

## REGIONAL STRUCTURE AND THE URBAN SYSTEM: NORTH-WEST ENGLAND, 1700–1760

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### I

By the second half of the seventeenth century, most towns in England were experiencing stronger growth than had been seen for many decades.<sup>1</sup> Expansion in population was underpinned by a general strengthening of traditional urban functions such as industry and trade and the introduction of comparatively new ones like leisure. At the same time, there was a growing tendency toward functional specialization within increasingly integrated regional and national economies.<sup>2</sup> These familiar trends embody increasingly close ties between town and country, and among the various towns. The proto-industrial model of early economic development encompasses some of these links—it portrays towns as marketing centres for specializing productive hinterlands, as controlling and co-ordinating centres for rural industry, and as consumers of some of its products—but it misses others: towns were also manufacturing centres in their own right.<sup>3</sup> Not all

- 1 P. Clark, 'Small towns in England, 1550–1850: national and regional population trends', in *Small towns in early modern Europe*, ed. P. Clark (Cambridge, 1995), pp. 90–120.
- 2 P. J. Corfield, *The impact of English towns, 1700–1800* (Oxford, 1982), p. 16; *Country towns in pre-industrial England*, ed. P. Clark (Leicester, 1981), pp. 26–9.
- 3 For a good summary of proto-industrialization theory see D. C. Coleman, 'Proto-industrialization: a concept too many', *Econ. H.R.* 2nd ser. XXXVI (1983), pp. 435–48.

production shifted to the countryside and, although some towns undoubtedly descended to the industrial margins of eighteenth-century England, relatively few went into terminal decline.<sup>4</sup> Indeed, Langton suggests that 'most towns were heavily dependent upon manufactures', whilst some 'had industrial specialisms which served, like the rural industrial areas, international markets'.<sup>5</sup> Moreover, Everitt argues that many 'county' towns became centres of craftsmanship and nurseries of skill and were an essential if frequently forgotten part of industrialization in Britain.<sup>6</sup> English towns were not parasites feeding on the body of rural productivity, but interacted in a positive manner with both their hinterlands and their neighbours; the prosperity of the one was often heavily reliant on that of the other. Towns were intimately tied to their county and 'country', and it is possible to see 'town and country as part of an organic regional unit, interacting closely in a way which shaped the identity of each'.<sup>7</sup>

Urban history often seems to have ignored these interrelationships and has sought to provide explanations for the fortunes of early modern towns in a manner which is either too particularistic or too generalized. Many studies choose to describe an individual town and account for its history in isolation; others make a generic survey of broad categories or characteristics of towns. Both have advantages, but neither is entirely satisfactory. The individual survey ensures a great amount of detail, so that theses can be rigorously tested against comprehensive knowledge and precise case studies created to supplement the large-scale reviews. Generic surveys provide excellent introductions to the subject, and also co-ordinate research taking place elsewhere;

- 4 Clark identifies East Anglia and to a lesser extent the South-West as regions where urban growth was slow, but suggests that absolute decline occurred in just 17 out of 582 towns: Clark, 'Small towns', pp. 108–10.
- 5 J. Langton, 'Industry and towns, 1500–1730', in *An historical geography of England and Wales*, ed. R. A. Dodgshon and R. A. Butlin (London, 1978), p. 185.
- 6 A. Everitt, 'County, country and town: patterns of regional evolution in England', reprinted in *The eighteenth-century town: a reader in English urban history, 1688–1820*, ed. P. Borsay (London, 1990), pp. 83–115.
- 7 *Ibid.* p. 83.

they provide a context through which detailed individual studies can be related to one another. The main drawback of both is their tendency to treat the fate of towns in a spatial vacuum.<sup>8</sup> Town and countryside are discussed, as is their changing relationship, but the spatial links between them and between various towns are largely ignored. For English towns of the early modern period a different approach is required, one that investigates the interrelationship between urban network and region.<sup>9</sup> Such an approach would not only make urban history more sympathetic to the form and character of English urbanization, but would more closely match the type of relationships outlined by proto-industrial theory.

By conceptualizing the region as a system of towns together with their corresponding areas of influence, we can accommodate the linkages between rural and urban economies and societies, and thus gain a fuller understanding of the structure of the regional economy. 'The urban system, in this broader sense, is still based on urban nodes . . . but it also includes the relationships of the nodes to their surrounding areas and particularly the linkages among nodes.'<sup>10</sup> This paper investigates the nature of linkage patterns within part of north-west England in the first half of the eighteenth century. The extent of this region (which could

8 Attempts to map the distribution of towns or urban growth (see, *inter alia*, Corfield, *Impact*, pp. 12–14; Clark, 'Small towns', pp. 104–17) form the first stage of such a process, but tell us little about the relationships among towns.

9 This need has long been recognized—e.g. *The early modern town: a reader*, ed. P. Clark (London, 1976), p. 23; B. T. Robson, *Urban growth: an approach* (London, 1973)—but few people have attempted such studies. Rare examples are H. Carter, *The growth of the Welsh city system: an inaugural lecture* (Cardiff, 1969); J. Patten, *English towns, 1500–1700* (Folkestone, 1978); R. W. Unwin, 'Tradition and transition: market towns of the Vale of York, 1600–1830', *Northern History*, XVII (1981), pp. 72–116; J. D. Marshall, 'The rise and transformation of the Cumbrian market town, 1660–1900', *Northern History*, XIX (1983), pp. 128–209; M. Noble, 'Growth and development in a regional urban system: the country towns of eastern Yorkshire, 1700–1850', *Urban History Yearbook* (1987), pp. 1–21.

10 J. W. Simmons, 'The organization of the urban system', in *Systems of cities: readings on structure, growth, and policy*, ed. L. S. Bourne and J. W. Simmons (New York, 1978), p. 61.

stretch from Congleton to Carlisle) is given broad definition by the heartland areas of economic change in the eighteenth century. Thus, the North-West is taken here as southern Lancashire and Cheshire, and the precise boundaries of the region (of particular importance in studies of this nature) are determined by the area of jurisdiction of the probate court at Chester.<sup>11</sup> Within this defined area, it is necessary to identify which settlements are to be regarded as towns. Formal definitions and demographic thresholds are difficult to apply here because of the unincorporated nature of many towns and their small size in comparison with large (and often multi-centred) rural townships. Thus, it is necessary to rely on the ability of contemporaries to recognize functioning towns and accordingly the thirty towns identified here are those labelled as 'market towns' in gazetteers published at the time.<sup>12</sup> Given these matrices of analysis and the importance of studying the interrelationships which existed within them, we still face the problem of identifying ways of measuring and investigating linkage patterns and hence analysing the role of the urban system in the structure and functioning of the region.

## II

Attempts to investigate the actual linkages between towns, which were both the cause and reflection of urban integration, are far from common, and usually concentrate on a single town or the activities of individual people or organizations.<sup>13</sup> Such studies (often based on sources such as freemen's rolls, market toll books, or personal diaries) give valuable insights,

- 11 In order to preserve the integrity of the region, Preston is added to this area. Whilst the precise boundary is somewhat artificial, it does delimit an area of considerable interactive integrity, as will be seen later.
- 12 R. Blome, *Britannia* (London, 1673); J. Adams, *Index villaris* (London, 1690); T. Cox, *Magna Britannia et Hibernia* (6 vols, London, 1720-31).
- 13 These are well illustrated for this region by B. Rogers, 'The market area of Preston', in *Geographical interpretations of historical sources: readings in historical geography*, ed. A. R. H. Baker, J. D. Hamshere, and J. Langton (Newton Abbot, 1970), and A. Hann, 'The impact of estuarine silting on the port and market area of Chester' (unpub. dissertation, School of Geography, Oxford Univ., 1991).

but cannot provide the basis for a systematic and comprehensive regional analysis. On this larger scale, transport networks might indicate the presence or absence of a link. However, except where toll books exist (rare before the mid-eighteenth century and even then sporadic), it is difficult to gauge the nature of the services running along them or the intensity of their use, making it impossible to discern the strength of any links which were present. Marriage patterns can be reconstructed from parish records to provide a wider regional picture, but, quite apart from the one-off nature of such linkages, they measure only one particular type of interaction.

One largely neglected possibility is to extract from probate records data on the location and occupation of the executors of wills and the signatories to administration bonds.<sup>14</sup> The main attraction of this source is that it provides accessible evidence of linkages for an entire regional urban system at times when alternatives are rare and data of a more overtly economic nature are elusive. Equally attractive, though, is the ease with which the methodology can be reproduced for other parts of the country. There are, of course, problems and limitations in using such data both in the North-West and elsewhere, and we must be clear at the outset about the extent to which these affect the attempted reconstruction of linkage patterns. Difficulties revolve around the lack of any established methodology for the use of probate records in this way,<sup>15</sup> the bases of the links portrayed, the coverage of the total population afforded by the probate records, and the

14 Probate records have been widely used in the analysis of a variety of historical processes from farming change to consumer behaviour. The full scope of studies is revealed in M. Overton, *A bibliography of British probate inventories* (Newcastle upon Tyne, 1983).

15 Many analyses of probate records contain a geographical element, but none employs specifically spatial data. See, e.g., M. Spufford, *The great re-clothing of rural England: petty chapmen and their wares in the seventeenth century* (London, 1984); M. Overton, 'The diffusion of agricultural innovations in early modern England: turnips and clover in Norfolk and Suffolk, 1580-1740', *Transactions of the Institute of British Geographers*, new ser. X (1985), pp. 205-21; L. Weatherill, *Consumer behaviour and material culture in Britain, 1660-1760* (London, 1988).

degree to which they represent actual and particularly economic patterns of inter-settlement linkages.

First, then, is the problem of establishing a methodology whereby the vast amount of data held in probate records can be employed to shed some light on the nature of socio-economic linking within a region. The basic methodology used here is very simple. A sample was taken of the population of each town within the region for whom probate was granted between 1701 and 1760, and their probate records were inspected to determine the location, occupation, and relationship to the deceased of all executors or signatories to administration bonds.<sup>16</sup> This involved the inspection of some 2,606 records, which between them listed 5,091 contacts, each contact constituting a separate entry in the analysis presented here. Effectively, what is created is a large table recording the number of linkages between each named place which can be statistically and cartographically analysed to determine what they can show us about the nature of the linkage patterns within the region.

This brings us to the next problem, however: that of understanding the precise nature of the inter-personal linkages recorded in wills and administration bonds. Whilst it is dangerous to equate the presence of a particular set of names on a probate record with close contact, it is reasonable to assume that both executors and signatories to administration bonds would have known the deceased person quite well.<sup>17</sup> The executor was trusted to carry out the

16 The sample taken in each town included individuals from a wide range of occupations, the proportion of the probate population in each place (generally 20–25 per cent) varying with the range of occupations found therein. The longish time period inevitably brings with it the problem of patterns having changed during these sixty years, but it is necessary in order to generate meaningful numbers of linkages from some of the smaller towns in the region. To get a comprehensive picture of the strength of ties between towns and country it would, of course, be necessary also to include probate records of individuals dying in rural areas and naming executors in towns.

17 D. Levine and K. Wrightson, *The making of an industrial society: Whickham, 1560–1765* (Oxford, 1991), p. 330, argue that the appearance of individuals as beneficiaries of a will does not imply constant or even frequent interaction.

instructions of the will, a task which was often time-consuming and not always repaid by monetary reward. Equally, people taking out administration bonds had enough interest in the estate of the deceased to make this legal process worthwhile. The obvious candidates for both jobs were family and friends,<sup>18</sup> suggesting that what the probate records effectively show are regional patterns of social contacts. Moreover, whilst these documents, by their very nature, include only a small part of an individual's social network (executors, for example, represent just two or three of the deceased's family or friends, possibly chosen for particular emotional or practical reasons, such as trustworthiness, proximity, or literacy), when taken together they constitute a comprehensive data-set of inter-personal contacts. Of course, the nature of and reasons for this contact cannot be known from the probate record. They might reflect marriage patterns, migration of the deceased or the executor (perhaps as apprentices, but also as traders or professionals), business networks, or social links between neighbours or more distant friends.<sup>19</sup> Certainly, probate records should not be thought of as showing any single type of contact. Equally, it should not be assumed that they show links in one direction only; each of these bases for contact would generate mutual interaction so that the link existed between two places rather than 'flowing' from one to the other. A person dying in Chester and naming a friend in Liverpool as an executor does not indicate a contact from Chester to Liverpool, but rather a link between the two towns.

The third area of difficulty is the extent to which the contacts recorded in the probate records are representative of the population as a whole. This problem arises in all studies

18 J. Hindson, 'Family, household, kinship and inheritance in Shrewsbury, 1650-1750' (unpub. Ph.D. thesis, Univ. of Wales, Aberystwyth, 1991), pp. 189-92.

19 These various causes of interaction are discussed, *inter alia*, in L. Stone, *The family, sex and marriage in England, 1500-1800* (Penguin edn, London, 1979), pp. 411-16; K. Wrightson, 'Kinship in an English village: Terling, Essex, 1500-1700', in *Land, kinship, and life-cycle*, ed. R. M. Smith (Cambridge, 1984), pp. 313-32; A. P. Wadsworth and J. De L. Mann, *The Cotton trade and industrial Lancashire, 1600-1780* (Manchester, 1931), pp. 29-36.

using probate records and it is now a commonplace that probates 'deal with a sub-set of the population, which excludes the vast majority of married women, those adults in poverty and the geographically mobile sectors of the community'.<sup>20</sup> In the area being studied here, it appears that around 40 per cent of the adult population left probate records,<sup>21</sup> so that this source provides information on a wealthy minority (albeit a large one) of the total population. The implications of this coverage for the revealed linkage patterns are less apparent, although it seems likely that those leaving probate records would have friends or family dispersed over a larger area than the population as a whole. To an extent, this may counter-balance the possibility noted above for more proximate friends to be chosen as executors, but it is impossible to be certain.

Fourth is the problem of defining the relationship between these personal and social contact patterns and the wider nexus of inter-settlement linkages and economic interaction discussed above. Clearly, these contact patterns are not perfect representations of the interlinkages in a region since they do not equate with actual flows of goods, capital, services, or information between centres. That said, there must have been some correspondence between these two sets of linkages. It would seem incredible for there to have been social contacts between significant numbers of individuals in different settlements without some economic interaction between those places; equally, initial economic ties would inevitably bring with them social bonds. If such is the case, then the place of

- 20 D. Riley, 'Wealth and social structure in north-western Lancashire in the later seventeenth century: a new use for probate inventories', *T.H.S.L.C.* XLII (1992), pp. 77–100 at 79. Spufford, *Great reworking*, pp. 37–41, discusses the potential problems in some detail.
- 21 This figure includes all cases dealt with by the probate court at Chester, plus the Preston probates administered as part of the archdeaconry of Richmond, those of wealthier citizens whose cases were heard at the prerogative courts at York or Canterbury, and disputed cases taken to the consistory courts at Chester or York. It corresponds well with previous estimates of coverage: *Household and farm inventories in Oxfordshire, 1550–1590*, ed. M. A. Havinden, Oxfordshire Record Society, XLIV (1965), pp. 2–4; J. D. Marshall, 'Agrarian wealth and social structure in pre-industrial Cumbria', *Econ. H.R.* 2nd ser. XXXIII (1980), pp. 503–21 at 507–8.

residence of administrators or executors should give a reasonable indication of which places were linked by broader social and (by implication) economic ties, and the number of such contacts should be broadly representative of the strength of links between centres. That these essentially social links could reflect economic ties is evident enough; that they actually do so is less apparent. We have already seen that these inter-personal linkages could be based on many forms of or reasons for acquaintance; the need for a high degree of caution to accompany any conclusions drawn from such analysis cannot be over-emphasized. That said, the potential of the source to illuminate the otherwise rather murky area of region-wide contact patterns makes its use worth attempting, at least by way of experiment. Do the data produce patterns which make sense from the little we do know about interaction systems at this time? Assuming that they do, can they tell us anything about the role of the urban system in shaping the economic geography of this developing region?

### III

What is most obvious from the data is a high degree of closure in the region. Three quarters of the 5,091 recorded contacts were with people living in the same town as the deceased, a consequence of wives, children, and neighbours acting as executors, and suggestive of low levels of close social contact with other locations. Of the 1,255 'outside' contacts (with places other than the 'home' town), 35 per cent were with one of the other twenty-nine towns in the North-West and 48 per cent were with rural settlements within the region, leaving only 17 per cent as 'extra-regional' contacts. Of course, these figures underrepresent the amount of contact between town and country, but a high degree of self-sufficiency in the urban system is apparent, whilst regional closure is still more certain.<sup>22</sup>

22 If rural-urban contacts were as numerous as urban-rural ones, then the ratio of contacts within the urban system to those outside it would fall from 5.3:1 to 2.6:1. For the ratio to reach 1:1, however, there would need to have been more than four times as many country-dwellers with urban executors as there were town-dwellers with rural executors. Overall, there were 23.2 contacts within the region for every one outside it.

This confirms the integrity of Cheshire and southern Lancashire as a region, but tells us little about its structure. An economy characterized by industrial specialization would involve a high degree of interdependence between specialist centres, implying strong contact among towns; in contrast, proto-industrial theory suggests a dense network of contacts between a town and the surrounding (industrial) countryside. Assuming some broad correspondence between the individual social links of probate records and wider economic interaction, some insight into the linkage patterns of the urban system can be gained from a fuller understanding of the nature of the 'outside' contacts. At first glance, there appears to be evidence of both of these production systems in the North-West, with both urban and rural contacts being common. The spatial characteristics of these links differed considerably, however; almost half of the links to rural locations were over distances of less than 5 miles with strong distance decay reducing contacts to a barely significant number over 50 miles (Table 1). Urban contacts took place over a markedly greater distance: almost three quarters were over 10–50 miles. From this, it appears that town dwellers were strongly linked to their own hinterland, a variety of urban centres within the region, and others far removed from the North-West.

TABLE 1 *Contact patterns of the urban system of north-west England: status and distance (percentages)*

	<5 miles	5–10 miles	10–20 miles	20–50 miles	>50 miles	Total
Urban	0.2	9.4	17.0	12.6	7.9	47.0
Rural	24.9	12.0	10.2	4.9	1.0	53.0
Total	25.1	21.4	27.2	17.5	8.9	100.0

This dichotomy of local rural and distant urban personal social contacts implies a dense heartland of linkages for each town coupled with comparatively fewer distant contacts, comparable with both a Christallerian service economy and a proto-industrial urban system.<sup>23</sup> Such a structure is confirmed

23 W. Christaller, *Central places in southern Germany*, trans. C. W. Baskin (Englewood Cliffs, New Jersey, 1966).

by the number of towns and villages linked to centres in the urban system: 589 'outside' urban contacts were concentrated into 82 towns (including the thirty towns in the region) at an average of 7.3 contacts per settlement; 666 rural contacts were spread among 368 places at 1.8 per settlement. In many ways, the fact that contacts to other towns occurred over a greater distance and were concentrated on fewer points than those to rural settlements is unsurprising: towns were generally more widely spaced than villages and hamlets (causing concentration), they usually possessed larger populations (producing greater numbers), and they also housed the higher order functions which, according to Christaller, engendered journeys and hence contacts over longer distances.<sup>24</sup> This predictable pattern of contacts is an oversimplified view of reality, however, partly because the summary statistics could obscure a great deal of variation in the geography of the socio-economic linkages, but also because the reasons for the contacts remain obscure. It would be reasonable to assume that the network of links into a town would depend primarily on the distance from and population of the point of contact (a result of gravitational pull),<sup>25</sup> and the respective socio-economic functions of the places being linked. However, other forces might be coming into play, so that contact patterns were determined more by family or kin networks.

#### IV

Levine and Wrightson argue that, for the late seventeenth century at least, social networks were characterized by 'dense clusters of locally-resident "friends" [and a] dispersed network of close relatives'. Moreover, this dispersed body of kinsfolk

24 J. U. Marshall, *The location of service towns: an approach to the analysis of central place systems* (Toronto, 1969), pp. 7-8.

25 The gravity model formalizes this arrangement. It is based on the Newtonian law of gravitation so that 'any two particles of matter attract one another with a force directly proportional to the product of their masses and inversely proportional to the square of the distance between them': R. Hammond and P. McCullagh, *Quantitative techniques in geography: an introduction* (2nd edn, Oxford, 1978), p. 303.

'constituted a resource: a network of trusted individuals bound by special obligation, a pool of assistance and support which could be drawn upon when occasion demanded'.<sup>26</sup> One such occasion would surely have been the need to identify an executor or act as an administrator. If this were the case, then contacts with kin might be expected to form a large proportion of the links (particularly the 'outside' links) which appear in the probate records. Kinship patterns would thus cut across the linkage patterns identified above and render them little more than indicators of extended families. As such, they would remain useful measures of a particular kind of social network, but their ability to mirror economic linkages would be seriously undermined.

Analysis of the data collected from the probate records (Table 2) reveals that the number of executors and administrators related to the deceased was smaller than those who were unrelated, although the overall ratio was only 3:4.<sup>27</sup> What is also clear is that a large proportion (over 86 per cent) of the kinship ties were among people of the same town. This is principally due to the prevalence of widows administering the estates of their husbands,<sup>28</sup> but is also a reflection of the strong if declining tendency for children to reside close to their parents.<sup>29</sup> Moreover, it was in these 'home-town' contacts that kin relations formed the highest proportion (48.7 per cent) of the overall total for that 'distance'.

26 Levine and Wrightson, *Making of industrial society*, p. 338.

27 'Kin' comprises all those who were identified in the probate records as having a familial relationship with the deceased, and includes immediate family, cousins, nephews, nieces, etc., as well as in-laws. This may lead to some kin being omitted if they were not labelled as such, but such incidences appear to be rare, particularly in wills.

28 This habit was more pronounced in administration bonds than in wills, since the widow would often have sought to formalize the help from friends or peers in winding up her husband's affairs by applying for letters of administration co-signed by these people.

29 Levine and Wrightson, *Making of industrial society*, p. 338; J. Langton, *Geographical change and industrial revolution: coalmining in south west Lancashire, 1590-1799* (Cambridge, 1979), p. 115.

TABLE 2 *Kinship ties and probate contacts (percentages)*

	In town	<5 miles	5-10 miles	10-20 miles	20-50 miles	>50 miles	Total
Kin	36.7	1.0	1.1	1.6	1.2	0.9	42.6
Friend	38.6	5.1	4.1	5.1	3.1	1.3	57.4
Total	75.3	6.2	5.3	6.7	4.3	2.2	100.0

Initially, then, it would appear that kinship ties were not disproportionately important in longer-distance contacts; indeed, more than three quarters of the 'outside' contacts were to friends rather than kin. That said, if we read along the rows, rather than down the columns, a different pattern emerges. With non-kin ties, numbers held relatively steady up to 20 miles, but then fell off somewhat, whereas there were noticeably larger proportions of links based on kin in the more distant contacts and a more even distribution overall; as the range of the contacts increased, they became proportionately more important. Here, we have evidence of Levine and Wrightson's 'dispersed network' of relatives: kinship ties were clearly less affected by the friction of distance, not least because they did not necessarily need to be sustained by regular social or economic interaction. That said, links to family members would often involve frequent contact: work was often based around the nucleated or extended family, many business dealings were with kin, and much of the social life of the time was based around the extended family.<sup>30</sup> This apparent importance of kinship ties is contradicted somewhat by their lack of dominance among longer-distance rural contacts, those which are, perhaps, the most difficult to explain. In contacts with settlements 20-50 miles distant, links

30 The sons and daughters of miners formed an important part of the mining workforce of central and south-western Lancashire in the eighteenth century (Langton, *Geographical change*, pp. 195-9); many Lancashire textile manufacturers traded in London (and elsewhere), through brothers, brothers-in-law, or sons based in the capital (Wadsworth and Mann, *Cotton trade*, pp. 29-36, 286-7); and Nicholas Blundell's diary for 1702-28 is littered with references to visits paid to kin throughout the North-West: *The great diurnall of Nicholas Blundell of Little Crosby, Lancashire*, ed. F. Tyrer and J. J. Bagley, 3 vols, R.S.L.C. CX, CXII, CXIV (1968-72).

between kin formed only a slightly larger proportion of rural (31.1 per cent) than urban (27.8 per cent) contacts, whilst with contacts over more than 50 miles the balance had reversed (40.4 per cent of urban and only 38.5 per cent of rural contacts).

Whilst clearly a significant element of the contact patterns and an important shaping influence, kinship does not provide an all-pervading explanation for the formation of contacts in the North-West. Links among kin were generally over longer distances, and their relative importance increased proportionately with distance, but they did not comprise the majority of long-distance contacts; nor did they fully account for the 'unexpected' links to distant rural settlements. This reinforces the notion that the contacts revealed in the probate records do reflect a wide range of linkages and reasons for linkages. It thus adds strength to the assumption that these patterns do in some way approximate to the actual webs of contact between towns. What can these patterns tell us about the social and economic structuring of the region?

## V

The contact patterns outlined above appear to have a relatively simple spatial structure determined by the pairing of local and dispersed rural with more distant and concentrated urban linkages. Figure 3 belies such simplicity and portrays such a dense and complex web of linkages that it is difficult to discern any overall pattern; 'local' countryside was often on the opposite side of another town and 'distant' towns could lie on the far side of the region, with several other centres intervening between the two points of contact. Out of this seemingly chaotic entanglement of linkages, it is possible to discern some order. In doing so, however, we must be conscious of the fact that we are taking these contacts further from their social basis and placing them in a more overtly economic setting. If the contact patterns of individual towns are abstracted and their linkages analysed according to their status and distance, then groups of similar towns can be identified. To an extent, these groupings are somewhat artificial, but the basic distinctions drawn out in Table 3 (p. 61) are real and significant.

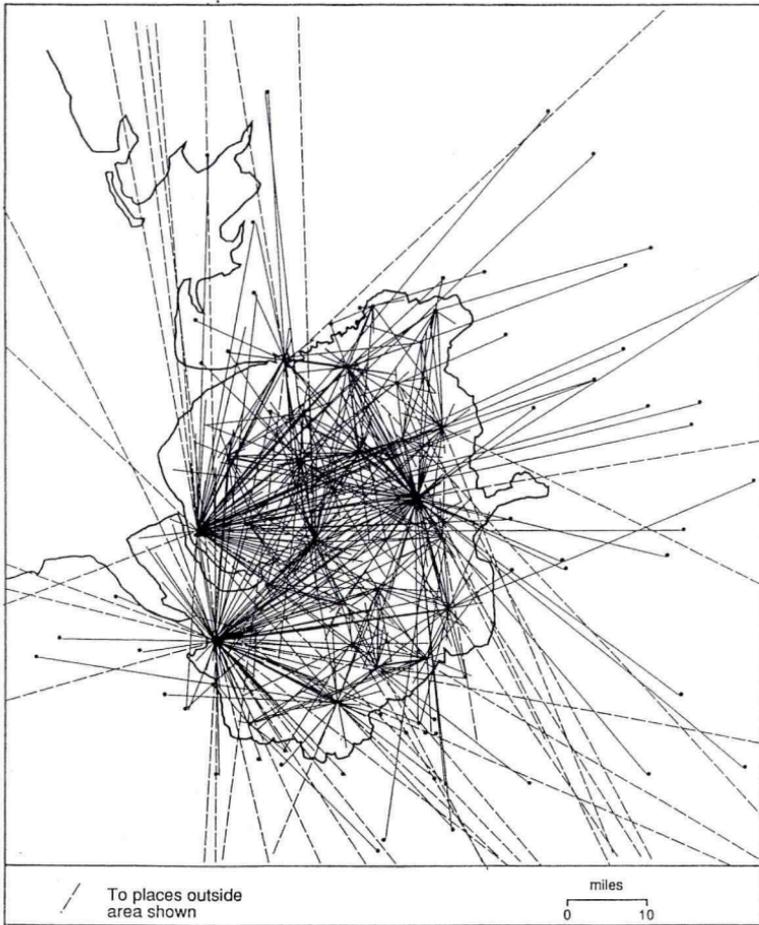


Figure 3 *Contact patterns between towns in north-west England*

In all, six broad groups of towns can be identified. The first consists of locally oriented towns which possessed good links to the nearest big town (5–10 miles distant), but were chiefly characterized by rural links over distances of less than 20 miles.<sup>31</sup> They were located in central-eastern Lancashire and northern Cheshire, but varied considerably both in size and

31 Bury is in this group by virtue of its domination by urban contacts over a distance of 5–10 miles (i.e. with Manchester), although it had comparatively few rural links.

function, from small service centres with around 1,000 inhabitants (Altrincham) to substantial dealing and manufacturing towns of nearly 5,000 people (Stockport).<sup>32</sup> What characterized these towns was not their size or function, but their location in relation to the larger urban centres which tended to dominate their contact patterns.<sup>33</sup> A similar explanation might be used to account for the contact patterns of the second group of towns, where a high proportion of links with the immediate hinterland (countryside less than 5 miles away) was coupled with large numbers of urban links over a distance of 10–20 miles.<sup>34</sup> They were ranged down the centre of the region from Clitheroe in the north to Nantwich in the south and were generally located away from the largest towns, which helps to explain the prevalence of middle-distance urban contacts. Moreover, whilst their size was quite varied—populations ranged from Frodsham (527) to Warrington (8,100)—their function was more uniform than the first group, with two thirds being characterized by a range of locally oriented manufactures and servicing functions.

The third group was more coherent in the nature of its contact patterns and displayed more independence from the dominant urban centres. Its members were quite large (2,375–5,000 if Malpas is excluded) and were generally located towards the periphery of the region; they were again linked to their immediate hinterlands and to a variety of smaller towns 20–50 miles distant on the other side of the region or well beyond its boundaries. Again, these towns were not of one uniform type, although a general tendency towards non-basic manufacturing, gentry, and dealing was apparent; they were higher-order centres with links to a variety of distant towns. This designation was also true of the fourth group, where local rural contacts were paired with a range of more distant urban links, including a high proportion of contacts with towns more

32 Population figures are for the 1770s and are calculated from bishops' visitations (Ches. R.O., EDV 7) and/or local censuses.

33 Manchester in the case of Altrincham, Leigh, Bury, and Stockport; Liverpool, Warrington, and Wigan with Prescott; Wigan and Preston with Chorley; Blackburn and Rochdale with Haslingden.

34 There was a large amount of variation around this standard type, which increases still further with the inclusion of Burnley in this group.

TABLE 3 *Contact patterns of the urban system: status and distance*  
(percentages)

Distance:	<5 miles		5-10 miles		10-20 miles		20-50 miles		>50 miles		Total	
	Urb	Rur	Urb	Rur	Urb	Rur	Urb	Rur	Urb	Rur	Urb	Rur
1 Altrincham	-	33.3	40.0	-	-	20.0	6.7	-	-	-	46.7	53.3
1 Bury	-	16.1	64.5	6.5	-	3.2	6.5	-	3.2	-	74.2	25.8
1 Chorley	-	33.3	25.0	16.7	-	25.0	-	-	-	-	25.0	75.0
1 Haslingden	-	16.7	27.8	27.8	5.6	16.7	-	-	5.6	-	38.9	61.1
1 Leigh	-	41.7	25.0	4.2	12.5	12.5	-	4.2	-	-	37.5	62.5
1 Prescot	-	32.3	25.8	9.7	12.9	19.4	-	-	-	-	38.7	61.3
1 Stockport	-	18.2	24.2	24.2	15.2	3.0	3.0	-	3.0	9.1	48.5	51.5
2 Bolton	-	38.1	-	16.7	23.8	16.7	4.8	-	-	-	28.6	71.4
2 Burnley	-	18.2	9.1	54.5	18.2	-	-	-	-	-	27.3	72.7
2 Clitheroe	-	60.0	10.0	10.0	10.0	10.0	-	-	-	-	20.0	80.0
2 Frodsham	-	37.5	18.8	-	31.3	12.5	-	-	-	-	50.0	50.0
2 Middlewich	-	33.3	-	-	26.7	20.0	-	-	20.0	-	46.7	53.3
2 Nantwich	-	23.1	1.5	16.9	24.6	9.2	7.7	3.1	14.8	-	47.7	52.3
2 Newton	11.1	44.4	-	11.1	22.2	-	-	-	11.1	-	33.3	66.7
2 Northwich	-	31.6	5.3	10.5	52.6	-	-	-	-	-	57.9	42.1
2 Ormskirk	-	33.3	11.9	9.5	26.2	2.4	11.9	4.8	-	-	50.0	50.0
2 Warrington	-	23.8	1.5	14.9	34.3	7.5	6.0	4.5	7.5	-	49.3	50.7
3 Blackburn	-	36.4	3.0	9.1	6.1	9.1	24.2	9.1	3.0	-	36.4	63.6
3 Congleton	-	43.5	13.0	8.7	-	8.7	26.1	-	-	-	39.1	60.9
3 Malpas	-	23.1	7.7	15.4	23.1	-	30.8	-	-	-	61.5	38.5
3 Preston	-	28.2	12.8	2.6	5.1	10.3	33.3	-	5.1	2.6	56.4	43.6
4 Macclesfield	-	36.5	3.8	9.6	11.5	5.8	15.4	1.9	15.4	-	46.2	53.8
4 Rochdale	-	40.0	15.0	12.5	2.5	10.0	5.0	5.0	10.0	-	32.5	67.5
4 Wigan	-	44.7	10.6	2.1	12.8	8.5	4.3	4.3	12.8	-	40.4	59.6
5 Colne	-	33.3	11.1	11.1	11.1	11.1	11.1	11.1	-	-	33.3	66.7
5 Knutsford	-	25.0	12.5	16.7	12.5	16.7	16.7	-	-	-	41.7	58.3
5 Manchester	-	21.2	4.9	20.1	12.0	8.7	15.8	9.2	8.2	-	40.8	59.2
5 Sandbach	5.3	26.3	15.8	26.3	-	15.8	10.5	-	-	-	31.6	68.4
6 Chester	-	10.4	1.6	6.4	12.8	16.0	16.8	11.2	22.4	2.4	53.6	46.4
6 Liverpool	-	9.2	3.1	6.7	27.0	10.4	23.3	7.4	9.2	3.7	62.6	37.4
Total	0.2	24.9	9.4	12.0	17.0	10.2	12.6	4.9	7.9	1.0	47.0	53.0

than 50 miles away. There were three such towns, located more centrally in the region than the previous group and somewhat more important than those towns, both in population and functional terms. They ranged from 4,000 to 6,000 and two of the three were characterized by commercial dealing and manufacturing, the third (Wigan) being dominated by highly specialized manufacturing industry. These were second-grade

centres with local contacts and a good range of more distant links, probably operating with considerable independence from the three principal towns of the region.<sup>35</sup>

The fifth group had a broadly similar range of contacts in terms of distance, but was more clearly characterized by links to rural settlements, which accounted for 58–69 per cent of probate contacts. Moreover, whilst the overall local rural/distant urban dichotomy remained intact in these towns, there was a considerable amount of overlap, with a high proportion of links to distant rural locations. This unusual contact profile was mirrored by a curious combination of sizes and functions; three towns were of modest size, but Manchester stood out as a large, high-order centre.<sup>36</sup> Moreover, whilst Manchester and Colne were dealing and manufacturing centres involved in the textile trades, Sandbach and Knutsford were servicing towns; the first two were probably linked with a dispersed rural workforce and the last two with a network of wealthy landowners and farmers. Manchester's strong links with local and more distant countryside as well as a range of urban contacts was in complete contrast to the patterns seen in Chester and Liverpool, which together made up the last group of towns. They were characterized by very low proportions of rural contacts and a correspondingly large number of longer-distance urban links. These towns were very different in their economic function, of course, but were both large, high-order settlements and apparently held a position at the top of hierarchies of contacts very different from those seen in Manchester.

## VI

Although the foregoing analysis has its limitations (some of the groupings, for instance, are fairly loose ones), it is helpful in discerning some definite order in the apparently chaotic web

35 They were, of course, linked to such towns; thus Rochdale had a considerable number of urban links in the 5–10 mile category (Manchester), Wigan in the 10–20 mile range (Liverpool and Manchester), and Macclesfield between 20 and 50 miles (Chester).

36 The range of population was 1,477–22,481, or 1,477–2,880 excluding Manchester.

of contacts in this part of north-west England. Different towns were characterized by a wide range of divergent contact patterns, but it is notable that those with similar networks of linkages were functionally and geographically clustered in the regional space economy (Figure 4, p. 64). If these sub-regional groupings are highlighted, it quickly becomes apparent that the observed diversity of contact patterns was broadly related to the different economic activities which prevailed in those areas. There is a very real danger here of equating these social contacts with economic linkages, of seeing patterns of economic interdependence where only social interaction is certain. That understood, it is apparent that a number of economic sub-regions within the North-West were characterized by very different networks of linkages.

Links with rural areas dominated the contact patterns of the east Lancashire textile towns, but there also appears to have been a distinctly hierarchical structuring to these linkages. The strong links which Haslingden, Leigh, Bury, Burnley, and Bolton possessed with their hinterlands and with larger towns nearby fits well with a role as the basic interfaces between rural and urban textile production of the type described by Wadsworth and Mann.<sup>37</sup> Colne, Blackburn, and Rochdale had contacts with towns both up and down the hierarchy, which again matches their immediate position between the smaller centres and Manchester. This was the centre of the finishing industries and putting-out system of the North-West—effectively drawing together specialist production in the linen, fustian, and woollen districts—and appears as the locus for contacts from the surrounding network of towns.<sup>38</sup> Figure 5a (p. 65) highlights this hierarchical structuring of linkages by showing only the most direct 'route' for contact between each part of this sub-system and Manchester. Although direct comparisons with models of interaction are rather simplistic, these contact patterns do resemble the interaction network of a staple-export or proto-industrial system (as outlined by Simmons), with local contacts

37 Wadsworth and Mann, *Cotton trade*, pp. 170–83, 261–73, 314–24.

38 J. Walton, 'Proto-industrialisation and the first industrial revolution', in *Regions and industries: a perspective on the industrial revolution in Britain*, ed. P. Hudson (Cambridge, 1989), pp. 47–51.

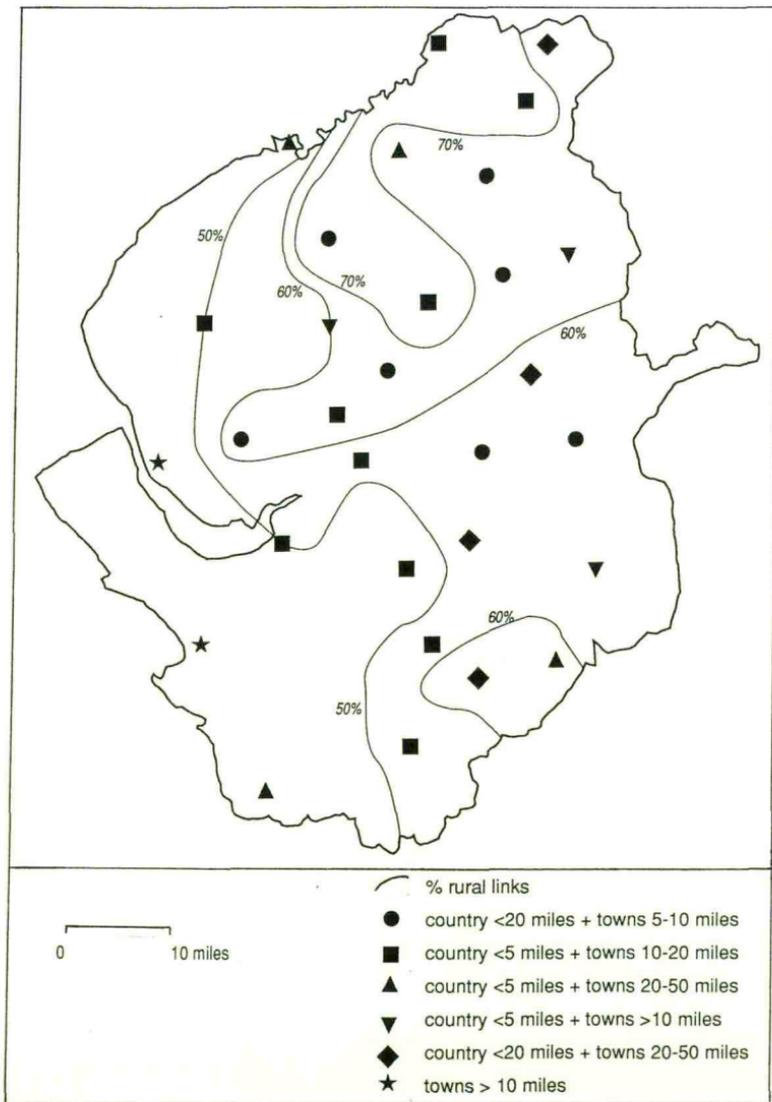


Figure 4 *Contact patterns of the urban system: town types*

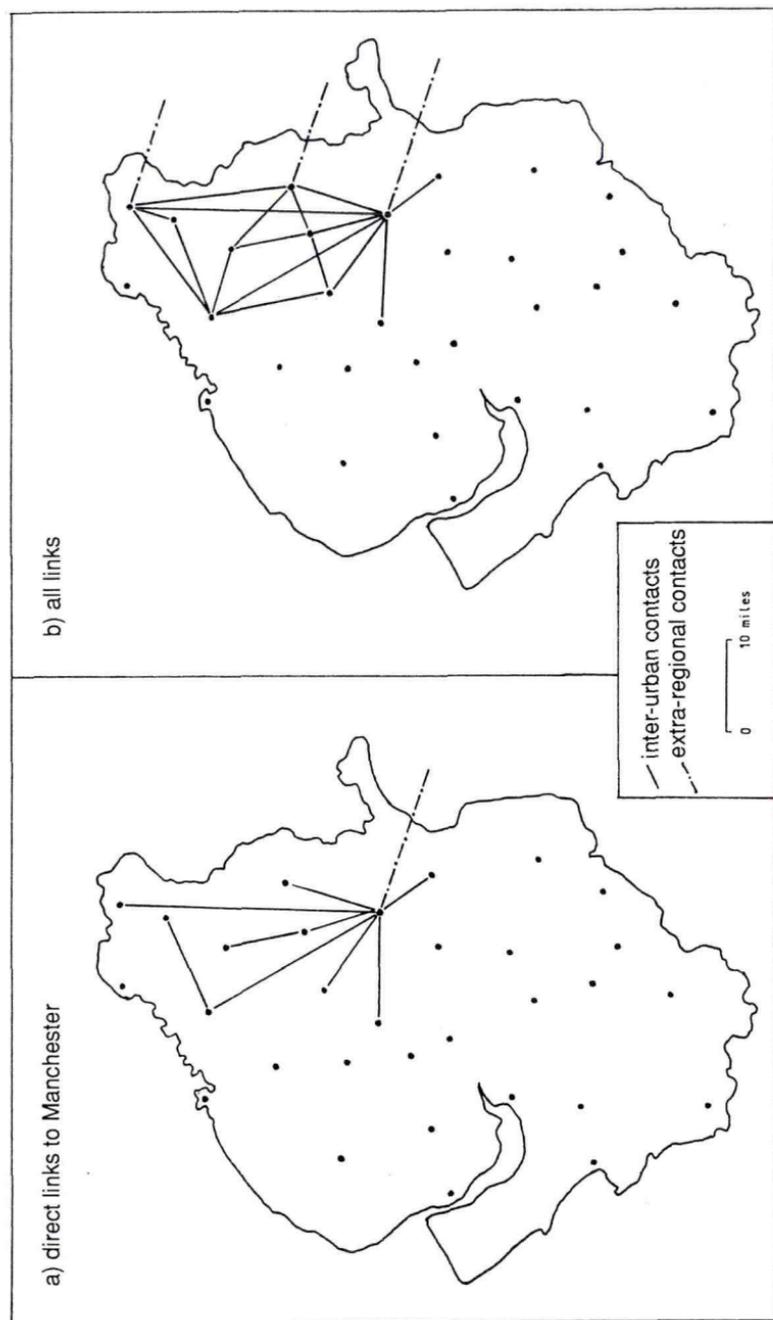


Figure 5 *Simplified contact patterns of the eastern Lancashire textiles economy*

between town and country being complemented by links up the hierarchy to the principal town which formed the focus for extra-regional contacts.<sup>39</sup> This neat interpretation of an apparently hierarchical urban system quickly runs into several problems. Several towns possessed links with distant as well as local rural areas; these confirm many of the trading links described by Wadsworth and Mann and cut across the hierarchical contact patterns.<sup>40</sup> Colne and Rochdale had direct links with places outside the region (including London),<sup>41</sup> and many other towns had contacts with Chester or Liverpool, all of which provided independent links with outside areas, again reflecting wider economic connections and undermining the hierarchical structure. Moreover, Figure 5b (incorporating all inter-urban contacts in the sub-system) shows several direct links among the lower-order towns of the area. These brought what were often specialist centres into direct contact with one another and once more bypassed the vertical structuring of linkages.

That said, the index of connectivity (which expresses the number of links in a network as a ratio of the maximum number of links possible) of this system was low and changed little with the inclusion of the extra linkages, rising from 0.20 to 0.38.<sup>42</sup> This indicates a low level of connectivity and suggests that the hierarchical structuring shown in Figure 5a might carry the essence of the east Lancashire urban system. Given that the linkages shown in the probate records are sufficiently robust to show real socio-economic ties between settlements, then the revealed patterns of interaction reflect

39 Simmons, 'Urban system', pp. 62–8.

40 Rochdale and Blackburn had links with villages more than 20 miles distant, whilst 'the Manchester fustian weavers cast their net wider . . . in the country around Bolton and Blackburn, where they competed for labour with the local manufacturers': Wadsworth and Mann, *Cotton trade*, p. 251.

41 J. T. Swain, *Industry before the industrial revolution: north-east Lancashire, c. 1500–1640*, C.S. 3rd ser. XXXII (1986), p. 146, describes the links between Colne and the worsted industry of the West Riding; G. H. Tupling, *The economic history of Rossendale*, C.S. new ser. LXXXVII (1927), pp. 185–6, likewise suggests a wider role for Rochdale; Wadsworth and Mann, *Cotton trade*, pp. 261–70, do the same for Bolton.

42 Hammond and McCullough, *Quantitative techniques*, p. 67.

what we know about this area and what might be expected from this type of local economic structure.

In Cheshire, agriculture was generally the most important productive enterprise and many towns were commercial and social central places.<sup>43</sup> It would be expected that this would find its reflection in the contact patterns being organized in a hierarchical central-place or staple-export system similar to that seen in eastern Lancashire: in place of textiles, agricultural produce such as cheese and corn was being exported from the area.<sup>44</sup> In reality, linkages revealed in the probate records were rather differently arranged, especially in the west of the county; instead of a hierarchy of contacts, all of the towns in Cheshire were linked directly to Chester (Figure 6a, p. 68) and the index of connectivity was consequently very low (0.17).<sup>45</sup> To an extent, this arrangement resembles a much simplified hierarchical system, as might be expected in this area. However, Chester also had direct links with a number of villages up to 20 miles away, whilst Nantwich and Macclesfield possessed long-distance urban contacts (mostly with London), short-circuiting the putative hierarchical system from either end.<sup>46</sup> Similarly, several towns in east Cheshire were linked to Manchester whilst those in the north of the county had ties with Warrington and Liverpool, again breaking the monopoly of Chester on links out of this agricultural area. Finally, adding all inter-urban links (Figure 6b) shows that there was a large amount of contact among the smaller towns of Cheshire, bypassing the hierarchical structure of this system. This increased the index of connectivity to 0.45: still low, but significantly higher than

43 H. Hodson, *Cheshire, 1660-1780: Restoration to industrial revolution* (Chester, 1978), pp. 93-8, 109-11.

44 This is not to deny the important industrial output of several towns in the county, notably salt from Nantwich, Middlewich, and Northwich; silk and buttons from Macclesfield; hats and textiles from Stockport; and a range of high-skill industries in Chester: Hodson, *Cheshire, 1660-1780*, pp. 137-55.

45 Stockport is included as part of the east Lancashire sub-system, but it too was directly linked to Chester.

46 The long-distance trading of the wealthy Macclesfield chapmen is charted in Spufford, *Great reclothng*, p. 43.

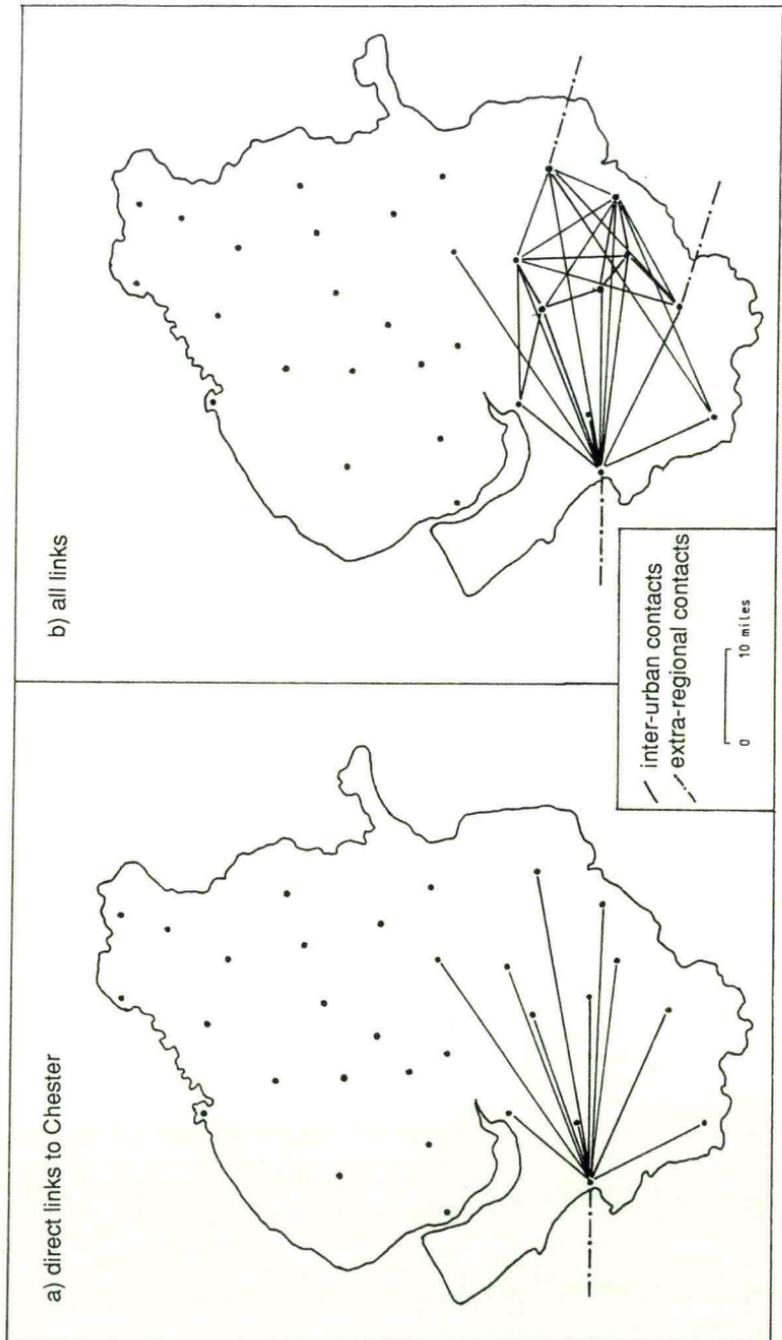


Figure 6 *Simplified contact patterns of the Cheshire agricultural economy*

previously, suggesting an important amount of non-hierarchical contact between lower-order towns. This might reflect the complex local specialization seen in the Cheshire economy at this time. Links to Chester were, perhaps, dominant, but a large amount of contact between neighbouring specialist centres is also to be expected.

Given the specialization and localization of the coal-using industries of central and south-western Lancashire,<sup>47</sup> a far greater proportion of direct contact between specialist centres would be expected in this area, replacing the area-point-hierarchy linkages seen in east of the county. From the probate records, however, it seems that these specialist coal-using economies were only weakly linked together. Most towns had direct links to Liverpool (Figure 7a, p. 70), reducing the connectivity of the interaction network to a minimum (0.29), but, by excluding cross-links, this map misses the essence of this area. When these are included (Figure 7b), the interconnectivity of the system is almost complete (the index rises to 0.71), revealing this as the area of most intense interaction among towns. This intensity is underlined by the strong extra-regional ties held by Liverpool, Warrington, Preston, and Wigan, offering several of points of exit from and entry to the system and reducing the domination by a single 'gateway city' seen in the other two systems. That said, areal contacts were of overwhelming importance in many towns (such as Wigan), making it difficult to conceptualize the system as being entirely comprised of a series of point-to-point linkages, and both Warrington and Wigan were also drawn into the textile economy of eastern Lancashire, questioning the closure of this sub-system. What appears to be happening here, then, is that specialist local economies were the nodes on the interaction system of the area, but that strong rural specialization<sup>48</sup> cut into the system from below and the dominant port of Liverpool did so from above.

The identification of these sub-regional economic structures from the contacts found in probate records is, of course, somewhat speculative. The broad patterns mesh well with

47 Langton, *Geographical change*, pp. 50-4, 96-100, 176-81.

48 C. B. Phillips and J. H. Smith, *Lancashire and Cheshire from AD 1540* (London, 1994), pp. 101-2.

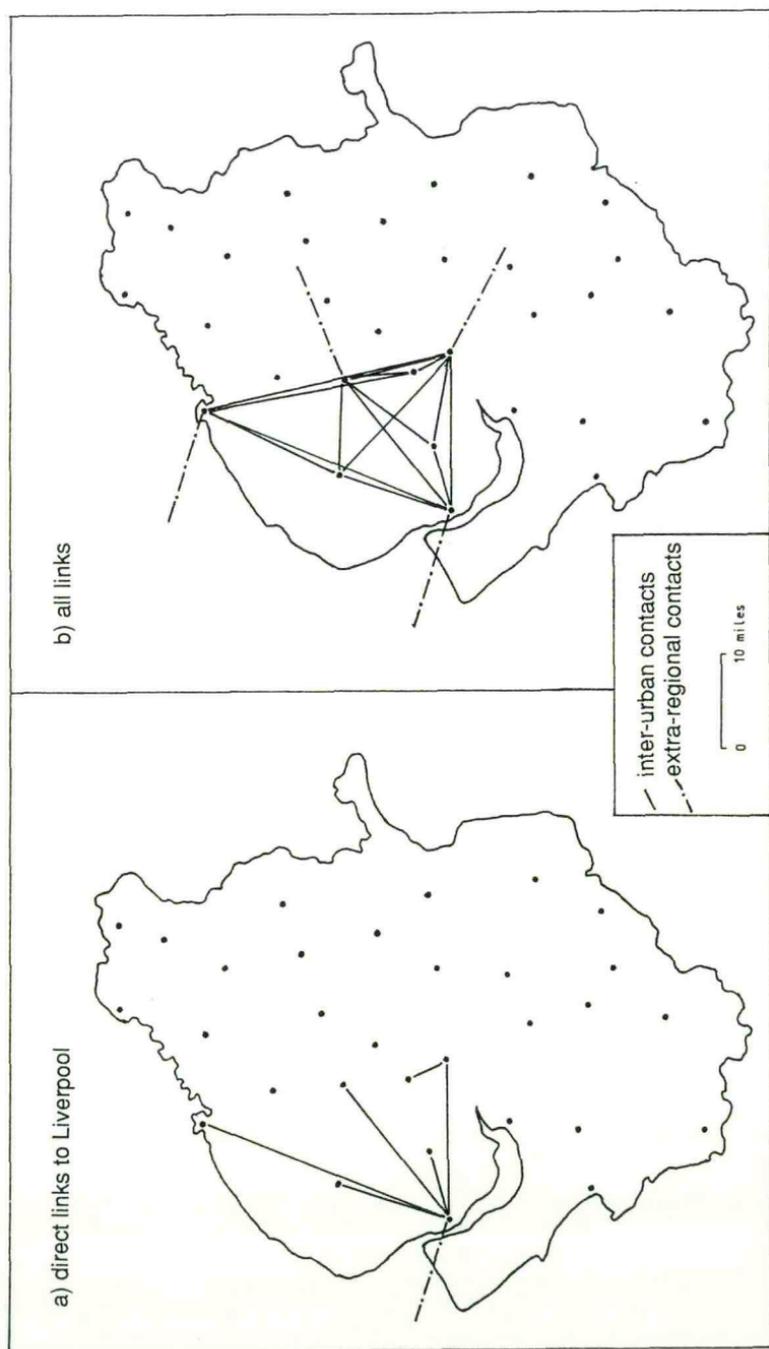


Figure 7 Simplified contact patterns of the south-western Lancashire mineral-energy economy

what is already known about the local economies of these areas, but the detailed links discussed here are less than definite and the analysis makes significant assumptions about the robustness of the socio-economic contacts revealed in the probate records. More certain is the role of inter-urban linkages in drawing together these three sub-systems and, within this, the centrality of Chester, Manchester, Liverpool, and Warrington in this integration process.<sup>49</sup> These were by far the 'busiest' towns in terms of the number of inter-urban contacts recorded in the probates: they possessed many links with both their immediate neighbours and each other. Forty-six contacts are recorded between Manchester and the four nearest textile towns (Stockport, Bolton, Bury, and Rochdale); links between Chester and nearby centres were comparably strong (thirty-one being recorded with Northwich and Nantwich); Liverpool possessed a similar number of ties (twenty-four) with its near neighbours, Prescot and Ormskirk; and there were 100 contacts among the four principal centres. With this volume of linkages, these towns must have been crucial in regional integration and in producing a coherent and integral urban system in the North-West. Indeed, without links to these towns, the urban system effectively breaks into Cheshire and Lancashire sub-systems, a fact which might help to explain the divergent demographic growth seen in the two counties in the eighteenth century.<sup>50</sup>

## VII

The foregoing analysis paints a picture broadly in accordance

- 49 The importance of Chester, Manchester, and Liverpool (central in the three sub-systems previously discussed) is to be expected. Warrington's elevated position is attributable to its focality in the transport network of the region and its growing industrial and commercial base. It was the head of navigation on the Mersey before 1736 and the lowest bridging point for a long time afterwards. It also contained a wide range of industries, including pin-making, wire-drawing, sail-making, and brewing, as well as active tradesmen, particularly in the iron industry: W. C. Sprunt, 'Old Warrington trades and occupations', *T.L.C.A.S.* LXI (1949), pp. 167-9 (report of proceedings).
- 50 J. Stobart, 'An eighteenth-century revolution? Investigating urban growth in north-west England, 1664-1801', *Urban History*, XXIII (1996), pp. 26-47; Phillips and Smith, *Lancashire and Cheshire*, p. 68.

with what might be expected, given the economic structure of the region, and meshes well with the little we already know about interaction at this time. However, we must exercise considerable caution in building too great an argument on what are, after all, unsure foundations. It is apparent that the probate records contain a great deal of systematic data on regional contact patterns (information which is unavailable from other sources), but the precise nature of the linkages portrayed remains obscure. If we accept that there is some broad equation of individual social links with more general economic interaction (something which is certainly possible and probably quite likely), then the contact patterns revealed are of immense interest. They show a region enmeshed by a vast range of urban-rural and inter-urban contacts and underline the well established interlinking of rural (often proto-industrial) and urban development at this time. Different towns were characterized by different contact patterns, reflecting their different size, location, and above all position within the regional or sub-regional economy. The identification of divergent patterns of interlinking in various parts of the region is, perhaps, predictable, but the presence everywhere of a coherent structure to these linkages has important implications for local, regional, and national economic structure and development.

There is a clear need for more work to be done on the precise role of the urban system in shaping economic development and, perhaps, on the use of probate records as a data source for this enquiry. What is apparent from this study is that the urban system in general, and certain towns in particular, played an important role in the interlinking of the regional space and the integration of the regional economy. Contrary to proto-industrialization theory, towns were not spectators in regional structuring; through their status as the foci of complex patterns of linkages, the towns of north-west England were vital in drawing together the diverse economy of this growth region. Furthermore, it could be argued that, through this impact on the structure and functioning of the regional economy, the contact patterns of the urban system played a crucial role in shaping economic development in the North-West; good linkages would be important in determining local and regional growth. This relates closely to

Clark's analysis of regional patterns of urban growth. He argues that proximity to 'successful' regions could produce decline in certain towns; what the analysis here suggests is that linkages to these 'successes' could induce growth elsewhere.<sup>51</sup>

The importance of proximity to or linkages with economically dynamic regions is apparent on two scales. Within the North-West, the comparatively slow growth of many Cheshire towns must in some measure be related to their relatively poor links with the more dynamic centres in Lancashire. At a broader level, the growth of towns in the North-West was enormous and consistent in comparison with those lying outside the region. Given this, it appears that what stimulated growth was not necessarily intrinsic to particular towns, but to do with their extrinsic relationships, their linkages with town and country. It was the system of towns and not the qualities of individual centres which drew together the productive forces of the region, facilitated economic specialization, and generated regional growth. Thus a fully integrated urban system was vital to the effective functioning and economic development of the region; it was, indeed, 'a necessary preparation for entry into the modern industrial world'.<sup>52</sup>

51 Clark, 'Small towns', pp. 117-18.

52 J. De Vries, *European urbanization, 1500-1800* (London, 1984), p. 10.