drew attention to the changes taking place within English society during the sixteenth and seventeenth centuries.

> "The gentry in Middlesex seem sojourners rather than inhabitants therein. It is not strange that of the thirty three fore-named families (in 1433) not three of them extant in the shire 160 years after, in 1593 ...
>
> "Hungry time has made a glutton's meal on this catalogue of gentry (of 1433 in Bedfordshire) and has left but a very little morsel for manners remaining, so few of these are found extant in this shire and few continuing in a gentle equipage ...
>
> "Let others render a reason why the ancient families (in Huntingdonshire) (more in proportion than elsewhere) are so decayed. This seems a probable cause why many new ones are seated herein, because Huntingdonshire, being generally Abbey land ... after the Dissolution many new purchasers planted themselves therein..."[3]

Tudor and Stuart society attached immense importance to degree, priority and place and maintained a hierarchical structure. The very strength of the emphasis on order and degree, expressed by people such as Thomas Fuller, Edward Waterhouse and Thomas Wilson

may have reflected a reaction to the strength of the forces that were in motion to alter them. The prevailing attitude to social status was that

> "The heavens themselves, the planets, and this centre,
> Observe degree, priority and place,
> Insisture, course, proportion, season, form,
> Office, and custom, in all line of order.
>
> Take but degree away, untune that string,
> And hark what discord follows; each thing meets
> In mere oppugnancy".[4]

> "In reality, the process by which men contracted in and out of the accepted social ranks of the time did not destroy the conception of a society ordered by degree: By putting degree up for auction, it enabled it to be preserved, strengthened and given an element of vitality and rationality it lacked elsewhere. Society remained in every respect a compromise between old and new".[5]

Thus, in spite of the emphasis placed upon 'degree' and 'place', social mobility was commonplace. Even in a society characterised by oscillation rather than dramatic upheaval, the ranks of the successful needed constant replenishment. This was especially so of the urban elite, who rarely stayed longer than three generations in the town, frequently returning to the countryside and to country estates if their lineage survived so long.[6] High mortality rates; lack of male heirs; fragility of business wealth; these combined to cause the extinction of wealthy urban families, and it was the search for stability and a defined place in the economically secure upper echelons of society that caused wealthy urban families to move to the country where investment in land was perhaps seen as more capable of holding its value and confirming social kudos. The filling of the gaps left by both extinction and movement was as likely to come from outside the town as from within, although the more important postions were not filled indiscriminately; towns did have their Dick Whittingtons, but it was more normal for somewhat higher status

immigrants to take the place of the emigrating successful. Sons of yeomen became merchants; youngest sons of the local country gentry involved themselves in trade as well as the professions and the services, whilst the sons of husbandmen and craftsmen found that upward social mobility might be achieved by joining the ranks of a high status craft company such as the goldsmiths, stationers and pewterers. Disease and death, however, claimed their victims from all ranks, which meant that opportunities for mobility might be taken by other than just the wealthy and privileged.

As industry and commerce developed, so did the diversity of occupations, resulting in increasing numbers of children following different occupations from their fathers. Moreover, as apprentices were largely drawn from rural backgrounds, their term of indenture inevitably led to a degree of socio-economic change as their new occupations were urban-industrial in nature. The experience of an urban as opposed to a rural way of life must have had a far-reaching influence upon the lives of many of the migrant apprentices.[7]

The social and economic background of the many apprentices from rural areas was by no means undifferentiated, even among the class that is commonly denoted as that of 'the small farmers'. In Leicestershire, 4 per cent of the rural population owned 25 per cent of the personal estate and 15.5 per cent owned 50 per cent. In the size of landholdings there was even greater disparity. One half of the farms were less than sixty acres, with an average acreage of thirty to thirty five acres, with a sown area in any one year of around ten acres. Only 4 per cent had more land, the 'yeomen', with one hundred acres or more. At the other end of the spectrum were the cottagers and labourers with one to fifteen acres. In this

context, influences such as inflation, bad harvests or just illness meant that the weak went to the wall, and their holdings were quickly acquired by those with the necessary means. A vast traffic in land was carried on in the sixteenth and seventeenth centuries by all classes of society, but most effectively by the successful yeomen and gentry. Hoskins claimed that this witnessed "...the largest transference of land ownership since Domesday".[8]

The commercially based rural economy of the late sixteenth and seventeenth centuries was characterised by the sixty to one hundred acre smallholder of respected social status. Within the core of property holders two groups became established, husbandmen and yeomen. Precise definition of the two groups is difficult as conditions varied throughout the period and from one part of the country to another. Studies of inheritance customs suggest that those families who were unable to accumulate cash surpluses either perished, or were forced to accept the fact that the elder son must take over the whole holding as a going commercial concern; an attempt to provide for the whole family would result in a subsistence existence for all of them.[9] The apprenticeship registers contain many entries which record the movement of husbandmen's sons away from the land into an urban occupation, and even these may represent only the better-off husbandmen, as some cash surplus was required to pay for the entry fee into the craft company.

The yeomanry contained the more prosperous range of farmers who had not become gentry. Sometimes they were better off than the gentry . Their standard of living was higher than that of the husbandmen; they ate 'yeoman bread', which was largely made with wheat; they were agricultural improvers and they were after profits, not

subsistence from the land. Their success and status can be seen in the legacies they left their families. By the sixteenth century yeomen testators had begun leaving cash sums to their younger children in place of farming equipment, stock and household goods. Very often these amounts of money were worth more than what the children would have received in kind. The larger the amount of money, the higher the young man could aim in terms of entry to the professional or merchant classes. Links between yeomen and merchants and dealers were common, as might be expected given the agricultural enterprise and specialisation of the time, which called for a means of integrating supply and demand over long distances.

> "This is the period which saw the specialisation of small-holders in market gardening, in stockraising for the meat market, of specialisation in carriage and saddle horse , in high quality wool, in specialist crops such as woad. In proportion to their success in these ventures they sent forth sons equipped with a training in trade or a craft or in clerical skills acquired at the grammar school or university. It was common for successful farmers to have family connections in commerce and in law. To generalise, the age of commerce recruited from the small-holder and yeoman farmer, just as two centuries later the industrial revolution drew its raw recruits from the vagabond-labourer class".[10]

The merchants, lawyers and other professional men perhaps reflected an urban equivalent of gentry status in the countryside. The rise of the commercial and professional classes in numbers and wealth represented a major social and structural change during the sixteenth and seventeenth centuries. Their recruits tended to come from the younger sons of the landed gentry and the more prosperous yeomen. The former took to these occupations without loss of social rank since the occupations themselves were now enjoying an enhanced social status. The causes of social mobility were analysed by contemporary observers, one of whom, Edward Waterhouse, distinguished various 'causes of rise'.

"...To have money is to be master of every almost desirable adjustment to God's glory and men's good. Money then being thus prevalent, it cannot be denied to be a probable rise to men and in them to families.

Secondly, favour with the prince is the most undoubted step to honour, wealth and greatness. This I had placed first, but that money is the more general cause of rise, many coming thereby to honour an esteem who never see the prince, or transiently only, being added to by him...

"Callings of employment and income are great rises and enlargements to a family....

"Nor would the great men of England know how to dispose of their children, or their families expatiate so, and by such alliances strengthen and embellish themselves as now they do, were it not for learned callings and employments of trade, which in the income of them are equivalent to lands and manors, and by exchange purchase of them...

"...the rises of persons in /other/ callings are not so great, nor so general, as those of law or trade are ..."[11]

With the widespread use of primogeniture, younger sons, in particular of local gentry, were unlikely to set up new and independent country estates. Local opportunities for investment such as mineral resources or a particular industry were not that common. In 1699 Liverpool had "...many gentlemen's sons of the counties of Lancaster, Yorkshire, Derbyshire, Staffordshire, Cheshire and North Wales ... put to apprenticeship in the town".[12] There is every indication that by altering the date to 1609 one could substitute Chester for Liverpool in this quote, and by changing the counties it would also apply to Gloucester and Shrewsbury.[13] The rise in status of occupations such as lawyers and merchants consequently led to the acquisition of titles such as 'gentlemen' without the once obligatory holding of an estate. They became a part of "...that rapidly expanding class of leisured inhabitants of the town (of very mixed origin) which can best be described as the 'pseudo-gentry'".[14] Movement into this group was encouraged by the apparent expansion of numbers who called themselves gentlemen in the sixteenth and

seventeenth centuries.

> "... it looks as though pressure upwards into the gentry reinforced the domination of the country by an enlarged armigerous class. For as the great magnates lost their franchises, the gentry stepped into their places, controlling local government in the king's name".[15]

In general, apprenticeship was a means towards upward social mobility, but it was still bounded by unwritten rules of society that tended towards overall conservatism. The importance of the forces of social mobility to the changing organisation of England's economy and society was that they acted to reinforce the ties between the town and its region. Younger sons in the country looked towards towns such as Chester, Gloucester and Shrewsbury for their training, for as centres of exchange of agricultural and industrial products these places offered good opportunities for advancement. The demands of the 'pseudo-gentry' coupled with the specialisation of agricultural and industrial production could not be met by purely local supply. Urban based dealers (some of whom were the relatives of the service and professional classes and of people of independent means) met these demands by bringing together demand and supply over long distances. For the legally-minded the towns were also full of opportunities in their courts, and for those whose minds were on more spiritual matters the cathedrals of Chester and Gloucester offered chances for advancement. Thus, the trends within English economy and society in the sixteenth and seventeenth centuries required economic and social mobility which, in turn, needed spatial movement. Just as most of the shifts in status and economic roles were usually incremental rather than dramatic, the geographical migrations through which they were effected were usually to destinations no further than the nearest market or county town. The configurations of

the 'regional cells' around Chester, Gloucester and Shrewsbury have been examined in an earlier chapter; in the remainder of this chapter I will examine in as much detail as the data permit the kinds of social mobility that both characterised and energised them.

The Relationship between Fathers' and Masters' Occupations

Information on the occupations of both master and apprentice's father was recorded in 2844 of the indentures recorded in Chester, Gloucester and Shrewsbury. The following discussion is, therefore, based upon this sample, although with the use of different occupational classifications the sample size does vary. In some examples, although the precise occupational description of a master is omitted from the register, assumptions can be made at a more general level. For example, if the master belonged to a craft company as opposed to a mercantile company, he could be entered as a craftsman. If the craft company represented a single body of workers, for example, the glovers or shoemakers, his occupation could be entered under leather in the raw material classification. Where the company represented the interests of a variety of crafts, such as the painters, glasiers, embroiderers and stationers, no such assumption could be made. Therefore, a missing value had to be entered in the more detailed classification.

The Aggregate Data

Even within a relatively socially homogeneous migrant group such as apprentices, there was a fairly clear tendency for sons of higher status fathers to move into higher status occupations. Disregarding for the present any distinction between apprentices who

moved into the three towns and those whose place of residence was the town where they were indentured, the various socio-economic groups from which they originated showed a strong affinity with groups of similar status at their destinations. (Table 6.1)[16] Of the fathers who were recorded as belonging to the service, professional and independent class, over two thirds sent their sons into the dealing sector. The attraction of the merchant class for the country gentry further confirms the pattern of movement within equivalent social groups. The two were of similar standing by the late sixteenth century. The urban-based dealers held powers and privileges in the towns similar to those of the country gentry in the rural areas; oligarchy was commonplace in many towns, with the power obtained being used to perpetuate self-interest. With primogeniture as the principal system of inheritance, apprenticeship, and thereby entry into the mercantile sector, was perhaps the least insecure path to high social status for all but the eldest sons of country gentlemen. Once sufficient wealth had been accumulated by the urban merchant, a move to a country estate was the most likely course of action. In time perhaps the younger sons of the 'new' country gentlemen would repeat the journey of their predecessors back to the town, in some cases being apprenticed to uncles or cousins. In this way, apprenticeship migration can be seen as reinforcing the ties between town and country, performing a vital role in the circular process of interaction.

It is tempting to see the 27.7 per cent of apprentices from the elite social background who were indentured to craftsmen as the unfortunates whose social mobility was downwards. In some cases this may have been true, with the untimely death of the father

Table 6.1 Aggregate data: Destination, by occupation, of apprentices from each occupational category

Fathers	Masters: Service, Professional, Independent	Masters: Dealing	Masters: Craftsmen	Row Total
Service, Professional, Independent (15.1%)[a]	16 3.7%[b]	295 68.6%	119 27.7%	430
Dealing (8.5%)	5 2.1%	137 56.8%	99 41.1%	241
Craftsmen (34.0%)	7 0.7%	113 11.7%	848 87.6%	968
Yeomen (26.9%)	17 2.2%	250 32.7%	497 65.1%	764
Husbandmen (15.5%)	8 1.8%	74 16.8%	359 81.4%	441
Column Total	53	869	1922	2844

a % of all apprentices

b % of apprentices from each separate occupational category

perhaps leaving the family with meagre financial support. On the other hand, the existence of high status crafts such as the stationers, goldsmiths and pewterers perhaps accounts for why these sons of the gentry became craftsmen.

The small number of apprentices from the service, professional and independent means sector who trained in that same sector can be largely accounted for by the infrequency with which these occupations used formal apprenticeship. In towns which did have apprenticeship, patrimony was probably used extensively to obtain entry into these higher status occupations. Many eldest sons of country gentlemen would have taken over the management of the family estate on the death of the father; the legal profession had its training centralised in London, and in both cases the practitioners were not required to receive any formal instruction. In addition, members of this group may have looked towards the capital or the larger provincial centres such as Bristol or York for opportunities in all occupations, service, professional, mercantile and craft.

Sons of dealers were the least numerous of any of the five groups of apprentices, representing 8.5 per cent of the total number of apprentices. Over half became dealers themselves, with only a very small residual group training as craftsmen. The figure of 2.1 per cent entering the service and professional sector is probably too low, for the main reasons outlined previously, namely that these occupations tended not to use the system of apprenticeship for training. The position of power which the dealers occupied in the towns perhaps offers another contributory factor why few dealers' sons are registered: they could use patrimony to obtain the freedom of

the town without the usual obligatory serving of an apprenticeship.

An overwhelming proportion of craftsmen's sons became craftsmen, 87.6 per cent, though not necessarily in the same trade as their father. Over 10 per cent trained as dealers, with only a few attempting a much greater social step by training in the professions or services.

The single largest group of apprentices came from agricultural backgrounds, being the sons of yeomen and husbandmen, with the former group more numerous than the latter. Differences between the two groups were reasonably clear: although in both cases the majority trained in the manufacturing sector, a greater proportion of sons of husbandmen became craftsmen, 81.4 per cent compared with 65.1 per cent of yeomen's sons. Twice the number, in relative terms, of yeomen's sons went into the dealing sector, 32.7 per cent as against 16.8 per cent of husbandmen's sons. Both groups sent only a few young people to train in the professional and service sectors. Judged by the respective proportions entering the three occupational groups, yeomen were the more prosperous of the two groups, a conclusion lent some credence by information such as inventories and taxation lists. These show that at the end of the sixteenth-century a yeoman was likely to be about twice as wealthy as a husbandman; by the mid-seventeenth century the gap had risen to two and a half.[17]

Examination of the topic from the other direction - from which groups the three types of masters drew their apprentices - gives some equally interesting patterns. (Table 6.2) As expected, masters who were craftsmen were the most numerous, accounting for 67.5 per cent of all indentures. Just under half as many masters were dealers,

Table 6.2 Aggregate data: Origin, by occupation, of apprentices recruited to masters in each occupational category

Masters	Fathers: Service Professional Independent	Dealing	Craftsmen	Yeomen	Husbandmen	Row Total
Service Professional Independent (1.9%)[a]	16 30.2%[b]	5 9.4%	7 13.2%	17 32.1%	8 15.1%	53
Dealing (30.6%)	295 33.9%	137 15.8%	113 13.0%	250 28.8%	74 8.5%	869
Craftsmen (67.5%)	119 6.2%	99 5.2%	848 44.1%	497 25.8%	359 18.7%	1922
Column Total	430	241	968	764	441	2844

a % of all masters

b % of apprentices to each separate occupational category

30.6 per cent, with the service, professional and independent sector being poorly represented. These figures not only represent the sectors of the economy which made full use of the apprenticeship system of training, but also highlight the manufacturing and distributive functions of the economies of Chester, Gloucester and Shrewsbury. The figures for those masters of the service and professional sectors are very small and conclusions based on these must be at best tentative, but they do perhaps indicate the tendency of these higher status occupations to attract recruits from groups of similar rank.

The greater numbers of masters in the dealing and manufacturing sectors give greater confidence to the conclusions drawn about them. The dealers attracted their apprentices from the higher status members of society, the service, professional and independent sectors, the yeomen and other dealers. Fewest apprentices came from amongst sons of husbandmen, with craftsmen's sons filling those few remaining opportunities not already taken up by the other groups. The status of dealers and hence of their recruits has received a full consideration in the chapter concerned with the term of indenture. Apprentices in the craft occupations were most likely to come from other craftsmen: 44.1 per cent did, with a further 25.8 per cent being the sons of yeomen. The remainder came from husbandmen, service, professional and independent and dealing sectors, in order of decreasing magnitude. These figures serve as another indication that whilst English society during the sixteenth and seventeenth centuries was not static, the elements of conservatism were deeply rooted.

The next occupational classification attempts to distinguish between differences in the raw materials dealt in or processed by

the masters and fathers. (Tables 6.3 and 6.4) Eleven categories exist for the apprentices' fathers whilst the omission of the agricultural category amongst the masters results in ten categories, thereby giving a matrix with 110 cells. Several cells record no cases, whilst others show only a small number, with the effect of considerably reducing the number of cells with sufficient numbers of cases to allow any conclusions to be drawn.

Numerically strongest amongst the fathers were those from agricultural backgrounds, an expected result as apprenticeship migration was dominantly rural-urban in character. The second group in terms of numbers were those employed in the textiles sector, which was not unusual as occupations in this sector had a ubiquity within the economy in general which only farming surpassed. Of slightly less significance in numerical terms were fathers designated as belonging to the service, professional and independent category, of which by far the majority were 'gentlemen'. The fourth most numerous group was that which included those occupations having leather as their raw material, followed by occupations in the food and drink and wood categories.

Table 6.3 also indicates the degree of mobility amongst the various raw material categories. There was a strong tendency for sons to follow their fathers, maybe not as regards the same particular job, but in still using the same raw material. Over 50 per cent of apprentices in wood, leather, non-ferrous metals, earthenware and glass, glue and tallow and textile groups, were the sons of fathers whose occupations involved either processing, manufacturing or dealing in the same raw material. Some of these cases represent sons apprenticed to fathers, some the serving of a term of indenture with a close relative, an uncle or cousin perhaps. Those that were

Table 6.3 Aggregate data: Destination, by raw material category, of apprentices from each raw material category

a % of all apprentices b % of apprentices from each separate raw material category

Fathers	Masters: Wood	Leather	Iron	Non Ferrous Metals	Earthen-ware & Glass	Glue & Tallow	Textiles	Food & Drink	Mixed	Service Professional Independent	Row Total
Wood (3.5%)	50 [a] / 51.0% [b]	6 / 6.1%	2 / 2.0%	6 / 6.1%	7 / 7.1%	0 / 0%	15 / 15.3%	9 / 9.2%	1 / 1.0%	2 / 2.0%	98
Leather (9.6%)	15 / 5.6%	147 / 55.1%	3 / 1.1%	17 / 6.4%	7 / 2.6%	4 / 1.5%	60 / 22.5%	5 / 1.9%	5 / 1.9%	4 / 1.5%	267
Iron (1.5%)	3 / 7.1%	9 / 21.4%	11 / 26.2%	2 / 4.8%	3 / 7.1%	0 / 0%	13 / 31.0%	1 / 2.4%	0 / 0%	0 / 0%	42
Non-Ferrous Metals (1.1%)	0	3	0	16	0	0	6	4	2	0	31
Earthenware & Glass(1.6%)	4 / 8.9%	4 / 8.9%	1 / 2.2%	0 / 0%	25 / 55.6%	1 / 2.2%	6 / 13.3%	3 / 6.7%	0 / 0%	1 / 2.2%	45
Glue & Tallow (0.4%)	0	0	0	0	0	8	2	0	0	0	10
Textiles (16.9%)	15 / 3.2%	54 / 11.5%	6 / 1.3%	22 / 4.7%	12 / 2.5%	12 / 2.5%	313 / 66.5%	26 / 5.5%	9 / 1.9%	2 / 0.4%	471
Food & Drink (6.1%)	16 / 9.4%	36 / 21.1%	3 / 1.8%	12 / 7.0%	5 / 2.9%	6 / 3.5%	35 / 20.5%	53 / 31.0%	1 / 0.6%	4 / 2.3%	171
Mixed (1.4%)	4	6	2	4	2	0	10	0	12	0	40
Agriculture (42.6%)	123 / 10.3%	275 / 23.1%	61 / 5.1%	46 / 3.9%	18 / 1.5%	29 / 2.4%	425 / 35.7%	163 / 13.7%	25 / 2.1%	26 / 2.2%	1191
Service, Professional Independent (15.3%)	8 / 1.9%	40 / 9.3%	36 / 8.4%	10 / 2.3%	14 / 3.3%	7 / 1.6%	263 / 61.3%	12 / 2.8%	23 / 5.4%	16 / 3.7%	429
Column Total	238	580	125	135	93	67	1148	276	78	55	2795

not accounted for in this way perhaps indicate association between father and master as a result of contact made when transacting business. A village wheelwright may have encouraged his second or third son to train with a carpenter in Chester, Gloucester or Shrewsbury, where opportunities were greater for making a living than in the more limited market of the countryside. It seems highly probable that the links expressed in terms of association of raw material used reflect links of a personal nature, based in those business contacts, kinship or friendship.

The two main raw material categories not conforming to this pattern were iron and food and drink. In both these sectors, a considerable proportion of apprentices did remain within the same sector, 26.2 per cent and 31.0 per cent respectively and amongst the remainder the most popular occupations to train in were those using either leather or textiles as their raw materials.

Of the two categories of fathers' occupations which were not raw material based, agriculture and service, professional and independent, some interesting differences between the two groups were highlighted. In both cases, the textile category was the most numerically important, as regards their sons' trainings, more so for the higher social groups than for the yeomen and husbandmen. Thereafter, the results become more complicated. Occupations using leather were second to textiles in numerical importance, although they took 23.1 per cent of the apprentices from the agricultural sector compared with only 9.3 per cent of those from the service, professional and independent sector. The food and drink and wood categories claimed similar numbers of apprentices from agricultural backgrounds with the remaining apprentices being distributed approximately equally amongst the other raw material categories. The apprentices of

higher social status, however, apart from entering the occupations using iron, to a large extent avoided the remaining raw material sectors. One possible explanation of this difference between the two groups was hinted at in the previous analysis based upon social status. Sons from the service, professional and independent sector preferred to train as dealers. This they could do in the textile and cloth category but in the leather industry there was little provision for specialist dealers. Middlemen in this area of the economy tended to be also involved in the processing of hides into leather, an occupation not without its unpleasant aspects such as the smell and mess of the tanning vats. Only in the iron trade was there a place for pure dealing, with ironmongers acting as middlemen between the producers of pig iron and the manufacturers of finished iron products for retail.[18] The inclusion of Chester and Shrewsbury in particular allow this hypothesis to be followed up in greater detail in the sections on the individual towns.

Due to the inclusion of agriculture amongst the fathers' raw material categories, most of the masters' categories show a strong dependence for their recruits upon this one group. (Table 6.4) Leaving aside this feature it is clear that many masters trained apprentices already familiar in some way with the main type of raw material processed: 27.3 per cent for textiles, 28.9 per cent for earthenware and glass, 25.3 per cent for leather and 21.0 per cent for wood. This association within raw material categories has already been discussed in connection with Table 6.3 and the reversal of the examination, that is, from which raw material categories the masters drew their apprentices, confirms the earlier conclusions.

The analysis of social and occupational mobility now proceeds by examining in greater detail the patterns for each town separately.

Table 6.4 Aggregate data: Origin, by raw material category, of apprentices recruited to masters in each raw material category

a % of all masters b % of apprentices to each separate raw material category

Masters \ Fathers	Wood	Leather	Iron	Non-Ferrous Metals	Earthenware & Glass	Glue & Tallow	Textiles	Food & Drink	Mixed	Agriculture	Service Professional Independent	Row Total
Wood (8.5%)[a]	50 21.0%[b]	15 6.3%	3 1.3%	0 0%	4 1.7%	0 0%	15 6.3%	16 6.7%	4 1.7%	123 51.7%	8 3.4%	238
Leather (20.8%)	6 1.0%	147 25.3%	9 1.6%	3 0.5%	4 0.7%	0 0%	54 9.3%	36 6.2%	6 1.0%	275 47.4%	40 6.9%	580
Iron (4.5%)	2 1.6%	3 2.4%	11 8.8%	0 0%	1 0.8%	0 0%	6 4.8%	3 2.4%	2 1.6%	61 48.8%	36 28.8%	125
Non-Ferrous Metals(4.8%)	6 4.4%	17 12.6%	2 1.5%	16 11.9%	0 0%	0 0%	22 16.3%	12 8.9%	4 3.0%	46 34.1%	10 7.4%	135
Earthenware & Glass (3.3%)	7 7.5%	7 7.5%	3 3.2%	0 0%	25 26.9%	0 0%	12 12.9%	5 5.4%	2 2.2%	18 19.4%	14 15.1%	93
Glue & Tallow (2.4%)	0 0%	4 6.0%	0 0%	0 0%	1 1.5%	8 11.9%	12 17.9%	6 9.0%	0 0%	29 43.3%	7 10.4%	67
Textiles (41.1%)	15 1.3%	60 5.2%	13 1.1%	6 0.5%	6 0.5%	2 0.2%	313 27.3%	35 3.0%	10 0.9%	425 37.0%	263 22.9%	1148
Food & Drink (9.9%)	9 3.3%	5 1.8%	1 0.4%	4 1.4%	3 1.1%	0 0%	26 9.4%	53 19.2%	0 0%	163 59.1%	12 4.3%	276
Mixed (2.8%)	1 1.3%	5 6.4%	0 0%	2 2.6%	0 0%	0 0%	9 11.5%	1 1.3%	12 15.4%	25 32.1%	23 29.5%	78
Service Professional Independent (2.0%)	2 3.6%	4 7.3%	0 0%	0 0%	1 1.8%	0 0%	2 3.6%	4 7.3%	0 0%	26 47.3%	16 29.1%	55
Column Total	98	267	42	31	45	10	471	171	40	1191	429	2795

Chester

Occupational information of both master and apprentices' father was recorded in nearly three-quarters of the indentures (74.3 per cent or 693 out of 933), although the sample size varies with the use of different occupational classifications for reasons outlined in the previous section.

The tendency towards movement within socially equivalent groups that was recognised in the aggregate data is also fairly clearly illustrated by the Chester material. (Table 6.5) The service, professional and independent means class preferred to have their sons training as dealers rather than as craftsmen. Of the two groups of apprentices, migrant and non-migrant within this social category, it was the former who more strongly conformed to this pattern. A significant proportion of both migrant and non-migrant apprentices were indentured in the city's manufacturing and processing sector. This latter group included the 2 sons of gentlemen apprenticed to goldsmiths, the 3 to pewterers and the 7 to painters. As well as these somewhat higher status occupations, 4 sons of 'gentlemen' were apprenticed to a baker, 2 brewers and a butcher. The 8 instances of apprentices remaining within the same status group either trained as clerks or barber surgeons.

Of the 50 dealers' sons, more became craftsmen than dealers, a reversal of the trend suggested by the aggregated data. The migrant apprentices were split fairly evenly in their choice of occupation, but the sons of Chester-based dealers were twice as likely to train as craftsmen than as dealers, and there was no single strongly preferred craft.

Sons of craftsmen, the second most numerous group of apprentices,

Table 6.5 Chester: Destination, by occupation, of apprentices from each occupational category

Fathers	Masters: Service Professional Independent	Masters: Dealing	Masters: Craftsmen	Row Total
Service, Professional, Independent (19.0%)[a]	8 6.1%[b]	86 65.2%	38 28.8%	132
Dealing (7.2%)	2 4.0%	19 38.0%	29 58.0%	50
Craftsmen (28.3%)	5 2.6%	20 10.2%	171 87.2%	196
Yeomen (31.7%)	10 4.5%	55 25.0%	155 70.5%	220
Husbandmen (13.7%)	0 0%	17 17.9%	78 82.1%	95
Column Total	25	197	471	693

a % of all apprentices

b % of apprentices from each separate occupational category

were nearly always indentured to craftsmen themselves. This is most strongly so with the non-migrant apprentices, 93.9 per cent of whom did train as craftsmen, although 77.8 per cent of the migrant craftsmen apprentices also trained in the manufacturing sector.

The apprentices from a rural background, the sons of yeomen and husbandmen, tended to train as craftsmen, with more of the former training as dealers, due perhaps to their relatively higher status compared with the husbandmen. This was further emphasised as no apprentices in the service and professional sector were sons of husbandmen, whilst several yeomen's sons did enter these occupations. Differences between migrant and non-migrant apprentices are not helpful in this context as so few yeomen and husbandmen came from Chester itself.

The groups from which the masters drew their apprentices illustrates the tendency for the higher status occupations to attract the higher status apprentices. (Table 6.6) Chester dealers found nearly three quarters of their apprentices in the service, professional and independent means and yeomen classes. This tendency was more pronounced for the migrant apprentices than for the non-migrant. The tendency amongst sons of dealers who trained as dealers was to come from Chester itself rather than outside, an indication perhaps of the tightly knit and exclusive nature of the merchant class in the town.

The craftsmen drew their recruits from a broader spectrum of socio-economic groups, similar proportions being the sons of other craftsmen or yeomen, with sons of husbandmen the third most important supply of trainees. Differences between migrant and non-migrant in this group are not as significant as would appear in social terms.

Table 6.6 Chester: Origin, by occupation, of apprentices recruited to masters in each occupational category

Masters	Fathers: Service Professional Independent	Dealing	Craftsmen	Yeomen	Husbandmen	Row Total
Service, Professional Independent (3.6%)[a]	8	2	5	10	0	25
Dealing (28.4%)	86 43.7%[b]	19 9.6%	20 10.2%	55 27.9%	17 8.6%	197
Craftsmen (68.0%)	38 8.1%	29 6.2%	171 36.3%	155 32.9%	78 16.6%	471
Column Total	132	50	196	220	95	693

a % of all masters

b % of apprentices to each separate occupational category

They largely reflect the obvious feature of more apprentices from rural backgrounds coming from outside Chester and more sons of craftsmen coming from Chester itself. This is not to say that these observations are of minimal significance, for they act as another pointer toward the importance of the manufacturing base to Chester's economy, and the city's functioning as the central place of that region of north-west England and north-east Wales surrounding it.

Investigating occupational mobility based upon a classification into raw materials dealt in or processed by the masters and fathers was based upon a sample of 690 indentures. (Table 6.7) Due to the low numbers in some of the categories the following discussion is restricted to those areas where the numbers of apprentices are large enough to allow some confidence in conclusions drawn from them and to those categories representing true raw materials. The tendency of apprentices to seek a job in the same raw material category as their father was employed in was not as clear as might have been expected from the aggregate data. On the whole, the Chester apprentices tended to train in a spectrum of other occupations than those using the same raw material as their fathers. Only in the wood and earthenware and glass categories did over half the apprentices remain within the same raw material category. Sons of leather workers were as likely to be apprenticed to a master in the wood, earthenware and glass or textile sectors as to another leather worker; a third of the sons of men employed in the textile and cloth industry did train in the same sector but others trained in the wood, leather, earthenware and glass and glue and tallow sectors.

Those apprentices from an agricultural background showed no

Table 6.7 Chester: Destination, by raw material category, of apprentices from each raw material category

a % of all apprentices b % of apprentices from each separate raw material category

Fathers	Masters: Wood	Leather	Iron	Non-ferrous Metals	Earthen-ware & Glass	Glue & Tallow	Textiles	Food & Drink	Mixed	Service, Professional Independent	Row Total
Wood (6.7%)[a]	30 65.2%[b]	0 0%	0 0%	0 0%	6 13.0%	0 0%	5 10.9%	2 4.3%	1 2.2%	2 4.3%	46
Leather (6.8%)	10 21.3%	13 27.7%	0 0%	0 0%	7 14.9%	1 2.1%	7 14.9%	1 2.1%	5 10.6%	3 6.4%	47
Iron (1.3%)	2	1	2	0	3	0	1	0	0	0	9
Non-ferrous Metals (0.1%)	0	0	0	1	0	0	0	0	0	0	1
Earthenware & Glass (3.9%)	2	0	0	0	21	0	1	2	0	1	27
Glue & Tallow (0.9%)	0	0	0	0	0	6	0	0	0	0	6
Textiles (7.5%)	7 13.5%	6 11.5%	1 1.9%	0 0%	9 17.3%	5 9.6%	18 34.6%	3 5.8%	2 3.8%	1 1.9%	52
Food & Drink (4.8%)	10	5	2	0	5	1	2	6	1	1	33
Mixed (2.8%)	4	2	2	0	2	0	4	0	5	0	19
Agriculture (45.9%)	80 25.2%	50 15.8%	25 7.9%	1 0.3%	11 3.5%	7 2.2%	61 19.2%	60 18.9%	11 3.5%	11 3.5%	317
Service, Professional, Independent (19.3%)	6 4.5%	6 4.5%	35 26.3%	5 3.8%	13 9.8%	2 1.5%	37 27.8%	6 4.5%	15 11.3.	8 6.0%	133
Column Total	151	83	67	7	77	22	136	80	40	27	690

strong preference for any one particular category, the most popular being wood followed by textiles, food and drink, leather and iron.

Two raw material categories stand out as the choices of young men from service, professional or independent means backgrounds: textiles and iron, which to a large extent represent sons of 'gentlemen' traing as dealers - mercers, drapers or ironmongers.

Table 6.8 shows the extent to which masters tended to recruit apprentices from within the same raw material category. For the main categories, significant proportions of masters trained teenagers who already had some experience of the raw material with which they principally trained. One interesting exception to this trend is found with the masters employed in the iron sector. Of their apprentices, over half came from amongst the sons of service, professional and independent means fathers. The explanation of this pattern is to be found in the dealing nature of many iron masters' businesses, most of whom were ironmongers who did not manufacture iron but acted as middlemen between the furnaces and smiths. Overlying the patterns evident in this table is the numerical domination amongst masters' recruits of the sons of agricultural workers, who, in the majority of categories, supplied a large proportion of the apprentices.

Gloucester

Of the nearly 2,000 apprenticeships registered in Gloucester between 1595 and 1649, nearly 80 per cent contain information concerning the occupations of both father and master (1572 out of 1980). Just under half of the apprentices came from an agricultural

Table 6.8 Chester: Origin, by raw material category, of apprentices recruited to masters in each raw material category

a % of all masters b % of apprentices to each separate raw material category

Masters

	Fathers											
	Wood	Leather	Iron	Non-ferrous Metals	Earthen-ware & Glass	Glue & Tallow	Textiles	Food & Drink	Mixed	Agricul ture	Service Professional Independent	Row Total
Wood (21.9%) [a]	30 19.9% [b]	10 6.6%	2 1.3%	0 0%	2 1.3%	0 0%	7 4.6%	10 6.6%	4 2.6%	80 53.0%	6 4.0%	151
Leather (12.0%)	0 0%	13 15.7%	1 1.2%	0 0%	0 0%	0 0%	6 7.2%	5 6.0%	2 2.4%	50 60.2%	6 7.2%	83
Iron (9.7%)	0 0%	0 0%	2 3.0%	0 0%	0 0%	0 0%	1 1.5%	2 3.0%	2 3.0%	25 37.3%	35 52.2%	67
Non-ferrous metals(1.0%)	0	0	0	1	0	0	0	0	0	1	5	7
Earthenware & Glass (11.2%)	6 7.8%	7 9.1%	3 3.9%	0 0%	21 27.3%	0 0%	9 11.7%	5 6.5%	2 2.6%	11 14.3%	13 16.9%	77
Glue & Tallow (3.2%)	0	1	0	0	0	6	5	1	0	7	2	22
Textiles (19.7%)	5 3.7%	7 5.1%	1 0.7%	0 0%	1 0.7%	0 0%	18 13.2%	2 1.5%	4 2.9%	61 44.9%	37 27.2%	136
Food & Drink (11.6%)	2 2.5%	1 1.2%	0 0%	0 0%	2 2.5%	0 0%	3 3.7%	6 7.5%	0 0%	60 75.0%	6 7.5%	80
Mixed (5.8%)	1	5	0	0	0	0	2	1	5	11	15	40
Service, Professional, Independent (3.9%)	2	3	0	0	1	0	1	1	0	11	8	27
Column Total	46	47	9	1	27	6	52	33	19	317	133	690

background (725 out of 1572), being the sons of yeomen or husbandmen. (Table 6.9) This is equivalent to the figures for Chester but more than for Shrewsbury. More craftsmen's sons were apprenticed in Gloucester than in the other two towns, an indication perhaps of the nature of the region surrounding the city. The proportion of apprentices who were the sons of dealers was similar to Chester's, and about half that of Shrewsbury. Amongst the sons of the highest social grouping Gloucester recruited fewer apprentices, proportionately, than either Chester or Shrewsbury. Of the 135 apprentices from this category whose place of residence could be traced, 43 came from Gloucester itself and 92 from places outside the city, so that a greater proportion of the apprentices from this social grouping came from the city itself than did so in Chester and Shrewsbury. Whether this implies that there were fewer 'gentlemen' in Gloucestershire than in Cheshire or Shropshire cannot, of course, be ascertained from these data. The most likely explanation of the discrepancies can perhaps be found in the three figures for missing values. Only 3.6 per cent of the Gloucester sample did not have their place of residence recorded. The comparable figures for Chester and Shrewsbury were 19 per cent and 12 per cent respectively. As these young people were the sons of men of considerable social standing in the community the clerks recording the indenture may have felt it unnecessary to record the father's place of residence. Perhaps the clerk at Gloucester performed his duties with more diligence than his counterparts in Chester and Shrewsbury. This does not, however, detract from the observation that proportionately fewer apprentices came from the service, professional and independent means sector. This may have been due to the widespread use of patrimony to obtain the town's freedom

Table 6.9 Gloucester: Destination, by occupation, of apprentices from each occupational category

Fathers	Masters: Service Professional Independent	Masters: Dealing	Masters: Craftsmen	Row Total
Service, Professional, Independent (8.9%)[a]	8 5.7%[b]	64 45.7%	68 48.6%	140
Dealing (7.3%)	3 2.6%	46 40.4%	65 57.0%	114
Craftsmen (37.7%)	2 0.3%	46 7.8%	545 91.9%	593
Yeomen (25.8%)	7 1.7%	98 24.1%	301 74.1%	406
Husbandmen (20.3%)	8 2.5%	43 13.5%	268 84.0%	319
Column Total	28	297	1247	1572

a % of all apprentices

b % of apprentices <u>from</u> each separate occupational category

rather than the formal serving of an apprenticeship.

The tendency of apprentices from the highest social status category to train as dealers rather than craftsmen is not apparent in the Gloucester data. The preference was to train as craftsmen rather than dealers. The implications of this finding are made more intriguing when the precise occupations are included. Of the 140 apprentices described as having fathers in the service, professional and independent means categories, 82 were 'gentlemen'. Of these, 14 were apprenticed to shoemakers, a far from prestigious occupation, with other members of this social group apprenticed to curriers, saddlers, weavers and ribbon weavers. Only 2 'gentlemen's' sons were apprenticed to crafts that might be considered of higher status, such as goldsmith and pewterer. The dealing occupations chosen were predominantly those concerned with textiles, such as drapers and mercers. It is possible that the term 'gentleman' meant something different in the South West than in the West Midlands and North, although there is no evidence, either contemporary or present day, to suggest that this was so.

As in Chester but not in Shrewsbury, dealers' sons were more likely to be apprenticed to craftsmen. This trend was more pronounced for the migrant apprentices in this category than for those from Gloucester itself. The majority were the sons of dealers in the textile and cloth trades, and the majority of this sub-group, 52 per cent, were apprenticed to dealers in a similar line of business. Those dealers' sons who trained in the manufacturing sector showed no pronounced tendency to choose a textile or cloth producing craft, being distributed fairly evenly through the various economic sectors.

Sons of craftsmen displayed an overwhelming preference to train as craftsmen: 91.9 per cent did so, with only 7.8 per cent training

as dealers. This feature was more pronounced in Gloucester than in either of the other two towns. As might be expected, more apprentices from a craft background came from Gloucester itself than from outside the city, 395 compared to 177.

The majority of the sons of both yeomen and husbandmen trained as craftsmen, although a greater proportion of yeomen's sons trained as dealers, which confirms the similar tendency found in Chester and Shrewsbury, but the service and professional occupations attracted similar proportions of both yeomen's sons and husbandmen's sons, a feature not found in Chester or Shrewsbury. In these towns more sons of yeomen trained in the higher status sector than did the sons of husbandmen. The Gloucester figures are, however, of strictly limited significance as the total number of cases is so small, a difference of one or two individuals making a substantial percentage change. Also the Gloucester service and professional sector was mainly represented in the apprenticeship register by barber-surgeons, an occupation not particularly noted for its status until perhaps later in the seventeenth century.

Due to the numerical domination of the sons of yeomen and husbandmen (46.1 per cent or 725 out of 1572) amongst the apprentices, all masters would be expected to draw on these groups for their trainees. Table 6.10 shows clearly that each of the three categories of master did recruit about half their apprentices from the agricultural sector, although some interesting differences occur as to the numbers attracted from the yeomen and husbandmen to the dealers and craftsmen. More than twice as many apprentice dealers came from the higher status yeomen group than from husbandmen.

The total number of apprentices recorded as entering training

Table 6.10 Gloucester: Origin, by occupation, of apprentices recruited to masters in each occupational category

Masters	Fathers: Service Professional Independent	Dealing	Craftsmen	Yeomen	Husbandmen	Row Total
Service, Professional, Independent (1.8%)[a]	8	3	2	7	8	28
Dealing (18.9%)	64 21.5%[b]	46 15.5%	46 15.5%	98 33.0%	43 14.5%	297
Craftsmen (79.3%)	68 5.5%	65 5.2%	545 43.7%	301 24.1%	268 21.5%	1247
Column Total	140	114	593	406	319	1572

a % of all masters

b % of apprentices to each separate occupational category

in the service and professional sector was extremely small (1.8 per cent or 28 out of 1572), therefore no conclusions can be reached with any degree of confidence. Apprentices training as dealers were more numerous and tended to come from all social categories to some extent. However, apprentices with fairly high status origins (yeomen's offspring, young men from the service, professional and independent means group and sons of dealers) made up 70.0 per cent or 208 out of 297 of the apprentices training as dealers. This association reflects the comparatively high status of dealers and their need for capital with which to operate a trading business

and for wide-ranging contacts. The sons of craftsmen and husbandmen were not completely excluded from becoming dealers, an indication perhaps of upward social mobility for a fortunate minority. Craftsmen drew the majority of their recruits from the lower status groups, other craftsmen and husbandmen contributing 65.2 per cent or 813 out of 1247 of the apprentices. Only a few of the craftsmen masters belonged to high status crafts such as precious metal smiths and pewterers and they may have attracted those few apprentices who came from the higher social groups (the gentry, dealers and professions).

The dis-aggregation of the occupational classification into raw material categories shows a tendency for apprentices to train in the use of the same raw material as their fathers (Table 6.11) In the wood, leather, non-ferrous metals and textile categories, about half of the teenagers remained within the same category. Sons of yeomen and husbandmen preferred occupations which used raw materials obtained from their fathers, namely, leather, textiles

Table 6.11 Gloucester: Destination, by raw material category, of apprentices from each raw material category

a % of all apprentices b % of apprentices from each separate raw material category

Fathers	Masters: Wood	Leather	Iron	Non ferrous Metals	Earthen-ware & Glass	Glue & Tallow	Textiles	Food & Drink	Mixed	Service, Professional, Independent	Row Total
Wood (2.9%)[a]	19 41.3%[b]	6 13.0%	2 4.3%	4 8.7%	1 2.2%	0 0%	7 15.2%	7 15.2%	0 0%	0 0%	46
Leather (10.1%)	5 3.2%	94 59.5%	3 1.9%	17 10.8%	0 0%	3 1.9%	31 19.6%	4 2.5%	0 0%	1 0.6%	158
Iron (1.7%)	1	7	9	2	0	0	7	1	0	0	27
Non-ferrous Metals(1.9%)	0	3	0	15	0	0	6	4	2	0	30
Earthenware & Glass (1.0%)	2	3	1	0	4	1	4	1	0	0	16
Glue & Tallow (0.2%)	0	0	0	0	0	2	1	0	0	0	3
Textiles (18.3%)	8 2.8%	46 16.0%	5 1.7%	22 7.7%	3 1.0%	7 2.4%	166 57.8%	23 8.0%	6 2.1%	1 0.3%	287
Food & Drink (7.6%)	5 4.2%	29 24.2%	1 0.8%	12 10.0%	0 0%	5 4.2%	18 15.0%	47 39.2%	0 0%	3 2.5%	120
Mixed (1.2%)	0	4	0	4	0	0	5	0	6	0	19
Agriculture (46.2%)	42 5.8%	215 29.6%	36 5.0%	43 5.9%	7 1.0%	22 3.0%	231 31.8%	102 14.0%	13 1.8%	15 2.1%	726
Service, Professional Independent (8.9%)	2 1.4%	32 22.9%	1 0.7%	3 2.1%	1 0.7%	5 3.6%	76 54.3%	6 4.3%	6 4.3%	8 5.7%	140
Column Total	84	439	58	122	16	45	552	195	33	28	1572

(principally wool) and food and drink. Young men from the service, professional and independent means group tended to train in textile and leather categories, suggesting that these areas of Gloucester's economy could offer opportunities acceptable to the higher status group.

Masters likewise tended to recruit apprentices from within the same raw material grouping, although, due to their great numerical presence within the sample, sons from the agricultural sector were an important source of labour for all masters. (Table 6.12) Association within raw material classes would not be unexpected as this may indicate the contacts made as a result of obtaining raw materials and the supply of goods to customers in the surrounding region. It is interesting to note, however, that the origins of apprentices in the metal working trades did not lie within the same category; 62.1 per cent of apprentices in the ferrous trades and 35.2 per cent in the non-ferrous trades came from amongst the yeomen and husbandmen. 18 per cent of apprentices in the non-ferrous trades came from the textile sector with a further 13.9 per cent from the leather trades. What appeared to be taking place was an inter-change amongst the various sectors of the economy, via Gloucester. Apprentices from the agricultural and textile areas, for example the Cotswolds, moved to Gloucester to train in trades other than those they had left. In 1606, John Kerry, son of William Kerry, a weaver from Minchinhampton (a village south of Stroud) registered as an apprentice to Thomas (his surname is unknown), a pewterer of Gloucester.[19] Opportunities to train as a weaver would have been plentiful in Stroudwater, therefore, few apprentices are recorded as coming from the Cotswolds to

Table 6.12 Gloucester: Origin, by raw material category, of apprentices recruited to masters in each raw material category

a % of all masters b % of apprentices to each separate raw material category

Masters: to each separate raw material category	Fathers: Wood	Leather	Iron	Non ferrous Metals	Earthen-ware & Glass	Glue & Tallow	Textiles	Food & Drink	Mixed	Agric-ulture	Service Professional Independent	Row Total
Wood (5.3%)[a]	19 22.6%[b]	5 6.0%	1 1.2%	0 0%	2 2.4%	0 0%	8 9.5%	5 6.0%	0 0%	42 50.0%	2 2.4%	84
Leather (27.9%)	6 1.4%	94 21.4%	7 1.6%	3 0.7%	3 0.7%	0 0%	46 10.5%	29 6.6%	4 0.9%	215 49.0%	32 7.3%	439
Iron (3.7%)	2 3.4%	3 5.2%	9 15.5%	0 0%	1 1.7%	0 0%	5 8.6%	1 1.7%	0 0%	36 62.1%	1 1.7%	58
Non-ferrous Metals (7.8%)	4 3.3%	17 13.9%	2 1.6%	15 12.3%	0 0%	0 0%	22 18.0%	12 9.8%	4 3.3%	43 35.2%	3 2.5%	122
Earthenware & Glass (1.0%)	1	0	0	0	4	0	3	0	0	7	1	16
Glue & Tallow (2.9%)	0 0%	3 6.7%	0 0%	0 0%	1 2.2%	2 4.4%	7 15.6%	5 11.1%	0 0%	22 49.9%	5 11.1%	45
Textiles (35.1%)	7 1.3%	31 5.6%	7 1.3%	6 1.1%	4 0.7%	1 0.2%	166 30.1%	18 3.3%	5 0.9%	231 41.8%	76 13.8%	552
Food & Drink (12.4%)	7 3.6%	4 2.1%	1 0.5%	4 2.1%	1 0.5%	0 0%	23 11.8%	47 24.1%	0 0%	102 52.3%	6 3.1%	195
Mixed (2.1%)	0	0	0	2	0	0	6	0	6	13	6	33
Service, Professional Independent (1.8%)	0	1	0	0	0	0	1	3	0	15	8	28
Column Total	46	158	27	30	16	3	287	120	19	726	140	1572

Gloucester to train in the textile industry. Similarly, sons of the metalworkers in the Forest of Dean saw more progress to be made by training as a tanner, turner or weaver in Gloucester, than as a smith, a trade they could learn at home. The specialisation of production achieved by some Gloucester metalworkers, for example, the bell founders, however, might have attracted young men from the Forest of Dean. The textile and food and drink groups also attracted large numbers from the agricultural category, an indication of their importance in the town's economy and therefore as sectors where opportunities for training must have been regularly available.

Shrewsbury

Three quarters of the entries in the apprenticeship indentures used had sufficient detail noted to allow comparison between the socio-economic background from which the apprentices came and the one in which they trained, (571 out of 766). In contrast to Chester and Gloucester, young people from an agricultural background were not in the majority amongst the apprentices, representing only 28.2 per cent (161 out of 571) (Table 6.13) More numerous were the sons of craftsmen, 31 per cent (177 out of 571), and of only slightly less numerical significance were sons of gentlemen and men in the services and professions, 27.5 per cent (157 out of 571). Dividing the apprentices into migrant and non-migrant indicates something of the nature of this mobility. Amongst the non-migrant group, craftsmen's sons represented nearly 60 per cent, compared with 11.5 per cent for the migrant group. A greater proportion of the sons of higher status fathers came from outside Shrewsbury and, inevitably, the same was true of young men from an agricultural background.

Table 6.13 Shrewsbury: Destination, by occupation, of apprentices from each occupational category

Fathers	Masters: Dealing	Masters: Craftsmen	Row Total
Service, Professional Independent (27.5%) [a]	144 91.7% [b]	13 8.3%	157
Dealing (13.3%)	71 93.4%	5 6.6%	76
Craftsmen (31.0%)	47 26.6%	130 73.4%	177
Yeomen (23.6%)	96 71.1%	39 28.9%	135
Husbandmen (4.6%)	13	13	26
Column Total	371	200	571

a % of all apprentices

b % of apprentices <u>from</u> each separate occupational category

Recruitment into the dealing sector was dominated by sons of Shrewsbury middlemen; four times as many apprentices in this sector came from the town itself than migrated in from outside it.

All except one of the occupational categories of fathers sent large proportions of their sons to train with the Shrewsbury dealers. Within the higher status groups this trend was very marked, 93.4 per cent of dealers' sons, 91.7 per cent from the service, professional and independent means and 71.1 per cent from yeomen's sons. These proportions represent the domination of the register and the town's economy by the Drapers. Sons of craftsmen are the exception to this trend as nearly three-quarters of these remained as craftsmen, an indication of the degree of social and occupational stability that existed.

The apprenticeship indentures provide no examples of training in the services or professions, for reasons outlined previously concerning training in these occupations and because of the limited nature of the Shrewsbury records. The remaining two categories of dealing and craftsmen reveal that the economy of Shrewsbury was heavily dependent upon the activities of the middlemen, although the proportion of apprentices training in the manufacturing sector is certainly underestimated by these figures because of the non-survival of apprentice records. (Table 6.14)

The dealing sector attracted most of its recruits from the higher status categories, including other dealers. Sons of yeomen rubbed shoulders in the offices of the dealers with sons of gentlemen and possibly also with a relative of their master. The pattern of town-country relations expressed in these terms was not unique to the Shrewsbury Drapers. The social background of the

Table 6.14 Shrewsbury: Origin, by occupation, of apprentices recruited to masters in each occupational category

Masters	Fathers: Service, Professional Independent	Dealing	Craftsmen	Yeomen	Husband-men	Row Total
Dealing (65.0%)[a]	144 38.8%[b]	71 19.1%	47 12.7%	96 25.9%	13 3.5%	371
Craftsmen (35.0%)	13 6.5%	5 2.5%	130 65.0%	39 19.5%	13 6.5%	200
Column Total	157	76	177	135	26	571

a % of all masters

b % of apprentices to each separate occupational category

Drapers' apprentices in the period 1625-35 was very similar to that of the apprentices to the merchant adventurers of Newcastle. About one third of the latter were sons of gentlemen during these years, whereas about half the Drapers' apprentices had fathers of similar status. In both groups the sons of yeomen were prominent.[20] Craftsmen's sons, whilst not particularly numerous amongst trainee merchants, were not uncommon either, a reflection perhaps of the close links many of the craftsmen must have had with the dealers such as drapers. The apprentices of craftsmen masters in Shrewsbury were most likely to have fathers who were also craftsmen. Only sons of yeomen appeared also to be attracted to craft occupations, although the number of husbandmen's sons in the sample as a whole was too low to allow any substantive conclusions.[21]

Breaking the occupations down on the basis of raw materials shows the overwhelming importance of the textile and cloth sector in Shrewsbury's economy. It would appear reasonable to assume that many of Shrewsbury's apprentices would come from a background that somewhere included a contact made or experience in the textile and cloth industry. Nearly a quarter did so, with the only other true raw material category supplying apprentices in anything but very small numbers being leather, with 11.8 per cent (68 out of 526).[22] (Table 6.15) It is interesting that apart from the textile and cloth sector, the leather industry was strongly represented amongst Shrewsbury's masters taking apprentices, 11 per cent (58 out of 526). (Table 6.16) Perhaps some of the hides received downstream at Gloucester had been partly processed by Shrewsbury's leather workers. Other occupations which contributed to Shrewsbury's economy, such as the food and drink, building and metal working trades must have been present in greater numbers than the apprenticeship records suggest,

Table 6.15 Shrewsbury: Destination, by raw material category, of apprentices from each raw material category

Fathers	Masters: Leather	Non Ferrous Metals	Textiles	Mixed	Row Total
Wood (1.0%)[a]	0	2	3	0	5
Leather (11.8%)	40 64.5%[b]	0 0%	22 35.5%	0 0%	62
Iron (1.1%)	1	0	5	0	6
Earthenware & Glass (0.4%)	1	0	1	0	2
Glue & Tallow (0.2%)	0	0	1	0	1
Textiles (24.9%)	2 1.5%	0 0%	128 97.7%	1 0.8%	131
Food & Drink (3.2%)	2	0	15	0	17
Mixed (0.4%)	0	0	1	1	2
Agriculture (27.6%)	10 6.9%	2 1.4%	132 91.0%	1 0.7%	145
Service, Professional, Independent (29.5%)	2 1.3%	2 1.3%	149 96.1%	2 1.3%	155
Column Total	58	6	457	5	526

a % of all apprentices

b % of apprentices <u>from</u> each separate raw material category

Table 6.16 Shrewsbury: Origin, by raw material category, of apprentices recruited to masters in each raw material category

Masters	Fathers: Wood	Leather	Iron	Earthenware & Glass	Glue & Tallow	Textiles	Food & Drink	Mixed	Agriculture	Service Professional Independent	Row Total
Leather (11.0%)[a]	0 0%[b]	40 69.0%	1 1.7%	1 1.7%	0 0%	2 3.4%	2 3.4%	0 0%	10 17.2%	2 3.4%	58
Non-ferrous Metals (1.1%)	2	0	0	0	0	0	0	0	2	2	6
Textiles (86.9%)	3 0.7%	22 4.8%	5 1.1%	1 0.2%	1 0.2%	128 28.0%	15 3.3%	1 0.2%	132 28.9%	149 32.6%	457
Mixed (1.0%)	0	0	0	0	0	1	0	1	1	2	5
Column Total	5	62	6	2	1	131	17	2	145	155	526

a % of all masters
b % of apprentices to each separate raw material category

but as their records have not survived, little can be deduced about them. (Table 6.8)

Summary and Discussion

It is generally agreed that the sixteenth and seventeenth centuries were years of more rapid change than the following or preceding periods.[23] There was, however, great diversity in the pattern of mobility between urban and rural society, and also between the different social and occupational groups. Evidence from apprenticeship registers only refers to selected individuals and conclusions reached on the basis of this data cannot be applied indiscriminately; also this study is restricted to three western towns and these may not be representative of the national situation. It may be, however, that no national trend existed and that generalisation is inevitably suspect where society was still so highly localised. In spite of this, tentative conclusions based on the apprenticeship registers of Chester, Gloucester and Shrewsbury generally accord with the accepted trends, although their regional distinctiveness was also clear in the results.

Comparison of the patterns of social and occupational mobility found in the apprenticeship registers of Chester, Gloucester and Shrewsbury is made difficult because of the absence of people recorded as training in the service and professional sector in Shrewsbury. It is evident, however, that any trends found in one of the towns are repeated in both of the other two. Groups of similar status tended to be mobile between occupations within the same broad social grouping. The preference of sons of service, professional, independent and dealing fathers for jobs as lawyers, notaries,

drapers, or merchants was evident in each town; craftsmen apprenticed their sons to other craftsmen; yeomen's sons tended towards manufacturing occupations, although about a quarter trained as dealers; whilst husbandmen were restricted to the craft masters for the training of their sons in non-agricultural occupations.

In both Chester and Gloucester, movement from all the social groupings except the highest followed very similar patterns. However, sons of gentlemen, barber-surgeons, lawyers and clerks trained in Chester showed a clear preference for the dealing occupations, whereas in Gloucester they trained in almost equal proportions with dealers and craftsmen. A possible explanation for this difference might be the existence of a number of comparatively high status craftsmen in Gloucester, the pewterers, bell-founders and other occupations producing quality metal-based products. These trades, with their opportunities for dealing as well as manufacturing, and their need for commercial activity over a wide area, might well have been attractive to the higher social group. Because the apprenticeship records for Shrewsbury only give details of masters in the dealing and craft sectors, the proportions from each social grouping amongst the fathers are distorted. They do, however, indicate an importance of the trading sector greater than in either Chester or Gloucester. The explanation for this difference is found when the data are dis-aggregated on the basis of the raw material classification: the textile sector was the most important in terms of numbers of apprentices, and this reflected the funnelling of the Welsh cloth trade through Shrewsbury. The Drapers exercised control of the trade and it must have given sons of gentlemen, yeomen and other textile dealers a great deal of satisfaction and the prospect of

considerable future riches to gain acceptance as a draper's apprentice.

In tracing through the nature of social and occupational change represented by the apprenticeship indentures recorded in Chester, Gloucester and Shrewsbury, a picture of social transformation has emerged. Within a social matrix that was based upon stability and a basic continuity of structures and relative social positions, there existed many opportunities for change. Some were the result of spectacular leaps at Court or in the great trading companies of London and some of the other major towns. The greater number, however, came about by the taking of short incremental steps, often through the generations, offered by apprenticeship in the county towns.

CHAPTER 6 - NOTES AND REFERENCES

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12 This quotation is cited in WESTERFIELD, R.B. (1915) Middlemen in English business, reprinted 1968, David and Charles, p. 402; see also DODD, A.H. (1952) Studies in Stuart Wales, University of Wales Press, for notes on social mobility of Welsh gentlemen and esquires in the seventeenth century.

13 An analysis of the apprentice registers of several London livery companies has shown that almost 18 per cent of the apprentices training in one of 8 companies sampled were the sons of gentlemen or esquires. There was a clear trend of these higher status apprentices training in the more prestigious companies such as the grocers and fishmongers. The proportion of gentlemen's sons amongst apprentices in all

London companies but in particular the Great Companies increased over a fairly long period beginning in the late sixteenth century and continuing throughout the seventeenth century. SMITH, S.R. (1973b) op. cit.

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16 Where the column or row total is 40 or less, the percentages have not been entered in the tables, as the addition or subtraction of only one or two cases to the sub-groups has a disproportional influence on the relative counts.

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Chapter 7

SOME CONCLUSIONS

The records of apprenticeship in Chester, Gloucester and Shrewsbury thus suggest some general conclusions about migration to towns in early modern England, about the distances travelled, their directions and the consequences of their occurrence.

Movement to places of the size and role of the three Welsh March towns was common enough, as it was to settlements of all sizes in the nation as a whole. The distances travelled to Chester, Gloucester and Shrewsbury were by and large similar, reflecting the congruency of their roles as places of exchange for a similar range of goods and services. Each of the three towns supported an important manufacturing sector dominated by the production of medium and low order articles required by both the town's inhabitants and the people of the surrounding region. In addition, each town possesses a specialist economic function; Chester its leather industry, Gloucester its metal-working and Shrewsbury its cloth-processing and marketing. Chester and Gloucester supplied their specialist products over a wide market area, but the contacts thereby established were not represented to any great extent in the numbers of long-distance migrant apprentices. The Drapers Company of Shrewsbury gave the town a special part in the economic organisation of the wool trade, but the oligarchic nature of its internal structure rigidly controlled entry to those deemed suitable. Some long-range contacts were established as well as links of a more regional and local nature, although many apprentice drapers were sons, grandsons, nephews or cousins from Shrewsbury itself. Chester's port function,

still of significance in the mid-seventeenth century, did not seem to attract as many apprentices through shipping links as might perhaps be expected.[1] This may have been because its trade lay mainly with Irish ports where young men perhaps had many alternative opportunities, in Dublin for example. A number of young men did come from the Isle of Man, evidence of the shipping links being reinforced by other socio-economic ties. Gloucester's function as a port, both river and coastal, was not particularly extensive and the attraction of apprentices through the contacts established as a result of water traffic was restricted by Worcester to the north and Bristol to the south. Both Chester's and Gloucester's migration fields were essentially those of inland towns and similar to that of Worcester, for example.[2] This scale of migration field reflected the meso-scale spatial organisation that Chester, Gloucester and Shrewsbury developed around them as components of a wider regional pattern.

Variations in the distance migrated due to the socio-economic status of the apprentice's father and master did show a broad correlation between longer-distance movement and higher-status occupation. People of greater means would perhaps have had more opportunity to travel and obtain information about openings, and be more likely to receive at home people with wide-spread contacts. These must have been the reasons why dealers, and in particular those who served a regional market, stand out clearly as the group whose recruitment ranged most widely in space. The difference in recruitment patterns of different occupational groups are quite striking, but it should be remembered that they may not appear so significant if the patterns of movement of apprentices

were systematically compared with those of other types of migrant.

A survey of vagrancy migration has shown that its most important characteristic was the vagrant's long distance mobility. 50 per cent travelled more than 40 miles with 22 per cent moving over 100 miles. Whilst the majority of vagrants moved over distances of not more than about 50 miles the group as a whole was more mobile than other migrant groups in the population. An additional contrast was the tendency of vagrants to move from town to town whereas apprenticeship migration was essentially rural-urban.[3] Studies of groups nearer to apprentices in socio-economic terms have shown a pre-dominance of relatively short migrations. A study of intra-county movements to three towns in Kent found that long-distance migrations correlated with low status and short distance migrations with high status. By comparison the findings of this study and those for Norwich show that many 'betterment' migrants came from long distances.[4] These contrasting conclusions illustrate the differences amongst sources, but in addition they may represent inherent differences in economy and society between various parts of the country, or a subtle correlation between small differences in the status and intentions of migrants and their spatial behaviour.

The directional tendencies of the movements of apprentices to the three towns shows that a general drift from the north and west was clearly important. At the same time apprentices came from the east and south, the south-west sector supplying the least number of apprentices. This counter-balancing of the directional flows presents a regional contrast to a national trend in which movement from the north and west was still of great significance, largely as a result of the location of London in the south-east of the country.

As an indication of social and occupational mobility, apprenticeship data do have their limitations. Parents of potential apprentices were likely to be the more prosperous members of society as the cost of indenturing offspring was relatively high both in visible and invisible terms. The loss of a pair of hands, either as an extra wage earner or in a family business or on a farm must have been significant. Wealth and status were necessary to acquire the links that would have to be made before an apprenticeship indenture was entered into. In this way apprentices came not from the bottom of the social ladder; some of them progressed further up the ladder, some maintained their status, and a few slipped backwards. Generally apprenticeship data show that members of the various classes tended to remain with their social equals. Socio-economic mobility, rather than resulting from personal change on apprenticeship, could be the result of the wholesale rise of a particular group. The Shrewsbury Drapers' Company obtained a monopolistic hold over the Welsh cloth trade and successfully held off all challenges. The members were socially elevated by their company's rise to power, but equally when the company's fortunes eventually declined so did those of the individual members.

Occupational mobility in terms of the actual job done or raw material handled represented an influx from the land into the distributing and manufacturing bases of the three towns, demonstrating that these bases were still strong, supported by demand coming from the town's inhabitants and the surrounding region.

The evidence of the registers shows that apprentice migration to English towns during the sixteenth and seventeenth centuries

was of a different type from that of other groups such as vagrants: it was direct, in the sense that there was a pre-determined destination; it occurred in one step, and it was relatively permanent, for a minimum of 7 years or longer if the apprentice became free of the town or worked as a journeyman. Most apprentices came from within what was essentially a regional hinterland, from the isolated farms, villages and small towns within the area over which the towns maintained frequent and regular contact. The pattern of these movements reflected local wealth and density of population supported by agriculture, rural industry and the trade based on the products of town and countryside. It also represented links generated by lay, ecclesiastical and judicial administration, all of which required designated centres of higher order than the market towns which were characteristic of the medieval period. Places outside this regional area did send apprentices, usually when a special link had been established, often through kinship or business acquaintances. These essentially regional migration fields surrounding Chester, Gloucester and Shrewsbury show that the cities were basically central places, poles of articulation in the social, economic and spatial organisation of England during the sixteenth and seventeenth centuries.[5] The stability of the hinterlands indicates the maintenance of their role during this period. The evolution of this regional structure was an important component of the broader process which lay behind the development of a spatially integrated society and economy in England, a vital prerequisite for the watershed of the Industrial Revolution.

CHAPTER 7 - NOTES AND REFERENCES

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5 LANGTON, J. (1978) op. cit., pp. 193-4

Appendix 1

Classification of Occupations

The following system is based upon one devised by Dr. J. Langton and Mr. P. Laxton, Department of Geography, University of Liverpool. It attempts to distinguish both between different kinds of economic activity and between differences in the raw materials processed by craftsmen. The classification is discussed in Chapter 2. (?)s indicate the most likely placement within the scheme.

I Primary Occupations	
A. Agriculture etc.	husbandman, yeoman, cow keeper, forester, gamekeeper, grazier, hogman, ploughman, shepherd, warrener.
B. Fishing	fisherman, freshwater fisher.
C. Mineral Extraction	
1. Quarrying	quarryman, delfman, stonecutter.
2. Mining	coalminer, miner, collier, coaler, banksman, coalgelter, coalhewer, coalmaster.
II Building	
A. Houses, etc.	
1. Masonry	brickmaker, bricklayer, free-mason, hellier, mason, rough-mason, tiler, slater, waller, slatemaker.
2. Wood and Plaster	carpenter, house-carpenter, plasterer, reed-layer, reeder, thatcher, pargiter.
3. Metal and Glass	plumber and/or glazier.
4. Others	limeburner, painter and/or stainer
B. Roads	pavior.
III Manufacture	
A. Tools and instruments	
1. Watches, clocks and tools of mixed or variable materials	clockmaker, chirurgeon - instrument maker, combmaker, gunsmith, locksmith, lastmaker, reedmaker, pinmaker or pinner, ploughwright, pumpmaker, sieve-maker, watchmaker, pulleymaker, compassmaker, mathematical

		instrument maker, spectacle-maker.
	2. Others	bowyer or bower, cardmaker, fletcher, jackmaker, slaymaker, hourglassmaker, lanternmaker, millwright or milnwright, longbowstringmaker.
B.	Shipbuilding	
	1. Wood	blockmaker, boatwright, ship-wright, shipcarpenter, barge-maker, shipscaulker.
	2. Cloth	sailmaker.
	3. Iron	anchorsmith.
C.	Clothing	
	1. Cloth	hosier, hatter, hat-bandmaker, embroyderer, tailor, upper-bodymaker, bodymaker, fringe-maker, pointmaker, tapiter, seamstress, breechesmaker, capper, childs coatmaker, gown-maker, mantuamaker, milliner, shirtmaker.
	2. Leather	cordwainer or dordiner, shoe-maker, glover, cobbler, girdler, translator, jerkinmaker, wetglover, glovester, Bottmaker (?).
	3. Others	claspmaker, pattinmaker, teche-maker, buttonmaker, clogmaker, heelmaker, perriwigmaker, perukemaker.
D.	Victualling	
	1. Materials preparation	distiller, miller, malster, cat-meal maker, sugarboiler, sugar-baker, stillor of hot waters, sugar refiner.
	2. Production and purveyance	baker, baker of spicebread, baxter, brewer, butcher, finger-breadmaker, gingerbreadmaker, comfitmaker, cook or coquus or quoquus, confectioner, pastry-cook, milkman.
E.	Iron	blacksmith, farrier, lorrimer, smith, spurrier, armourer, astler, sheargrinder, fish hookmaker, bendwareman, bitmaker, clipborer, edgetoolmaker, forgeman, hammerman, ironfounder, nailer, needlemaker, razormaker, scythemaker, swordcutler, arrow-headmaker.

F.	Non-ferrous metals	
	1. Precious	goldsmith, silversmith, goldwire-drawer, goldbeater, monier, silverpinner, watergilder.
	2. Base	brazier, bellfounder, coppersmith, founder(er), lattenfounder, pewterer or putherer, plateworker, metalman, tinman, whiteplate-maker, wire-drawer, wireworker.
G.	Earthenware	potter, potman, pipemaker, plate-maker, tobacco pipemaker.
H.	Glass	glassmaker, glassblower, glassman, glass bottlemaker, bottlemaker, looking glassmaker/polisher.
I.	Furs and Leather	
	1. Leathermaking	currier, furrier, leatherdresser, leathertawyer, parchmentmaker, skinner, tanner, barker, beaver-cutter, budgemaker, greytawyer, sheathmaker, whitster.
	2. Saddlery, harnesses etc.	collarmaker, knacker, saddler, trunkmaker, bridlemaker, book-binder, upholsterer, harness-maker.
J.	Glue, Tallow, wax, bone, horn etc.	chandler or chaundelor, horn-breaker, soapboiler, scapmaker, starchmaker, tallowchandler, waxchandler, sealmaker, dice-maker, hornbox maker.
K.	Wood	basketmaker, cooper, chairmaker, chairmender, coachmaker, hooper, joiner, latheryver, matmaker, pedmaker, panyerman, sawyer, turner, winecooper, wheelwright, bellowsmaker, cabinetmaker, caner, carver, casemaker (? leather), cartenmaker, inlayer, japanner, lathmaker, mouldmaker, saddletreemaker, toyman (?)
L.	Textiles	
	1. Woollen and worsted	bayweaver, broadweaver, cloth worker, comber, coverlet, weaver, dornixweaver, feltmaker, jerseydrawer, russelweaver, serge-weaver, sayweaver, tuft-mokado-maker, twisteter, worstedweaver, weaver, woolcomber, worsted dorningweaver, worstedskinner, worstedcomber, baymaker,

		frizemaker, framework knitter, fellmonger (?), fustianweaver, rower of rugs, rugmaker, saymaker, spinner, twinespinner.
	2. Silk, lace, cotton and calico	ribbonweaver, silkraiser, silkweaver, milklaceweaver, laceweaver, silkwoman, calicoprinter, lacebuyer, silkthrower, stockingweaver/maker/presser, silk stockingmaker.
	3. Flax, hemp and other	flaxdresser, hairmaker, linenweaver, ropemaker or ropier, hairthrower, arrasmaker (?), mopmaker, sackman, sackweaver, staymaker.
	4. Finishing	callenderer, clothdresser, dyer, fuller, hotpresser, presser of serge, tucker, sherman, waterer of stuffs, worsted sherman, clearstarcher, colourman, fustiandresser, hempdresser, packer, quilter, silkdyer, starcher.
M.	Others	furbisher, printer, ruffman, diamondcutter, papermaker, saltpeterman.
IV	Transport	
A.	Ocean and Inland Navigation	cogner, keelman, mariner, master and mariner, shipmaster, sailor, waterman, bargeman, hoyer, lighterman, wharfinger, wherryman.
B.	Land	carrier, collier and carriageman, porter, sledman, waterleader, lettercarrier, waterbearer, wineporter, carman, carter, chairman, coachman, drover, drayman, hackney coachman, waggoner.
V	Dealing	
A.	Specialist Retail	
	1. Food and Drink	alehousekeeper, fishmonger, fruiterer, grocer, innkeeper, innholder or innbrother, mealseller, poulterer, vintner, victualler, acqua vitaeseller, coffeeseller/man, costermonger, drawer, drawman, salterer, tobacconist.

2.	Cloth and Clothing	draper, haberdasher, mercer, milliner, coatseller, linen-draper, salesman, silkman, slopseller, woollendraper.
3.	Other	apothercary, ashburner, book-seller, chemist, merchant of coals, perfumer, retailer, stationer, druggist (? medicine), hairseller, ironseller, glass seller, leatherseller, oilman, shopkeeper.
B.	Specialist Wholesale	
1.	Food and Drink	boothman, couper, cheesemonger, cornfactor/chandler, brogger-oats.
2.	Wool, yarn, cloth and clothing	clothier, feltmonger, merchant-taylor.
3.	Other	reedmerchant, fellmonger, rag-merchant, shipbroker, woodman.
C.	Itinerant	chapman, kydder, pattychapman, tinker, woolchapman, badger, higgler, pedlar.
D.	Indefinite	hostman, merchant, mercator or mercatoris, merchant adventurer, apprentice, broker, dealer in East India Wares, factor, salter, stapler (? under B2).

VI Public and Professional Services

A.	Public Service	alderman, courtholder, (Lord) mayor, chamberlain, recorder, receiver, swordbearer, sheriff, treasurer, keeper of prisons, commoncrier, beadle, exciseman, soldier(?).
B.	Professional Services	
1.	Church, Law and Education	attorney, clerk, archdeacon, generosi, redemptuion, scrivenor, scriptores, schoolmaster, school-mistress, architect, bailiff, chaplain, chancery clerk, court letter writer, lawyer, notary, public notary, parish clerk, preacher, sexton, writing master.
2.	Medicine, etc.	barber, barber-surgeon, surgeon or chirurgeon, horse-leche, physician.

	3. Art and Amusement	limner, musician, mapmaker, signwriter, ingraver, dancing-master, minstral, singing man.
VII	Menial Occupations and Domestic Service	labourer, dustman, gardener, servant, butler, cellarer, horsebreaker (?), park-keeper, ostler.
VIII	Status or other descriptions	Baronet.
	1. Male	Armiger, gentleman, esquire, knight.
	2. Female	widow, wife, spinster.
	3. Poor	foundelling, pauper.
	4. Other	stranger, traveller, wayfarer.

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