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Rural-urban relationships

The search for the evidence base

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Introduction

The recent years have seen an increasing interest in the topic rural-urban relationships both amongst planning researchers and in planning policy. The ESDP introduced this term into the European spatial planning agenda (CSD 1999) and as a consequence also the first round of the ESPON project investigated this subject from a European perspective (Bengs and Schmidt-Thomé 2004). On the national level in many countries the interest both amongst researchers and policy makers seems to have been limited so far. This is different in the UK especially in England, which is the spatial focus of this paper. Here policies for rural and urban areas have traditionally been strictly separated. Furthermore policies of urban containment aimed at limiting the expansion and growth of urban areas (Davoudi and Stead 2002). Amongst British academics there have been lengthy debates about how to define and differentiate between urban and rural areas (Hoggart 1990; Halfacree 2004); a debate that one might be unfamiliar with in other European countries where these spatial categories are far less important. A more comprehensive regional spatial policy that considers the links and relations between both spatial entities is regarded as rather new and innovative for the UK as a whole and specifically for England.

Apart from the ESDP a number of key national documents triggered the more recent debate about rural-urban relationships, such as a report investigating the changing rural economies (PIU 1999) and a number of documents focusing on the rural-urban fringe (Countryside Commission 1999). In the coming years this led to a number of publications amongst others a special issue of the journal Built Environment dedicated to the topic urban-rural relationships with contributions from a number of different European countries (Davoudi and Stead 2002). Apart from that a number of studies produced for regional institutions in England investigated how and in which form rural-urban relationships could be taken into account in regional planning and economic regeneration (Nadin and Stead 2000; Ecotec 2003; Midgley, Ward et al. 2005). Currently it remains to be seen in how far such studies will have an impact on regional policy making.

Another aspect to consider is that most of the studies about the topic have so far mainly followed a qualitative approach, identifying the main types of links and flows between rural and urban areas often based on those listed in an early publication from the 1970s (Preston 1975) or investigating existing examples of joint rural-urban working and partnership (Cafflyn and Dahlström 2005). Other studies have focused on investigating the rural-urban morphology, such as a report from the ESPON project (Bengs and Schmidt-Thomé 2004). The latter report differentiates structural and functional rural-urban relationships. While the term structural is used for the morphological approach, the term functional is used to describe links and flows between rural and urban areas. Some of these types of flows, except economic and information flows, are summarised in the following diagram, originally stemming from a report about the West of England:
Although the recent studies and papers differ in detail, there’s general agreement about which kind of rural-urban links and flows should in theory be considered. Yet what is lacking both in academic research and in policy related reports is a comprehensive evidence base for these links and flows between rural and urban areas. The debate so far mainly argues with general trends identified by regional scientists or geographers. One example for such a trend is the monitoring and identification of migration processes such as counter-urbanisation (Champion, Atkins et al. 1998; Champion 2005). Beyond that one should also bear in mind that not all aspects of rural-urban relationship necessarily require attention or a policy intervention. Also not all aspects of rural-urban relationships went through a process of change in recent years and decades.

This paper investigates two alternative methods of analysing and visualising such flows, focussing on the aspects rural-urban commuting and economic change in rural area and using examples on the spatial level of England and the North-West region. The following section discusses the reasons for focussing on these specific aspects of rural-urban relationships. This is followed by two sections discussing the main findings.

To understand the spatial context of the following analyses the following two maps illustrate the rural-urban morphology of both England and the North-West region, based on the ONS rural-urban classification.

The first map on the left shows the basic structure of urbanisation in England by showing the ONS urban-rural classification of wards. Furthermore this map is naming the 8 core cities plus London. In the North of England the cities of Liverpool, Manchester and Leeds form a band of urbanisation, stretching further on south-west via Sheffield and Nottingham towards Birmingham. Different to this the core cities Bristol and Newcastle are more detached and dominant in their city region. The South-East is clearly dominated by the capital London. The space in between these core cities and London is characterised by a large number of small and medium sized towns and cities. On the other hand the West of England towards Cornwall and the North are less urbanised, mostly sparse rural areas.

The second map on the right provides a more detailed idea of the rural-urban structure of the North-West region. The south is dominated by the conurbations of Merseyside and Greater Manchester. These are surrounded by semi-rural Cheshire and Lancashire. Cumbria in the North of the Region is more detached from the main conurbations. The core cities Manchester and Liverpool have experienced long-term population loss partly over several decades. And this development is not limited to the urban cores of Liverpool and Manchester. Also the wider hinterland of Merseyside and Greater Manchester and many of the manufacturing towns of Lancashire showed a decrease in population in recent years and decades. The more recent population estimates by National Statistics indicate that the core cities of Liverpool and Manchester managed to stop a further decrease of population. The main reason for that might be that there is a strong increase in city centre living in both cities. Still - at the same time many rural areas in this region witnessed significant population gain hence benefiting from the process of counter-urbanisation.
Andreas Schulze Bäing

Rural-urban relationships – The search for the evidence base

To understand in which aspects rural-urban relationships have been changing in recent years and decades it makes sense to first consider in which ways the overall socio-economic situation in many rural areas has changed in comparison to urban areas. Apart from the process of counter-urbanisation mentioned earlier, two trends became more and more evident in recent years. First of all the economic structure in rural areas became more similar to urban areas as the importance of farming both as an economic base and as an employer in rural areas has been decreasing over decades (PIU 1999; Countryside Agency 2003). The other trend is that similar to the process of counter-urbanisation there is a tendency that rural areas become increasingly popular places of business location. While earlier analyses in the 1970s and 1980s referred to this as an urban-rural manufacturing shift (Fothergill and Gudgin 1979; Keeble, Owens et al. 1983), more recent research suggests that this shift of economic activities from urban towards rural areas is evident for all sectors of the economy including the service sector (Keeble 1995). One explanation for this is that economic change is triggered by new wealthy in-migrants into rural areas that are more likely to start businesses. Another explanation uses the concept of borrowed size (Alonso 1972) arguing that more rural locations of small towns and villages can selectively ‘borrow’ services and infrastructure from nearby urban areas due to better accessibility and increasing car-mobility ( Phelps, Fallon et al. 2001).

While there seems to be sufficient evidence for this general trend at least in many accessible rural areas, this might differ significantly once one investigates on a smaller scale in specific places and regions. Another issue to consider is that many of the methods of spatially differentiated economic analysis refer to data sources that are merely available down to district geography. As local authority districts in England are quite large in scale compared to those in many other countries, this would include small and medium sized towns into what these economic studies define as rural.

Therefore this paper investigates two methods that allow a more fine-grained analysis without relying on specific surveys. The first analysis is based on the Census Special Workplace Statistics and investigates the topic rural-urban commuting, specifically focussing on the occurrence of long-distance commuting. This is followed by a second analysis using information from a commercial business database to understand migration and relocation moves of businesses.

figure 2: Urban-rural classification of England and North-West Region

Economic dependency or independency

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Commuting

Often inter-spatial flows such as commuting or migration flows are analysed and visualised using lines or arrows on a map indicating the direction and extent of flows. Such a way of visualisation is practically only possible using district geography on a regional scale. A further smaller scale analysis is difficult both in terms of the quantity of data that needs to be processed and in terms of limitations of what can be visualised and still be differentiated on a map. Therefore the following method uses a different approach. To understand in how far a rural location is significantly linked by commuting to a larger urban area it is useful to investigate the average commuting distance of the working age population, or alternatively the share of long-distance commuting. The higher these are, the more dependent these areas are on urban labour markets. The lower these shares are the more independent an area is in economic terms. A similar approach has been used on a district level in the German Raumordnungsberichte published regularly to monitor spatial development processes in Germany (Strubelt, Gatzweiler et al. 2000).

The analysis shown here is based on the UK Census 2001 statistics. As the place of residence and the workplace was given by the respondents in the Census forms, it was possible to calculate the commuting distance based on this information. This was then in a second step translated into a number of tables which were published by the Census dissemination unit, in this case the table ST120 titled “Sex and age by Distance Travelled to Work”. Based on the data in this table it is possible to calculate the share of commuters above a chosen threshold distance in relation to the economically active population for a chosen geography. The spatial distribution in these shares can then be visualised on a map using a GIS. The two maps below use a threshold of 20 km for the standard wards in England and Wales.

Not surprisingly in many rural wards in the South-East around London as well as around the other major cities the share of long-distance commuters is quite high. Yet this is not unanimous in all rural areas. Towards the South-West/Cornwall and in parts of the North-West there are many rural wards with quite low shares of such long-distance commuting. The map on the left illustrates this on a smaller scale for the North-West region. To see the context of the urban-rural structure the urban footprint of continuously built up areas is shown on the map. In most wards of Cheshire and Lancashire, which are the rural regions located north and south of the conurbation of Merseyside and Greater Manchester, the shares of commuting are rather low compared to many other parts of rural England. Also the more remote rural Cumbria in the northern part of the North-West of England shows a lower share of commuters above this threshold distance.
England shows rather low shares of long-distance commuters, especially compared to the rural parts of North-East region around Newcastle. For Cheshire and certainly for Lancashire this low share can partly be explained by the polycentric rural-urban morphology in this region. Yet to a certain extent this also illustrates the different extent of economic independence of rural areas – which can include the job opportunities in small and medium-sized market towns.

The limitation of this method of commuting analysis is that it just gives a snapshot of the situation at the time of the Census 2001. To consider the dynamics of change of commuting structures the following analysis compares the situation of 2001 to the previous Census from 1991. Yet while the 2001 figures are based on all questionnaires, the 1991 figures are just based on a 10% sample of the total Census. Hence the figures are a bit less reliable. Despite these limitations, comparing the share of people commuting very long distance of more than 40 km can reveal some trends. Around London, the share of very long-distance commuters seems to have decreased during the 1990s. The same applies to some parts of Northern England and along the Welsh coast. At least for the wider South-East of England one can draw the conclusion that this area of the commuter belt around London becomes more economically independent from London as a commuting destination. It could also mean that there are more short distance tangential commuting flows instead of concentric towards the centre of London.

Business moves

While the analysis of commuting structures provides a quite detailed idea of the degree of economic interdependence or independence of rural and urban areas, one disadvantage of using this method is that the Census is just providing information every ten years. Therefore it is difficult to monitor the dynamics of change. Another way of analysing this is to directly look at the distribution and dynamics of change of business location. The most commonly used method in England for this is to use VAT registrations and deregistration of businesses, which allow monitoring business foundation and closure rates.

Yet these figures are only available down to local authority district level and it is difficult to draw conclusions from this large scale regarding rural-urban links/flows. Another method using the annual business enquiry employee and workplace data has also limitations as it’s only available down to the district level. Other economical statistics such as GVA are only published down to the regional NUTS3 level. Beyond these official statistics, a number of commercial databases offer information about businesses as well. One of these is called the BETA-model. This system allows monitoring business openings, closures and most importantly moves on a very small spatial scale, down to wards. The database is based on information about
businesses obtained from the same source as the Yellow Pages. Initially the Beta Model had been developed for the purpose of monitoring the impact of regeneration programmes on the economic development of an area. But as the data is available for the whole UK it can also be used for understanding the economic changes in rural areas and for the analysis of business relocations. Beyond the analysis of the stock of businesses in an area it also allows to monitor business movements. What this ideally allows is an analysis if and in how far one can also observe a form of counter-urbanisation of business activity down the urban-rural hierarchy. Due to the small spatial level for which this data is available there are not only trends that can be observed on a region-wide scale but also on a more small-scale sub-regional/local scale. If a consistent trend can be identified, this might lead to the conclusion that there is a different form of counter-urbanisation taking place, based on the assumption that urbanisation or urbanity is also concerned with the location of business activity.

To test the potential of the method two case studies were chosen. These are the local authority district of Ribble Valley, covering the rural Eastern part of Lancashire, and Congleton located in Cheshire. Both districts showed relatively high business foundation rates according to VAT data in recent years. The more detailed data from the Beta model indicates that about 10 percent of the new businesses in the two districts chosen are relocations from another area. The other business foundations might be the result of the business owner moving to the area, but the database does not allow assessing that aspect. The following maps illustrate these business moves 2001-2004 using the standard wards. They include all moves inside districts plus all moves to and from the outside. In the case of Ribble Valley most moves tend to take place in the South of the district and towards the neighbouring districts in Lancashire. Only a small number of moves go beyond the region, towards Manchester, Cheshire and the West Midlands.

In the second example, Congleton shown below, the business moves mostly took place inside the Cheshire sub-region, only with a small number of UK wide moves. A number of moves also took place to and from Stoke-on-Trent located just south of the district.

Both for cases it is interesting to note that there were nearly no business moves to and from the cores of the conurbations Merseyside and Greater Manchester in relation to these two districts. To verify if this is a general phenomenon one would need to test a much wider range of data. The small number of long-distance moves took place equally on a regional and nation-wide level. It might not be surprising that many business moves in these two rural districts took place to and from urban wards inside the districts, as even in a rural context these urban wards, often located in market towns, would be the major location of businesses for example in small business parks. Yet there’s at the same time quite a significant amount of rural and town/fringe wards with an influx of businesses in the two cases, especially in Ribble Valley.
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As for the methodology used, the maps shown above are a first attempt at using the Beta model business database to get a small scale idea of business moves in the rural-urban context. The visualisation method of using arrows to illustrate flows is clearly limited as was discussed earlier. If one would go above the spatial scale of case study districts, for example investigating the whole region, the resulting map would be very difficult to read when still using the ward geography and arrows to visualise flows. For an alternative method of visualisation similar to the commuting maps discussed earlier, the total number of moves, even over a longer period of four years, might be too small. Currently the movement data of the Beta model is available in the form of profiles for individual wards. Therefore the analysis is currently very time-consuming to run as it requires a lot of manual data entry steps. If the system would allow exporting a migration matrix similar to the one offered by the Census Interaction Data Service for commuting and migration data, this would make analyses much easier both on a local and on a regional level.

Conclusion

There has been an increasing interest in rural-urban relationships in recent years as an issue to consider in sub-regional and regional planning. Yet as inter-spatial flows are difficult to assess and monitor the evidence base of rural-urban relationships is so far rather limited. The two methods discussed in this paper offer both the potential of understanding commuting flows and business migrations on a detailed spatial scale. This can provide a better evidence base to assess in how far accessible rural areas become economically more independent from nearby urban areas or to which extent there’s a strong link between rural and urban areas. While the analysis of commuting data is, from a technical perspective, quite easy to produce, the disadvantage is that this data source is just available every 10 years for the decennial census. Despite it’s limitations the analysis based on the Beta model has the advantage that the data is updated every year. Therefore it is possible to monitor developments much more closely. Too a large extent inter-spatial or rural-urban links and flows remain difficult to assess though which might hinder the development of a comprehensive rural-urban policy, partnership or cooperation.

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**Additional Information**

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