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Impacts of agglomeration on call centre operations: evidence from North West England

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IMPACTS OF AGGLOMERATION ON CALL CENTRE OPERATIONS: EVIDENCE FROM NORTH WEST ENGLAND[1].

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ABSTRACT

Call centres have until fairly recently provided a significant source of employment growth in the peripheral regions of the UK. Despite the potential for locational dispersal throughout the urban hierarchy, however, call centres tend to be highly concentrated in larger urban centres and variations in wage costs between local labour markets appear to have little influence over location patterns. This paper explores the consequences of high levels of agglomeration for recruitment and retention of labour within call centres in the North West Region of England. Using survey data, various measures of labour market stress are shown to be positively correlated with urban size. The results tend to confirm that businesses are prepared to absorb the costs of concentration in order to avoid the perceived risks of labour shortages in smaller dispersed urban centres.

Key words:

Contact Centres, Agglomeration, Location factors, Local Labour Market, Service industries, North West England,

R11 - Regional Economic Activity: Growth, Development, and Changes < R1 - General Regional Economics < R - Urban, Rural, and Regional Economics, R12 - Size and Spatial Distributions of Regional Economic Activity < R1 - General Regional Economics < R - Urban, Rural, and Regional Economics

L'impact de l'agglomération sur les activités des centres d'appel dans le nord-ouest de l'Angleterre.

Peck & Cabras

Jusqu'ici, les centres d'appel ont constitué un bassin d'emploi non-négligeable à la périphérie du Royaume-Uni. Cependant, malgré le potentiel de redistribution géographique à tous les niveaux de la hiérachie urbaine, les centres d'appel ont tendance à s'agglomérer dans les plus grandes zones urbaines, et il semble que la variation de la masse salariale des marchés du travail locaux influe très peu sur la distribution des emplacements. Cet article cherche à étudier les conséquences des taux d'agglomération élevés quant à l'embauche et au maintien de l'emploi dans les centres d'appel situés dans la région Nord-Ouest, en Angleterre. A partir des données provenant des enquêtes, on montre que les mesures différentes de l'effort subi par le marché du travail sont en corrélation étroite avec la taille urbaine. Les résultats ont tendance à confirmer que les entreprises sont prêtes à absorber les frais d'agglomération pour éviter les risques perçues par pénurie d'emploi dans les plus petits centres urbains dispersés.

Centres de contact / Agglomération / Facteurs de localisation / Marché du travail local / Industries des services / Nord-ouest de l'Angleterre

Classement JEL: R11; R12

Auswirkungen der Agglomeration auf den Betrieb von Call Centern: Belege aus Nordwestengland

Frank Peck and Ignazio Cabras

ABSTRACT

In den peripheren Regionen Großbritanniens trugen Call Center bis vor relativ kurzer Zeit signifikant zum wachsenden Beschäftigungsniveau bei. Trotz des Potenzials für eine Standortstreuung innerhalb der gesamten urbanen Hierarchie neigen die Call Center jedoch dazu, sich in größeren urbanen Zentren hochgradig zu konzentrieren; die unterschiedlichen Gehaltskosten der verschiedenen lokalen Arbeitsmärkte scheinen die Standortmuster nur geringfügig zu beeinflussen. In diesem Beitrag werden die Konsequenzen einer hochgradigen Agglomeration für die Anwerbung und Beibehaltung von Arbeitskräften in Call Centern im Nordwesten Englands untersucht. Anhand von Umfragedaten wird gezeigt, dass verschiedene Faktoren der Arbeitsmarktbelastung positiv mit der Stadtgröße korrelieren. Die

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Ergebnisse scheinen zu bestätigen, dass Unternehmen bereit sind, die Kosten einer Konzentration zu absorbieren, um die vermeintlichen Risiken eines Arbeitskräftemangels in kleineren, verstreuten Stadtzentren zu vermeiden.

Key words:

Call Center
Agglomeration
Standortfaktoren
Lokaler Arbeitsmarkt
Dienstleistungsbranchen
Nordwestengland

R11, R12

Efectos de la aglomeración en las operaciones de los centros de llamadas: ejemplo del noroeste de Inglaterra

Frank Peck and Ignazio Cabras

ABSTRACT

Los centros de llamadas han aportado hasta hace poco una fuente importante de crecimiento de empleo en las regiones periféricas del Reino Unido. Pese a la posible dispersión de ubicación en toda la jerarquía urbana, los centros de llamadas tienden a concentrarse en gran medida en grandes centros urbanos; asimismo las variaciones en los costes de salarios entre los mercados laborales locales parecen tener poca influencia en los modelos de ubicación. En este artículo analizamos las consecuencias de los altos niveles de aglomeración para la captación y retención de mano de obra en los centros de llamadas en la región noroeste de Inglaterra. Con ayuda de datos recabados en estudios, mostramos de qué modo los diferentes factores de la presión para el mercado laboral están positivamente relacionados con el tamaño urbano. Los resultados tienden a confirmar que los negocios están dispuestos a absorber los costes de concentración a fin de evitar los riesgos percibidos de la falta de personal en los centros urbanos más pequeños y dispersos.

Key words:

Centros de contacto
Aglomeración
Factores de ubicación
Mercado laboral local
Industrias de servicios
Noroeste de Inglaterra

R11, R12

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IMPACTS OF AGGLOMERATION ON CALL CENTRE OPERATIONS: EVIDENCE FROM NORTH WEST ENGLAND.

INTRODUCTION

The increased use of call centre technologies and forms of organisation has been one of the more significant aspects of change affecting the service sector within regional economies over the past ten years. In the UK, the impacts of these changes on the development of cities and regions has been widely researched including studies of locational determinants and their impacts on employment (BRISTOW, MUNDAY and GRIPAIOS 2000; BISHOP, GRIPAIOS and BRISTOW 2003, RICHARDSON, BELT and MARSHALL, 2000; RICHARDSON and BELT, 2001). Early expansion of call centres focussed primarily on finance and insurance industries (MARSHALL and RICHARDSON, 1996), but the approach was soon adopted widely across many sectors including prominently in travel and transport, computer services, distribution, hotels, telecommunications retailing and utilities. These previous studies have also noted that the key motivation for these changes has been to improve efficiency and reduce the costs of interaction with customers and clients by displacing traditional face-to-face interactions. While accepting that call centres have created jobs in peripheral regions, previous research has also observed some of the negative effects on the quality of employment and raised concerns about the sustainability of call centre employment in competition with low labour cost offshore locations.

Research on UK peripheral regions confirms that call centres have until fairly recently provided a significant source of employment growth at least over the past ten years (BRISTOW, MUNDAY and GRIPAIOS 2000; BISHOP GRIPAIOS and BRISTOW 2003, DEPARTMENT OF TRADE AND INDUSTRY 2004). Despite the potential for locational dispersal throughout the urban hierarchy, however, studies have shown that call centres tend to be highly concentrated in larger urban centres. Furthermore, analyses of location have shown that despite the significance of labour costs for these activities, wage costs appear to

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have little influence over location patterns at the scale of the UK regions (BISHOP, GRIPAIOS and BRISTOW 2003). This lack of association between location and labour costs is explored further in this paper which examines the labour market difficulties experienced by call centre managers operating in different urban environments across the North West Region of England.

LOCATIONAL DETERMINANTS OF CONTACT CENTRES

Discussion of the location patterns of call centres has previously been placed within the context of the impacts of information and communication technologies (ICTs) on processes of uneven development. Studies of call centres conducted during the 1990s in particular were stimulated in part by the possibility of increased levels of decentralisation and the evolution of a new spatial division of labour within the service sector (RICHARDSON and MARSHALL 1996, 1999). It is suggested that once appropriate telecommunications infrastructure is available, call centres become to some extent spatially mobile and businesses are able to exploit spatial variations in other factors of production more effectively. Reduced cost of communications over long distances has enabled businesses to locate call centre functions at considerable distances from consumers and remote from other corporate functions which has led to greater flexibility in locational decision-making. The adoption of call centre organisation is commonly motivated by a desire to increase efficiency and reduce the costs associated with the customer interface in service organisations. Contact centres therefore offer opportunities to reduce overall costs through, for instance, the closure of local branch networks or the relocation of customer contact activities away from high cost locations leading to new forms of inter-regional and increasingly international divisions of labour (RICHARDSON, BELT and MARSHALL, 2000).

The findings of these earlier studies tend to suggest that while these activities have the potential to operate from smaller centres of population and more remote areas, issues related to labour supply have tended to reassert the importance of agglomeration at sub-national scale within the UK. While technology can make contact centres potentially mobile, location

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is heavily constrained by other factors associated with the pre-existing spatial division of labour leading to perpetuation of existing concentrations of service activities (BRISTOW, MUNDAY and GRIPAIOS, 2000). This conclusion has been confirmed more recent by BISHOP et al (2003) who examined the key spatial variables that influence location patterns *within* the UK. This investigation included size of population, population density, economic activity rates, levels of earnings and the percentage of employment in finance, business services and telecommunications (as a measure of possible constraints on location imposed by linkage effects). Their findings show strong associations between location patterns and measures of urban size including population density. However, levels of earnings appear to have no significant relationship with location patterns.

BISHOP el al (2003) consider two arguments that might explain the lack of association between measures of labour cost and the spatial distribution of contact centres. First, they suggest that labour cost differentials at the intra-regional scale in the UK are insufficient to induce locational change, particularly in comparison to the cost benefits of relocation at the international scale. Secondly, they suggest that other factors in the study have a more powerful influence on location *at this spatial scale* compared to labour costs. These include the influence of the inherited spatial division of labour within corporations and the economies that may be obtained from close location with linked activities within the same business or related businesses. There may also be benefits that arise from shares sites and properties within existing facilities and in some instances the knowledge embedded in a workforce or in a local labour market that may not easily be reproduced elsewhere.

These findings are supported by earlier studies which showed that labour cost was not the only consideration in decisions to establish contact centres in peripheral regions. In North-East England, for instance, interviews conducted with contact centre managers suggested that cost of labour was not the only consideration, but rather the availability of a ‘sufficient pool of quality labour at a lower cost than other regions’ (RICHARDSON et al 2000, p.362). A recent report on UK contact centres by OMIS (2005) also indicates that staff accessibility is a key consideration in current contact centre location decisions. This suggests that the size of

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the labour pool is important particularly for larger contact centres, which will tend to draw them towards larger agglomerations in spite of the risks that this may entail for high labour turnover and retention problems. The reference to 'pool of quality labour' also implies that some contact centre operators are prepared to forgo any labour costs advantages in small centres of population because of a belief that smaller labour pools will not guarantee a continued flow of suitable applicants; they are prepared to pay the cost of concentration (in terms of higher wages and labour turnover) in order to reduce the risk of labour shortage.

While the influence of labour availability may lead to agglomeration, there is also the possibility that linkage effects influence this outcome. There is, however, less conclusive evidence concerning the influence of linkage effects on the location of contact centres. It can be noted however, that while many contact centres are freestanding and located at a distance from other parts of the same firm, there are also cases where customer contact functions are co-located with other functions. The importance of these functional linkages may well vary depending on the nature of products and services. In a recent analysis of service-based growth in the North East of France, for instance, SCHULZ et al (2004) argue that even service industries that specialise in distance selling can benefit from spatial proximity on the supply side and that proximity to a pool of workers with relevant accumulated knowledge and providers of linked services can generate competitive advantages to offset against relatively high wage levels.

If one assumes that labour availability and linkage effects are powerful influences on locational behaviour, it may not be so surprising that firms operating contact centres do not immediately respond to spatial wage differentials. While relocation at an international scale may be considered as an option in some situations, in the short to medium term the key issue for contact centres may not be relocation to reduce wage costs, but minimising labour market problems *at their present location* through the development of appropriate management strategies and ongoing innovation in technology. This question provides the focus for the empirical work in this article. Rather than seeking to identify spatial variables that might correlate with location patterns, our approach treats 'characteristics of location' as one of

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several sets of factors that might contribute towards the experience of contact centres in meeting their labour requirements. In other words, our aim is to show how recruitment and retention difficulties vary between contact centres and to examine the relative importance of *business* and *location* characteristics in influencing these difficulties using a case study of the North West Region of England.

THE CONTACT CENTRE 'INDUSTRY' IN NORTHWEST ENGLAND

The North West Region of England provides highly relevant illustration of the significance of agglomeration on the contact centre industry. Various sources of data tend to confirm the high level of concentration of contact centre activities within the two major centres of economic activity in Merseyside and Greater Manchester. One source is provided by the study by BISHOP *et al* (2003) who developed a database of over 1,800 contact centres across the UK. The spatial pattern shows concentrations in the South-East of England but there are significant outliers in the North West, Scotland and the North East (p.2758). The striking feature of the distribution of contact centre employment, however, concerns high levels of concentration in the major conurbations. The main centres measured by levels of employment are in Tyneside, Greater Glasgow, West Yorkshire, London, Greater Manchester and the West Midlands.

Early studies of call centres were hampered by a lack of reliable data on this activity across the UK. This situation has improved slightly in that the Standard Industrial Classification (SIC) has recently been modified to include reflect the significance of call centres. However, even this category fails to detect contact centre activities that are embedded within large organisations and often co-located with other functions. In an attempt to overcome this problem, the Department for Trade and Industry (2004) commissioned the development of a database building on information supplied by the UK Call and Contact Centre Association supplemented by systematic sample telephone enquiries and cross checking of information from other available publicly-available sources. This data (compiled by ContactBabel) generally confirms the significance of contact centres for UK employment and estimates the

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number of ‘seats’ at around half a million and provided employment for over 800,000 workers across the UK during 2003-4 (Table 1). Significant growth in number of contact centres and levels of employment were also confirmed particularly during the 1990s (annual growth over ten percent), although this data shows continued growth since 2000 though at lower levels. This analysis also suggests that there may be continued growth at least up to 2007.

TABLE 1

Significantly for the present study, this data shows that the NW Region is host to at least 540 contact centres operating with over 80,000 agent seats and providing over 132,000 jobs in 2003-4. The data also confirms the concentration of these contact centres within the major conurbations of Greater Manchester, Merseyside and Central Lancashire where more than fourth fifths of these businesses are located. ContactBabel data also appears to show *strong growth* in employment in contact businesses during 2003-2004 (PECK and CABRAS, 2005). Growth has occurred in both agent ‘seats’ and also in levels of employment even in the larger conurbations in which one might anticipate higher levels of labour cost (Table 2). Interestingly, the highest growth occurred in Cheshire, where contact centres and agent positions both register a growth of over ten percent. Detailed examination of the location patterns shows that these contact centres are predominantly located in urban settlements in the north of the county where there is likely to be good access to labour from both Manchester and Merseyside.

TABLE 2

One of the useful attributes of the ContactBabel dataset is that it enables disaggregation of data across different product-markets. Previous research has indicated that expansion of contact centres focused initially on the finance and insurance sector (MARSHALL AND RICHARDSON, 1996; DATAMONITOR 1996, 2002; HENLEY CENTRE 1996) but these technologies and forms of management were subsequently adopted much more widely (RICHARDSON et al 2000). ContactBabel data (reported in Department for Trade and

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Industry 2004) suggests that across the UK as a whole 15 percent of all contact centre employees are associated with financial services, 14 percent with retailing and distribution, and 12 percent with motoring, transport and travel.

In order to investigate variations in the labour market experiences of contact centres in the region, a questionnaire was designed to gather quantitative information on various measures of 'labour market stress' experienced by managers. Four related measures of stress were identified as follows; (a) the level of attrition in new recruits (percentage of new recruits who leave within six months), (b) the levels of absenteeism, (c) the expressed degree of difficulty in finding new recruits and (d) managers' assessment of the quality of new recruits. Questionnaires were posted or distributed via CallNorthWest networks to 361 businesses and 65 responses were obtained, a response rate of 18 percent[2]. As well as the various measures of 'labour market stress', the questionnaire also gathered data on employment size, market structure and labour characteristics of businesses and also managers' evaluation of their present location. Finally, the dataset was completed by adding a number of variables designed to enable analysis of location. These included prominently various measures of urban size (population, population density, total employment at the scale of unitary or district authority). In the analysis, interest focused on the relative significance of business attributes and locational characteristics as predictors of the level of labour market stress experienced by contact centres.

CHARACTERISTIC OF SURVEYED CONTACT CENTRE BUSINESSES

The sectoral composition of the respondent establishments shown in Table 3 broadly reflects the product-market specialisms that have been noted in previous studies of contact centres (CONTACTBABEL, 2005). The three largest categories are the public sector (15), specialist outsourcing businesses (12) and finance (10). The remainder are diverse covering different service industries as well as manufacturing. Nearly a half of all respondents employ less that 50 workers but the larger contact centres tend to be over-represented in the finance sector and in motoring organisations. The spatial distribution of respondent call centres illustrates

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the tendency for concentration in urban cores, but there is some dispersion in all five sub-regions (Figure 1).

(TABLE 3; FIGURE 1)

The questionnaire provided data on the employment structure in surveyed contact centres. Figure 2a indicates that around three quarters of contact centres have more female than male employees. These data are consistent with patterns reported by RICHARDSON and MARSHALL (1996) and by RICHARDSON et al (2000) in their study of the North East of England, although they also suggest that this dependence on female workers 'would decline as more young men entered in the industry' (p. 361). Even so, the evidence shows that female workers are still predominant in many businesses and that 'women's labour power is clearly central to the call centre industry' (BELT et al, 2002).

Again Richardson, commenting a report from MITIAL (1998), suggested that contact centre businesses were moving away from recruiting a predominantly part-time workforce to save cost and promote flexibility" (p.362). Although we have no time series to measure change, our survey findings show that a substantial number of contact centres employ very few part-time workers, while others occupy different positions on the scale including a small minority that operate almost entirely on part-time labour (figure 2b).

(FIGURE 2a; FIGURE 2b)

Managers were also asked to indicate the most important skills required from new recruits to their operations. These skills were grouped into two broad categories that attempted to distinguish between 'routine' skills (identified as communication skills, customer service skills, telephone handling, and call control) and 'higher level' skills associated with handling customer enquiries (questioning skills, listening skills, multilingual skills, management skills, IT skills, and numeracy). The results appear to show that the majority of surveyed employers are less concerned for these higher level skills; less than 20 percent of respondents highlighted these as important to their recruitment operations. These findings appear to

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contradict those reported in a recent study conducted by the Learning Skills Council (LSC, 2003) which suggested that a skills mismatch exists in the contact centre industry. The authors argue that a high percentage of employers experience a significant shortage of 'high-calibre' applicants and that there is a need for improved induction and training inputs provided directly by the businesses. Much depends, however, on detailed definitions of terms such as 'high level' and 'high calibre'. Also, a recent report for CallNorthWest (CABRAS, 2006) has stressed the fact that the definition of 'high' and 'low' skill and the training inputs associated with these will vary considerably for contact centres in different product-markets.

LABOUR MARKET CONDITIONS IN CONTACT CENTRE BUSINESSES

The data analysis focuses in particular on various measures of 'labour market difficulty' and the factors that might cause this to vary between contact centres. Three key variables were identified to try to capture different aspects of the labour market problems faced by companies. Businesses tend to vary in the ways in which they customarily measure 'rates of attrition' which can often lead to false comparisons. In order to standardise this, respondents were asked to indicate in the past 12 months, what percentage of *new* employees have resigned their post within six months of their appointment. Managers were also asked to indicate (using likart scales) the level of difficulty experienced in recruiting new agents, the degree of difficulty experienced due to absenteeism and their level of satisfaction with the quality of new recruits. The distributions of responses to these questions are shown in figure 3. Most contact centres (65%) lose less than 10 percent of their new recruits within 6 months but a significant minority have rates of attrition above this, including seven businesses that currently lose over 20 percent of their new recruits (Fig 3a). Many managers also claim to be experiencing high levels of absenteeism that impacts on performance (52%; Fig 3b). Difficulty in finding new recruits (19%, Fig. 3c) is also a significant feature for some respondents while some are also less than satisfied with the quality of new recruits (30%, Fig 3d). As might be expected, these various measures are also highly correlated with one another (see Table 4), which suggests strongly that a significant number of contact centres exhibit multiple forms of labour market difficulty.

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(FIGURE 3; TABLE 4)

DETERMINANTS OF LABOUR MARKET STRESS - BUSINESS CHARACTERISTICS

The close correlation between measures of labour market difficulty suggests that there may be common characteristics of contact centres that experience greater problems in recruitment. One may hypothesise that labour market difficulties may be correlated with a number of variables. Larger contact centres, for instance, will have proportionally greater demand for labour which may heighten recruitment difficulties compared to smaller contact centres in similar sized labour markets. More tentatively, larger contact centres may also appear more impersonal and less likely to generate staff loyalty, though it is also possible that larger employers may develop more effective management processes to counteract this. Contact centres that are in expanding markets may experience greater difficulties in recruiting and retaining staff. Problems in recruitment and retention may also be linked to variations in contractual terms for workers (part time as opposed to full time; use of fixed contracts), the degree of knowledge and sophistication required in handing calls in different sectors and the mix of in-bound to out-bound calls. These characteristics may influence retention in particular, due to their influence on job interest and possibly on the level of autonomy given to operators in handling enquiries.

The results demonstrate quite clearly that the size of contact centre is by far the best predictor of attrition rates. Table 5 shows that the statistical relationship between rates of attrition and size measured by numbers of agent positions is highly significant. Of the remaining variables, none even approaches being linked to variation in attrition. This result seemed so clear cut that tests were made on the sensitivity of these finding by repeating the analysis with different size bands. Even when the largest contact centres are excluded from the analysis, this result is still confirmed. The remaining negative findings are also, in themselves, quite interesting. There is no association, for instance, between patterns of growth/decline and rates of attrition as one might have expected due to the presumed impact of growth on demand for labour.

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Rates of attrition also seem to be uncorrelated with variations in part-time work, use of fixed term contracts and the mix of inbound to outbound calls.

(TABLE 5)

Of the remaining measures of labour market stress, there were significant correlations between levels of business growth and absenteeism, though the result shows a *negative* correlation which suggests that, in general, absenteeism tends to be relatively low in contact centres experiencing higher growth. One explanation for this result might be that high growth increases levels of job security and may even create promotion opportunities for some staff, thereby influencing staff morale and a more positive attitude to work. A slightly weaker correlation also suggests that there are higher absentee rates in contact centres with high proportions of part-time work. Results also indicate that managers' evaluation of the level of recruitment difficulty was significantly higher in contact centres experiencing rapid growth as expected. Interestingly, however, the result for employment type suggests that managers in contact centres with high proportions of part time posts have less recruitment difficulty (though as noted above, more difficulty with absenteeism). Lastly, managers' views on the quality of new recruits do not seem to vary systematically with any of the observed characteristics of contact centres.

Contact centres are also analysed by market sector. In order to carry out statistical comparison, respondents were grouped into four categories as shown in Table 6. While there are no statistically significant differences between these groups overall, the results do show that contact centres in financial services within the survey have proportionally more businesses with high rates of attrition (61 percent with rates above 20%). The counts are small in these categories, but contact centres in finance tend to be the larger ones and this is consistent with the strong correlation between attrition and size of contact centre noted above.

(TABLE 6)

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DETERMINANTS OF LABOUR MARKET STRESS: LOCATIONAL CHARACTERISTICS

While the analysis appears to show that levels of labour market difficulty are correlated with size and growth characteristics of businesses, the methodology also involves examination of the association with location. Using sub-regions as categories, Table 7 shows that there are differences in the responses of managers in different areas. In particular, levels of difficulty are generally higher in the larger urban cores (Manchester and Liverpool) compared to other areas. In order to refine this analysis, measures of labour market difficulty are tested against urban size as measured by total employment and population by local authority district/ unitary authority. The results confirm that managers' recruitment difficulties as well as rates of pay for agents and supervisors are positively correlated with employment size (Table 8). These findings are consistent with the hypothesis that agglomeration tends in induce greater difficulty in recruitment and wage pressures. Admittedly, the correlations between total jobs in local authority areas and rates of attrition and levels of absenteeism are much weaker, but the coefficients are positive in both cases. Also, the association between urban size and managers' assessments of the quality of recruits generates a negative correlation. Viewing this evidence as a whole, there does appear to be a fairly consistent difference in these various measures of labour market experience and urban size.

(TABLE 7; TABLE 8)

These results raise the question whether these systematic variations between large and small labour markets simply reflect the fact that large contact centres tend to be in the larger labour markets. To explore this further, the analysis in table eight was repeated on subsets of the data in different size bands. The results were broadly unchanged. In particular, there were still positive associations between urban size and recruitment difficulties as well as agent pay within different size categories. This would seem to suggest that there is a systematic difference in labour market experience by urban size and that these statistical differences are not simply a consequence of variations in business size structure across the urban hierarchy.

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Given these findings, it is relevant to ask whether these apparent agglomeration diseconomies have generated pressures for relocation either within the region towards the lower cost / low attrition locations in the north-west region or elsewhere. Only thirteen respondents (20%) indicated that some consideration had been given to relocation within the past 12 months. Of these, the majority (8) involved possible moves within the NW region; another two had examined locations in the Midlands and only three overseas. The replies concerning moves within the region also did not appear to involve any systematic decentralisation away from the urban cores. Businesses that had considered relocation can be found in all sub-regions and not just in the large urban centres. At least four businesses had considered new premises *within* Greater Manchester while only two had looked at movement into Lancashire and none had considered sites in Cumbria. The fact that the majority of potential movers seem to be considering locations in close proximity to their present location seems to suggest that it is not labour market push factors that are inducing this, but rather may have more to do with growth and premises considerations. Figure 4, indeed, shows that most potential movers are currently occupying premises that have been converted to their use.

(FIGURE 4)

CONCLUSIONS

The evidence presented in this paper tends to confirm findings from other recent research concerning the locational preferences of businesses that operate contact centres within the UK. Location patterns within NW England show a strong preference for larger metropolitan areas “either within city centres or at the near peripheries of cities” (BRISTOW et al 2000, p.530). Confirmation of this pattern suggests that, at least at sub-national scale, the availability of ICT infrastructure has not led to the spread of contact centres throughout the urban hierarchy and that labour availability, in particular, continues to constrain location to a choice between locations within (or accessible to) the most densely populated areas (BISHOP et al 2003).

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The more significant finding from this research, however, concerns the impact of these locational preferences on the operations of contact centres. Our results show that the continued preference for metropolitan areas within the NW Region is marked by high levels of labour market difficulty as measured in particular by labour turnover and recruitment problems. Measures of urban size in general have been shown to be much more strongly correlated with recruitment difficulties compared to most business characteristics. The exception relates to size of business which is strongly correlated with rate of attrition. However, many of the larger contact centres are more dependent on large labour catchments and may have less flexibility in terms of location at the sub-regional scale in the UK in order to ensure continued supply of labour. These results provide evidence to suggest that businesses that operate contact centres are prepared to absorb the costs of concentration (in terms of higher wages and high labour turnover) in order to reduce the risk of labour shortage.

In spite of high levels of attrition in many cases, relatively few contact centre managers reported plans to relocate on the basis of labour availability or cost. There is further investigation required into these location patterns and the agglomerative forces that appear to be holding customer contact activities in relatively high labour cost locations. The significance of customised premises may be a subject of useful enquiry in investigating intra-urban relocation patterns and the development of contact centres within urban peripheries. However, interest should also surround the linkage effects upon contact centres that might tie them to particular agglomerations in order to access workers with knowledge in particular market segments, as implied in the work of SCHULZ et al (2004) and LIEFOOGHE (2005). Contact centre operations will obviously vary in levels of skill requirements and the extent of product knowledge. In some operations, prior knowledge may be of little significance and in these circumstances training inputs may be minimal and locational choice may be fairly broad, including options for offshoring to low cost labour locations. In contrast, other contact centre operations may require greater levels of product knowledge and the types of enquiries may place greater demands on operators to respond flexibly to information and implement decisions.

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Relatively little attention has been given to the possible variations in locational requirements between contact centres involving different types of product-markets and the institutional and functional linkages that might exist between contact centres and other operations within the same firm and also linked firms. This raises the possibility of future research on the process by which outsourcing of business services occurs and the role of dedicated contact centres within local service clusters (BENNEWORTH 2002; DANIELS 2004; KARLSSON 2004). There is the question whether companies with a long-standing presence in a region may be less inclined to relocate call centre functions abroad. These institutional differences may also affect the potential for alternative employment and redeployment in instances where offshoring does occur. The growth of contact centres in the public sector is also a relatively new aspect of contact centre development. It is likely, for instance, that the processes involved in setting up contact centres for public services may be influenced to a greater extent by regional development benefits in providing employment in relatively remote industrial towns and cities within peripheral economies.

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Table 1. Contact centres and agent positions in UK

	Contact Centres in UK		Agent Positions	
1995	2,515	n/a	143.9	n/a
1996	2,740	9%	169.8	18%
1997	3,070	12%	203.8	20%
1998	3,470	13%	264.9	30%
1999	3,990	15%	331.2	25%
2000	4,470	12%	387.5	17%
2001	4,825	8%	430.1	11%
2002	5,065	5%	460.2	7%
2003	5,320	5%	494.3	7%
2004	***5,535***	***4%***	***538.7***	***9%***
2005	***5,700***	***3%***	***581.8***	***8%***
2006	***5,845***	***3%***	***616.7***	***6%***
2007	***5,980***	***2%***	***647.6***	***5%***

Source: collation of analysis and data from Gartner Dataquest, Datamonitor and ContactBabel and reported by DTI (2004)

Table 2: Contact centres industry in the NW between 2003 and 2005

	2003			2004			2005		
	a	b	c	a	b	c	a	b	c
Cheshire	81	9,799	15,678	90	10,850	17,360	110	12,225	19,682
Cumbria	24	3,147	5,035	25	3,380	5,408	25	2,500	4,025
Lancashire	88	13,652	21,844	85	14,900	23,840	90	16,530	26,614
Greater Manchester	229	32,080	51,328	240	34,985	55,976	255	39,000	62,790
Greater Merseyside	99	17,245	27,592	100	18,455	29,528	125	22,400	36,064
NW England	521	75,923	121,477	540	82,570	132,112	605	92,655	149,175

Source: ContactBabel 2004, 2005; CallNorthWest 2006.
a: Number of contact centres
b: Agent positions
c: Total number of staff employed in contact centres.

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Table 3. Sectoral and size distribution of respondent contact centres

Sector	10-50	51-150	151-250	251-500	>500	a	b	Total
Finance	3	4	1	1	1	16%	15%	10
Public Sector	6	6	2	0	1	7%	23%	15
Outsourcing Services	7	4	1	0	0	15%	18%	12
Printing/Publishing	2	2	0	1	0	3%	8%	5
IT	1	1	2	0	0	8%	6%	4
Motoring/Finance	0	0	1	1	0	2%	3%	2
Other services[1]	5	1	2	0	0	17%	13%	8
Manufacturing	5	0	0	0	0	12%	8%	5
Entertainment	2	0	0	0	0	4%	3%	2
Retail/Distribution	1	1	0	0	0	15%	3%	2
Total	31	19	9	3	2			65

Source: Survey data, ContactBabel 2005

a: Percentage in NW Region.

b: Percentage of survey respondents.

1 Including Transport and travel, food and drink, education

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Table 4: Relationships between measures of labour market difficulty

		Absenteeism	Recruitment difficulties	Quality of new recruits
Six month attrition	Pearson Correlation	.354(**)	.357(**)	-.320 (*)
	Spearman's Rho	.394(**)	.396(**)	-.328(**)
	n. of obs.	65	64	63
Absenteeism	Pearson Correlation		.140	-.288(*)
	Spearman's Rho		.139	-.280(*)
	n. of obs.		64	63
Recruitment difficulties	Pearson Correlation			-.613 (**)
	Spearman's Rho			-.588(**)
	n. of obs.			62

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Source: Survey Data

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Table 5: Association between labour market stress and contact centre characteristics

		Business Expect.	Part-time Contract	Fixed-term Contract	Inbound Calls	CC Size	Age
Six months Attrition	Pearson Correlation	-.089	.036	-.038	.030	.502(**)	-.045
	Spearman's Rho	-.002	.108	-0.66	.020	.494(**)	.062
	n. of obs.	65	63	59	64	64	65
Absenteeism	Pearson Correlation	-.246(*)	.211	.001	.034	.113	.221
	Spearman's Rho	-.243(*)	.264(*)	.022	.065	.152	.172
	n. of obs.	65	63	59	64	64	65
Recruitment Difficulties	Pearson Correlation	.257(*)	-.285(*)	.189	-.168	.173	.094
	Spearman's Rho	.287(*)	-.247(*)	.096	-.171	.217	.059
	n. of obs.	64	62	58	63	64	64
Quality of new recruits	Pearson Correlation	-.032	.066	-.038	.215	-.190	-.114
	Spearman's Rho	-.083	.057	-0.42	.302	-.194	-.060
	n. of obs.	63	63	59	63	62	63

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Source: Survey Data

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Table 6. Six months attrition levels in contact centres by economic sector

	Six months attrition		
	<20%	>20%	Total
Public Sector	11	4	15
	73.3%	26.7%	100%
Finance	5	8	13
	38.5%	61.5%	100%
Telemarketing/Outsourcing Services	12	5	17
	70.6%	29.4	100%
Other Services	14	6	20
	70.0%	30.0%	100%
Total	42	23	65
	68.3%	21.7%	100%

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Table 7: Variations in levels of recruitment difficulty by sub-region

	Recruitment difficulties			
	No Difficulties	Medium Difficulties	High Difficulties	Total
Greater Manchester	1	9	7	17
	5.9%	52.9%	41.2%	100.0%
Cheshire and Warrington	8	9	1	18
	44.4%	50.0%	5.6%	100.0%
Liverpool	3	5	3	11
	27.3%	45.5%	27.3%	100.0%
Lancashire	7	5	1	13
	53.8%	38.5%	7.7%	100.0%
Cumbria	5	0	0	5
	100.0%	.0%	.0%	100.0%
Total	24	28	12	6
	37.5%	43.8%	18.8%	100.0%

Source: Survey data

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Table 8. Association between labour market characteristics and urban size

		Total Jobs	Population
Six month attrition	Pearson Correlation	.231	.121
	Spearman's Rho	.227	.081
	n. obs.	65	65
Recruitment difficulties	Pearson Correlation	.333(**)	.312(*)
	Spearman's Rho	.364(**)	.301(*)
	n. obs.	64	64
Absenteeism	Pearson Correlation	.180	.244(*)
	Spearman's Rho	.243	.293(*)
	n. obs.	65	65
Quality of new recruits	Pearson Correlation	-.078	-.107
	Spearman's Rho	-.163	-.194
	n. obs.	63	63
Agent salary level	Pearson Correlation	.313(*)	.164
	Spearman's Rho	.311(*)	.092
	n. obs.	65	65
Supervisor salary level	Pearson Correlation	.266(*)	.182
	Spearman's Rho	.388(**)	.124
	n. obs.	63	63

** Correlation is significant at the 0.01 level (2-tailed).
* Correlation is significant at the 0.05 level (2-tailed).

Source: Survey Data

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Figure 1: Distribution of call centre survey respondents

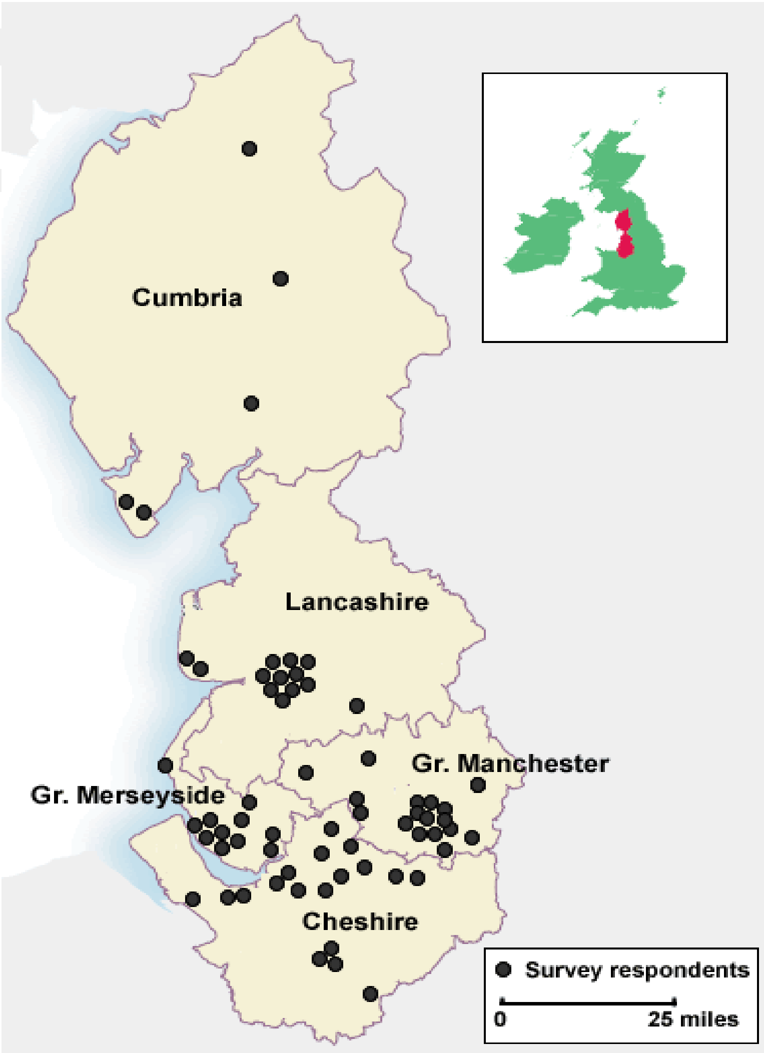

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Figure 2. Employment structure of respondent call centres

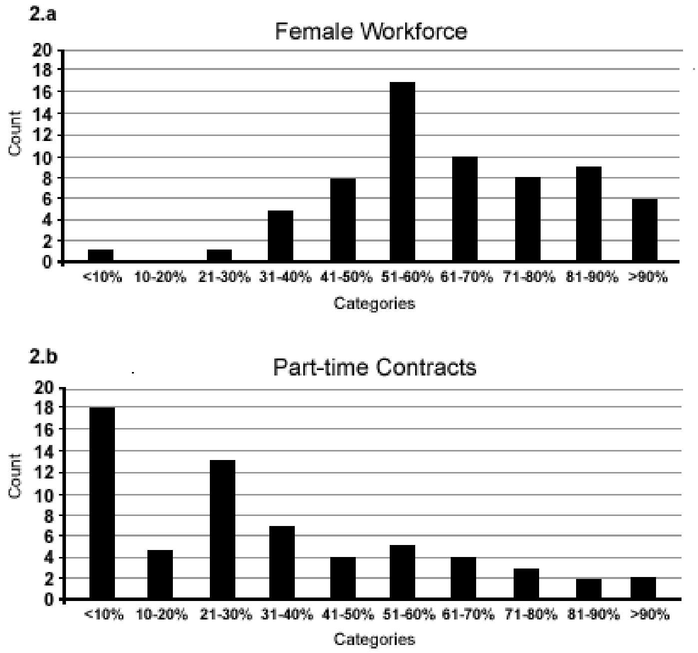

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Figure 3: Measures of labour market stress for call centre respondents

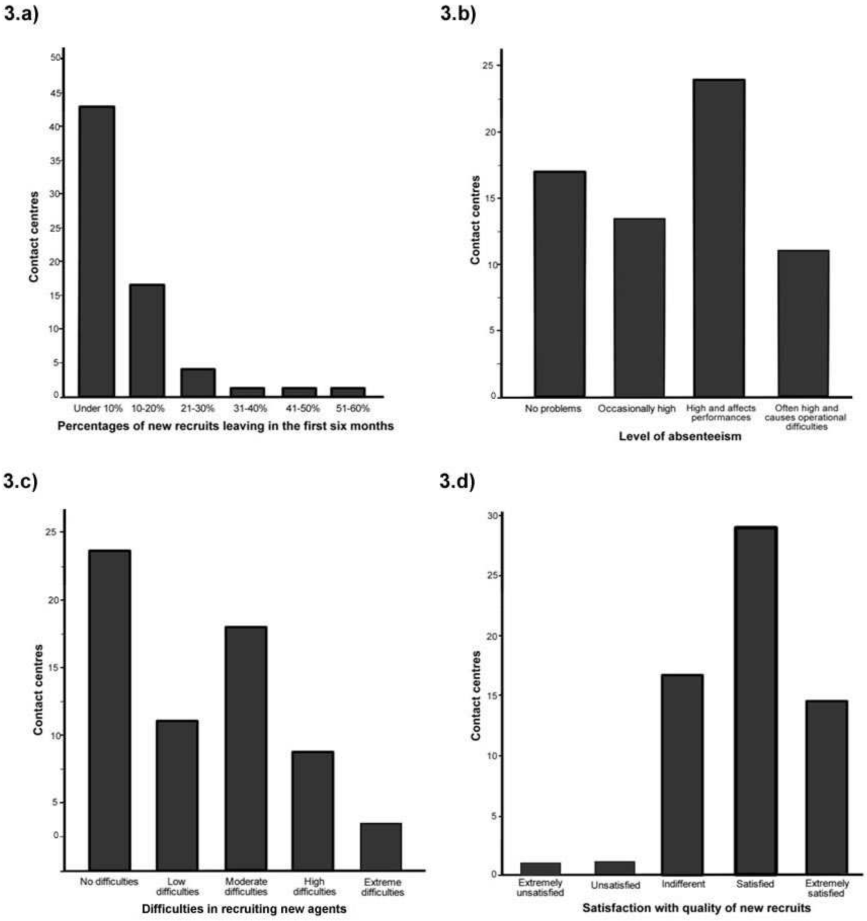

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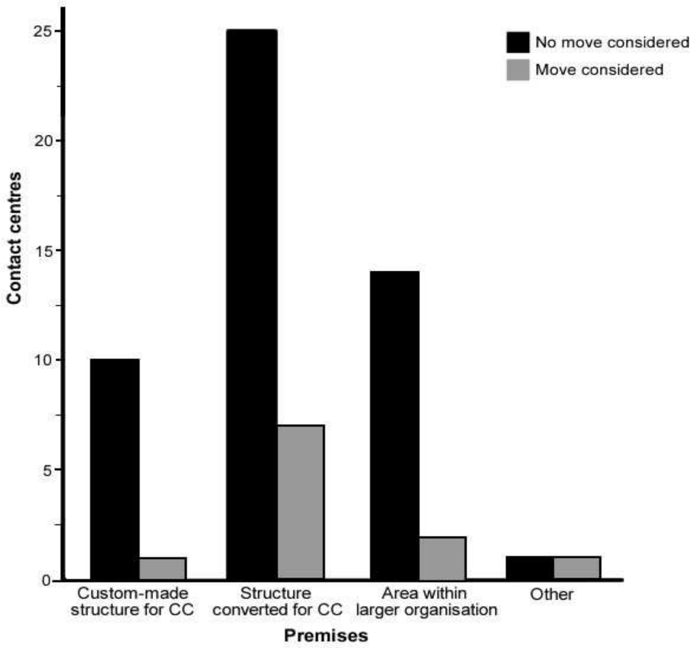
Figure 4: Relocation considerations by type of premises



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[2] The method for survey work depended on just one mailing due to conditions imposed by CallNorthWest on confidentiality of company data. This restricted the ability to chase non-respondents to boost the rate of return. The response rate of 18 percent reflects these constraints.

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