

City Relationships:

Economic Linkages in Northern city regions

Hull and Humber Ports

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Foreword

The Hull and Humber Ports City Region is unique and distinctive, as determined by geography and by its environmental, industrial and cultural heritage. The area is characterised by a mixture of urban, rural and coastal communities.

Its most distinctive feature is the Humber Estuary, home to the UK's biggest ports complex and more than 40,000 shipping movements per year. The Humber Global Gateway is strategically located on the UK's east coast, part of the North European Trade Axis (NETA), the broad trade and transport corridor running from Ireland to the Baltic states and linking several major conurbations in Northern England along the M62 corridor. This connectivity is a major contribution to the improved economic success of the UK and towards redressing the balance of productivity between the North and South of England.

The City Region is an established power, process and energy hub that handles, distributes or converts over 60 million tonnes of carbon in the form of gas, oil and coal every year and is home to a prominent chemicals sector. It is also extremely well placed to progress opportunities in other renewable forms of energy generation, including biomass, bio-ethanol, wind and tidal.

The opportunity to extend the City Relationships study series to the Hull and Humber Ports was identified in the Development Panel review, jointly facilitated with The Northern Way in September 2009. The aim of the City Relationships study has been to build understanding of the economic and labour market links between places in the City Region, as well as links with surrounding areas in North, South and West Yorkshire and in Lincolnshire. Partners suggested a focus on ports and logistics and renewable energy within the study to better understand supply chain and business relationships.

The Humber Economic Partnership Board received the recommendations from the City Relationships study at their meeting on 5th July and welcomed the work, which will complement the development of strategic and local economic assessments being undertaken by the local authorities, HEP and other stakeholders.

It will also assist all stakeholders in the City Region, as we continue to ensure that the distinctiveness of the Hull and Humber Ports City Region is appropriately recognised locally, nationally and internationally in the design and delivery of policy and services.

We wish to thank the team from The Work Foundation, the Centre for Cities, the Centre for Sustainable Urban and Regional Futures (SURF) at the University of Salford and The Northern Way for all their efforts.

Charles Lewis
Chair, Humber Economic Partnership Limited



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Summary

The study

This research project, reviewing 'City Relationships' in Hull and Humber Ports was commissioned following recommendations from the Developmental Panel convened jointly by The Northern Way and the Humber Economic Partnership (HEP) on 7-8 September 2009. It seeks to build understanding of the economic links between places in Hull and Humber Ports, as well as the area's links with surrounding areas. It is designed to complement the economic assessments being undertaken over the next few months by the local authorities in Hull and Humber Ports – Hull City Council, the East Riding of Yorkshire Council, North East Lincolnshire Council, and North Lincolnshire Council, and to feed into discussions about Local Enterprise Partnerships.

Research findings – economic centres

Hull is the largest economic centre within the Hull and Humber Ports but it does not perform the same 'economic centre' role as other large northern cities. Hull's economic performance and wages are lower than other northern centres such as Leeds, Sheffield or Newcastle, and its economy is not as diversified as other cities of comparative size: the local economy is dominated by employment in the public sector, manufacturing (18% of employment), construction, logistics and low value service industries. This is reflected in the city's relatively small travel-to-work area.

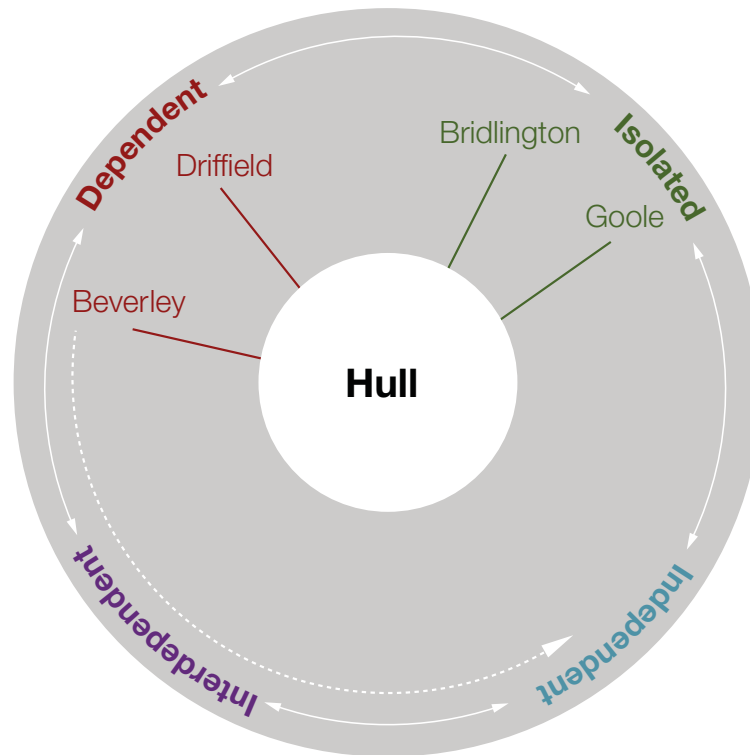
Grimsby and Scunthorpe are also significant economic centres in Hull and Humber Ports. Both Grimsby and Scunthorpe act as smaller employment centres. Although the two centres attract some workers from neighbouring areas such as East and West Lindsey in Lincolnshire, the two centres are relatively self-contained. This reflects the dominance of employment in traditional industries and in the public sector in the local area; an industrial profile very similar to that of Hull.

The strengths and weaknesses of these three economic centres have important implications for the relationships between places in Hull and Humber Ports and with surrounding areas.

Labour market relationships

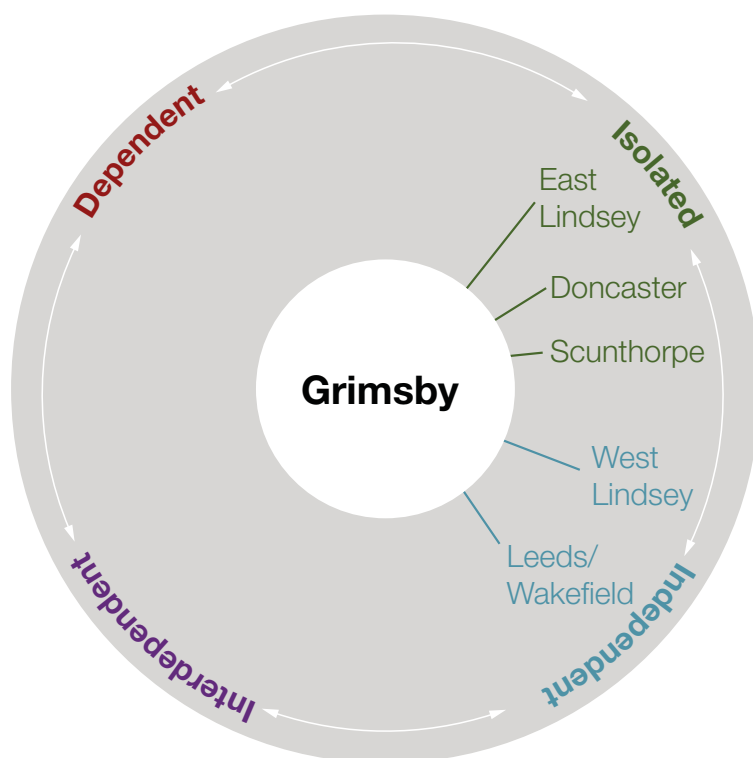
We have deployed the 'City Relationships' typologies developed for The Northern Way in 2009 to build understanding of the labour market relationships in the three separate labour markets in Hull and Humber Ports. We have applied the typologies to: Hull's relationships with places within the East Riding; to Grimsby's relationships with surrounding areas and to Scunthorpe's relationships with surrounding areas.

The North Bank: relationships between Hull and the urban centres in the East Riding



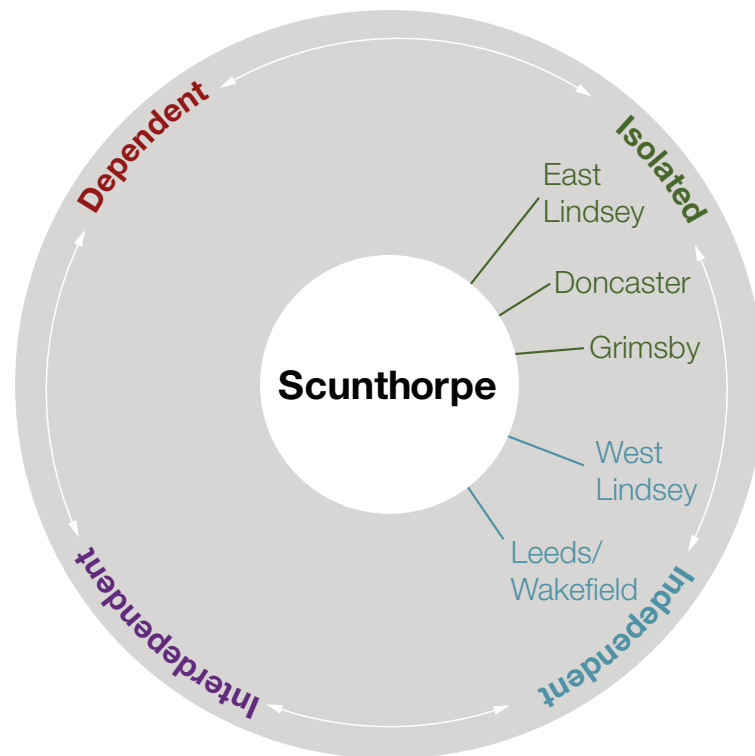
- Beverley is 'dependent' on Hull as an employment centre, although as an administrative centre attracting workers from surrounding areas, it also has some characteristics of an 'independent' urban centre. Beverley plays a dual role both as a residential area, with good housing and quality of life offer, and as an employment centre, with a relatively high proportion of knowledge intensive employment.
- Bridlington is relatively self-contained and 'isolated' from Hull in labour market terms. The majority of people living and working in the town tend to be employed in low wage jobs. The skills profile of the area means that Bridlington's residents are less likely to travel elsewhere for employment – just 5% commute to Hull.
- Driffield has a strong residential offer but is 'dependent' on Hull as an employment centre. Just fewer than 10% of residents commute to Hull from Driffield. The area offers an attractive place to live for knowledge workers working in the city – 16% of Driffield's residents working in professional occupations work in Hull.
- Goole is largely 'isolated' from Hull in labour market terms, although there may be stronger firm links between Goole and Hull because of the ports. As a port often described as 'the UK's premier inland port', Goole has relatively high levels of self-containment compared to other urban centres in East Riding (61% live and work in Goole).

The South Bank: relationships between Grimsby and surrounding areas



- Grimsby is largely 'isolated' from Hull's economy in labour market terms. Grimsby's 'isolation' from Hull is partly as a result of Hull's weaknesses as an economic centre, partly because of geography, but also because Grimsby is a centre in its own right. It has high levels of self-containment. However, Grimsby does not display the same economic characteristics as centres identified as 'independent' in the earlier City Relationships study, for example, York, Warrington, Chester and Durham.
- Scunthorpe is 'isolated' from Grimsby as an employment centre. Scunthorpe has the highest levels of self-containment outside Hull and just 1.4% of residents commute to work in Grimsby.
- East Lindsey is 'isolated' from Grimsby in labour market terms. There is a level of dependency on Grimsby as an employment centre, with 5.5% of residents commuting to work in the town. The skills profile of the area means that residents are less likely to be able to access jobs that other areas offer – just 2.3% of residents commute to Lincoln.
- West Lindsey is classified as 'independent' from Grimsby as it has strong labour market relationships with Lincoln. In contrast to other 'independent' economic centres outside the Hull and Humber Ports area, West Lindsey is not a strong economic centre in its own right. Rather it is 'independent' of Grimsby because of its labour market relationship with Lincoln – over 19% of residents commute to work in the city. Less than 4% of residents commute to work in Grimsby.

The South Bank: relationships between Scunthorpe and surrounding areas



- A town that developed a high level of self-containment based on its iron and steel industries, Scunthorpe is largely 'isolated' from Hull in labour market terms. Whilst Scunthorpe operates as an employment centre in its own right and the presence of employers such as Corus means that average earnings are higher than in other parts of the Hull and Humber Ports, wider indicators show that Scunthorpe's economy is not sufficiently strong to be classified as 'independent'.
- Grimsby, also highly self-contained, is largely 'isolated' from Scunthorpe in labour market terms. The majority of Grimsby's residents live and work locally, with a low proportion commuting outside North East Lincolnshire's administrative boundaries to work. Just 1.5% of Grimsby's residents commute to Scunthorpe.
- East Lindsey is 'isolated' from Scunthorpe in labour market terms. Less than 1% of residents commute to work in Scunthorpe from East Lindsey – again a likely reflection of the relative immobility of the area's residents.
- West Lindsey is classified as 'independent' from Scunthorpe as it has strong labour market relationships with Lincoln. West Lindsey is relatively independent from Scunthorpe because of its labour market relationship with Lincoln. There is, however, some commuting between the two areas: 4.6% of residents commute from West Lindsey to work in Scunthorpe.

Relationships between Hull and Humber Ports and surrounding cities

- Doncaster is relatively 'isolated' from the urban centres in Hull and Humber Ports. Labour market links are strongest with North Lincolnshire, although levels of commuting both ways are low. There are limited links with areas on the North Bank: low numbers of residents commute to work in Hull (although higher than south of the Humber) and Doncaster also provides a small number of jobs for residents in East Riding. This reflects its classification in a previous study of Sheffield City Region as 'isolated' from Sheffield, and close to being 'independent'.
- York is 'independent' of the urban centres in the Hull and Humber Ports. The strongest labour market links between York and the Hull and Humber Ports are between York and with the East Riding. Labour market interaction with Hull is limited.
- Leeds and Wakefield are 'independent' from Hull and the Humber Ports in labour market terms, although some supply chain linkages exist between the areas. Hull and Humber Ports as a whole does not act as a key employment site for Leeds or Wakefield residents (relatively few commute to work in East Riding). A relatively low proportion of residents commute from Hull and East Riding to work within Leeds and Wakefield and very low proportions commute from North and North East Lincolnshire.

Factors shaping labour market relationships in Hull and Humber Ports

Improving and promoting the housing and quality of life offer will be critical to attracting and retaining higher level skills – and this requires building on the different strengths of different areas. Within Hull, North Lincolnshire and North East Lincolnshire, the shared opportunities to attract more high earning residents include: improving schools; reducing crime; and improving the quality and mix of housing (with more family housing provided). Within the East Riding, addressing affordability and promoting the strong existing offer is the main opportunity to attract more high skilled, high earners. Overall, Hull and Humber Ports would benefit from working together to promote itself as a place to live and invest in; as Tribal's Residential Futures report states, there is a good housing offer across Hull and Humber Ports as a whole for people at different life stages – promoting the area as a whole offers a chance to capitalise upon this.

Decent transport networks underpin complementary economic relationships but they are not the only condition on which complementary relationships depend. Complementary relationships are also affected by wage differentials, job opportunities or patterns of sectoral specialisation. Our analysis of Hull and Humber Ports suggests that while public transport between different areas within Hull and Humber Ports is relatively poor, this reflects the needs of the area and does not seem to represent an impediment to economic linkages. A lack of economic incentives (i.e. wage differential) is more likely to be a cause of the weak economic interactions across the Humber estuary. However, within the existing labour markets within Hull and Humber Ports, public transport could be improved to better support labour market movements. This means streamlining transport forums, improving bus integration with one ticket for each of the north and south banks, and reducing the cost of the 'Humber FastCat' bus. This is particularly important to support the mobility of residents in an area where car ownership is low.

Firm relationships

- The **ports and logistics sector** is one of the sectors that unite the four local authorities of Hull and Humber Ports – but evidence suggests that the area could do more to capitalise upon its potential. The ports and logistics sector is an important part of the local economy but supply chains are not strongly integrated across the area. Firms see potential in strengthening links between the two banks, however, and there are opportunities to grow new markets that firms feel are not being seized, particularly in relation to becoming a ‘feeder’ port and developing an offer associated with renewables, which could provide an impetus to a flagging economy. Interviewees also recognised that there is a need to capture more of the value created by ports and logistics within the local area.
- **Renewables and carbon capture** creates a significant opportunity for Hull and Humber Ports to capitalise upon its geography and natural assets – as well as to link with one of its other major sectors, ports and logistics. Again, however, there is a need for the area to do more to ensure it capitalises upon its opportunities. A key priority is developing services associated with renewables and carbon capture, rather than focusing primarily upon manufacturing. In addition, identifying opportunities to support the growth of companies that will influence investment decisions, such as construction companies with specialisms in renewables/carbon capture, R&D centres that can provide insights to companies, and working with local farmers to link them to biofuel, are all important opportunities.

Key policy recommendations

The Hull and Humber Ports local authorities should seek to capitalise much more strongly on the opportunities to work together on ports, logistics and renewables to build upon the strengths associated with the estuary. A single structure should enable and co-ordinate working together across the Hull and Humber Ports to attract inward investment, develop and promote a shared brand, develop skills strategies and invest in strengthening supply chains, working with partners and agencies from the private sector and beyond the city region. In this context, it is important that each area is clear about what its strengths are in these areas and how the four local authorities working together offers greater potential for investors than each area competing for investment on its own.

Partnership working across local authority boundaries on labour market issues should recognise that there are three separate labour markets within Hull and Humber Ports. This means that Hull and the East Riding should work together, reflecting their joint labour market, and that North Lincolnshire and North East Lincolnshire should each focus on their individual labour market issues – but, where appropriate, the four local authorities should work together to become more than the sum of their parts. This $2 + 1 + 1 = 5$ formation is similar to the approach recommended by the Development Panel (which proposed $2 + 2 = 5$). It recognizes that, by working together, there is a chance to promote the overall offer of Hull and Humber Ports more effectively. The quality of life offer available in Hull and Humber Ports and the different offers of different areas are not well known and could be more effectively promoted by working together.

Tackling skills and worklessness needs to continue to be a priority. Hull and Humber Ports’ skills profile continues to be poor and is one of the reasons that there are few relationships between places, even where higher value employment

exists. The recession has hit Hull and Humber Ports hard, particularly the most vulnerable individuals. The local authorities should work together, where appropriate, to invest in skills and mitigate the impact of the public spending cuts that are to follow.

1.0 Introduction

1.1 Hull and Humber Ports: a distinctive area

Hull and Humber Ports is a distinctive area located in the Yorkshire and Humber region; its western edges are about 35 miles to the east of Leeds. The area has a population of 912,200 people (2008), making it the smallest of the eight city regions in the North by population. The area, 80% of which is agricultural land, includes urban, rural and coastal communities and has three main centres – Hull, Grimsby and Scunthorpe. There are also a number of larger market towns and smaller villages. The Humber Estuary is the area's defining characteristic, dividing the Hull and Humber Ports into the unitary local authorities of Kingston upon Hull and the East Riding of Yorkshire on the north bank and North Lincolnshire and North East Lincolnshire on the south bank.

Hull and Humber Ports' location on the central east coast, facing continental Europe, has shaped its industrial profile and its cultural and economic reputation. Although the area benefits from marketing itself as a Gateway to Europe, its geography also means that it can be perceived as relatively isolated from the rest of the UK, despite the area's transport links across the North and its location on the North European Trade Axis (NETA). Within the Hull and Humber Ports, the Humber Estuary both defines the area and separates its major communities. The estuary is 14km at its widest point and 120km long with one crossing, the Humber Bridge. There is no crossing point across the Humber connecting directly into Hull city centre, nor is there another major centre directly opposite Hull on the estuary. In addition, distances are significant; it is approximately 29 miles from Hull across the Humber Bridge to the nearest urban centre of Scunthorpe and 33 miles to Grimsby.

Despite the distances between places in Hull and Humber Ports – and the fact that, unlike other northern city regions, Hull and Humber Ports is not a conurbation – policymakers and the private sector within the area have long recognised the importance of working together, looking beyond administrative boundaries when seeking to enhance the productivity of individual places and the area as a whole. They recognise that local economies are shaped by their economic relationships with other areas – the connections and flows of people to and from home, work and leisure, as well as firm relationships and supply chains. Strengthening these economic links between two places has been demonstrated in both academic literature and practice to have the potential to generate benefits, including economic growth and individual prosperity, for both local areas. For example, in the Greater South East, London's success has benefited nearby cities and towns such as Reading.¹ Particular benefits are associated with building links between economically high performing centres, which contain higher levels of employment and firms in diverse sectors, and surrounding towns and cities.² These links are facilitated when the neighbouring town or city specialises in a sector that links into the economic base of the nearby city.

Some places, however, have more mutually beneficial – or complementary³ – relationships than others. The success of Manchester and Leeds, for example, has not yet spread to neighbouring areas in the same way that the success of London has benefitted surrounding areas.⁴ Hull and Humber policymakers felt that investigation of the complementarity of the economic relationships between places in Hull and Humber Ports would support their work on future economic strategies for the area, and wished to learn lessons from an earlier project on City Relationships, the findings of which are set out below.

1. Reading has strong firm links with, and provides labour to, London, as well as having developed its own specialised industrial base, creating a strong labour market of its own that benefits nearby residents. See Hall, P. & Pain, K. (2006) *The Polycentric Metropolis: Learning from Mega-City Regions in Europe*: Earthscan and Hildreth, P. and Lucci, P. (2008) *City Links: Integration and isolation*. Centre for Cities: London
2. Philip McCann (June 2008) 'Globalization and economic geography: the world is curved, not flat' in *Cambridge Journal of Regions, Economy and Society*, p.363
3. Mark Overman, H. et al (2007) *Economic Linkages Across Space*, CEP Discussion Paper No 805, London School of Economics: London.
4. IPEG and CUPS (2008) *The Northern Connection, The Northern Way*: Jones et al. (2008) *How Can Cities Thrive in the Changing Economy?*, The Work Foundation

1.2 Drawing on the findings of the first City Relationships project

The *City Relationships* project was undertaken for The Northern Way and the Department for Communities and Local Government. Based on a review of academic literature and a series of case studies of northern city regions, the study developed a concept designed to improve understanding of relationships between places. *City Relationships* sets out the factors contributing to more complementary relationships and found that the extent to which relationships between places are complementary is affected by a wide range of factors:

- **Skills** is the most important: areas with higher levels of resident skills tend to benefit more from links with neighbouring economic centres than those with lower levels of skills. This is because of the wage benefits associated with higher skills, as well as the additional incentive to travel in order to gain a higher wage;

Other factors that are also critical are:

- **The 'pull' of the economic centre in shaping economic relationships.** Stronger economic centres, such as London, Leeds and Manchester, tend to have stronger labour market and firm links with neighbouring areas. Less strong economic centres, such as Liverpool, tend to be more self-contained. The strength of a centre's economy has a significant impact upon its relationship with neighbouring areas;
- **Transport** links affect labour market and firm links – although simply having good transport links does not automatically lead to economic growth. Those with higher levels of skills are more likely to travel longer distances to secure employment;
- The influence of **firm links** on the economic relationships between places is largely dependent on the extent to which sectors are strongly embedded within a functional economic area, with high levels of employment present at different points in the supply chain.
- **Industrial structure and history** shapes economic links, with more knowledge intensive industries being more likely to forge and benefit from economic links within a geographical area than others;
- **Quality of place** matters: areas with higher quality housing, schools and quality of life are more likely to attract highly skilled individuals, and more likely to have mutually beneficial economic relationships with neighbouring areas. These areas will also benefit from the higher wages its residents bring home, of which a large percentage is often spent in the local economy.

The research showed that different places have different roles within an economic area depending on these factors and the resulting nature of their labour market and firm links. The *City Relationships* study identified four typologies of places within a city region with one or more strong economic centres, based on their labour market relationships with the economic centre: independent, isolated, dependent and interdependent.

The study also found that different links will matter more or less to different places. In most functional economic areas, labour market links were a stronger indicator of relationships between places than firm links. This is because many firms have

national or international supply chains and their primary interaction with the local area is through the labour market. Nonetheless, for sectors with a strong local economic geography, local supply chains may inform links between places. Barriers to more complementary relationships included governance arrangements and poor public perceptions of a place.

1.3 Applying the City Relationships framework to Hull and Humber

This research project, reviewing 'City Relationships' in Hull and Humber Ports was commissioned following recommendations from the Developmental Panel convened jointly by The Northern Way and the Humber Economic Partnership (HEP) on 7-8 September 2009. It is sponsored by The Northern Way and HEP. It seeks to build understanding of the economic links between places in Hull and Humber Ports, as well as the area's links with surrounding areas. It is designed to complement the economic assessments being undertaken over the next few months by the local authorities in Hull and Humber Ports – Hull City Council, the East Riding of Yorkshire Council, North East Lincolnshire Council, and North Lincolnshire Council – and to feed into discussions about Local Enterprise Partnerships.

This study has drawn on the City Relationships concept and adapted it to the distinctive nature of Hull and Humber Ports. We have investigated the area's economic relationships through:

- Analysis of the economic relationships between Hull and surrounding areas, including Beverley, Driffield, Goole, Bridlington, Scunthorpe and Grimsby, looking in particular at labour market linkages and the connections between businesses;
- Analysis of the economic relationships between Hull and the neighbouring areas of Doncaster, York, Leeds and Wakefield;
- Assessment of Grimsby and Scunthorpe's economic relationships with surrounding areas, as secondary economic centres within Hull and Humber Ports.

The work has drawn on detailed literature reviews, secondary data analysis and spatial mapping for each area and sector included in the analysis, as well as interviews with local authorities, local businesses and experts. For more detailed analysis of supply chains and business relationships we have focused on two sectors, selected in consultation with the steering group: **ports and logistics and renewables/carbon capture**.⁵

The report is structured as follows:

- Section 2 sets out background information on Hull and Humber Ports;
- Section 3 explores labour market links, as well as the role of transport and housing in influencing these;
- Section 4 details our findings on firm links within the ports and logistics and the renewables/carbon capture sectors;
- Section 5: applies the 'City Relationships' typologies to the Hull and Humber Ports urban centres and surrounding cities;
- Section 6 sets out conclusions and policy recommendations.

5. Ports and logistics and the renewables/carbon capture have been identified by the Hull and Humber Ports as important sectors for future economic growth.

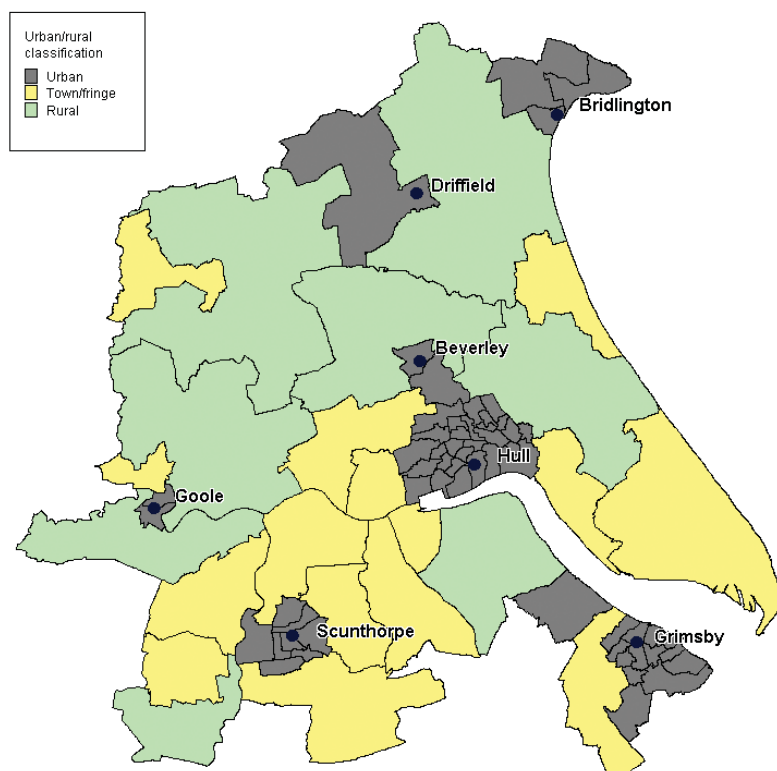
2.0 Background

Box B: Literature

This study builds on a wide range of existing literature about Hull and Humber Ports' economic geography. Key background documents to this report include the Hull and Humber Ports City Region Economic Assessment (2010), Hull and Humber Ports City Region Development Programme (2006), Humber Bridge Tolls Impact Assessment (2008), The Logistics Sector in the Yorkshire and Humber Region (2010), Renewable Energy Opportunities in the Humber Area (2010), Yorkshire and Humber Carbon Capture and Storage Transport Network (2008), Progress in the Hull and Humber Ports City Region (2010) and Index of Economic Resilience Hull and Humber Ports City Region Report (2009).

Hull and Humber Ports includes four local authorities: Kingston upon Hull, the East Riding of Yorkshire, North Lincolnshire and North East Lincolnshire. There are three major population centres in the area: Hull (population 301,416),⁶ Grimsby/Cleethorpes (population 140,000) and Scunthorpe (population 73,000). Other important urban areas include Bridlington (34,000), Beverley (29,000), Goole (19,000) and Driffield (11,000).⁷

Figure 2.1: Study area



6. The urban centre of Hull extends beyond the local authority boundaries and includes the Haltemprice settlements of Hessle, Anlaby, Willerby and Kirkella in the East Riding of Yorkshire. These settlements form part of the contiguous built up area of Hull and form an almost unbroken chain of economic activity.

7. See annex for urban centre definitions

2.1 Hull and Humber Ports' economy

Hull and Humber Ports remains dominated by its geography – the Humber Estuary. The Humber Ports combined form the UK's largest ports complex: more tonnage is handled on the Humber Estuary than on the Mersey and Tees combined. The Humber ports include Grimsby and Immingham, the UK's largest port in its own right by tonnage. Much of the industry present in the Hull and Humber Ports today, including the ports and logistics and chemical sectors, has grown up around the Humber Estuary. For example, Grimsby was the busiest fishing port in the world in the 1950s and 1960s and that industry remains an important part of the local economy today especially since the £15 million Grimsby Fish Market development opened in 1996.

Employment

Hull and Humber Ports is dominated by employment in traditional manufacturing industries. Manufacturing is the third largest sector in the area after the public sector and distribution and hospitality. It accounts for nearly a quarter (23%) of employment in North Lincolnshire and 17% across the wider Hull and Humber Ports area. Employment in manufacturing has declined, following national trends, and in 2008 accounted for 17% of total employment compared to 24.4% in 1998.⁸ The sector, however, still constitutes a much greater share than regional and national (13% and 10.2% respectively) averages.

Within the manufacturing sector, Hull and Humber Ports is home to the second largest chemical cluster in the UK, with other clusters of employment including food manufacturing, caravan manufacturing and healthcare technology.⁹ The proportion of employment in each of these sectors is significantly higher than the regional and national averages. Interestingly, over the last 10 years the caravan manufacturing industry – defined as the manufacture of motor vehicles and trailers – has bucked trends in the area's wider manufacturing base with employment increasing by 59%. This is also reflected in the area's occupational profile. The area has a much higher than average proportion of people working as plant and machine operatives and in skilled trades.

Hull and Humber Ports is weakly represented in sectors that have been important sources of growth elsewhere over the last decade. Professional and financial services represent only 13% of total employment in comparison to the regional average of 18.6% and the national average of 22.9% (although this figure has increased from 10% in 1998).

Employment growth in Hull and Humber Ports has been dominated by the public sector over the last decade. Between 1998 and 2008, total employment growth for Hull and the Humber was 3.7% compared to 9.1% for the region and 9.3% for the country. During that time, employment in public administration, education and health grew from 24.3% of total employment to 30% (approximately 108,400 people). This was partly driven by particularly large concentrations of public sector employment in the East Riding of Yorkshire, and compares to an average of 26.6% for England.

The public sector is an important source of high value employment within Hull and Humber Ports. As the area has struggled to attract knowledge-intensive businesses, there is a higher level of dependency than average on the public sector for higher value, higher skilled jobs.

8. Source: Annual Business Inquiry (workplace analysis) 2010

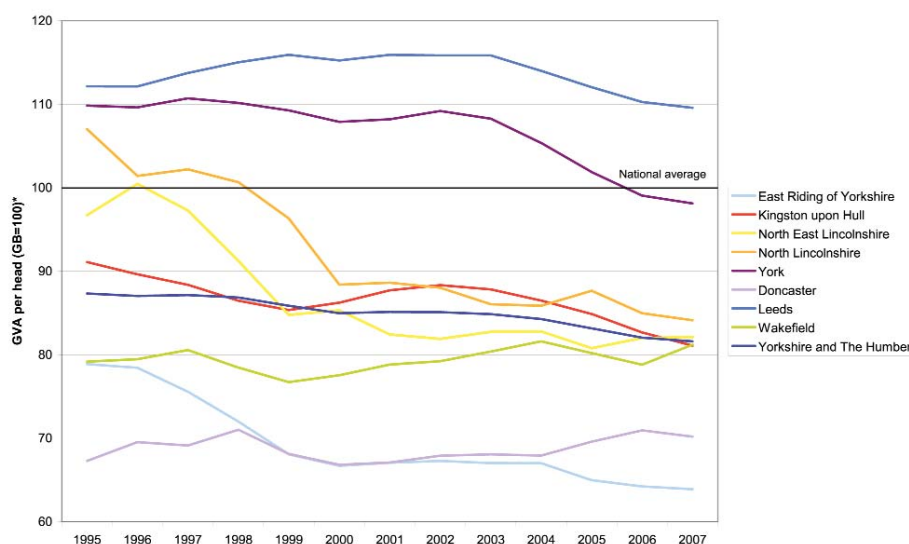
9. Source: Annual Business Inquiry (workplace analysis) 2010 and Experian (2005)

Economic growth

With a GVA growth rate of 60% of the national average, the area is falling behind other parts of the UK. GVA per head (2007) across Hull and Humber Ports as a whole is 80% of the national average and 95% of the regional average. HEP figures relating to the contribution of different sectors to Hull and Humber Ports GVA provide some insight into why this might be the case. Hull and Humber Ports is still dominated by traditional, low value industries:

- Manufacturing contributes 27% of GVA (it is no more than 15% elsewhere in Yorkshire);
- Business activity contributes 14% of GVA (it is 20% in other parts of the wider region);
- Finance contributes 2% of GVA (the regional average is 7%).

Figure 2.2: GVA per capita (GB=100), 1995-2007



Source: ONS, 2010, NUTS 3 GVA data. Own calculations for LA areas based on NUTS 3 GVA data.

Analysis of growth over the last ten years demonstrates the challenges facing an area highly dependent on manufacturing and the public sector. Manufacturing experienced the third slowest rates of growth in economic output in the Hull and Humber Ports, contributing 10% to GVA from 1997 to 2007. Business services made the second highest contribution to GVA growth but remain a small proportion of total employment. Although GVA in Hull, North Lincolnshire and North East Lincolnshire remains around the regional average, it is a long way behind the national average and Hull has low levels of productivity compared to other large cities in the North. The East Riding has lower GVA per head because of its low job density, although earnings are relatively high because of its knowledge-intensive employment.

The City Region Development Plan¹⁰ reviewed how the area could increase economic growth and identified priority growth sectors for the area. The Plan differentiates between:

- primary 'productive global growth' clusters: logistics and ports, renewables, healthcare and bioscience;
- secondary clusters: food and drink manufacture, manufacturing and engineering;
- key support sectors: construction, digital and creative, finance and business services; and
- priority 'consumptive growth' sectors: tourism and retail and hospitality.

However, the current economic crisis has created difficulties for all pre-existing plans and the recession has only exacerbated existing challenges within Hull and Humber Ports' economy. The ongoing trend towards structural adjustment and reduction of employment in high output sectors has continued and accelerated. As a result, it has been cities with low skills and high proportions of employment in manufacturing that have seen the largest increases in unemployment. Across Hull and Humber Ports, in the two years since the first signs of the impact of the recession were seen in the labour market, the proportion of residents claiming unemployment benefits has approximately doubled. The claimant rate now stands above the regional and national average in all local authorities with the exception of the East Riding. In Hull the proportion of residents claiming unemployment benefits is more than twice the national average (8.8% compared to 4.2%) and the employment rate in Hull now stands at just 63%.¹¹ However, whilst manufacturing – including the caravan industry – has been hit hard, the food production and processing industry has remained 'highly competitive'.¹²

2.2 Hull and Humber Ports' economic centres

The Hull and Humber Ports is quite different to a number of other northern city regions. Unlike Manchester and Sheffield, Hull and Humber Ports is not conventionally monocentric (focused around one major economic centre) or polycentric like Leeds (with a number of economic centres that provide focal points for employment and between which there are firm and labour market interactions).

The Humber both divides and unites the area. The area's labour market is divided by the Humber, with relatively limited labour market connections between the north and South Banks. The two banks tend to have separate housing and labour markets, facing different directions. This means that there are low levels of commuting between Hull and the South Bank, and similarly low levels of commuting between Grimsby and Scunthorpe and the North Bank. These commuting patterns will be influenced by travel costs (both time and financial costs) but also by economic incentives – how much higher a wage an individual can gain by travelling across the Humber to work. However, despite the Humber estuary dividing the two labour markets, it provides a potentially uniting force when it comes to firm links associated with the ports. Firms and areas perceive potential benefits in working across administrative boundaries and the estuary. One interviewee referred to the river having the potential to be 'the backbone' rather than a 'barrier', and the presence of ABP (the UK's largest port operator) facilitates greater integration between the north and South Banks; 'there is a pan Humber logic'.

10. The Northern Way (2006) Global Gateway UK: Hull and Humber Ports City Region Development Plan II, The Northern Way: Newcastle-upon-Tyne

11. Annual Population Survey 2010

12. Hull and Humber Ports City Region Economic Assessment

Hull

When considering why relationships in Hull and Humber Ports operate as they do, it is important to understand the role of Hull as the largest economic centre. Hull is geographically one of the UK's smallest cities with one of the highest population densities. It is surrounded on three sides by the UK's largest unitary authority (in terms of land area), the East Riding, which has a substantially lower population density (135 residents per square kilometre compared to 3,571 in Hull). Hull is also the only east coast city to have a port within its administrative boundaries. As well as an employment centre, Hull plays a role within the wider area as a major retail centre (recent developments include the St. Stephen's shopping centre) and as an educational centre, home to the University of Hull. However, Hull's economic performance and wages are lower than other northern centres such as Leeds, Sheffield or Newcastle, and its economy is not as diversified as other cities of comparative size. Average wages, both resident and workplace, in Hull fall below those in the city's surrounding districts.

It is important to note that the city is under-bounded, meaning that the administrative boundaries are narrower than the contiguous built-up area, which stretches into the East Riding. As a result, Hull's performance can be somewhat under-stated. The wider contiguous area of Hull scores higher on resident based indicators, such as qualifications and income, than the more narrow administrative area of Hull. For example, average weekly household incomes in 2008 were £433 in the contiguous area in comparison to £415 for the local authority. This finding is common amongst cities that are under-bounded, including Manchester, as problems of deprivation, skills and worklessness tend to be more acute in city centres.

The differential performance between the narrow and wider definitions of Hull is not as apparent when taking workplace indicators into account, however, such as the location of knowledge-intensive employment. Employment in knowledge intensive industries in 2008 was 52% in the built up area and 50.4% in the local authority. However, Hull's economy is dominated by employment in the public sector, manufacturing (18% of employment), construction, logistics and the low value service industries. It performs poorly on indicators of future success such as knowledge intensive employment, graduates, pay and productivity. Characterised by Hildreth¹³ as a 'gateway city', it contains a number of industrial and logistic functions related to its 'gateway' status, all of which tend to employ large numbers of relatively low skilled workers.

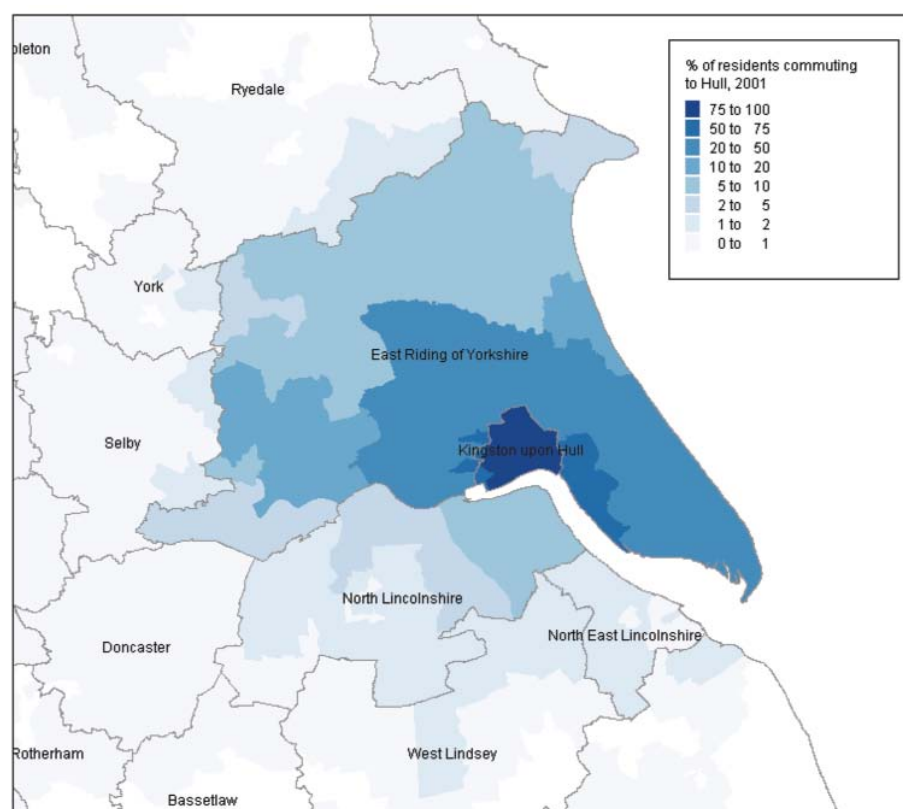
Hull does not perform the same 'economic centre' role as other large northern cities, and this is reflected in its travel-to-work area: it does not have the level of influence over surrounding areas that Leeds and Manchester do, for example. The Developmental Panel argued that, "Hull is unable to provide a sufficient critical economic mass to act as a magnet for economic activity comparable to other major northern cities".¹⁴ The proportion of jobs held by Hull's residents is low – 66% of Hull's jobs are taken by the city's residents – compared to other cities such as Leeds (72%) and Sheffield (72%). This is partly a result of the city's under-bounding, but also because of high levels of worklessness amongst the resident population. Even before the recession, Hull had one of the lowest employment rates in the country.

13. Hildreth, P. (2006), 'Roles and economic potential of English medium-sized cities: discussion paper', available at: http://www.surf.salford.ac.uk/cms/resources/uploads/File/061010_Medium_sized_cities_complete_final.pdf

14. Unpublished report for the Humber Economic Partnership and The Northern Way, 2009

The city's skills profile means that only 48% of knowledge worker jobs and 31% of the city's jobs in professional occupations are held by Hull's residents. Many of these jobs are taken by commuters: Hull's GVA is higher than surrounding areas, but wealth (in terms of earnings) returns back to the suburbs".¹⁵

Figure 2.3: Hull's travel-to-work area by ward, 2001



Source: Origin-Destination Statistics, Census 2001

Hull also faces challenges associated with image. Hull's reputation and perceptions it does not offer a high quality of life create difficulties for the area in recruiting staff or attracting inward investment. The Humber was seen to represent a more positive brand by business investors, particularly if a maritime or port link could be established. Hull's image has improved to some extent over recent years, helped by developments such as the Paragon transport interchange, the £200 million St. Stephen's shopping and leisure complex, the Humber Quays and the Deep, a landmark visitor attraction in Hull.

Grimsby and Scunthorpe

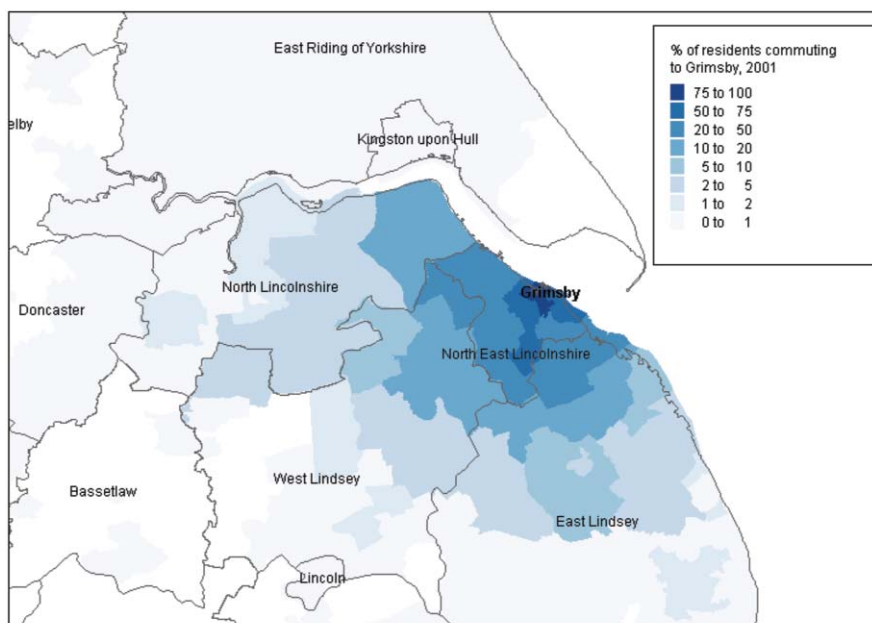
Grimsby and Scunthorpe are also significant economic centres in the Hull and Humber Ports.

Grimsby – once the world's largest fishing port – is still one of the UK's most important fish processing centres. Headquarters based in Grimsby have an estimated combined annual turnover of £1 billion or 31% of the UK's turnover within the sector.¹⁶ Grimsby also acts as a retail centre serving a large hinterland, stretching into Lincolnshire.

15. The Northern Way (2006) ibid

16. The Northern Way (2006) ibid

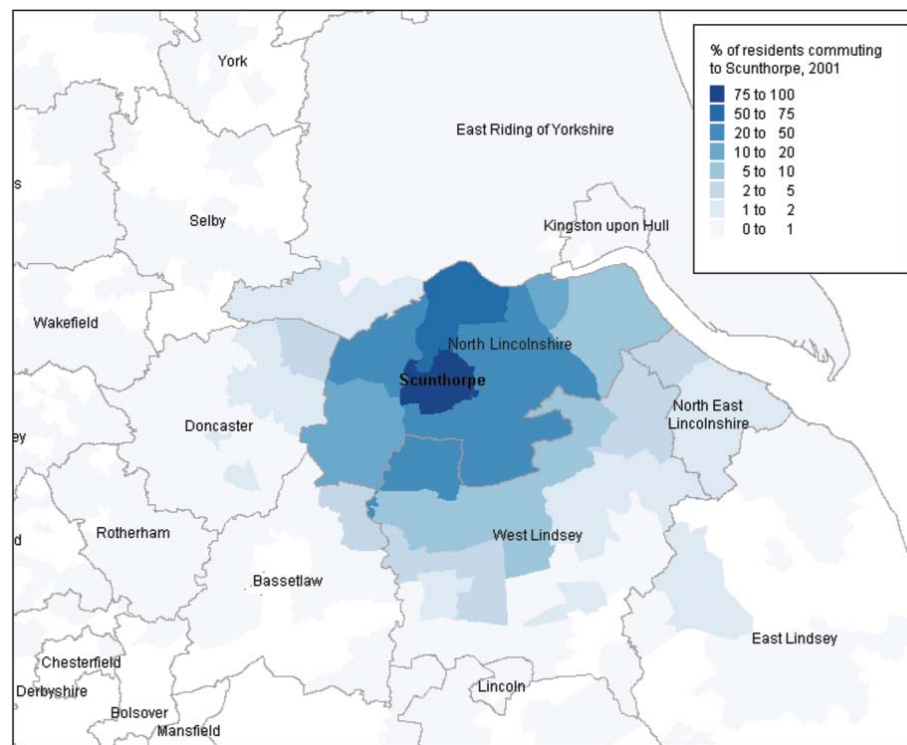
Figure 2.4: Grimsby's travel-to-work area by ward, 2001



Source: Origin-Destination Statistics, Census 2001

Scunthorpe, which developed because of the iron and steel industry, has relatively high workplace earnings, partly due to the presence of Corus. North Lincolnshire has the largest Corus site in the UK, employing approximately 4,000 people. At 800 hectares, the site is the largest integrated iron and steel manufacturing plant in the UK. Scunthorpe now aims to move away from being a traditional industrial town to have an economy more strongly based on advanced manufacturing – electronics, food and plastics.

Figure 2.5: Scunthorpe's travel-to-work area by ward, 2001



Source: Origin-Destination Statistics, Census 2001

Both Grimsby and Scunthorpe act as smaller employment centres in the Hull and Humber Ports. They provide employment for residents living in surrounding areas, with some overlap between Grimsby and Scunthorpe's travel-to-work areas – both stretch south into East and West Lindsey in Lincolnshire. However, the two centres are relatively self-contained, reflecting the dominance of employment in traditional industries and in the public sector in the local area; an industrial profile very similar to that of Hull.

Despite both areas working hard to adapt to a changing economy, both Grimsby and Scunthorpe have experienced challenges in recent years. GVA per head has dropped dramatically in North Lincolnshire (Scunthorpe) and North East Lincolnshire (Grimsby) over the past 10 years. This may be a result of the continued decline of the manufacturing base which accounts for a larger proportion of GVA compared to other areas in Yorkshire and the Humber, and the slow transition towards a service based economy.

The strengths and weaknesses of these three economic centres in Hull and Humber Ports have important implications for the relationships between places in the area.

2.3 Historic relationships and partnerships

The partnerships and economic relationships that exist now in Hull and Humber Ports have been strongly shaped by historic relationships and geography. The Humber Estuary has provided the focal point and the reason for the four local authorities coming together, recognising shared economic goals and assets. The

estuary, as highlighted above, has also made it more challenging for the four local authorities to work together. This is simply because of physical distance: relationships are unsurprisingly weaker across the estuary, while they are stronger between Hull and the East Riding on the North Bank and between North Lincolnshire and North East Lincolnshire on the South Bank.

Within the local authorities, history has also played a role in shaping the economic fortunes of different places. For example:

- Beverley's success is long-standing: it has historically been a market town going back to medieval times and has long been an importer of labour from the surrounding areas.
- Hull developed with the ports and its fortunes are strongly tied to the estuary; it also has historic links to neighbouring areas, such as Driffield, via the Driffield navigation canal.
- Places such as Bridlington have historic links with the Leeds City Region because of physical proximity; it was traditionally a popular holiday resort for people from West and South Yorkshire.
- Grimsby has played a large part in the economic fortunes of the South Bank through its historic role as a corner stone of the UK fishing industry. The first fishing dock was opened in the mid 19th century, with the port becoming the largest and busiest fishing port in the world in the 1950s. Today, the Grimsby fish market is the largest in the UK.

These relationships have shaped and informed the long-standing partnership working within Hull and Humber Ports. The Humber Economic Partnership (HEP), which covers Hull and Humber Ports, has a history spanning nearly two decades. It was established as the Humber Forum in 1993 in anticipation of the abolition of the county council. HEP increasingly has a role creating a voice for Hull and Humber Ports, undertaking research, lobbying, and building capacity. It has a history of successful engagement with local businesses and it is viewed by many as an 'existing asset to build on'.¹⁷ The private sector led Hull and Humber World Trade Centre (which opened in 2008 and acts as a link between British and international businesses) also represents the wider Hull and Humber Ports area.

On the North Bank, Hull and the East Riding have collaborated on Housing Market Renewal (Gateway Hull and Humber which was introduced in 2002), although cooperation between the two authorities has been found to be weak in the past, particularly around employment land and office development.¹⁸ The two authorities also failed to reach agreement around a spatial remit for Hull Forward that included both Hull and the East Riding.

Challenges, however, exist when it comes to taking significant economic decisions jointly. Whilst the four local authorities have worked together on the City Region Development Plan, they have not signed a Multi-Area Agreement moving on from this. The 2009 Developmental Panel highlighted the different views on branding in various parts of Hull and Humber Ports. Examples include: "Hull and Humber"/"Hull and East Yorkshire" on the North Bank and "Northern Lincolnshire" and "Greater Grimsby, Lincolnshire" on the south. This is likely to present a challenge in articulating Hull and Humber Ports' offer to other parts of the UK. Indeed the main barrier to stronger economic relationships with cities further away such as York and Leeds is often perceived to be the lack of awareness of the area's offer and the negative image of the Hull and Humber Ports as a whole.¹⁹

17. Unpublished report for the Humber Economic Partnership, The Northern Way 2009

18. Unpublished report for the Humber Economic Partnership, The Northern Way 2009

19. Interviewees

The Hull and Humber World Trade Centre, which opened in 2008 in Hull, faced similar problems over an agreed and appropriate name as it is represented by members of all four local authorities.

Despite the difficulties in partnership working in the past there is still a desire to work together and a recognition that doing so can lead to positive outcomes for Hull and Humber Ports as a whole: As one interviewee said *“we cannot let politics get in the way” and there needs to be a willingness for all local authorities to work together – sometimes it is not possible for everyone to get a direct benefit from a development*”²⁰.

3.0 Labour market relationships in Hull and Humber Ports

3.1 Commuting patterns across Hull and Humber, and with neighbouring areas

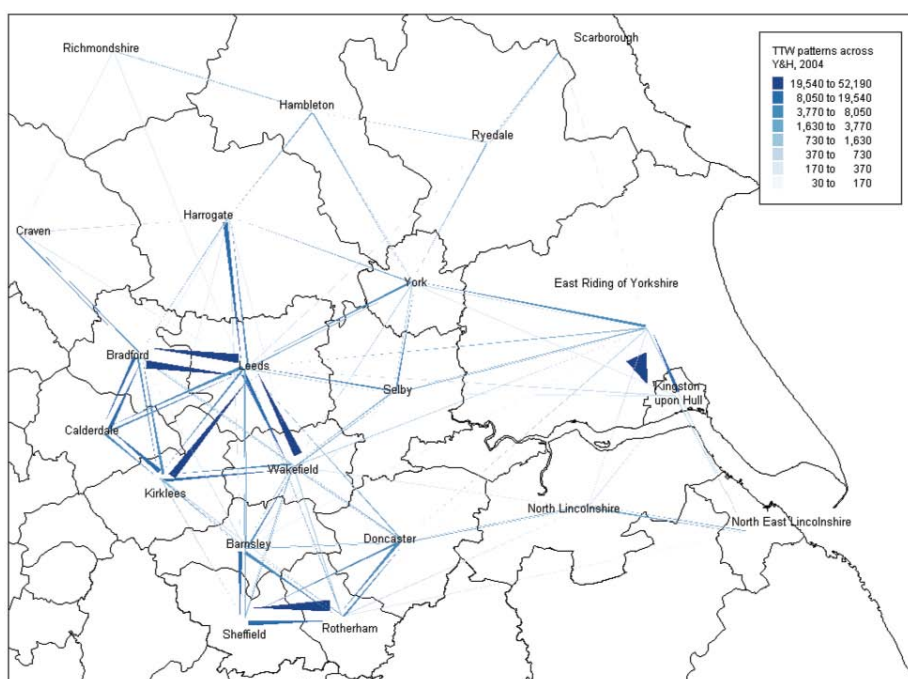
As expected, based on analysis of the strengths of different economic centres within Hull and Humber, commuting within Hull and Humber Ports is largely confined to one labour market on the North Bank and two overlapping labour markets on the South Bank. There is little interaction across the Humber.

On the North Bank, there is a very strong labour market relationship between Hull and the East Riding of Yorkshire. Of all cross-border commuting within the Yorkshire and Humber, the highest number of people travel from the East Riding to work in Hull (35.8% of the resident population of the East Riding). 8.5% of Hull's residents also travel to work in the East Riding. This partly reflects the tight boundaries around the city but also the different functions and scales of each area. Within the East Riding, Beverley is an employment centre in its own right drawing in workers from across the wider area.

On the South Bank, Grimsby and Scunthorpe are relatively self-contained (respectively 80% and 82% live and work within the two towns). There is some labour market interaction between North and North East Lincolnshire (4.8% of North Lincolnshire's residents work in North East Lincolnshire and 3.9% of North East Lincolnshire's residents work in North Lincolnshire).

As illustrated in Figure 3.1, there are lower levels of interaction across Hull and Humber Ports as a whole compared to both Sheffield and Leeds City Regions. Commuting between the north and the South Bank is minimal. Just 0.7% of North Lincolnshire's residents commute to Hull and 0.2% travel the other way. Commuting levels are similar between North East Lincolnshire and the North Bank.

Figure 3.1: Commuting patterns across the Yorkshire and Humber region by local authority district, 2004



The labour market links from Hull and Humber Ports to other surrounding cities are limited, reflecting the geography of Hull and Humber, the relative weakness of its economic centres, but also preferences for people to move rather than commute. There is some labour market interaction between York and the East Riding, albeit at a relatively low level, and the towns of Market Weighton and Pocklington are closely linked to the Leeds City Region due to their close proximity to York. Over 30% of Pocklington's residents commute to York, whereas just 3% commute to Hull.²¹ This reflects both the geography of Pocklington and the economic strength of York compared to Hull. However, only a low proportion of residents commute from Hull and the East Riding to work within Leeds and Wakefield – likely to be because people tend to move rather than commute²² (see section 3.3 below). Hull and Humber does not act as a key employment site for Leeds and Wakefield residents. The links between Leeds and the South Bank are negligible.

The South Bank has slightly stronger links with Doncaster than with the North Bank. For example, 3.6% of the resident population of North Lincolnshire work in Doncaster compared to 0.1% of the resident population that work in Hull.²³ This is likely to be a function of distance: Doncaster and North Lincolnshire local authority areas are adjacent to one another. This further illustrates that the labour markets of the north and South Banks are oriented in different directions. In fact, the strongest links from the two local authority areas on the South Bank are between North Lincolnshire and West Lindsey and North East Lincolnshire and East Lindsey to the south of Hull and Humber Ports. 6.7% of the residents of West Lindsey commute to North Lincolnshire and 6.6% of the residents of East Lindsey commute to North East Lincolnshire.

3.2 Knowledge worker travel-to-work patterns within Hull and Humber

Labour market links are not only influenced by socio-economic characteristics, but also by the characteristics of the built environment, the quality of life offer and the quality of transport links. Skilled workers in particular base their location decisions not only on job opportunities but also on the availability of adequate housing and amenities. Understanding local and regional imbalances in housing and workplaces, and how this affects location decisions, is critical to understanding how cities interact with neighbouring cities and towns. These place attributes are likely to affect both commuting patterns and migration patterns across Hull and Humber Ports.

Analysis of commuting by occupation demonstrates the importance of quality of life as a determinant of where highly skilled individuals in Hull and Humber Ports want to live. Figure 3.2 compares commuting from each of the urban centres to Hull by occupation. Of the residents commuting to Hull, Beverley and Driffield have the highest proportion of knowledge workers²⁴ travelling to work in the city. Given the distances between the urban centres – Beverley and Driffield being in the closest proximity to Hull – and the evidence that knowledge workers tend to travel further, the reverse pattern might be expected, with a higher proportion of those travelling from Bridlington, Goole and Scunthorpe working in knowledge-intensive jobs. That this does not happen is a reflection both of the skills and occupational profiles of the individual areas but also the higher quality of life that Beverley and Driffield have to offer. Knowledge workers tend to be more mobile than less skilled workers and have a wider choice about where to live in order to access the quality of life they desire, as well as wider options about where to work.

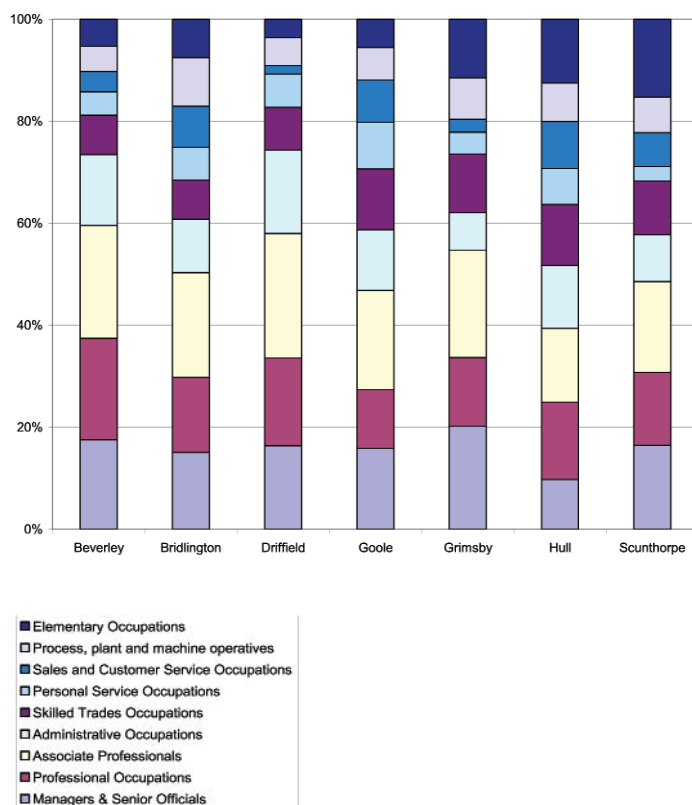
21. Census 2001

22. Interviewees

23. Annual Population Survey 2004

24. Knowledge workers are defined as managers, professionals and associate professionals

Figure 3.2: Commuting to Hull by occupation, 2001



Source: Census 2001 (NB: data for Hull refers to the occupational breakdown of those living and working in Hull).

The commuting patterns of knowledge workers across the wider area – and hence the labour market links across Hull and Humber Ports – reflect the variations in the quality of the housing stock and wider quality of place factors. This is particularly apparent in the relationship between Hull and the East Riding: nearly 50% of those travelling from East Riding to Hull are knowledge workers (17,018 people), whilst just 28% travelling from Hull to East Riding are knowledge workers (3,832 people).²⁵ This pattern is not apparent on the South Bank. Whilst 45% of those travelling from North Lincolnshire to North East Lincolnshire are knowledge workers, compared to 28% of those travelling the other way, the numbers of knowledge workers commuting between the two districts are broadly similar (1,334 from North Lincolnshire to North East Lincolnshire and 1,193 from North East Lincolnshire to North Lincolnshire).

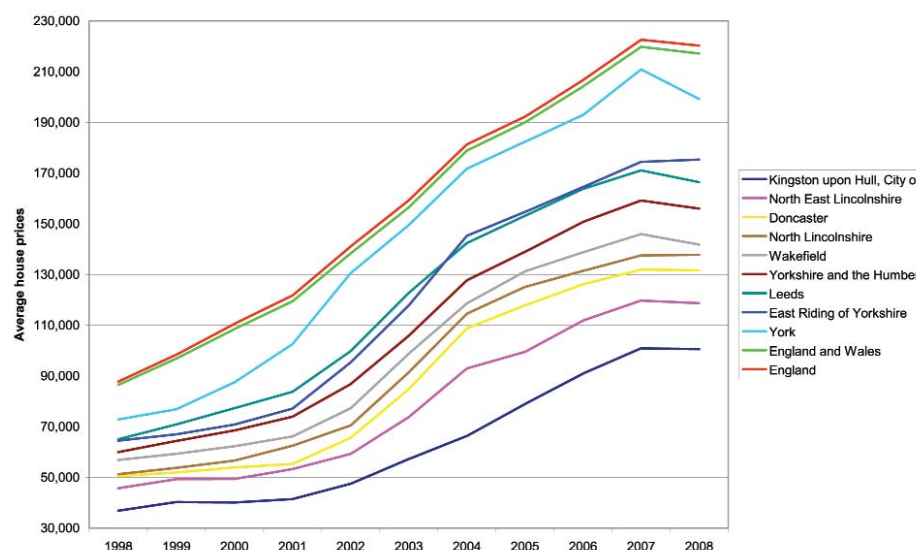
3.3 The role of housing and quality of place offer

Hull and Humber Ports caters for different life choices within its borders.

Residents within the area can choose to live in large urban centres such as Grimsby and Hull, in smaller town centres like Driffield, Beverley or Goole or in the rural environments of the East Riding or North Lincolnshire. Not only do all of these places offer very different life choices, they also offer different types of housing. Hull, Goole and Grimsby, in particular, have a very high proportion of terraced housing stock, and Hull also has a large proportion of flats. Areas like Scunthorpe or the East Riding offer primarily semi-detached housing.

The main selling point of the area is regarded as being value for money. Despite a reported feeling from some interviewees of being 'at the end of the road' or 'out on a limb', most agree that one of the key selling points of Hull and Humber Ports is that it is a relatively affordable area in which to live. Whilst average house prices in the area increased faster than across England as a whole (see Figure 3.3), they still remain far below the English average. In Hull, 2008 house prices were less than half the English average (£100,634 compared to £220,310) and the mean house price was 3.43 times the median earnings, making Hull the most affordable of the local authority areas studied here. This is followed by North East Lincolnshire, in particular Grimsby, where median house prices were 4.65 times the median wage in 2009.

Figure 3.3: Change in average house prices, 1996-2008



Source: Land Registry, 2010

With the exception of the East Riding, average house prices in Hull and Humber Ports are also lower than in the surrounding cities of Leeds, Wakefield and York. The perception within the area is that house prices tend to be slightly higher on the North Bank than the South Bank of the Humber estuary. In reality, it is both North East Lincolnshire on the South Bank and the East Riding on the North Bank which are the places where access to owner occupation is most difficult within Hull and Humber Ports.²⁶ Despite relatively cheap housing, affordability seems to have been an issue at the lower end of the market before the recession set in and the supply of social housing does not meet demand.²⁷ There are also some quality issues, especially in Hull, where 85% of the local authority housing stock is of poor quality. Improving Hull's housing stock and wider quality of life offer (e.g. school quality, crime rates) might help to retain more highly skilled workers in the City, and ease housing pressures in the East Riding – but this should not be pursued at the expense of those at the lower end of the labour market.

26. Llewelyn Davies Yeang (2006) *Quality of Place: The North's Residential Offer*, Hull and Humber Ports City Region, Llewelyn Davies Yeang: London. Available at <http://www.thenorthernway.co.uk/downloaddoc.asp?id=391>

27. Humber Economic Partnership (2010) *Hull and Humber Ports City Region Economic Assessment*, Humber Economic Partnership: Hull. Available at http://www.humberep.co.uk/userfiles/_HHPCR_EA_FINAL_310310.pdf

Despite low prices, Hull and Humber Ports does not appear to attract residents who are working in nearby city regions. Hull offers much cheaper housing than Leeds, York and Wakefield, and slightly cheaper housing than Doncaster. However, there are no large commuting flows between Hull and Humber Ports and neighbouring areas, suggesting that, on the whole, the area does not seem to

represent an attractive place to live for workers with employment in these urban centres. The lack of commuting links between Hull and the other centres is likely to be not only due to a low quality of schools, high crime rates and low quality housing stock, but also the physical and time distance between Hull and these centres.

Where commuting flows do exist beyond Hull and Humber Ports, they are relatively small and primarily from attractive rural areas to centres of employment in relative proximity. For example, 3.6% of the residents of East Riding commuted to work in York in 2004, 1.6% commuted to work in Selby and 1.3% commuted to work in Leeds. 3.6% of North Lincolnshire residents commuted to work in Doncaster in 2004.²⁸ This suggests that, on the North Bank, the East Riding might be attracting a small percentage of those that desire the quality of life offer of North Yorkshire, but cannot afford to live there. On the South Bank, North Lincolnshire's rural areas seem to present an attractive quality of life offer for a small percentage of Doncaster's workers – and are only on average 30 minutes from Doncaster by train. However, average house prices in North Lincolnshire in 2008 were only £6,000 cheaper than house prices in Doncaster – and average workplace based earnings were actually higher in North Lincolnshire than Doncaster.²⁹

Reflecting the varied offers across Hull and Humber Ports, the housing markets across the area are fragmented. Hull and Humber Ports encompasses a multitude of different housing markets, with little overlap or interaction. The housing markets on the North and the South Bank of the estuary in particular operate independently of each other, although interviews suggest that people relocate between these for employment purposes, preferring to move rather than to commute across the Estuary. Similarly, students from the South Bank studying at Hull university prefer to move to the North Bank rather than commute from the South Bank.³⁰

There is one major housing market on the North Bank, covering Hull and much of East Riding, and two significant housing markets on the South Bank. On the South Bank, one of these housing markets is around Scunthorpe, covering much of North Lincolnshire. The other is around Grimsby/Cleethorpes, covering much of North East Lincolnshire and parts of Lincolnshire. Both partially overlap.³¹ Several smaller housing markets also exist, including Bridlington and Driffield, in Goole, in Brigg or in Barton upon Humber.³² In this respect, Hull and Humber Ports appears similar to Tyne and Wear, where the Tyne and Wear rivers similarly separate the city region's housing markets into four housing markets, divided by the river.

Housing market and labour market fragmentation means that, while there is a relatively balanced housing offer across the Hull and Humber area as a whole, most people do not benefit from this varied offer. This is because, in order to access a different housing offer,³³ in most cases individuals would need to move to a different labour market. Hull's housing offer is characterised by terraced housing and large council estates with average house prices less than half of the English average, while the East Riding offers large detached and semi-detached properties and has some of the highest house prices in the surrounding area. Within the Hull and Humber Ports area, the East Riding scores highest on the Regional Quality of Life Index; this includes health, economy and inclusion, crime and safety, neighbourhoods, housing, sport, culture, education and skills. The East Riding also has the highest proportion of owner occupied housing (91%). On the South Bank, Grimsby offers mainly terraced housing, while Scunthorpe offers many semi-detached properties. Scunthorpe also has the highest percentage of purpose built blocks of flats of the urban centres being studied. Both Scunthorpe and Grimsby

28. Annual Population Survey, 2004 data

29. One explanation for the commuting flows between the two areas could therefore be that some North Lincolnshire residents that could not find a job in North Lincolnshire started to commute to Doncaster – despite average wages being lower in Doncaster than in North Lincolnshire.

30. Colin Buchanan (2008), Humber Bridge Tolls Impact Assessment – Final Report, Colin Buchanan; London

31. Llewelyn Davies Yeang (2006) *ibid*

32. Humber Economic Partnership (2010) *ibid*

33. Llewelyn Davies Yeang (2006) *ibid*

have similar scores on the Regional Quality of Life Index, but the Grimsby area has seen its quality of life improve by 4% since 2004. The variation in the quality of life offer across the Hull and Humber Ports is not only driven by the variation in housing offer but also by wider aspects such as crime, schooling and leisure.

The variation in housing offer is reflected in the different demographics and migration patterns across the area. For example, many of Hull's residents will move into the East Riding as they climb the housing ladder. The high average house prices in the East Riding attest to its residential appeal. But it is also Hull's lack of detached housing,³⁴ its low quality of schools and the high level of crime in the city (with 132 recorded crimes per 1,000 people in 2008/09, crime in Hull was 53% higher than the national average) that attracts families to the East Riding, where crime is 130% lower. This is reflected in population figures. Hull has experienced uninterrupted population decline over half a century, with people either moving out of the City or into the East Riding. The Northern Way's Residential Futures report, however, suggests that migration out of Hull has slowed in recent times. This appears to be supported by the rapid increases in house prices for detached and semi-detached houses in Hull over the same period. Improving the wider quality of life and housing offer in the city of Hull is likely to underpin the functional labour market that already exists on the North Bank of the river Humber.

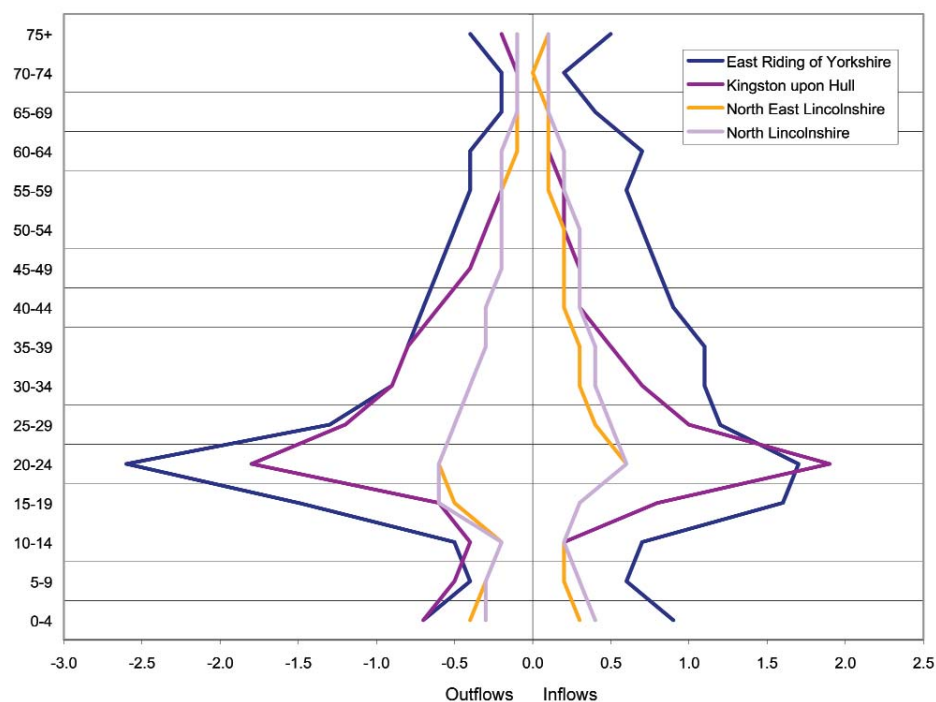
In general, rural areas perform better than urban areas on the quality of housing stock within Hull and Humber Ports, and house prices often tend to be higher on the outskirts of urban areas. The location choices of more highly skilled, older, and wealthier workers reflect this. For example, the villages surrounding Scunthorpe tend to offer higher quality, detached and semi-detached housing. Reflecting migration patterns across Hull and Humber Ports, there is a correlation between urban and rural classifications and the age profile of residents. The East Riding has a higher proportion of older residents, with Beverley and the 'West Villages' of Willerby, Analby, Hessle, Cottingham and Kirk Ella still the key places that families aspired to live in. There is also a trend of people choosing to retire along coastline areas such as Bridlington. Grimsby on the South Bank has an established retirement market too.

Whilst there are concentrations of older residents in the East Riding and in Grimsby, within Hull there is a higher proportion of 19 to 29 year olds. This is partly a result of the university but also because the city provides access to cheaper housing and to a range of services and amenities. Research indicates that many South Bank residents choose to move to the North Bank to study at Hull University and that the educational offer on the North Bank is slightly stronger than on the South Bank.³⁵ There are also some high quality new developments along the waterside catering for young professionals. The lower proportion of 20 to 34 year olds in the East Riding and North Lincolnshire, in contrast, suggests that younger people in these areas leave for higher education or employment reasons, and may choose not to return until later in their lives.

34. The new urban extension at Kingswood is the only exception in this respect. It offers slightly larger homes with bigger gardens. See: Residential Futures

35. Colin Buchanan (2008) *ibid*

Figure 3.4: Internal migration by age groups by local authority area, 2007-08

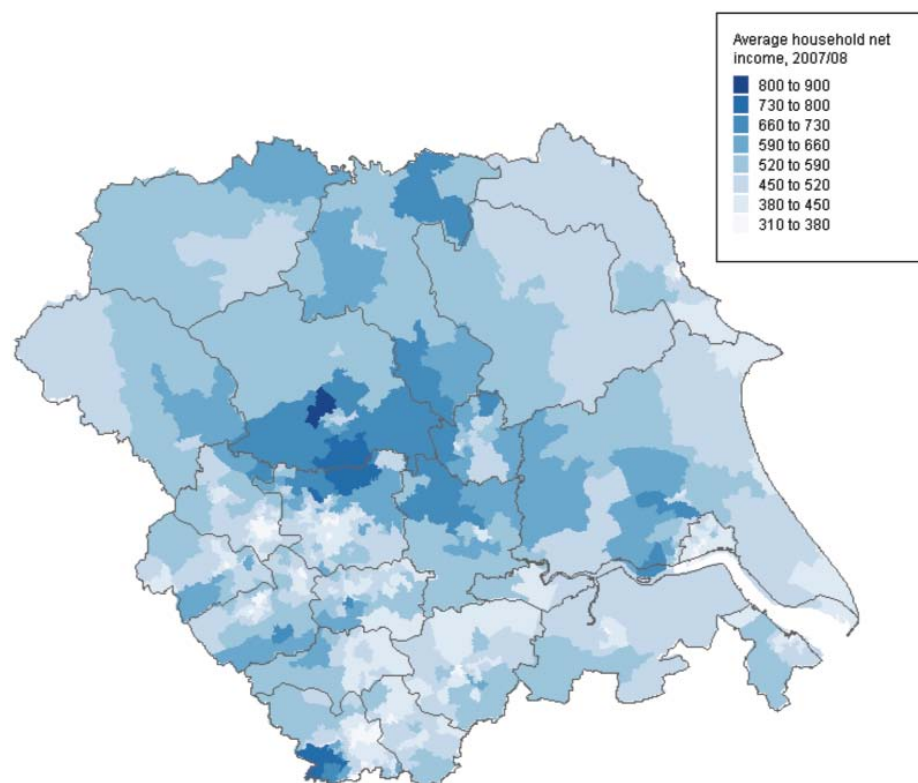


Source: NHSCR, 2008

Marked variations in average household income across Hull and Humber Ports reflects the differences in the quality of life offer. Areas with lower quality housing stock and quality of life, such as Hull and Goole, tend to have lower average household incomes. This further illustrates the flight of high income earners and knowledge workers into areas such as Beverley. Those that cannot afford to move out of the urban centres generally tend to face lower life expectancies, higher rates of crime and lack of access to key services. Grimsby's 2008/09 crime rate, for example, was as high as Hull's and its life expectancy was poor. Scunthorpe performed slightly better on life expectancy indicators, but the average woman living in Scunthorpe lives about one year less than the average English woman. Both areas are characterised by poor access to GPs, with access to schools, post offices and convenience stores also poor in Scunthorpe.

The geography of access to employment also plays a role that needs to be considered in parallel with quality of life – and will impact on average incomes (see Figure 3.5). Within the East Riding of Yorkshire, for example, there is an east-west divide with regard to average household income. The east is more isolated from employment opportunities, whilst areas such as Driffield are in closer proximity to the higher value employment opportunities that cities such as York and Leeds have to offer.

Figure 3.5: Average household net income at MSOA level, 2007/08



Source: Neighbourhood Statistics, 2010

3.4 The role of transport

Decent transport networks underpin complementary economic relationships but they are not the only condition on which these relationships depend.

Complementary relationships are also affected by wage differentials, availability of employment or patterns of sectoral specialisation. In other words, people may choose to make use of transport links available, or to overcome transport barriers, if the wages on offer or the jobs on offer are sufficiently attractive to make travelling worthwhile. Conversely, if wages are not high enough or skills profiles do not match with available employment, people may rely on public transport for local journeys but are unlikely to commute significant distances between areas, even if transport links are available.³⁶

Within Hull and Humber, travel is affected by the different workplace earnings available in different centres. On the North Bank, the East Riding (£527) offers higher average wages than Hull (£505), and on the South Bank North Lincolnshire (£547) offers higher average wages than North East Lincolnshire (£508). Overall wages are slightly higher on the South Bank, but the fact that higher paid jobs are also available in the East Riding probably partly explains the minimal commuting movement we see across the Humber. This means that there is relatively little incentive for those living in the East Riding or Hull to travel south to access employment. In fact, stakeholder interviews suggest that, due to the Humber bridge toll, the wage differential between the north and South Bank would need to be as high as £1,700 before tax each year to make it worthwhile to take up a job on the

36. Green, A. and Owen, O. (2006) The geography of poor skills and access to employment. Joseph Rowntree Foundation: York

other side of the estuary.³⁷ Even the annual average wage differential between the East Riding and North Lincolnshire is not that high. The time cost of travelling across the Humber is also likely to be a barrier.

Availability of jobs and sectoral specialisation also influence the extent of complementary relationships. For example the logistics and chemical industry is present on both sides of the Humber, leading to potential complementarities and the opportunity for people working in those industries to move jobs across the Humber during their career. The food processing or steel industries, on the other hand, are predominantly based on the South Bank of the Humber, suggesting that those working in that industry would locate on the South Bank. On the whole, there tend to be more job opportunities on the North Bank of the Humber rather than the South Bank, but the South Bank has an ample supply of land for development, suggesting potential for further complementarities within Hull and Humber Ports.³⁸

It is within this context of the area's wage, job offer and industrial structure that transport within the area and to areas outside Hull and Humber Ports, such as Doncaster, Leeds, Wakefield and York, needs to be assessed.

Improving bus links in Hull and Humber Ports will increase access to employment opportunities

Hull and Humber Ports is a low wage low skill economy and as such a functioning public transport infrastructure is important to link people to jobs. This has been recognised by the local authorities, with work ongoing to develop a strategic transport policy across Hull and Humber Ports. A variety of initiatives have been set up to encourage joint working across the Hull and Humber, including the regional transport advisory group, the regional Joint Transport Forum, the City Region Transport Board and the Community Rail Humber Board. This work has had some successes, such as establishing a full Sunday service on the Hull to Scarborough railway line, which has boosted retail in Bridlington.³⁹

Yet despite efforts to develop a shared approach to transport across Hull and Humber Ports, transport policy within the area remains highly fragmented. The Local Transport Plans (LTP) of the four transport authorities are still very much independent of one another. Hull's plan focuses almost exclusively on its own Local Authority area and the East Riding focuses primarily on its more rural areas. On the South Bank, North East Lincolnshire's LTP is centred very much on its own regeneration, rather than on the overlap between parts of North and North East Lincolnshire.

Public transport services within Hull and Humber Ports are confusing and expensive. As part of this research we examined the degree to which public transport across Hull and Humber Ports is integrated, based on a variety of indicators, such as joint public transport tickets and travel times. We found that there was little integration across the area. Even travelling from East to West Hull can be challenging,⁴⁰ whilst the price of public transport across the Humber is regarded as discouraging labour market movements between the two banks.⁴¹ And a variety of different ticket types exist. For example, the East Yorkshire Motoring Service operates primarily in Hull and the East Riding, but most tickets it offers do not cover both local authority areas entirely. Stagecoach operates primarily south of the Humber but does offer a ticket covering Grimsby/Cleethorpes, Immingham and Hull for £84 per month – about £20 more expensive than a monthly bus pass in London. Arriva operates in Goole, which is covered by its Yorkshire network.

37. Colin Buchanan (2008) *ibid*

38. Colin Buchanan (2008) *ibid*

39. Stakeholder interview

40. Colin Buchanan (2008) *ibid*

41. NB. A weekly ticket for the Humber FastCat service between Scunthorpe and Hull, which takes over one hour, sells for £22. Previous research suggests the high price for the service is not due to the cost of the Humber tolls.

It is therefore not surprising that the majority of people living in the area travel to work by car and that this was the reported mode of choice for nearly all our interviewees in travelling to work. Yet car ownership is low in parts of the Hull and Humber Ports, meaning that the fragmented provision of public transport is likely to impact on access to employment. The number of cars registered per 10,000 population is far below the English average (4,700) in Hull (3,200) as well as North East Lincolnshire (4,100).⁴² Many of the smaller towns, such as Bridlington, are relatively isolated with poor transport infrastructure links to the major employment centres. The dispersal of employment sites outside urban centres makes it even more challenging to provide transport services that link people to jobs. Access to colleges and employment is also restricted for those having to use public transport. Stakeholders interviewed as part of this research highlighted that “a more integrated public transport system would improve opportunities for young people to access work”.

Better alignment of transport policy between the Local Authorities on each side of the Humber would better reflect the functional economy of the area and has the potential to help deal with traffic issues in relation to the ports of Immingham and Hull.

Rail services are already appropriate to the area

When travelling across the Humber, it is usually quicker to drive than to travel by train. With the exception of the East Riding, Hull is reached more easily by car than by train from most of the areas within Hull and Humber Ports, with travel times by car quicker than by train. Indeed, there are no direct train services between Grimsby or Scunthorpe and Hull. It is therefore not surprising that overcrowding on morning train services into Hull is unusual and that train services in the area have the lowest forecast passenger growth rate in the whole of the Yorkshire and Humber.⁴³ However, the train services between the East Riding and Hull buck this trend. Travel between the East Riding and Hull is quicker by train rather than car, and trains between Beverley and Hull are 140% overcrowded at peak time. These trains have seen amongst the highest increases in passengers in Yorkshire and Humber (4-10%).⁴⁴

However, our analysis suggests that the current provision of passenger rail reflects the needs of the local population and does not need to change significantly. Rail services tend to be used more by those at the higher end of the labour market, and for long distance commutes. But compared to other areas, Hull and Humber Ports has less long distance commuting knowledge and high skilled workers. Research by Axiom indicates that in Hull and Humber ports less people than in other areas tend to travel over 40 minutes to work.⁴⁵ Beverley and Driffield, the two town centres with the highest percentage of knowledge workers commuting into Hull, as well as the East Riding more generally, have relatively good train links to Hull. Travel times by train from Beverley take 14 minutes and there is a train every 15 minutes during morning rush hour, while trains from Driffield are once every hour and take 31 minutes.⁴⁶ This suggests that the current provision of passenger rail reflects the needs of the local population, with the strong rail links already established between Hull and Beverley and Driffield – which match the highest levels of knowledge worker commuting – respond to local need effectively.

Congestion is an issue in parts of the Hull and Humber Ports

In general, road connections within the Hull and Humber Ports are good. This has knock on impacts for the provision of public transport, as those with access to a car are rarely discouraged from using it.⁴⁷

42. DfT (2010) Vehicle Licensing Statistics 2009 and NOMIS (2010) Mid year population estimates 2009

43. Network Rail (2009) Yorkshire and Humber Route Utilisation Strategy, Network Rail: London

44. Interviewee

45. Axiom Presentation

46. Travel times from www.nationalrail.co.uk for morning 8-9 a.m

47. Stakeholder Interview

There are, however, three inter-urban road links in the sub-region that are amongst the 10% slowest roads in the country. These are: the M1/M18/M62 cross south-west of Goole; the M180/A180/M18 around Grimsby; and the M62/A63/A1033 into and out of Hull.⁴⁸ The work by Acxiom also indicates that congestion could be an issue for commuters. In Hull and Humber, the average journey to work is about 37% shorter than in Leeds, but it is only 9% quicker.⁴⁹

The influence of the Humber Bridge Toll on relationships between places in Hull and Humber Ports

The relative lack of economic interaction between the North and South Banks compared to cross-river interaction in other UK urban centres⁵⁰ is often regarded as having been influenced, if not caused, by the tolls on the Humber Bridge. The Humber Bridge is the only bridge across the Humber, meaning most of the traffic between the two banks of the estuary is via the bridge. The alternative is the lengthy route around the estuary via Goole. Tolls for crossing the bridge now stand at £2.70 for cars for a single crossing and £21.60 for a book of 20 tickets.⁵¹ This is more expensive than many other river or estuary crossings in other urban centres where links are stronger. For example, the toll on the Mersey tunnel currently stands at £1.40, crossing the Bristol suspension bridge costs £0.30 and tolls on several Scottish bridges (e.g. Skye, Tay and Forth) have been abolished.⁵² The prices are particularly high when the level of wages within the area is taken into account.

Previous research by Colin Buchanan highlights the economic and social impact of the Humber Bridge toll.⁵³ It identifies: career development difficulties for couples whose career chances are better on opposite sides of the estuary; a reduction in the job search radius of the long term unemployed living in Hull; and a negative impact on those needing to travel across the Humber for educational or health reasons. Similarly, our interviews suggest that the Humber creates a physical and psychological barrier. For example, CATCH, a training facility for the chemical industries on the South Bank, finds it difficult to attract customers from the North Bank. Hull College, on the North Bank, has set up a branch south of the estuary to better serve students on the South Bank. Interviewees also reported that people from the region prefer to move house across the Humber rather than commute. In addition, the Bridge toll has a social impact, particularly for those wishing to travel for health reasons or to visit relatives in hospital, and this is regarded as a strong reason for removing the toll.

However, whilst it is evident that the Humber Bridge has an economic and social impact upon residents, the question is whether this impact is enough to justify reducing or eliminating the tolls. During a time of public expenditure constraints, would reducing, if not eliminating, the tolls on the Humber bridge increase economic interaction sufficiently to recoup (through increased economic activity) and justify the cost of writing off the bridge's remaining construction debt. Colin Buchanan (2009) estimates the Treasury's cost of writing off the bridge's debt at a net present value of £170m, and the benefits to the Hull and Humber Ports at £750m in the case of toll elimination and £375m in the case of toll reduction – resulting in a net impact of £580m and £205m⁵⁴ respectively. However, the additional benefits to the area from toll elimination only represent a 0.3% increase on the Hull and Humber Ports' 2009 GVA⁵⁵ and research by AECOM finds that traffic volumes crossing the bridge are relatively inelastic to changes in tolls, as much of the traffic crossing the Humber already drives via the bridge.⁵⁶

48. Department for Transport

49. Acxiom presentation

50. For example, Newcastle is linked to Gateshead via the Tyne tunnels and bridge, connectivity in Sunderland is underpinned by the Wear bridge and in Bristol Brunel's suspension bridge links the city centre to South Bristol and Temple Meads railway station

51. See: www.humberbridge.co.uk

52. Colin Buchanan (2009) Humber Bridge Impact Study, Phase 2 Report, Colin Buchanan: London

53. Colin Buchanan (2009) *ibid*

54. This refers to the 2009-2035 time period and is discounted to 2008 prices.

55. Colin Buchanan (2009) *ibid*

56. AECOM (2010) Humber Bridge Tolls. Modelling and Appraisal Study. The research estimates that toll elimination could result in an increase in traffic volumes of 20%.

Existing low commuting distances also suggest that abolition of the bridge toll would not necessarily increase economic interaction across the Humber significantly. Most people across the UK tend to commute no longer than 40 minutes,⁵⁷ and the length of current commutes in Hull and Humber is even shorter.⁵⁸ Even if the tolls were eliminated, much of Hull and Humber ports would still only be reached within a 45-60 minute drive. For example Grimsby and Scunthorpe would be over 45 minutes by car from Hull. The times that people are willing to travel can vary from area to area and may be affected by economic or cultural factors. However, existing commuting patterns suggest that this represents a longer than preferred commute. In addition, the travel horizons of people in areas of high deprivation tend, generally, to be much lower. The fact that many areas in Hull and Humber Ports struggle with deprivation⁵⁹ suggests many residents of the area would not gain any wider labour market benefits from the abolition or reduction of the toll.

This suggests that, whilst there is a social case for abolishing the Humber Bridge toll, the economic case is less strong. Certainly the toll appears to affect behaviours, but the socio-demographic profile of Hull and Humber Ports and the geographic location of the Humber Bridge suggest that reducing or eliminating the tolls is likely to have little impact on economic interaction between the North and South Banks.⁶⁰ In fact, reducing or abolishing the tolls could lead to negative economic impacts over the short term, as retail spending concentrates in centres like Hull and Beverley⁶¹ and having offices on both sides of the estuary becomes unnecessary. Writing off £170m debt implies saving £170m elsewhere and in these times of severe constraints in public spending, it is likely to be a challenging case to make.

Transport links to economic centres outside Hull and Humber Ports

There are limited links between Hull and Humber Ports and neighbouring areas, but this is unlikely to be primarily because of transport – distance may be more of a factor. Interviewees report that road connections to other parts of the North are good and that there are generally low levels of congestion along these routes – although, as mentioned above congestion on the A63/M62 in the direction of Leeds and Wakefield can be an issue at times.⁶² The average travel times by car is 56 minutes to York, 68 minutes to Leeds, 64 minutes to Wakefield and 57 minutes to Doncaster.⁶³

Rail connections to the major economic centres of the North are more limited due to low frequencies – although most are quicker than the car. Trains to Leeds and Manchester only run on an hourly service and do not run late in the evening – and Hull has lost its direct rail link to Manchester airport. There is only one hourly service to York from Hull in the morning peak hour taking 80 minutes. The train service to Doncaster is slightly better, running twice hourly during the morning peak and taking approximately as long as travel between Hull and Doncaster by car. Yet the lack of services between Hull and Humber Ports and neighbouring areas does not seem to represent a major problem for Hull and Humber Ports, as commuting between the area and these Northern economic centres is relatively low on the whole (see Figure 3.1). Commuting linkages do, however, exist between North Lincolnshire and Doncaster and these are supported by a twice hourly train that is quicker than travel by car and only takes 30 minutes. Train times between Grimsby and Doncaster are approximately 60 minutes. Nevertheless, 2001 commuting data suggest, that out of a total of over 56,000 North Lincolnshire residents working in Doncaster, only 60 travelled to work by train. For those wishing to travel to other

57. Rice, P.G., A.J. Venables and E. Patachini (2006) 'Spatial determinants of productivity; analysis for the UK regions', Regional Science and Urban Economics

58. Axiom presentation

59. For example, nearly 50% of LSOAs in Grimsby fall into the top 20% most deprived LSOAs in the country – the highest rate within the Hull and Humber Ports.

60. Note that there are some exceptions to this, such as Barton on Humber, which would be within a 30 minute drive from Hull if the tolls were abolished.

61. Colin Buchanan (2008) *ibid*

62. Department for Transport

63. AA Route Planner

areas – for example, from the western parts of the East Riding to York – the car is not only the easiest way to travel but also seems to be the mode of choice.

Good international linkages create the potential for economic links with Europe and elsewhere

Hull and Humber has good international links, with its own airport⁶⁴ on the South Bank of the estuary. Humberside airport primarily caters for the tourist market, but it also operates direct flights by KLM to Amsterdam Schiphol, giving the area access to a much wider range of international destinations. This was an important location advantage mentioned in many of our interviews. There are also direct flights to Aberdeen, an important partner for the area's oil, gas and chemicals industry. Indeed it is the second largest Aberdeen Airways hub outside Aberdeen and serves over 50 rigs as a helicopter base. For the North Bank of the Humber, Leeds/Bradford International is only an hour and a half's drive away and for the South Bank of the Humber, Doncaster's Robin Hood airport is within an hour's drive. These airports link Hull and Humber ports to a variety of destinations, such as Boston and New York (Doncaster airport, via onward connection at Dublin), Brussels and Paris (Leeds/Bradford airport). For destinations not covered by these three airports, Manchester Airport is 1 hour 56 minutes by car and London Kings Cross is only approximately two hours 35 minutes by train.⁶⁵

Decent transport networks underpin complementary economic relationships but they are not the only condition on which complementary relationships depend. Complementary relationships are also affected by wage differentials, availability of employment or patterns of sectoral specialisation. Our analysis of Hull and Humber Ports suggests that, while public transport between different areas within Hull and Humber Ports is relatively poor, this reflects the needs of the area and does not seem to represent an impediment to economic linkages. A lack of economic incentives (i.e. wage differential) is more likely to be a cause of the weak economic interactions across the Humber estuary. However, within the existing labour markets within Hull and Humber Ports, public transport could be improved to better support labour market movements.

64. www.nationalrail.co.uk

65. This section draws on Tables 8-14 in the Annex that detail 4-digit SIC code sectors in which each of the seven local authorities had over 500 employees at three distinct points in time. They also indicate if the local authorities were specialised (compared to the GB average) in that sector at that point in time.

4.0 Firm links and supply chains

Having reviewed one form of economic relationship – labour market links – this section now turns to the assessment of business links between the urban centres within Hull and Humber Ports, and beyond to the surrounding cities. One way of assessing current business links and understanding complementarities is to examine how patterns of sectoral specialisation (where places have higher proportions of employment in a sector than the Great British average) have changed over time.⁶⁶ This section examines patterns of sectoral specialisation and employment in the seven urban centres and the three surrounding cities (Hull, Grimsby, Scunthorpe, Beverley, Bridlington, Driffield and Goole; Doncaster, Leeds/Wakefield and York) to assess where there is greater potential for complementary firm links. We also examine absolute employment in different sectors, to ensure that we do not miss out sectors which employ large numbers of people but do not necessarily represent a UK specialisation.

Although sector specialisation analysis and assessment of absolute employment numbers helps us identify sectors in which there is a potential for complementary firm linkages, it cannot demonstrate that these links exist. This is why we have investigated two sectors in more detail through interviews: ports and logistics and renewables/carbon capture. These sectors were chosen in consultation with partners in Hull and Humber Ports. Within each of these sectors we have held business interviews with the aim of understanding current business linkages in more detail and the external business environment. A list of all the stakeholders that have contributed their time and insights is available in the Annex.

Understanding firm links and supply chains remains challenging because of the lack of data on these often intangible relationships. Nonetheless, our view is that the combination of sector specialisation analysis, highlighting any specialist roles within the Hull and Humber Ports, and more detailed interviews in two sectors, can enhance understanding of where the area could focus its efforts to enhance complementary links between firms.

4.1 Sector specialisation (potential for firm links)

Hull and Humber Ports has higher than average employment in a range of sectors, particularly manufacturing, distribution and the public sector. Based on location quotient analysis, key specialisations within Hull and Humber include: ports and logistics, healthcare and bioscience, food and drink manufacture, construction, metals and engineering, energy and the public sector. Renewables is also regarded as an emerging specialism and potential growth sector for the future, although it is not yet possible to analyse the sector using national business datasets as there is no agreed Standard Industrial Classification definition for the sector.

Some of Hull and Humber Ports' sector specialisations are also significant employers. In addition to being a specialism of the area, construction is also a large employer – especially in Hull – and Hull and Humber Ports is also home to the second largest chemical cluster in the UK (with a location quotient of 2.1 meaning that the proportion of employment in the sector is over twice the national average). As highlighted in section one, manufacturing is also an important sector for the area, contributing over 27% to GVA (this figure is no higher than 15% elsewhere in Yorkshire).

The Hull and Humber Port's industrial profile means that the benefits usually associated with urban centres are not as marked as in other areas. The nature of economic activity across the area, the dominance of manufacturing rather than

66. Colin Buchanan (2008) *ibid*

more knowledge intensive employment, and the consequential dispersal of employment around the area means that the potential to derive agglomeration benefits is more limited compared to other city regions.

Agglomeration elasticities reinforce the arguments made in section one and three and further demonstrate that Hull, Grimsby and Scunthorpe are all weaker economic centres than similar centres in the North. Agglomeration elasticities show the relationship between changes in density (or the concentration of firms and employment) and changes in productivity. A study by Colin Buchanan⁶⁷ shows that these are far lower in the urban centres within Hull and Humber Ports compared to surrounding cities. For example, Hull has an agglomeration elasticity score of 0.039. Therefore, if the effective density increases by 10% the average level of productivity of all workers in Hull would increase by $(10\% \times 0.039) = 0.39\%$. This compares to a score of 0.071 in York, which would mean an increase of 0.71% in productivity for every 10% increase in density. The scores elsewhere in Hull and Humber Ports also fall well below the comparative score for York: Beverley scores 0.039, Grimsby, 0.046, Scunthorpe, 0.048.

What this means in practice is that Hull, Grimsby and Scunthorpe do not gain the same benefits from their scale as other centres. Other economic centres contain specialisms such as business services, which help to attract other business service jobs because of the benefits associated with access to consumers (which Hull and Humber Ports can offer), access to specialist skills (which is more challenging for Hull and Humber Ports) and access to other highly skilled businesses enabling exchange of ideas and creating opportunities to gain work (and again, Hull and Humber Ports struggles here). Hull struggles to attract high value employment because of its skills profile, location, and quality of life offer, and this means that high value employment does not concentrate in the city as it does in other economic centres (except where there is an overriding link to other sectors e.g. specialist legal firms, public sector support agencies).

Specialisms vary across Hull and Humber Ports:

The different specialisms across Hull and Humber Ports illustrate the challenges of generating agglomeration economies.

Over the last ten years *Hull* has retained its longer standing specialisms in the manufacture of bodies (coachwork) for motor vehicles eg. caravans, pharmaceuticals, food manufacture, call centre activities and port related activities. More recently specialisms have also been developed in plumbing, transport activities, electricity and the manufacture of plastics. All of these sectors are more manufacturing based than in other large urban centres, making it less beneficial for businesses to locate nearby. A lack of specialism in higher value knowledge intensive sectors make it more difficult to attract high paying, highly skilled jobs to the city.

Grimsby is the second largest employment centre in Hull and Humber Ports. The concentration of employment in hospital activities and education has increased in the town. Grimsby has also retained its specialisation in fish processing, along with the associated head quarters. The town continues to specialise in the manufacture of special purpose machinery and chemicals – again, these specialisms make it challenging for Grimsby to forge economic links with nearby areas or to attract high paying, high skilled jobs.

67. The Northern Way (2008) Airports, Ports and the Northern Economy, The Northern Way: Newcastle-upon-Tyne

Scunthorpe is also a significant employment centre in Hull and Humber Ports. Home to Corus, it has retained its specialisation in iron and steel manufacture. It has also retained specialisation in food manufacture (creating the potential to link to Grimsby) and storage and warehousing, although employment in logistics declined between 2003 and 2008. The public sector also continues to be an important source of employment in the town and there is a particular concentration in technical and vocational secondary education in Scunthorpe. All of these sectors encourage self-containment, rather than the economic linkages beyond the centre that can be seen in Scunthorpe's commuting patterns.

As a smaller centre, *Beverley* has fewer sectors where employment is over 500. Over the past ten years Beverley has increased its specialisation in business and management consultancy activities. This may complement services provided in Hull, which has significant employment in the sector. However, Hull does not specialise in these higher value service-based activities in the same way other cities do. As an administrative centre, Beverley has also retained high employment in public service activities. Although Hull has a marginally higher proportion of employment in knowledge intensive industries than Beverley (52% and 47% respectively), there is a higher proportion of private sector knowledge intensive activity in Beverley. Employment in the public sector (public administration, education and health) is approximately 50% higher in Hull than it is in Beverley as a proportion of total employment.

Whilst *Bridlington* has a larger population than Beverley, it is not a large employment centre and in recent years employment has fallen in the town. Employment in the town is concentrated in the public sector. Bridlington has a high and growing concentration of employment in retail and hospitality, and social work. The town's growing specialisation in the manufacture of electrical equipment for engines and vehicles may complement the manufacture of bodies (coachwork) for motor vehicles eg. caravans in Hull.

Similarly *Driffield* is not a large employment centre. Driffield has a long standing specialisation in freight transport by road, which may complement specialisation in the ports and logistics sector in the wider area, and the manufacture of pet food. There has also been an increased concentration of employment in public service in the town over the last five years.

As one of the Humber ports, *Goole* has retained long term specialisations in transport, logistics and warehousing. Over the last five years it has become increasingly specialised in labour recruitment and employment has been increasingly concentrated in primary education.

4.2 Ports and logistics

The Hull and Humber Ports, the largest ports complex in the UK, comprises of Grimsby, Immingham, Hull and Goole ports plus several smaller wharves on the rivers Trent and Ouse. Described as a 'Global Gateway', the Humber estuary accounts for 16% of the UK's trade per year and employs 10,300 in the port-related activities.⁶⁸ A further 13,000 are employed directly as a result of port activity in the area.⁶⁹ An Oxford Economics study found that the ports and shipping industry in the UK has an activity multiplier of 2.05: "for every £1 created by the two industries directly, another £1.05 is created in their supply chain and through staffs' consumer spending".⁷⁰ In terms of GVA, studies have estimated that the Humber ports directly contribute £600 million and £800 million indirectly.⁷¹

68. The Northern Way (2008) Airports, Ports and the Northern Economy, The Northern Way: Newcastle-upon-Tyne

69. The Northern Way (2008) ibid

70. Oxford Economics (2009) Economic impact of ports and the shipping industry on the UK economy in 2007. Oxford Economics: Oxford

71. The Northern Way (2008) ibid

Activities at the ports include passenger services, chemical plants, transit facilities, container handling, timber handling, cement storage and aggregate imports. Whilst the sector is a significant employer in its own right, it also supports employment in associated sectors in Hull and Humber Ports. The Ports have historic links, based on the caravan manufacturing sector and the chemicals and energy sectors, and renewables and offshore wind present new opportunities to forge further links. With 170 shipping lines regularly operating from the Humber, the ports are crucial to international trade and a vital component of many supply chains.

Partners within Hull and Humber Ports have identified the sector as a ‘primary productive global growth driver cluster’ for the area,⁷² as the sector is strongly embedded and provides long-term economic opportunities for the area. Yorkshire Forward has also highlighted that, with rising concern about climate change and energy security, the ports have potential to relieve congestion and environmental impacts associated with the development of the southern English ports. Economies of scale mean that the movement of goods by vessel is seen as the most energy efficient form of transport and, therefore, increased use of the ports may have environmental benefits.

Several studies seem to suggest, however, that Hull and Humber Ports have not capitalised on market opportunities to grow. Increases in traffic are either in line with the economy as a whole or the specific industries they serve. The MDS Transmodal study stated that, considering its location, the sector under-performed between 50-100%, although this relates to the ports’ container traffic activity which would require large scale investment in order to develop the ports’ capacity that may not be met by high demand.⁷³

Significant new investment in the ports, road and rail infrastructure, as well as developments with the University of Hull’s Logistics Institute and other learning providers to cement the Hull and Humber’s position as the UK’s centre of excellence in ports and logistics, aims to reverse this trend. The sector has been identified as offering the greatest potential for joint working across Hull and Humber Ports. As one interviewee put it: *“within the ports and logistics sector the river becomes the backbone rather than a barrier”*. Advantages associated with the location of the Hull and Humber Ports that were identified by local businesses and business representatives include:

- The accessibility of the ports to large markets, with 40 million people and 75% of the UK’s manufacturing base being within a four hour drive of the ports.
- Relatively close proximity to Rotterdam, the world’s busiest port: the journey from Rotterdam to Hull takes 18hrs, whilst Rotterdam to Liverpool would take 2.5 days.
- The Humber Ports have one of the most efficient rail networks for bulk traffic and freight capacity has been enhanced over the last 5 years by Network Rail, supported by Yorkshire Forward and The Northern Way.
- The Hull and Humber Ports’ road links were also cited as an advantage, as generally the ports do not suffer from congestion to the same extent as those around the southern ports (with the exception of Castle Street).

Yet concerns remain about the capacity of the region to make the most of its advantages. For example, worries were expressed over the Hull and Humber Ports’ ability to promote itself to the wider hinterland and internationally. Concern was also voiced over the delay in the provision of container handling capacity on the Humber,

72. The Northern Way (2006) *ibid*

73. MDS Transmodel (2006) *The Northern Way: Evidence based review of the growth prospects of the Northern Ports*. The Northern Way: Newcastle-upon-Tyne

although studies have questioned the appropriateness of this development due to the amount of investment that would be required and the limited potential demand for containers. In addition, the sector is relatively narrowly based around ports and logistics and, as discussed below, Hull and Humber Ports does not currently benefit from service spillovers associated with the ports, for example increased employment in shipping companies or associated business services. The rail routes from the Humber Ports are also not gauge cleared for the movement of 9'6" high cube containers.

The remainder of this section reviews in turn the economic geography of this sector, supply chain links, strategic connections, access to labour, knowledge networks and the role of transport to gain a fuller understanding of the role the sector currently plays in Hull and Humber Ports' economic relationships, and its future potential.

4.2.1 Economic geography

The Humber Ports contribute different functions to the conurbation as a whole. Hull, for example, is the fifth largest passenger port in the UK, Immingham is the Humber's only deep-water port and Goole is the Humber's most inland port in close proximity to rail and motorway links.

As might be expected in a sector that relies on ports and transport infrastructure, the majority of employment in the ports and logistics sector is located outside the main urban centres. Over 51% of employment in the sector is based outside the seven main urban centres in Hull and Humber Ports and, rather than being concentrated in particular areas, employment in the sector is fairly evenly distributed across Hull and Humber Ports as a whole. Around 30% of employment in the ports and logistics sector is concentrated in North East Lincolnshire and North Lincolnshire. Just over 23% of employment in the sector is concentrated in the East Riding and 17% in Hull. Over 10% of Yorkshire and Humber's transport and logistics companies are based in the East Riding, taking advantage of the large land mass it offers. Of the urban centres, the highest concentration of employment in the sector is in Hull 20% (20% using the extended definition of the city),⁷⁴ 12% in Scunthorpe, 9% in Grimsby, and 6% in Goole. The remaining urban centres in the East Riding appear to play less of a significant role in ports and logistics, together accounting for less than 3% of employment in the sector.

Whilst Hull and Humber Ports accounts for over 22% of employment in the ports and logistics sector in the wider Yorkshire and Humber, there are also significant concentrations of employment in the sector in Doncaster and Wakefield and now Bradford. As inland locations, both have concentrations of employment in freight transport by road, warehousing and related service activities. In addition, West and South Yorkshire were identified in a Gerald Eve study,⁷⁵ examining the most appropriate locations for warehousing, as areas with a very high likelihood of improving their position as a distribution location over the next three years (see Annex C, Figure C). This suggests that Hull and Humber Ports needs to continue to promote its attractiveness as a location for this type of investment.

4.2.2 Supply chain linkages

Supply chain links within the Hull and Humber ports and logistics sector are primarily international, national, regional and pan-regional.

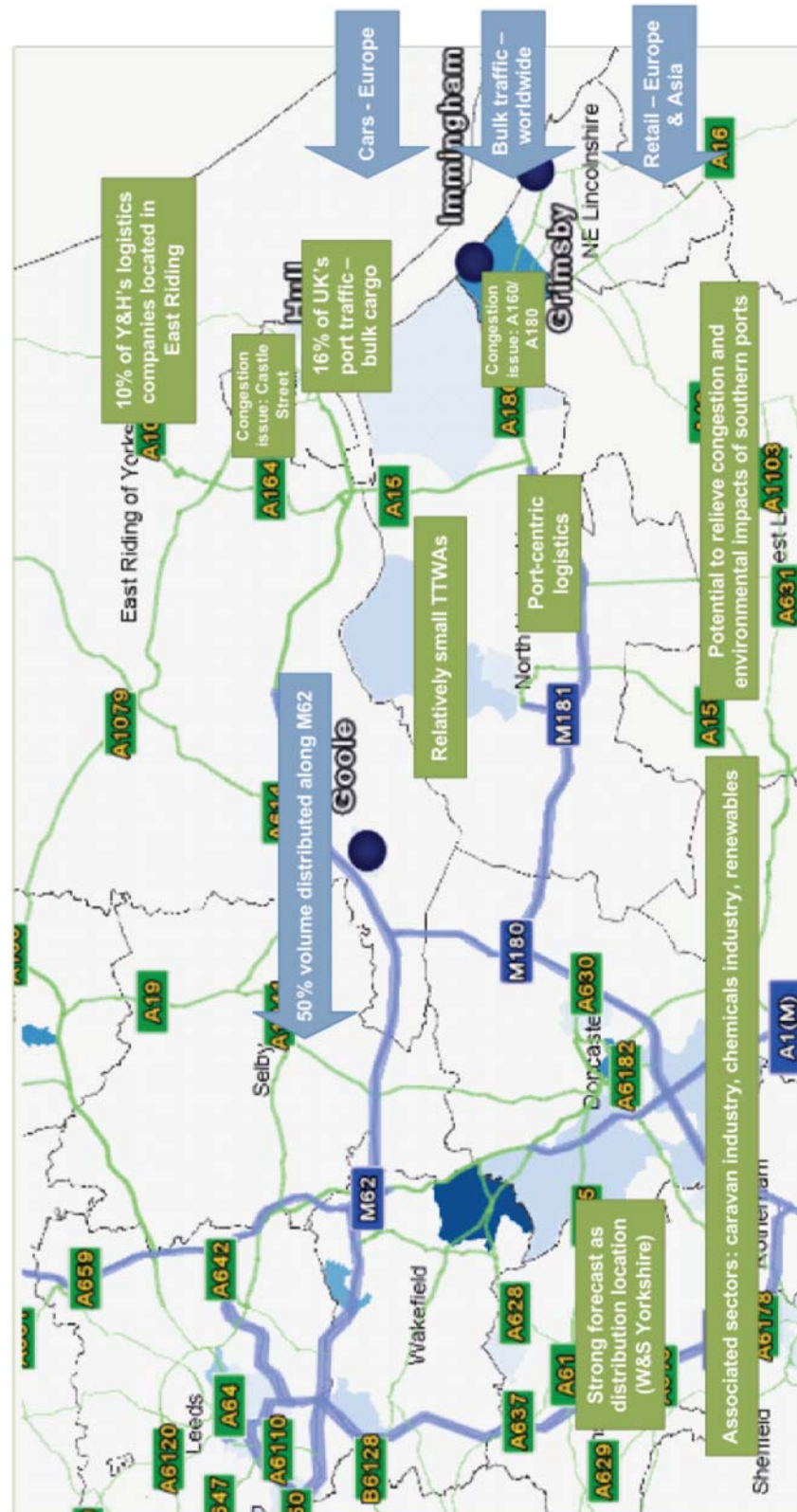
74. See Annex for definition

75. Referenced in University of Hull (2010) The Logistics Sector in the Yorkshire and Humber Region, Yorkshire Forward: Leeds

Trade flows into the Hull and Humber Ports from Europe and worldwide. The majority of trade is with Europe; of the 170 shipping lines that operate from the ports, 130 of them operate between the ports and the EU. Bulk traffic (coal, iron ore and chemical) imported to the UK through the ports has worldwide origins, such as South Africa and Brazil. Retail freight tends to originate from either the EU or Asia and cars from Europe. Agricultural products are shipped out of the UK via the Ports from areas within the Hull and Humber Ports, including the East Riding, and beyond into Lincolnshire. The majority of passengers travelling by sea journey from Rotterdam or other nearby locations on the continent.

Distribution from the ports is UK wide, although the majority of traffic is distributed within the Yorkshire and Humber (37%)⁷⁶ and within the North West (19%). Freight also moves onwards to the 'golden triangle' between Nottingham, Leicester and Derby in the East Midlands. Supply chains do operate further afield, however, with 14% of the freight entering the UK through the Humber Ports being distributed in Greater London. There are strong supply chain linkages along the M62, with over 50% of the volume imported through the ports being distributed on the east-west trans-Pennine motorway, connecting the cities of Liverpool and Hull via Manchester and Leeds (see Annex C, Figure D). Bulk traffic is distributed onwards from the ports to producers, including Corus and the BP chemical plant within the Hull and Humber Ports area, and to power stations along the M62 and Trent Valley. Other commodities are distributed more widely. Cars are distributed across the North and paper across the whole of the North and Scotland.

Figure 4.1: Ports and logistics in Hull and Humber Ports



Source: Annual Business Inquiry, 2010

Within the retail sector, there has been some movement towards port-centric logistics (co-location of various activities at port rather than at inland locations) as land and labour is available in the area. From a total supply chain perspective it can be more advantageous to locate logistics activities at a port. It also potentially cuts down the number of freight containers on the road. This creates an opportunity for Hull and Humber to retain some of the value associated with its ports sector within the local area. A number of companies have also reviewed their distribution networks as a result of changes in the economic logic of the distribution sector.⁷⁷ B&Q, for example, has redirected a significant proportion of its container traffic to Immingham from the southern ports, which has resulted in improved customer service, reduced costs and environmental benefits from reduced road mileage.⁷⁸

The Humber Ports is not the only port complex serving the North and Midlands. Whilst the ports serve a wide hinterland that stretches across the North and into Scotland, a large proportion of container traffic imported through Southampton or Felixstowe is actually delivered to the Midlands, the North or Scotland. This is because the UK's deep sea container ports are focussed at Felixstowe, Southampton, and the Thames. The depth of water on the Humber is not sufficiently deep for deep sea container vessels and whilst there are opportunities for Hull and Humber Ports to develop and attract short sea container traffic and container traffic fed from the continent, it is important not to overestimate the potential in this area.

Interviewees did highlight the opportunity for Hull and Humber Ports to develop as a 'feeder' port.⁷⁹ Deep sea container ships from around the world call only at two or three European ports including the UK. This means there are opportunities for the Humber to develop further as a feeder port (goods are unloaded at a deep sea port and then trans-shipped). The Humber is well located geographically for deep sea traffic fed from Rotterdam and Antwerp as 24 hour turn rounds can be achieved, as well as short sea traffic from the Baltic. There is also an opportunity to capitalise on environmental benefits of this form of transport. Prior to the recession the Humber Ports saw significant growth in container traffic and interviewees expect trade to pick up as the economy recovers.

The challenge for Hull and Humber Ports will be to maximise the spillovers from the ports and logistics sector. Building critical mass in the sector will increase the likelihood of attracting higher value suppliers to the area, such as law firms and accountants specialising in the sectors, which would help retain value in the area. In addition, the growth of the renewables sector presents opportunities for growth of the ports and logistics sector within Hull and Humber Ports and beyond. At present the supply chains *"go west, south, north and will eventually go east with the construction of the offshore wind farms"*.⁸⁰ Again, the challenge will be for Hull and Humber Ports to ensure that it is retaining the value associated with these activities.

4.2.3 Strategic connections across Hull and Humber Ports

The ports and logistics sector has been identified as offering the greatest potential for joint working across Hull and Humber Ports. Although Associated British Ports (ABP) operates across the Humber Ports, meaning that some interviewees argue that there is a degree of integration, a number viewed the ports as being relatively self-contained and suggested that they are less integrated than others. Interviewees perceived there to be a lack of integration at a strategic level. The Humber Trade Zone – responsible for the development of key clusters and lobbying on infrastructure developments in the Hull and Humber Ports – was

77. MDS Transmodal and Regeneris (2006) *The Northern Way: Evidence Based Review of the Growth Prospects of the Northern Ports*, The Northern Way: Newcastle upon Tyne

78. MDS Transmodal and Regeneris (2006) *ibid*

79. A 'feeder port' is a port that handles smaller loads that are shipped onwards from deepwater ports

80. Interviewee

disbanded in 2008. As a result there is no single point of coordination for the specific development of the ports and logistics sector in Hull and Humber Ports, although HEP is in discussion with partners about how to revive this.

There is a need for one organisation to represent the opportunities for port related activities, learning from past lessons. Due to the complexity of relationships between operators and owners and the four local authorities within the Hull and Humber Ports each having institutional arrangements in place which focus on the port opportunities within their geographic area, the Logistics Institute has highlighted that there is a *“need for a single body representing the Humber region and its ports to capitalise on trends in global shipping and bring together the disparate yet experienced parties and stakeholders in order to enhance the economic prospects in the region and take advantage of the Humber’s natural position and geographic features”*.⁸¹ – Interviewees also identified the need for a proactive marketing approach to be taken around the Humber Ports. As such, the Institute recommended in its 2009 report that a single body should be established to promote the Humber as both a regional and national resource. Although there is not currently a pan-Humber organisation for the ports and logistics sector, partnerships do exist: the South Humber Gateway Board, for example, was established early in 2009 *“to ensure effective governance arrangements for the South Humber Bank development programme”*.⁸² Future partnerships should also reflect on previous initiatives and the reasons behind their success or failure to meet objectives and deliver.

There are also knowledge networks within the ports and logistics sector within Hull and Humber Ports. The University of Hull’s Logistics Institute represents a centre of excellence in logistics and supply chain management and has specialist expertise in port logistics. The Logistics Institute also has incubator space for start-up companies, areas for technology showcase and demonstration, flexible meeting facilities and a dedicated resource centre. In 2007, the Institute assisted 1,000 firms in the ports and logistics sector with the aim of making supply chains operate more effectively, for example by improving forecasting. The majority of firms assisted were small and medium sized enterprises, a high proportion of which were based within Hull and Humber Ports. Firms assisted through the programme not only reported an increase in productivity but also increased sales and employees (resulting in 100-200 more people in employment in total). The programme offers an opportunity to learn lessons about what successful intervention looks like and potentially build on.

4.2.4 Access to labour within ports and logistics

The majority of employees working within the ports and logistics sector tend to live locally, although more senior employees tend to travel from further afield. Employers in the area have stated that, given the area’s long running specialisation in ports and related activities, there are generally no problems with recruitment, although the more specialist jobs will be recruited on a national and European level. Other employers stated, however, that the skills profile of the area can cause difficulty in attracting the right staff and that businesses need to develop better links with the schools and colleges in the area. Hull College, one of the largest colleges in the country, leads the only Centre of Vocational Excellence in Ports across the UK and this may be an opportunity to attract learners to the area as well as to invest in local staff.

81. Logistics Institute (2009) Scoping study into a Humber Ports and Logistics Scoping Strategy, The University of Hull: Hull

82 North East Lincolnshire Council (2009) Cabinet Minutes: 9 February 2009, North East Lincolnshire Council

4.2.5 Role of transport

Transport is generally regarded as an asset of the Hull and Humber Ports. Roads are very important to the sector. In the UK, 4% of freight is transported by rail compared to 18% in the EU, partly because of the relatively short distances travelled, making the sector heavily reliant on road infrastructure. In general the roads within and surrounding the Humber Ports are relatively free of congestion, although there are issues with congestion along the A63 (Castle Street) and the A160/A180. The congestion on Castle Street is seen as a “*huge physical constraint*” to growth in the Humber Ports (as well as the growth of Hull city centre), particularly as a large proportion of onward distribution from Hull is by road. Whilst commitments to upgrade Castle Street have been made, there is concern that work on the road is not starting early enough. Bringing forward this large capital infrastructure project would not only potentially provide employment in the local area but would also make the area more attractive to inward investors. Commitments have also been made to upgrade the A160 to a dual carriageway, providing improved access to the Port of Immingham. Work has been undertaken to upgrade the rail infrastructure – the South Bank rail line is reportedly the busiest freight line in the UK.⁸³

4.2.6 Conclusions

The ports and logistics sector is one of the sectors that could potentially unite Hull and Humber Ports – but evidence suggests that the area could do more to capitalise upon its potential. The ports and logistics sector is an important part of the local economy but supply chains are not strongly integrated across the area, links between the two estuary banks are not as strong as firms would like, and interviewees suggest there is a need to seize potential opportunities to grow new markets, particularly in relation to becoming a ‘feeder’ port and developing an offer associated with renewables, which could provide an impetus to a flagging economy. It is also recognised that there is a need to capture more of the value created by ports and logistics within the local area.

4.3 Renewables and carbon capture

The renewables sector – including tidal technologies, wind energy, biomass and biofuels – is viewed as a key future growth sector for Hull and Humber Ports. Renewables have been identified as a growth sector by a number of organisations,⁸⁴ including the Coalition Government.⁸⁵

In addition, although the process of carbon capture has not yet been demonstrated on a commercial scale, stakeholders believe that Hull and Humber Ports is also well placed to exploit carbon capture and storage. This is because there are large sources of carbon emissions located in Hull and Humber Ports, including 20% of the UK’s oil refining capacity, 20% of the UK’s natural gas landings, 32% of the UK’s coal imports and 17% of the UK’s electricity generation.⁸⁶ Several large international energy companies are located in the area including Centrica, International Power, ConocoPhillips, Total and BP. Proposals are being developed to secure investment for a carbon capture pipeline in the region. With rising concerns about climate change, and the wider region as a whole being the second most polluting area in Europe, these developments will be vital in retaining existing companies (and employment) in the area. Carbon capture, although related to the renewables sector, is conceptually different and cannot, at this stage, be considered in the same way as renewables as it is even more challenging to identify which industries to focus on in our data analysis. The remainder of this section, therefore, focuses primarily on the firm links within the renewables sector.

83. University of Hull (2008) The logistics sector in the Yorkshire and Humber region. Yorkshire Forward: Leeds

84. Brinkley, I. (2010) Innovation, Creativity, and Entrepreneurship in 2020. The Work Foundation: London

85. Speech by David Cameron, 28 May 2010

86. Hull Forward (2010) Renewable Energy. Available at <http://www.hull.co.uk/landing.asp?pageid=156>

Companies specialising in renewables recognise that Hull and Humber Ports offers advantages. R&D expertise in the field, availability of land and good accessibility to UK and European markets are all cited as locational assets for companies in the renewables sector. There is a clear level of complementarity between the renewables sectors and the ports and logistics sector. Indeed the port operators, ABP and DONG Energy are working together on plans for a new shipping berth next to the proposed biomass power station to handle imported fuel for the plant. Across the wider Yorkshire region there are 450 environmental technology companies with turnover of £1.8million.⁸⁷

The development of both the renewables sector and carbon capture presents opportunities for employment in design and manufacturing, innovation and operation. Experts in the private sector across the wind, tidal, biofuel and biomass sectors have come together with the University of Hull, training providers, business support agencies and the four local authorities as the Humber Renewables Network, with the aim of developing Hull and Humber Ports as a world class hub of renewable energy.

However, despite the potential for economic growth and employment growth in the sector, several stakeholders have raised concern over the need to be realistic. A study by the EU which estimated the net job creation impact of the 2020 targets for renewable energy found that they were likely to be either negative or very slightly positive.^{88 89} This is demonstrated by the job creation generated by one of the UK's largest biomass pellet mills, which recently opened in Pollington, near Selby. The multi-million pound mill currently employs seven people from the local area and in total the company estimates only 60 long term operational jobs will be created at the site.⁹⁰ At the national level, a number of studies have estimated the current scale and nature of activities in the renewables sector, all of which have reported different figures.⁹¹ Studies have also found that the scale of employment in the different phases of projects varies substantially, as discussed later in this section. What this means is that the extent to which renewables will create jobs is uncertain, and the numbers of jobs created may be small.

To ensure employment growth in this sector, Hull and Humber Ports needs to develop the services associated with renewables and carbon capture. The Developmental Panel convened in 2009 found that far fewer jobs are likely to come from production than from services associated with reducing carbon and servicing low carbon products. It therefore recommended that Hull and Humber Ports consider how it can respond to changes in the manufacturing sector, and the growth of "*manu-services*" – in other words, how organisations can capitalise upon the employment and productivity opportunities created by selling services with manufactured products. Policy makers also need to consider the community impact that the large scale infrastructures being constructed as part of the emerging renewables sector can have, as one interviewee emphasised: "*the Humber is very flat, and the infrastructures will be very visible*". It will also be vital for this infrastructure investment to take into account risks associated with flooding and the impact on the environment, particularly on the South Bank; this creates both opportunities for the area to develop goods and services, and challenges in managing the risks.

87. Yorkshire Forward (2010) Environmental Technologies. Available at <http://www.yorkshire-forward.com/helping-businesses/business-sectors/environmental-technologies>

88. Ragwitz, M. et al for European Commission DG Energy and Transport (2009) The Impact of Renewable Energy Policy on Economic Growth and Employment in the European Union. Brussels

89. Levy, C. (2010) Predicting the future growth of the low carbon economy. London: The Work Foundation

90. Available at <http://www.dalkia.co.uk/docs/doc206.pdf>

91. Levy, C. (2010) *ibid*

Sub-sectors within 'renewables' include:

a) Wind

The manufacture, construction and maintenance of offshore wind turbines has the potential to create jobs in Hull and Humber Ports – although, as highlighted above, caution is advisable before assuming that this will run into hundreds of new jobs in the short term. Nonetheless, there are grounds for some optimism. Hull and Humber within the Southern North Sea coastal region is expected to be the mainstay of the UK offshore wind energy generation: 50% of the UK's developable off-shore wind is on the Greater Wash, off the Humber Estuary. The area is located proximate to a number of Crown designated wind fields including Hornsea, Humber Gateway, Withernmost Rough, Dogger Bay and Norfolk. There are also a number of onshore windfarms in Hull and Humber Ports.

Work is ongoing to cement the Humber's position as a desirable location for the offshore wind turbine industry. Yorkshire Forward is actively trying to secure a wind turbine manufacturing plant. The region has been shortlisted by a number of multinationals for major investments. However, there are challenges, including:

- A perception amongst European wind turbine manufacturers and offshore wind developers that UK ports lack the required facilities and commercial land for wind turbine manufacturers and their supply chains.
- Existing competition: a number of European ports – many with established offshore wind track records – are already competing to win construction contracts for UK offshore wind projects. So it is clear that Humber ports must act quickly if they are to benefit from the investment that will be made over the next decade and beyond

Box D: Offshore wind functions

Functions include:

Manufacture: The manufacture of towers and blades and the assembly of the nacelle components (the gear box, low- and high-speed shafts, generator, controller and brake) represents up to 40% of wind farm expenditure. Manufacturers typically look to source key large components local to the facility to reduce transport costs.

Construction: The pre-assembly of components supplied by a wind turbine manufacturer typically include all elements of the turbine except the foundations and contributes around 1% of capital expenditure.

Operation & Maintenance: Once a wind farm is operating, maintenance is usually carried out from a nearby port which acts as the base for maintenance crew, transport vessels and storage and repair facilities. As wind farms increase in size and distance from land, the use of helicopters and offshore accommodation facilities are likely to increase.

b) Biomass and biofuels

Hull and Humber Ports is developing some specialisms in biomass and biofuels. Biomass is the organic matter that is grown specifically to be burnt to generate heat

and power. Biofuels are the fuels derived from biomass. Within Hull and Humber Ports, Vivergo Fuel – a joint venture between BP, DuPont and Associated British Foods – is constructing a world scale bioethanol plant (a renewable substitute for gasoline made from wheat). Kingston Research, a smaller joint venture between BP and DuPont, is constructing a pilot and demonstration plant for biobutanol (a newer biofuel). There is also a proposal for the Vivergo Fuel's site to be retrofitted in the future for the manufacture of biobutanol. Other biofuel companies have also invested in the area including Rix and Brocklesby. Renewable Energy Growers Ltd is based within the East Riding, where there is a high percentage of agricultural land. DONG Energy has also recently announced plans to construct a multi-million pound biomass power station in east Hull.⁹² It is estimated that, based on current levels of investment in the area, Hull and Humber Ports will be producing up to 50% of the UK's biofuels in the next five years.⁹³

c) Tidal

Hull and Humber Ports also has assets in tidal energy. The area is home to two tidal energy test sites, leading the development of tidal energy generators to supply the national grid. This is with support from the University of Hull and expertise in environmental and marine renewable research. A local report suggests that Hull and Humber Ports is *"set to become the location of the first marine renewable device to feed power into the national grid on the UK mainland"*.⁹⁴

The remainder of this section reviews in turn the economic geography of the renewables sector, supply chain links, strategic connections, access to labour, knowledge networks and the role of transport to gain a fuller understanding of the role that the sector currently plays in Hull and Humber Ports's economic relationships, and its future potential.

4.3.1 Economic geography

Mapping the economic geography of the renewables sector is difficult because it is such a new sector. It is difficult to define the renewables sector using the Standard Industrial Classification system and therefore it is difficult to estimate the number of jobs that have been created within the sector and their location within Hull and Humber Ports. As discussed previously, job estimates from individual companies in the sector, as well as analysis from previous studies, suggest that whilst investment is high, the number of jobs created is relatively low. Our analysis so far suggests that the geography of businesses and consequent employment within Hull and Humber Ports is dispersed, although a number of firms cluster around the Humber Ports as they provide access to European trade.

Within the wind energy sector, two of the largest operations are in the more rural East Riding. Lissett Airfield Wind Farm, operated by Novera Energy, has the largest energy producing capacity within Yorkshire and the Humber. As a high proportion of jobs in the onshore wind industry are in the manufacture and construction of turbines, long term employment at the site is likely to be minimal. Novera Energy employs around 150 employees and has 58 sites across the UK. The head office is in London.⁹⁵ The second largest wind farm in Hull and Humber Ports is operated by Eon Renewables and is located further south down the coast in Out Newton.

92. BBC (2010) Firm plans coastal biomass power station in Hull. Available at <http://news.bbc.co.uk/1/hi/england/humber/8522644.stm>

93. Hull Forward (2010) Biofuel. Available at <http://www.hull.co.uk/template01.asp?PageID=254>

94. Humber Chemical Focus (2010) Humber Renewables Network. Available at <http://www.humberchemicalfocus.org/?p=481>

95. http://www.noveraenergy.com/pdfs/F255739E95_Presentation.pdf

Figure 4.2: Renewables in Hull and Humber Ports



Access to the ports and other transport infrastructure is clearly an important location factor for companies within the biofuels industry; it shapes the economic geography of the sector and therefore relationships between places. Vivergo Fuel and Kingston Research Limited are both located at Saltend, an industrial site with its own jetty, on the North Bank of the Humber. In close proximity is the proposed site for DONG Energy at Queen Elizabeth Dock in east Hull. The Brocklesby biodiesel plant is located further inland at the start of the M62 in the East Riding.

4.3.2 Supply chain linkages

Supply chains within the renewables sector tend to be national and international, although the North has growth potential as a result of its capabilities in both skills and infrastructure.⁹⁶ A study by the DTI mapped the supply chains across the various renewable energy sub sectors and estimated demand across project phases and supply chain tiers.⁹⁷ The study suggests that the suppliers for the development of wind farms in Hull and Humber Ports tend to be nationally based.⁹⁸ The Northern Way has identified the diverse technology and research strengths which mean that it is in a good position to take advantage of increased demand in this sector.⁹⁹ At a local level, the DTI study highlights the importance of construction activities in generating demand for suppliers, particularly in wind energy: construction is the most labour intensive phase of the project cycle in both onshore and offshore wind – and is a specialism of Hull and Humber (although the number of jobs created by the wind energy sector in construction is lower than the biomass (energy crops) sector).¹⁰⁰ One company operating wind farms within Hull and Humber states that they have a preference for local contractors during the construction phase, which of course does not necessarily mean that contracts are awarded locally. Far fewer jobs are created in the developmental and operational phases of wind energy projects.

The manufacture of wind turbine components is a central part of the offshore wind value chain and remains a significant challenge not just for Hull and Humber Ports but for the UK as a whole. Within the supply chain of the wind sector, the largest number of jobs is created amongst suppliers of wind turbines, electrical systems, foundation and services. The majority of turbine manufacturers are located in continental Europe and the majority of developers import components into the UK. The UK therefore has to compete with highly established supply chains. There have been significant developments in recent years in wind turbine manufacture in the UK however, with the investment announcements from Mitsubishi and Clipper Windpower in the North East. The potential employment opportunities and value added are such that attracting component manufacturers is a priority for UK ports but it is also critical to the UK offshore wind industry as a whole because, according to BVG Associates, a number of wind turbine manufacturers have stated clearly that a wind turbine component supply chain is a prerequisite for establishing turbine assembly facilities in the UK. Without a component supply, it therefore seems unlikely that the UK will act as the base for the construction of offshore wind fields, including those near Hull and Humber. This makes development of this supply chain, whether within Hull and Humber Ports, regionally, or nationally (as there is no established supply chain at the moment) a priority for the UK as a whole.

Biomass from energy crop projects is likely to create more jobs throughout the supply chain, particularly locally. As well as the construction phase, there are also more jobs likely to be created in the operations phase and the majority of these are likely to be local and sub-regional. Due to the transport costs for biomass, sourcing

96. The Northern Way (2009), *Energising the North: Mobilising the northern regions to deliver our low carbon energy future*, The Northern Way

97. DTI (2004) *Renewable Supply Chain Gap Analysis*, DTI: London

98. Interviewees

99. The Northern Way, *ibid*

100. DTI (2004) *ibid*

crops in relatively close proximity is likely to be preferable for biofuel companies locating in Hull and Humber Ports. Indeed one interviewee stated that they “*try to source supplies as locally as possible*”. One firm has signed a contract with a supplier in Lincolnshire for wheat and there may be further opportunities for suppliers within other parts of the local area. Analysis of the impact this has on economic relationships between places suggests that rural areas supply the crops link to industrial sites where these are processed – in other words, most of the links are outside the urban centres rather than between them. This is in contrast to economic relationships between places in the northern city regions studied in the first phase of City Relationships.

4.3.3 Strategic connections across Hull and Humber Ports

Work has been ongoing to try to form strategic connections across Hull and Humber Ports to make the most of opportunities associated with renewables and carbon capture. The Humber Renewables Network has been established to embed new companies into the regional economy. There are a range of network members from both the public and private sectors.¹⁰¹ There are also strong networks in a variety of related sectors, for example, the Humber Chemicals Focus network or a biofuels network.

In addition, a number of organisations across the region are working to maximise the supply chain opportunities created by the renewables energy sector. For example, Yorkshire Forward and The Crown Estate held an offshore wind supply chain event in Doncaster in 2010 for a variety of regionally based companies to learn about the wider supply chain opportunities. Supply chain support is also provided from networks such as the Advanced Engineering and Manufacturing (AEM) Innovation Network in the region, co-sponsored by Yorkshire Forward.

Investment in R&D is also recognised as a priority. The Centre for Low Carbon Futures is a £50 million UK-based research centre headed by the universities of Hull, York, Leeds and Sheffield. The Centre opened this year in York and is working practically in collaboration with local businesses to reduce carbon emissions in the region.

4.3.4 Access to labour within renewables and carbon capture

Renewables employers currently based in Hull and Humber Ports reported that they generally have good access to labour, partly because of local partnerships. For example, in order to ensure that Vivergo can access the skills it requires and that the area benefits from the employment opportunities that the development creates, the organisation is working closely with Job Centre Plus to recruit local people to train up to work in the biofuels manufacturing environment.¹⁰²

As in most sectors those with more specialist or higher level skills tend to travel from further afield: “...[the] majority of staff [are] recruited within 30 minutes of Hull (to east, north and west) but our specialist skills come from outside”.¹⁰³ This is partly a result of the availability of higher level skills in the area: “at the operator and apprenticeship level the skills are quite good but for higher levels this is not the case”.¹⁰⁴ Some of the interviewees also raised the difficulty in trying to attract senior staff to relocate into the area from elsewhere in the UK. This highlights a common theme for Hull and Humber Ports: the challenge of attracting and retaining higher level skills, and the associated impact this has upon firm location and investment decisions.

101. Humber Renewables Network members include: ABP (Associated British Ports); BP; Carbon Green Homes Limited; East Riding of Yorkshire Council; E.ON Climate & Renewables; Environment Agency; Future Energy Yorkshire; Hull City Council; Hull Forward; Hull Group of Colleges; Humber Chemical Focus; Humber Economic Partnership; Lunar Energy; NISP Yorkshire & Humber; North East Lincolnshire Council; North Lincolnshire Council; Pulse Tidal; Renewable Energy Growers; Team Humber Marine Alliance; University of Hull; Virtual Enterprise Network; Windmade Energy; World Trade Centre Hull & Humber; Yorkshire Forward

102. Interviewee

103. Interviewee

104. Interviewees

4.3.5 Role of transport

Whilst Hull and Humber does have access to an international airport and has reasonable road links, transport is seen as a barrier to renewables and carbon capture companies locating in the area. The airport does not have as strong international links as some others, whilst congestion on Castle Street and the A160 is again seen as an issue. For example, companies such as Vivergo will need to transport up to 200 trucks of wheat a day (predominantly from Lincolnshire) which will add to an already congested road network through Hull particularly at rush hour. Interviewees suggested that this may act as a deterrent to large employers considering investment in the area. The lack of integrated public transport in the area also means that most employees in the sector will travel to work by car.

4.3.6 Conclusions

Renewables and carbon capture create a significant opportunity for Hull and Humber Ports to capitalise upon its geography and natural assets – as well as to link with one of its other major sectors, ports and logistics. Again, however, there is a need for the area to do more to ensure it capitalises upon its opportunities. A key priority is developing services associated with renewables and carbon capture, rather than focusing primarily upon manufacturing. In addition, it will be important to identify opportunities to support the growth of companies that will influence investment decisions, such as: construction companies with specialisms in renewables/carbon capture; R&D centres that can provide insights to companies; and working with local farmers to link them to biofuel.

Overall conclusions about firm links

Firm links create opportunities to build on complementary economic relationships across Hull and Humber Ports but geography, skills, and industrial profiles make this challenging. There are some obvious synergies between the North and South Banks, namely within the ports and logistics and the renewables sectors. Businesses from across the area are already networking to try to overcome this divide and this could be a priority for continued action. There may be opportunities to build on work at the Institute of Logistics, which has aimed to increase the level of value added derived from ports and logistics activity in Hull and Humber Ports. Low skills levels across Hull and Humber Ports, however, will make this challenging. There is also an opportunity for the area to develop and articulate its offer to other regions, as firm links do exist, particularly in the ports and logistics sectors, and there might be opportunities to develop these further, as well as making it easier for the area to attract investment and highly skilled workers.

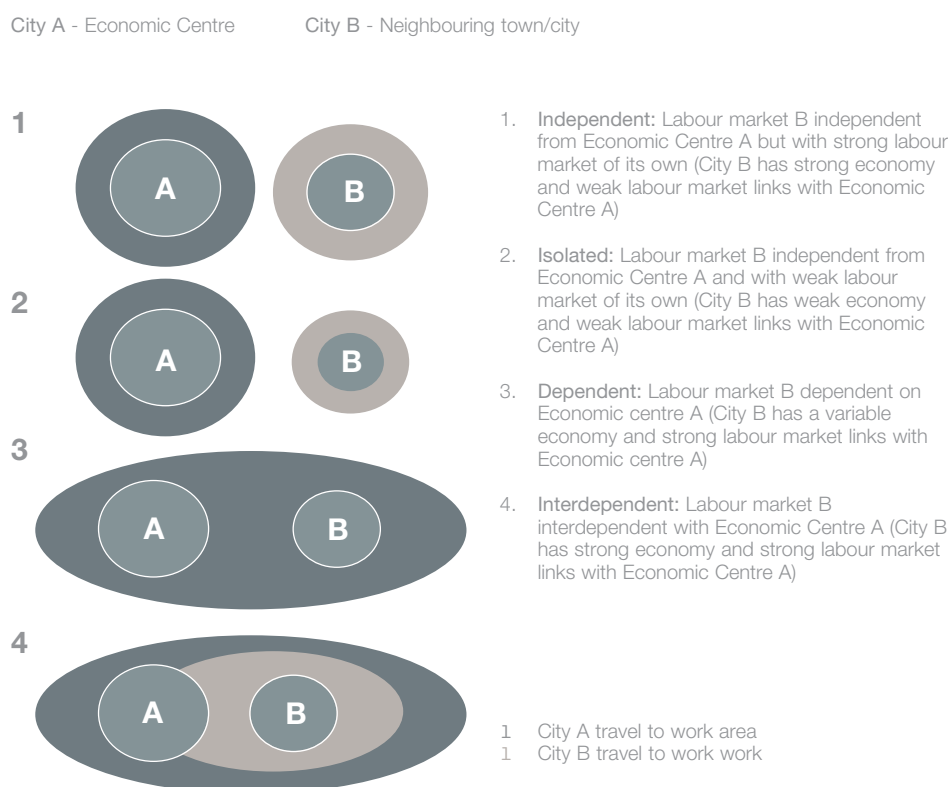
5.0 Applying the city typologies

5.1 Overview of city typologies

The original 'City Relationships' concept was developed in 2009, built on a strong understanding of academic and research literature, and tested against a series of five case study city regions in the north; Sheffield, Leeds, Manchester, Liverpool and Tyne & Wear. Our analysis of economic relationships in the original programme identified four typologies of places within a city region, based in particular on their labour market relationships with the economic centre. These typologies can be used to help to understand how places relate to one another economically, as well as to assess the factors which influence the nature of these relationships. This analysis helps to shape thinking about how future economic development strategies could support more effective and complementary economic relationships between places.

The broad typologies are illustrated in the diagram below.

Figure 5.1: Roles of cities – labour markets and city typologies



These typologies, which focus particularly on labour market relationships, enable us to capture two characteristics of places. First, the roles which places play in a city region based on their relationship with the economic centre. Places are described as being in one of the four typologies based on: commuting patterns; skills; earnings (resident and workplace); sectoral mix; and house prices. Second, the typologies provide a way of assessing the extent to which places benefit from their economic relationships by identifying different categories within the four typologies.

The table below shows how we have categorised relationships between places in different ways. The traffic lights system indicates high (green), average (amber) or low (red) on a series of different indicators that our research indicated were important to more complementary relationships between places. Within certain typologies, we also noted that relationships could be more or less complementary depending upon levels of skills, earnings, sector specialisation and the quality of life offer.

Figure 5.2: Framework for city typologies

City Relationships Family: Labour Market Links	Skills	Earnings		Sector	House prices	Deprivation
		Resident	Workplace			
Isolated	●	●	●	Traditional	●	Poor scores
Independent	●	●	●	Diverse	●	Good scores
	●	●	●	Mix	●	Mixed scores
Interdependent	●	●	●	Complementary	●	Good scores
	●	●	●	Mix	●	Mixed scores
Dependent	●	●	●	Complementary	●	Good scores
	●	●	●	Mix	●	Mixed scores
	●	●	●	Traditional	●	Poor scores

5.2 City typologies in Hull and Humber

Hull and Humber is different to the other northern city regions studied in the first phase of City Relationships. As noted in both the review of evidence and in conversations with stakeholders across Hull and Humber Ports, a clear distinction is evident between the strength of the labour market relationships between places within Hull and Humber Port's, and its firm relationships.

The labour market relationships between Hull and Humber Ports' economic centres are limited. Hull, Grimsby and Scunthorpe are very self-contained, but are each important centres to the local area in their own right, with Hull and the East Riding having the strongest labour market relationship in all of Yorkshire and Humber.

This means that, instead of having one main functional labour market, Hull and Humber Ports has three, reflecting the strengths of its different centres. Hull and

the East Riding is the first labour market; Grimsby and surrounding areas (including the East Midlands) the second; and Scunthorpe and surrounding areas is the third.

However, the pattern of firm links within Hull and Humber Ports has been shown to be different: there is potential to generate links across the Hull and Humber Ports area. There are already some links between the North and South Banks of the Humber, particularly in relation to the ports and logistics and the emerging renewables sector, and business interviews highlighted a desire for these to be strengthened. For this to happen, however, Hull and Humber Ports needs to be very clear about where there is a role for the public sector in encouraging firm links across the wider area. Disparate initiatives on both sides of the estuary need to be brought together to ensure that firm links are being effectively supported across the whole Hull and Humber Ports area.

Recognising these distinctive characteristics of Hull and Humber Ports, we have sought to adapt the original 'City Relationships' typologies – which focus primarily on labour market relationships – to provide constructive insights for Hull and Humber into the way that relationships operate in different areas.

Recognising that there is more than one economic centre and that this is not a polycentric relationship, we have deployed the typologies to understand labour market relationships in the three separate labour markets. In other words, we have applied the typologies to: Hull's relationships with places within the East Riding; to Grimsby's relationships with surrounding areas (treating Grimsby as an economic centre, as we already know that it is 'isolated' from Hull); and to Scunthorpe's relationships with surrounding areas (again, treating Scunthorpe as an economic centre, recognising that it is 'isolated' from Hull).

5.3 Hull and Humber Ports – city typologies

This section reviews the characteristics of each of the urban centres within Hull and Humber Ports according to the 'City Relationships' typologies.

5.3.1 The North Bank: relationships between Hull and urban centres in the East Riding

Beverley

Beverley (population 29,000) is 'dependent' on Hull as an employment centre. However, as an employment centre in its own right it also has some characteristics of an 'independent' urban centre.

A historic market town, Beverley developed prior to Hull as a town. The level of self-containment in Beverley is not as high as in other urban centres. 45% live and work in Beverley and a high proportion of residents work in Hull (35%). Beverley plays a dual role both as a residential area, with a good housing and quality of life offer, and as an employment centre, with a relatively high proportion of knowledge intensive employment. Beverley is the administrative centre within the East Riding and attracts labour from across the wider district.

- **Skills profile:** the highest proportion of graduates amongst the Hull and Humber Ports' urban centres and higher than the national average (24% compared to 20% in 2001), current levels of educational attainment in the area are above average.
- **Earnings:** across the East Riding as a whole, average resident earnings are the highest of the four local authority areas, and well above regional and national

averages – average weekly household income in Beverley (£559) is amongst the highest in the district. Average workplace earnings in the district (£460) are also relatively high compared to the Hull and Humber Ports as a whole (£450) and region (£451) but comparatively low against the national average (£490).

- **Sector specialisation:** high employment in public sector, health and education, business and management consultancy, retail and hospitality enables Beverley to offer higher wages and knowledge intensive opportunities for residents.
- **Housing:** Beverley is part of the Hull and hinterland housing market, but is seen as a key location where families aspire to live. However, it has a higher proportion of terraced housing (27.2%) than either Bridlington or Driffield.
- **Transport:** Beverley is the closest urban centre to Hull in terms of proximity and is accessed by a 17 minute car journey (subject to congestion).
- **Deprivation:** Beverley is the least deprived area, with 50% of the LSOAs within the urban centre being in the top 20% least deprived LSOAs in the country.

Bridlington

Bridlington (population 34,000) is 'isolated' from Hull in labour market terms.

Bridlington has relatively high levels of self containment (66%), and the majority of people living and working in the town are likely to be employed in low wage jobs. It is understood that if the Carnaby industrial Estate was included within the analysis of labour market links, self-containment would be significantly higher. Bridlington has low levels of labour market interaction with Hull compared to the other urban centres (5%).

- **Skills profile:** Bridlington has the highest proportion of working age population with no qualifications amongst the urban centres studied and educational attainment remains below national and regional averages. This is a significant reason why Bridlington's residents are less likely to travel elsewhere for employment.
- **Earnings:** average household income is amongst the lowest in Hull and Humber Ports.
- **Sector specialisation:** retail and hospitality, health and education and manufacturing, reflecting the lower skilled nature of the population.
- **Housing:** Bridlington has the lowest proportion of houses or bungalows (78.6%). This could reflect the prevalence of holiday homes; 8% of the dwellings are part of a converted or shared dwelling (compared to the regional average of 2%).
- **Transport:** Average journey time by car to Hull is 41 minutes.
- **Deprivation:** Bridlington is the most deprived urban centre in Hull and Humber Ports as measured by the Economic Deprivation Index.

Driffield

Driffield (population 11,000) is 'dependent' on Hull as an employment centre. Just fewer than 10% of residents commute to Hull from Driffield.

Driffield offers an attractive place to live for knowledge workers working in the city – 16% of Driffield's residents working in professional occupations work in Hull. Just over half of all Driffield residents both live and work within the area. Driffield also has some links with Beverley and Bridlington (6% commute to Beverley and 5% to Bridlington).

- **Skills profile:** the proportion of the working age population with no qualifications is above the national average (32% compared to 29%, 2001), although Driffield's skills profile is relatively strong compared to other parts of the Hull and Humber

Ports. Levels of educational attainment (GCSEs) in Driffeld suggest that skills levels have improved.

- **Earnings:** the average weekly household income (£482) is higher than in Bridlington (£400) but low compared to other parts of the East Riding.
- **Sector specialisation:** health and education, retail and hospitality, manufacturing, logistics and labour recruitment, reflecting the relatively high levels of skills in the area.
- **Housing:** House prices in Driffeld are relatively high due to commuting links to both Hull and York, and beyond to Leeds. It has the highest proportion of houses and bungalows (91.6%) and has an above average share of detached housing (32.2%) and semi-detached housing (38.7%).
- **Transport:** Despite being relatively close to Hull (35 km), average travel time by car is 42 minutes.
- **Deprivation:** Driffeld performs relatively well on the Index of Multiple Deprivation; 33% of LSOAs are in the top 20% least deprived LSOAs.

Goole

Goole (population 19,000) is largely 'isolated' from Hull, although there may be stronger firm links between Goole and Hull because of the ports.

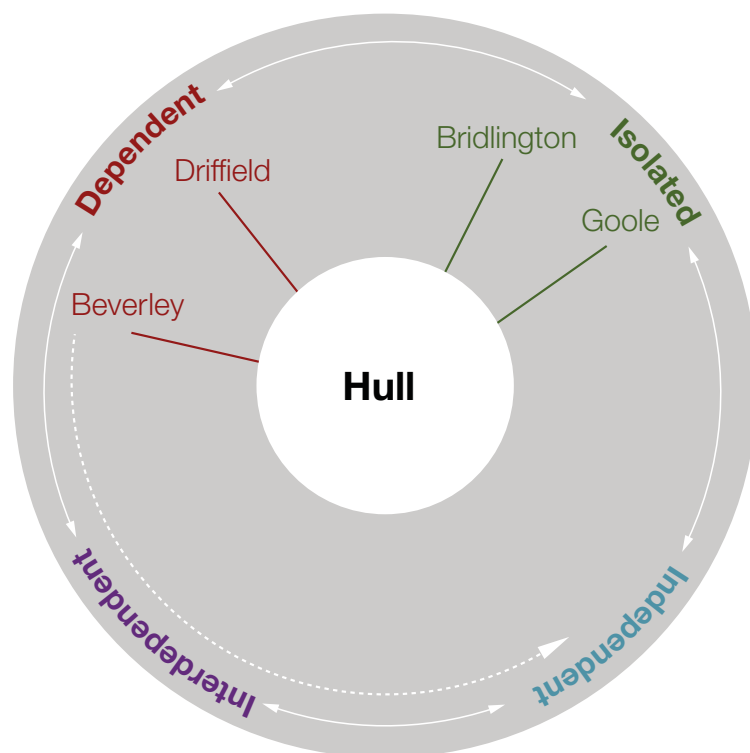
Goole has relatively high levels of self-containment compared to other urban centres in the East Riding (61% live and work in Goole). 80% of residents in Goole live and work in the East Riding, although the commuting distances are relatively short and the majority of people live and work in Goole's hinterland. A lower proportion of residents commute to Hull than from Bridlington (4%), despite quicker journey times. Labour market links amongst knowledge workers are slightly stronger: 8% of Goole's residents working in professional occupations commute to work in Hull, perhaps at the university or hospital.

Goole has some labour market links with Selby: 6% of Goole's residents commute to Selby (adjacent to the East Riding). The level of commuting between the two is consistent across all occupations, which is either a reflection of the job opportunities within Selby or the proximity between the two areas. Goole and Howden (a market town) have a similar relationship to Beverley and Hull.

- **Skills profile:** a very low proportion of the working age population have degree level qualifications (9% compared to a national average of 20%, 2001), whilst almost 40% have no qualifications. Educational attainment is well below levels in the regional average and the other urban centres.
- **Earnings:** average household income is lower than in other parts of the East Riding.
- **Sector specialisation:** retail and hospitality, health and education, warehousing and logistics, manufacturing.
- **Housing:** Goole has the 2nd highest proportion of terraced housing in Hull and Humber Ports (44.1%) and as a result it has a low share of detached houses (14.3%). It also has a low proportion of flats and apartments.
- **Transport:** Relative to distance (45 km), average travel time by car to Hull is quick in comparison to other urban centre (38 minutes, subject to traffic).
- **Deprivation:** Goole is the 3rd most deprived urban centre as measured by the economic deprivation index.

The 'wheel' below demonstrates the relationships between these urban centres and Hull.

Figure 5.3: Typologies – Hull



5.3.2 The South Bank: relationships between Grimsby and surrounding areas

Grimsby

Grimsby (population 140,000) is largely isolated from Hull's economy in labour market terms. Of people living in Grimsby, just 1% travel to work in Hull, reflecting a pattern seen across the wider North East Lincolnshire district which has very low numbers of residents commuting to Hull.

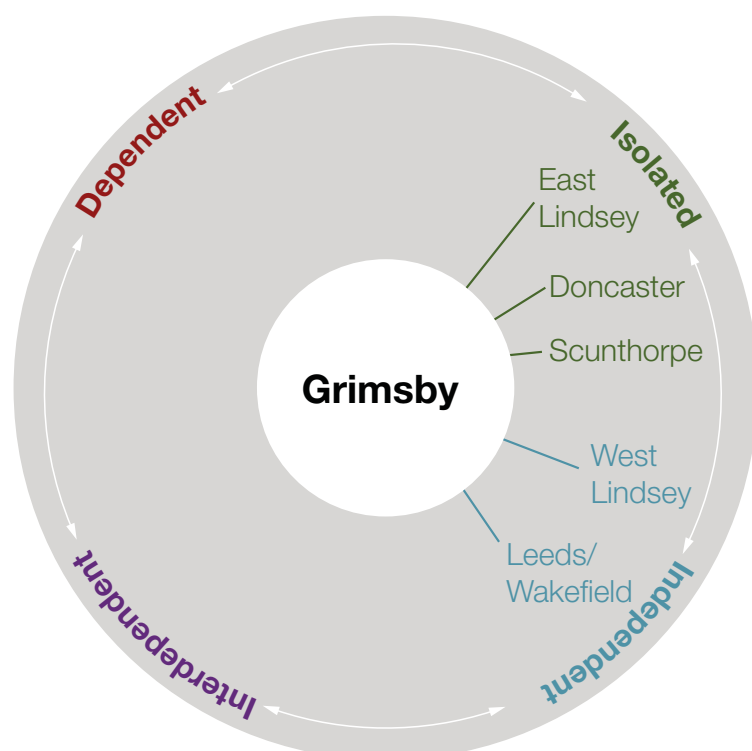
Grimsby's 'isolation' from Hull is a result partly of Hull's weaknesses as an economic centre, partly because of geography, but also because Grimsby is a centre in its own right. It has high levels of self-containment, although lower than Hull (80% of residents live and work in Grimsby compared to 86% in Hull). Of those not working within Grimsby, they will either be working in other parts of North East Lincolnshire (over 1,500 of Grimsby's residents commute to work at the oil refineries (PhillipsConoco) to the east of Immingham in North East Lincolnshire), North Lincolnshire and East and West Lindsey. Grimsby cannot fully be characterized as 'independent' of Hull, however, as its economy is relatively smaller and weaker than the other towns and cities characterized as independent in the earlier 'City Relationships' study, such as, York, Warrington, Chester and Durham.

- **Skills profile:** fewer than 10% of the working age population have degree level qualifications, whilst 39% have no qualifications (2001). Educational attainment is well below the national and regional averages.

- **Earnings:** resident earnings are relatively high compared to Hull, although below the national average. Workplace earnings are broadly similar reflecting the high levels of self containment in the area. Average resident household income is lower in Grimsby compared to more rural parts of North East Lincolnshire.
- **Sector specialisation:** Grimsby has a concentration of employment in traditional sectors, including fish processing, health and education, labour recruitment, retail and hospitality, head office employment (fish industry). This helps to explain the spread of earnings within Grimsby.
- **Housing:** The Grimsby and Cleethorpes housing market is relatively self contained but the average house price in North East Lincolnshire in 2008 was £118,702; well below the national average of £217,192. Grimsby has a high proportion of terraced housing (42.4%) in comparison to the local authority average.
- **Transport:** poorly linked to Hull by train, with average journey times taking 85 minutes and a low service frequency. On average train journeys between Grimsby and Doncaster are faster than between Grimsby and Hull (64 minutes), with journey times between Grimsby and Lincoln being quicker still (55 minutes). Car journeys are on average quicker than train journeys: it takes approximately 47 minutes to travel by car from Grimsby to Hull.
- **Deprivation:** Grimsby performs worst on the index of multiple deprivation measure within Hull and Humber Ports. 49% of LSOAs are within the top 20% most deprived LSOAs in the country.

Recognising that there are few labour market links with Hull, we have applied the City Relationships typologies to Grimsby as an economic centre, identifying the different relationships with neighbouring areas. This is reflected in the wheel below.

Figure 5.4: Typologies – Grimsby



Scunthorpe is 'isolated' from Grimsby as an employment centre. The town with the highest levels of self-containment outside Hull; just 1.4% of its residents commute to work in Grimsby. Whilst Scunthorpe operates as an employment centre in its own right and the presence of employers such as Corus means that earnings are higher on average than in other parts of Hull and Humber Ports, wider indicators show that Scunthorpe's economy is not sufficiently strong enough to classify it as 'independent'.

East Lindsey is 'isolated' from Grimsby in labour market terms. There is a level of dependency on Grimsby as an employment centre, with 5.5% of residents commuting to work in the town. But the skills profile of the area means that this is not just about the quality of jobs available in Grimsby. Less highly skilled residents are also less likely to be able to access jobs that other areas offer – for example, just 2.3% of residents commute to nearby Lincoln.

West Lindsey is classified as 'independent' from Grimsby as it has strong labour market relationships with Lincoln. In contrast to other 'independent' economic centres outside Hull and Humber Ports, West Lindsey is not a strong economic centre in its own right. It is 'independent' of Grimsby because of its labour market relationship with Lincoln – over 19% of residents commute to work in the city. Less than 4% of residents commute to work in Grimsby.

5.2.3 The South Bank: relationships between Scunthorpe and surrounding areas

Scunthorpe

Scunthorpe (population 73,000) is also largely isolated from Hull. A town that developed with the iron and steel industry, Scunthorpe still has the highest levels of self containment of the urban areas outside Hull (82% live and work in Scunthorpe). Just 1% of Scunthorpe's residents commute to work in Hull.

This reflects the fact that Scunthorpe tends to operate as a centre in its own right. The urban centre (and the wider area of North Lincolnshire) has stronger labour market relationships with Doncaster, North East Lincolnshire and West Lindsey.

Similar to Grimsby, Scunthorpe's economy is not sufficiently strong to classify it as 'independent' of Hull.

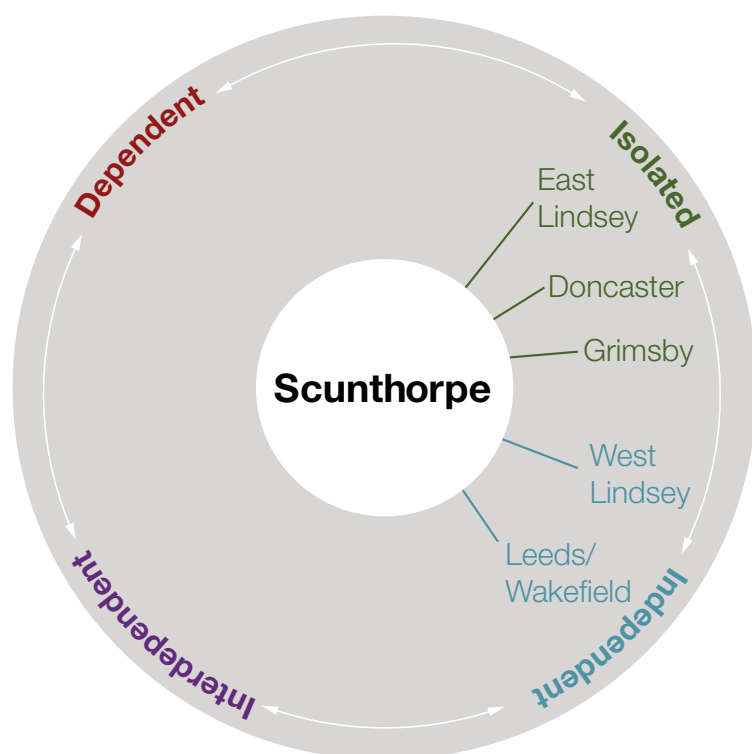
- **Skills profile:** 10% of the working age population has degree level qualifications, whilst 36% has no qualifications (2001). Educational attainment is well below the national and regional averages, although slightly higher than in other urban centres.
- **Earnings:** both workplace and resident earnings are higher than the regional average and than average earnings in Hull. Average resident and workplace earnings are broadly similar reflecting high levels of self-containment.
- **Sector specialisation:** manufacturing, health and education, retail, construction, logistics.
- **Housing:** Scunthorpe's housing market is quite separate from the rest of North Lincolnshire. Average house prices in North Lincolnshire were £137,828 in 2008, which was below the regional average. 53.3% of housing in the town centre is semi detached. It has low levels of terraced housing compared to Hull but relatively high levels of purpose built blocks of flats (11.6%).
- **Transport:** There is limited access to Hull by rail with average journey times taking 89 minutes. Train links to Doncaster are much faster, with average journey times

of 30 minutes. Travel times by train to Grimsby are slightly longer (34 minutes) and the service is less frequent than that between Doncaster and Scunthorpe. Travel by car to Hull from Scunthorpe is on average faster, taking 42 minutes.

- **Deprivation:** 35% of LSOAs in Scunthorpe are in the 20% most deprived LSOAs in the country.

Recognising that there are few labour market links with Hull, we have applied the City Relationships typologies to Scunthorpe as an economic centre, identifying the different relationships with neighbouring areas. This is reflected in the wheel below.

Figure 5.5: Typologies – Scunthorpe



Grimsby is largely 'isolated' from Scunthorpe in labour market terms. The majority of Grimsby's residents live and work locally, with a low proportion commuting to work outside North East Lincolnshire's administrative boundaries. Just 1.5% of Grimsby's residents commute to Scunthorpe.

East Lindsey is 'isolated' from Scunthorpe in labour market terms. Less than 1% of residents commute to work in Scunthorpe from East Lindsey – again likely to reflect the relative immobility of the area's residents.

West Lindsey is classified as 'independent' from Scunthorpe as it has strong labour market relationships with Lincoln. As with Grimsby, West Lindsey is relatively independent from Scunthorpe because of its labour market relationship with Lincoln. There is, however, some commuting between the two areas: 4.6% of residents commute from West Lindsey to work in Scunthorpe.

5.2.4 Relationships between Hull and Humber Ports and surrounding cities

Doncaster

Doncaster is relatively 'isolated' from the urban centres in Hull and Humber Ports. Labour market links are strongest with North Lincolnshire on the South Bank, although levels of commuting both ways are still low. There are limited links with areas on the North Bank: low numbers of residents commute to work in Hull (although higher than south of the Humber) and Doncaster also provides a small number of jobs for residents of the East Riding.

- **Skills profile:** a relatively low proportion of residents have degree level qualifications (both in comparison to the regional average and the overall average for Hull and Humber Ports).
- **Earnings:** both workplace and resident based earnings are below the national average (£440 and £438 respectively), although higher than average earnings in Hull.
- **Sector specialisation:** manufacturing, transport and distribution (transport interchange), retail and construction.
- **Housing:** House prices in Doncaster in 2008 were relatively low (£131,702) and 17.9% of it's dwelling stock is classified as LA or RSL. However the quality of the local authority stock is poor (71% requiring investment). The predominant housing type is semi detached (44.9%).
- **Transport:** Doncaster is a fast growing transport interchange and is at the heart of major road and rail links. International connectivity has been increased through the development of the Robin Hood airport.
- **Deprivation:** 38% of LSOAs are in the top 20% most deprived LSOAs in the country, making it the 41st most deprived LA in the country.

York

York is 'independent' of the urban centres in Hull and Humber Ports. The strongest labour market links between York and Hull and Humber Ports are with the East Riding. Labour market interaction with Hull is limited.

- **Skills profile:** York has a strong skills profile – a high proportion of residents have degree level qualifications and above (36.3% compared to the regional average 25.1%).
- **Earnings:** workplace earnings are slightly below the national average, whilst resident earnings are relatively high, suggesting that York's highly skilled population benefits from high value jobs in surrounding areas.
- **Sector specialisation:** relatively diverse industrial base – tourism, finance, legal services, manufacturing.
- **Housing:** In 2008 the average house price was £199,196, the highest in the study area. Between 1998 and 2008 York saw the strongest growth in house prices of all the urban centres (173%) and in 2009 was the least affordable place within the study area (at 6.5 times the median wage prices were less affordable than the national average).
- **Transport:** York is less than an hour away from Hull by car, and less than 50 minutes from Leeds/Bradford airport.
- **Deprivation:** York performs very well on the IMD with 40% of LSOAs in the top 20% least deprived LSOAs. It is the 242nd most deprived LA in the country.

Leeds/Wakefield – M62 Corridor

Leeds and Wakefield are 'independent' of Hull and Humber Ports in labour market terms, although there are some supply chain linkages between the areas. Hull and Humber Ports as a whole does not act as a key employment site for Leeds or Wakefield residents (relatively few commute to work in the East Riding) and a relatively low proportion commute from Hull and the East Riding to work within Leeds and Wakefield.

- **Skills profile:** Leeds has a relatively strong skills profile with a high number of graduates compared to other areas in the region. In contrast the proportion of graduates in Wakefield is far lower.
- **Earnings:** workplace earnings in Leeds are the highest of the comparator areas, whilst workplace earnings are far lower in Wakefield.
- **Sector specialisation:** Leeds specialises in a range of sectors, including finance and related business services and the public sector. Wakefield specialises in traditional sectors, although there has been some growth in finance and business services.
- **Housing:** Average house prices in Leeds (£166,434) and Wakefield (£141,838) in 2008 were relatively high in comparison to the surrounding local authorities. Leeds and Wakefield have the second and third highest proportion of dwellings in the LA/RSL sector of the urban centres being studied. Leeds has a very high share of flats and apartments (17.3 percent), higher than the regional average, and only slightly below the national average (19.3 percent). This is concentrated in purpose built flats (14.1 percent). Wakefield has the highest share of semi-detached housing of the local authorities being studied.
- **Transport:** Leeds is connected to Hull, Grimsby and Scunthorpe by hourly trains on the trans-Pennine route, Wakefield is situated only 36 minutes from the international airport of Leeds/Bradford.
- **Deprivation:** In Leeds 28% of LSOAs are in the top 20% most deprived LSOAs making Leeds the 25th most deprived LA in the country. In Wakefield 31% of LSOAs in the local authority are in the top 20% most deprived LSOAs.

6.0 Conclusions and policy recommendations

6.1 Conclusions

Labour market relationships between places in Hull and Humber Ports are quite different from firm relationships. Unlike other Northern city regions, Hull and Humber Ports is neither monocentric nor polycentric. Rather, three distinct labour markets can be identified that do not overlap. Firstly, a labour market that encompasses Hull and the East Riding of Yorkshire, which has high levels of interaction, offers opportunities for development, and predominantly, stretches northwards. The labour market relationship between Hull and Beverley is the strongest within Yorkshire and the Humber. Secondly, there is a labour market centring on Grimsby and some surrounding areas (mainly to the south) and thirdly, there is a labour market centring on Scunthorpe and some surrounding areas to the south. All three labour markets have relatively high levels of employment in traditional industries and, as such, travel-to-work distances are shorter than the UK average, and levels of self-containment are relatively high.

The separate labour markets reflect the fact that Hull, Grimsby and Scunthorpe, while all important local centres, play different roles to other economic centres in the North, and that they do not form a conurbation as in other city regions. In general, Hull and Humber Ports does not benefit from 'agglomeration economies' in the way that other areas in the North do. This is because these centres are dominated by traditional manufacturing employment, rather than the knowledge intensive employment that is such an important part of the economies of places such as Leeds and Manchester. Manufacturing does not benefit from concentrating in one area in the way that knowledge intensive industries do¹⁰⁵, and this makes it difficult for Hull, Grimsby and Scunthorpe to attract investment, skills and higher paid jobs to locate in urban centres.

It is also important to note that one of the reasons that urban centres within Hull and Humber Ports do not operate as strong centres of employment is that the nature of their industries mean that many firms are located outside the urban areas. For example, Immingham is an important source of employment and economic growth and industrial parks are being developed along transport corridors throughout Hull and Humber Ports.

The labour market links that do exist within Hull and Humber Ports reflect the industrial and skills profiles of the individual areas, as well as their geography. For example, the strong links between Hull and the East Riding – particularly Beverley – reflect the availability of employment in Hull and the quality of life in the East Riding. Beverley displays similarities to Newcastle under Lyme near Stoke-on-Trent as it has a strong quality of life offer for residents but also acts as an employment centre in its own right. The relative strength of Hull's economy and a lack of economic incentives (i.e. higher wages) mean that Hull's travel-to-work area is not as wide as that of other large cities in the North.

The presence of three labour markets within Hull and Humber Ports mean that the City Relationships typologies are most effectively applied separately. However, the relative economic weakness of the three centres is demonstrated by the lack of 'interdependent' relationships in the three wheels. The findings demonstrate how links are working in practice – as well as whether there are opportunities to make more of existing relationships – but also show the impact of weaker centres on wider relationships.

¹⁰⁵. Agglomeration benefits include access to skills, access to markets and access to knowledge networks

Hull and Humber Ports does not have strong labour market links with neighbouring areas. There are low levels of labour market interaction with Leeds, Wakefield, York and Doncaster. Those that do travel between the area's urban centres and surrounding larger cities tend to be more highly skilled and work in higher paid occupations.

However, there appears to be a real opportunity to develop complementary economic relationships between areas across Hull and Humber Ports by strengthening firm links. It is widely recognised that there are opportunities to link across the North and South Bank so that, in the firm context the *"river becomes the backbone rather than a barrier"*.¹⁰⁶ Businesses have highlighted that these links already exist and argued there is potential to forge stronger links, particularly in relation to ports and logistics and the emerging renewables sector. This is seen as a key opportunity to develop supply chains within the area, to maximize opportunities for economic growth and employment, and to promote the strengths of Hull and Humber Ports as a whole, overcoming negative perceptions about the area.

6.2 Policy recommendations

As a result of this analysis, a number of policy recommendations emerge:

Partnership working – where it makes sense

- Local authorities should work in partnership in a way that recognises that there are three separate labour markets within Hull and Humber Ports. This means that Hull and the East Riding should work together, reflecting their joint labour market, and that North Lincolnshire and North East Lincolnshire should each focus on their individual labour market issues. But, where appropriate, the four local authorities should work together to become more than the sum of their parts. This $2 + 1 + 1 = 5$ formation is similar to the approach recommended by the Development Panel (which proposed $2 + 2 = 5$). It recognizes that, by working together, there is a chance to promote the overall offer of Hull and Humber Ports more effectively. The quality of life offer available in Hull and Humber Ports and the different offers of different areas are not well known and could be more effectively promoted by working together.
- The Hull and Humber Ports local authorities should also seek to capitalise much more strongly on the opportunities to work together on ports, logistics and renewables. A single structure should enable and co-ordinate working together across the Hull and Humber Ports to attract inward investment, develop and promote a shared brand, develop skills strategies and invest in strengthening supply chains, working with partners and agencies from the private sector and beyond. In this context, it is important that each area is clear about what its strengths are and how the four local authorities working together offer greater potential for investors than each area competing for investment on its own.
- Beyond ports, logistics and renewables, Hull and Humber Ports' local authorities should work together to develop an 'offer' to promote Hull and Humber to surrounding cities and city regions. Many surrounding places are unsure what the area has to offer businesses and a more coordinated approach would help 'sell' Hull and Humber Ports within and beyond the region.
- There is a need to review the roles of different partners to ensure each has a clear focus and all are working together to deliver an overall strategy for Hull

106. Interviewee

and Humber Ports in a climate of constrained expenditure. Taking the '2+1+1=5' approach creates an opportunity to do this, but for the partnership to be effective it will need to both clarify roles and ensure that authority is delegated where it is agreed that joint strategies are required. There are insights to be gained from other economic areas facing similar challenges including Tees Valley and Liverpool in the north.

Making the most of labour market links

- **There is real potential to build on the economic relationships between Hull and the East Riding, working across local authority boundaries.** The strength of labour market links between Hull and Beverley, and Hull and Driffield, suggests that there is an opportunity to generate stronger benefits for both. Hull offers scale, more employment, a strong retail offer and easy access to the ports, whilst the East Riding offers knowledge intensive employment and a high quality of life. Doing more to promote the complementary benefits these neighbouring areas could offer to businesses and prospective residents could create opportunities to strengthen the sector within the area. Reviewing how to improve the links between firms in the different areas also has potential to generate jobs, although if ports and logistics and renewables are to thrive, clearly supply chains will need to be not just local but connect with opportunities across the North, nationally and internationally. In addition, there is a need to capitalise on the strong quality of life offer in the East Riding, and to look at how the wider housing and place offer within this local labour market can develop whilst also addressing the risk of rising house price pressures.
- **Tackling skills and worklessness needs to continue to be a priority.** Hull and Humber Ports' skills profile continues to be poor and is one of the reasons that there are few relationships between places, even where higher value employment exists. The recession has hit Hull and Humber Ports hard, particularly the most vulnerable individuals. It is important that the local authorities work together, where appropriate, to invest in skills and mitigate the impact of the public spending cuts that are to follow.
- **Improving and promoting the quality of life offer will be critical to attracting and retaining higher level skills, and this requires building on the different strengths of different areas.** Within Hull, North Lincolnshire and North East Lincolnshire, the shared opportunities to attract more high earning residents are: improving the schools; reducing crime; and improving the quality and mix of housing (with more family housing provided). Within the East Riding, affordability and promoting the strong existing offer is the main opportunity to attract more high skilled, high earners. Overall, Hull and Humber Ports would benefit from working together to promote itself as a place in which to live and invest
- **Improved coordination could also enhance Hull and Humber Ports' transport offer.** This means streamlining transport forums, better bus integration with one ticket for the North and South Banks, and reducing the cost of the 'Humber FastCat' bus. This is particularly important to support the mobility of residents in an area where car ownership is low.

Capitalising upon economic opportunities

- **Increasing the value added and developing services associated with manufacturing is a key priority for Hull and Humber Ports.** This is where most future employment and economic value will be generated. Lessons could be learned from both the Logistics Institute and Liverpool City Region about moving up the value chain in ports and logistics, attracting higher value employment including in specialist support services and developing 'clusters' of supply chains. We are aware that the city region of Hull and Humber Ports is working with The Northern Way and other Port city regions to develop a collaborative strand of work on this theme. This is to be welcomed and exchanging information with the Mersey Partnership and Tees Valley Unlimited as part of this work programme would provide a valuable opportunity to exchange information and learn lessons.
- **Capitalise upon existing companies' growing need for carbon capture.** As the second most polluting area in the Yorkshire and the Humber region due to its industrial base, the carbon capture and storage proposal may prove vital in retaining employment in the area. Hull and Humber Port's local authorities need to act quickly and work together on setting out what their 'offer' is in this area and attracting the skills and suppliers required to make this work.
- **Capitalise upon, and promote, the Humber's unique strengths in renewables.** These are related to ports infrastructure, land availability and supply of labour and work is ongoing to try to capitalise upon these. However, there is a need to be realistic about the amount of employment the sector is likely to generate, at least in the short term. There is a need to continue to work with local suppliers to identify what can be done to maximise opportunities, for example through encouraging them to work with large organizations with high levels of carbon emissions. It will also be important to work across the Humber in order to link these with the ports and logistics strengths.

Annex A – Interviewees

Our thanks go to the following people for their time and insights, either through interviews or steering group meetings:

Name	Position	Organisation
Neil Etherington	Group Development Director	ABLE UK
John Fitzgerald	Port Director	Associated British Ports Holdings Ltd – Grimsby and Immingham
Matt Jukes	Port Director	Associated British Ports Holdings Ltd – Hull and Goole
Malcolm Joslin	Director	BP Chemicals Ltd
Paula Gouldthorpe	Strategic Partnership Manager	Business Link Yorkshire
Steve Brown	Director of Carbon Capture and Storage	Co2 Sense Yorkshire
Chris Barwell	Spatial Planning Manager	East Riding of Yorkshire Council
Sue Lang	Regeneration and Funding Group Manager	East Riding of Yorkshire Council
Suzanne Tose	Senior Strategy and Programmes Officer	East Riding of Yorkshire Council
Andrew Hewitt	Bridlington Renaissance Co-ordinator	East Riding of Yorkshire Council
Ian Burnett	Transport Manager	East Riding of Yorkshire Council
Derek Chadburn	HR Director	G.B. Agencies Ltd
Martyn Boyers	Chief Executive	Grimsby Fishdock Enterprises, Grimsby
Andrew Goudie	Executive Director of Projects	Grimsby Institute of Further & Higher Education (GiFHE)
Sue Mitchell	Intelligence and Economic Development Lead	Government Office Yorkshire and The Humber
Dr Ian Kelly	Chief Executive	Hull & Humber Chamber of Commerce
Mark Jones	Head of Economic Development & Regeneration	Hull City Council
Patsy Kays	European and Regional Policy Manager	Hull City Council
Gaynor Bartlett	Regional Development	Hull City Council
Malcolm Relph	Economic Strategy and Regeneration Programme Manager	Hull City Council
Gary Wake	Deputy Chief Executive	Hull College
John Holmes	Chief Executive	Hull Forward
Andrew Hirst	Director of Operations/Deputy CEO	Hull Forward
Prof David Grant	Director	Hull University Logistics Institute
Richard Faint	Commercial Manager	Hull University Logistics Institute
Glyn Hughes	Chief Executive	Humber Chemical Focus

Name	Position	Organisation
Ben Fletcher	Policy & Research Manager	Humber Economic Partnership
Mick King	Executive Manager	Humber Economic Partnership
Richard Brough	Managing Director	Jenkins shipping Port Services
Graham Tongue	Mill Manager	Kimberly-Clark
Jane Lyon	Executive Director	Learning & Skills Council (Skills Funding Agency)
Paul Rogerson	Chief Executive	Leeds City Council
Marc Cole	Executive Director of Regeneration	North East Lincolnshire Council
Phil Glover	Economic Development Manager	North East Lincolnshire Council
Dick Crump	Transport Manager	North East Lincolnshire Council
Laura Farr	Economic Development Manager	North Lincolnshire Council
Jodie Booth	Transport Manager	North Lincolnshire Council
John Jarvis	Transport Project Director	The Northern Way
Ian Kay	Regional Statistician	ONS (based in Yorkshire Forward)
Prof Barry Winn	Pro-Vice Chancellor (Research and Enterprise)	University of Hull
Prof Andy Jonas	Department of Geography	University of Hull
Dr Dave Richards	Managing Director	Vivergo Fuels Ltd
Patrick Bowes	Chief Economist	Yorkshire Forward
Jonathan Brown	Senior Transport Officer	Yorkshire Forward

Annex B – Definitions of urban areas

Local authority areas in Hull and Humber Ports

LA code	LA name	Notes
00FA	Kingston upon Hull, City of	
00FB	East Riding of Yorkshire	
00FC	North East Lincolnshire	
00FD	North Lincolnshire	

Surrounding LA authorities to be included in the study

LA code	LA name	Notes
00FF	York	
00CE	Doncaster	
00DA	Leeds	Links along M62 corridor
00DB	Wakefield	Links along M62 corridor

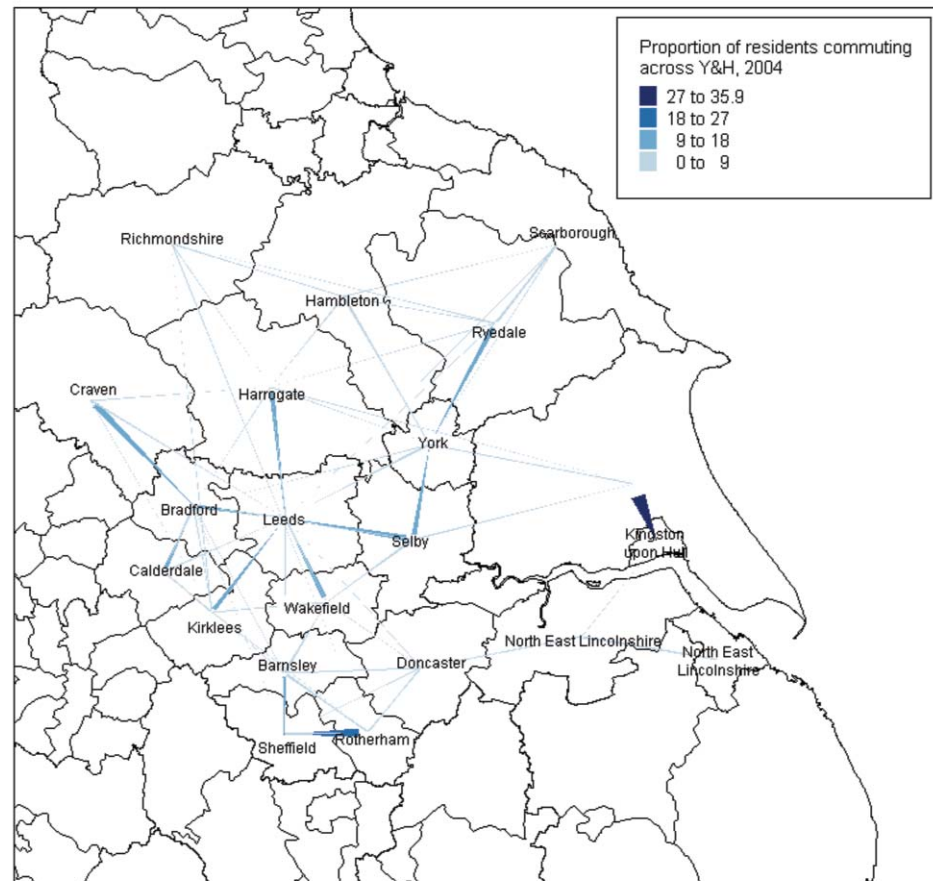
Main urban centres in Hull and Humber Ports by ward

Ward code	Ward name	LA name
Beverley		
00FBNU	Minster and Woodmansey	East Riding of Yorkshire
00FBNY	St Mary's	East Riding of Yorkshire
Bridlington		
00FBNE	Bridlington Central and Old Town	East Riding of Yorkshire
00FBNF	Bridlington North	East Riding of Yorkshire
00FBNG	Bridlington South	East Riding of Yorkshire
Driffield		
00FBNL	Driffield and Rural	East Riding of Yorkshire
Goole		
00FBNN	Goole North	East Riding of Yorkshire
00FBNP	Goole South	East Riding of Yorkshire
Grimsby		
00FCMR	East Marsh	North East Lincolnshire
00FCMS	Freshney	North East Lincolnshire
00FCMU	Heneage	North East Lincolnshire
00FCMY	Park	North East Lincolnshire
00FCMZ	Scartho	North East Lincolnshire
00FCNA	Sidney Sussex	North East Lincolnshire
00FCNB	South	North East Lincolnshire
00FCNC	Waltham	North East Lincolnshire
00FCND	West Marsh	North East Lincolnshire
00FCNF	Yarborough	North East Lincolnshire
Hull		
00FBNH	Cottingham North	East Riding of Yorkshire
00FBNJ	Cottingham South	East Riding of Yorkshire
00FBNQ	Hessle	East Riding of Yorkshire
00FBPD	Tranby	East Riding of Yorkshire
00FBPE	Willerby and Kirk Ella	East Riding of Yorkshire
00FAMX	Avenue	Kingston upon Hull City of

Ward code	Ward name	LA name
00FAMY	Beverley	Kingston upon Hull City of
00FAMZ	Boothferry	Kingston upon Hull City of
00FANA	Bransholme East	Kingston upon Hull City of
00FANB	Bransholme West	Kingston upon Hull City of
Hull		
00FANC	Bricknell	Kingston upon Hull City of
00FAND	Derringham	Kingston upon Hull City of
00FANE	Drypool	Kingston upon Hull City of
00FANF	Holderness	Kingston upon Hull City of
00FANG	Ings	Kingston upon Hull City of
00FANH	Kings Park	Kingston upon Hull City of
00FANJ	Longhill	Kingston upon Hull City of
00FANK	Marfleet	Kingston upon Hull City of
00FANL	Myton	Kingston upon Hull City of
00FANM	Newington	Kingston upon Hull City of
00FANN	Newland	Kingston upon Hull City of
00FANP	Orchard Park and Greenwood	Kingston upon Hull City of
00FANQ	Pickering	Kingston upon Hull City of
00FANR	St Andrew's	Kingston upon Hull City of
00FANS	Southcoates East	Kingston upon Hull City of
00FANT	Southcoates West	Kingston upon Hull City of
00FANU	Sutton	Kingston upon Hull City of
00FANW	University	Kingston upon Hull City of
Scunthorpe		
00FDMR	Ashby	North Lincolnshire
00FDMX	Bottlesford	North Lincolnshire
00FDNA	Brumby	North Lincolnshire
00FDNB	Burringham and Gunness	North Lincolnshire
00FDND	Crosby and Park	North Lincolnshire
00FDNF	Frodingham	North Lincolnshire
00FDNG	Kingsway with Lincoln Gardens	North Lincolnshire
00FDNJ	Town	North Lincolnshire

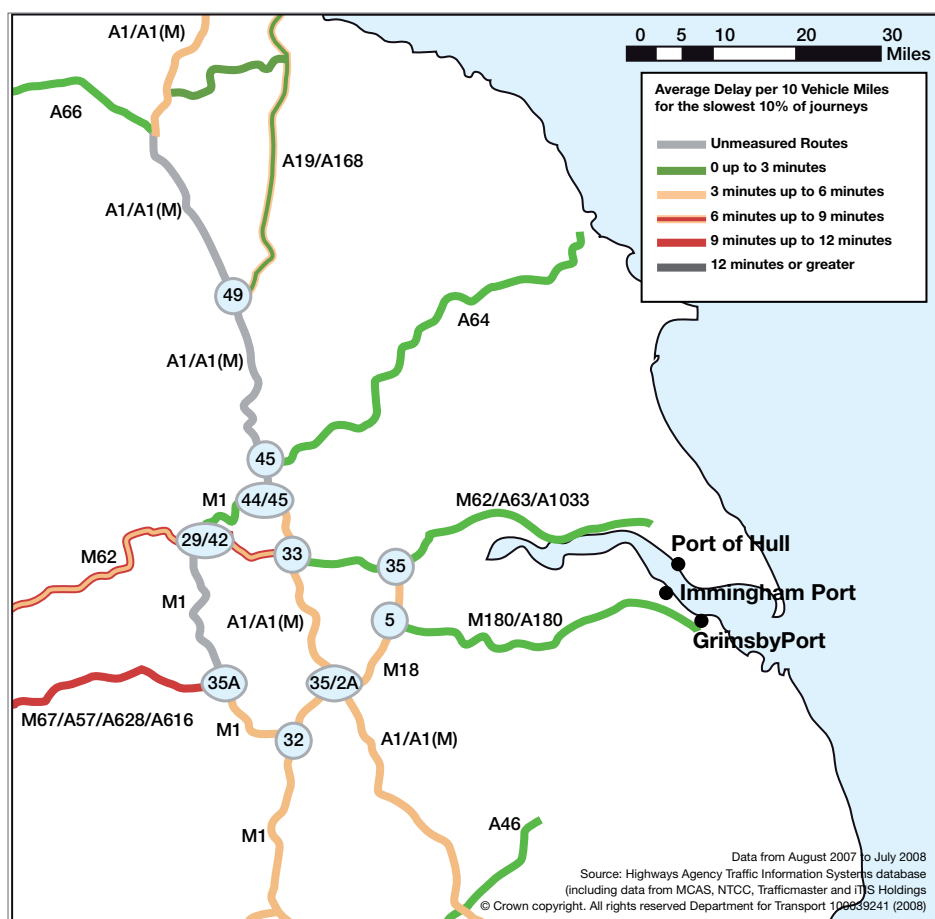
Annex C – Additional figures

Figure A: Proportion of residents commuting across local authority boundaries in Yorkshire and Humber, 2004



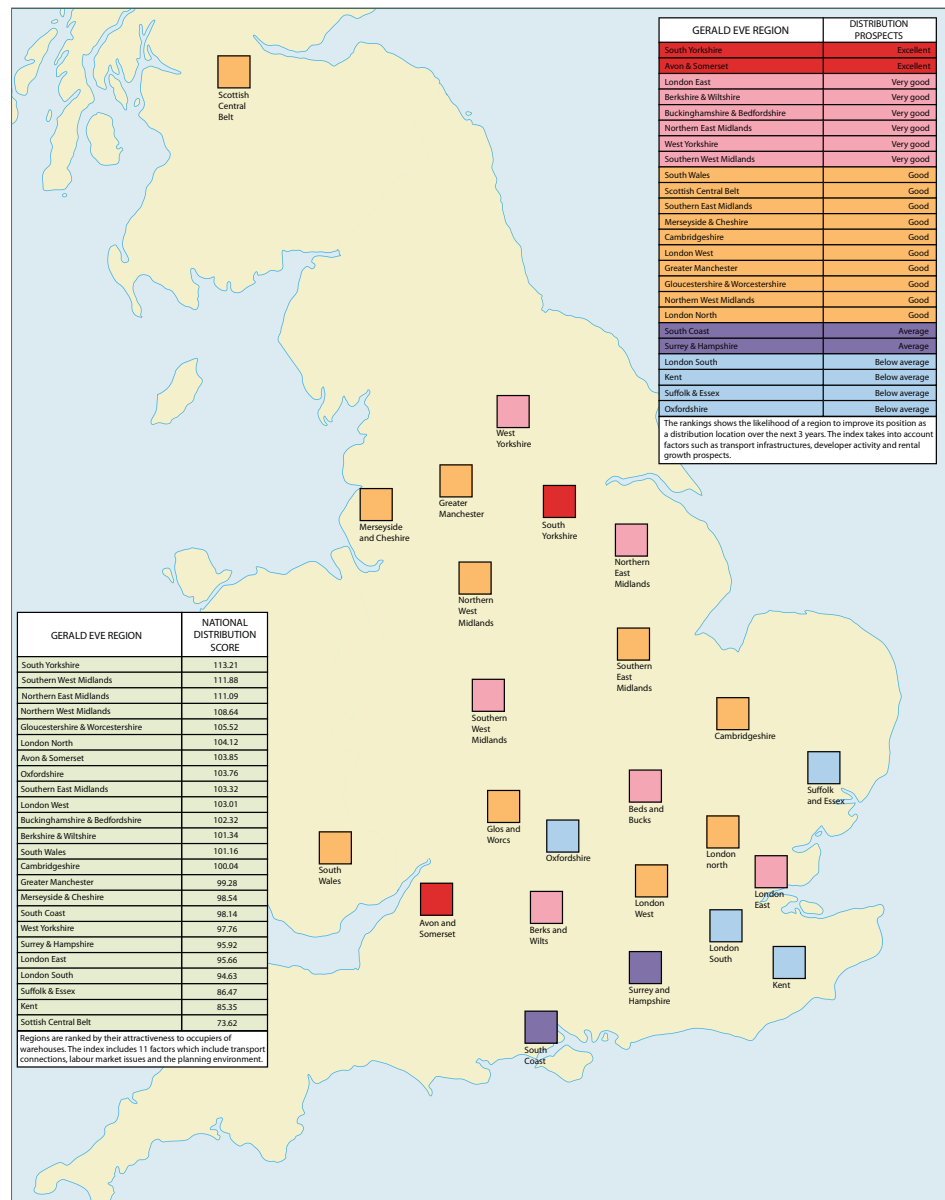
Source: Annual Population Survey, 2004

Figure B: Average delay per 10 vehicle miles for the slowest 10% of journeys on the road network around ports of Hull, Grimsby and Immingham



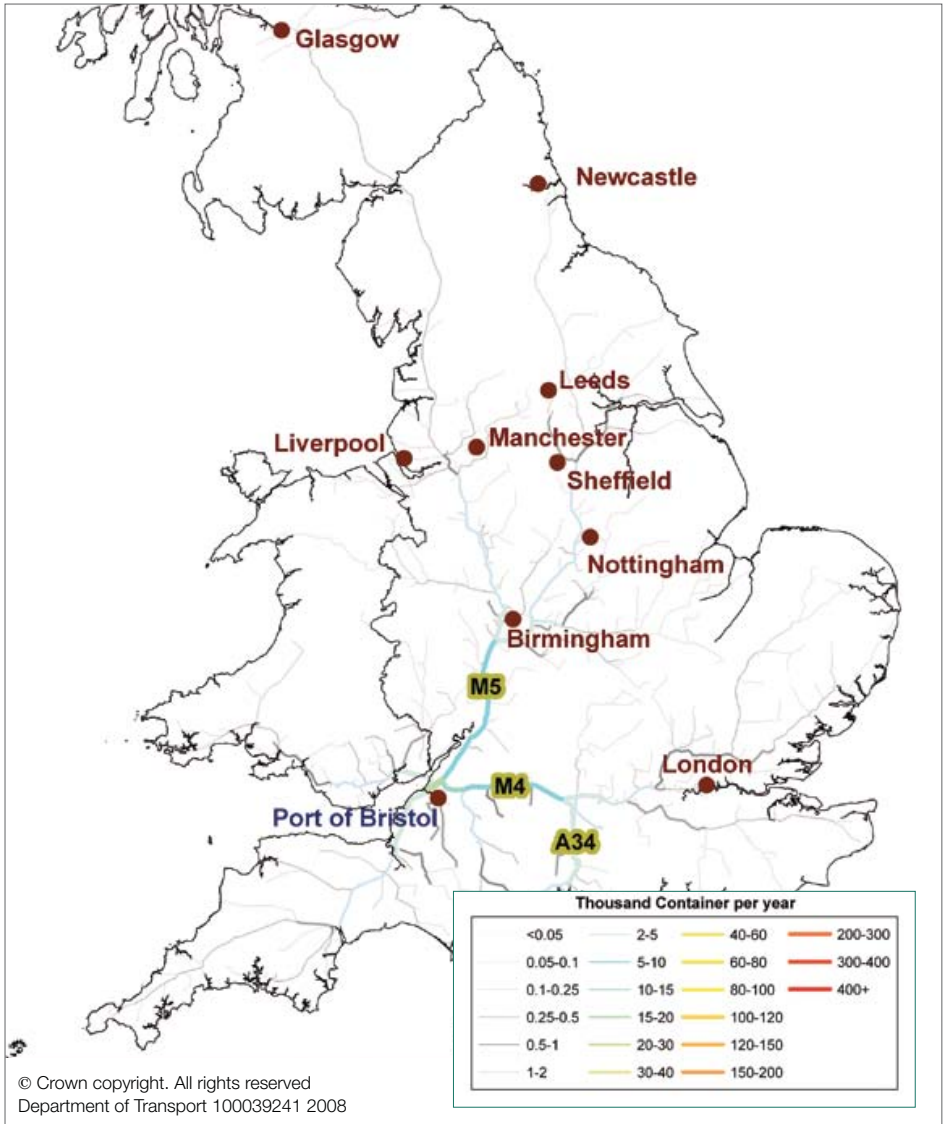
Source: Department for Transport (2008). The container freight end-to-end journey, Department for Transport; London

Figure C: Great Britain warehousing activity forecast



Source: University of Hull (2010). The logistics sector in the Yorkshire and Humber Region, Yorkshire Forward, Leeds

Figure D: International HGV container flows from the Port of Hull



Source: MPS Transmodal (2006) referenced in Department for Transport (2008). The container freight end-to-end journey, Department for Transport; London

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Paul Hildreth	SURF at Salford University
Jonathan Wright	The Work Foundation
Sarah Barnett	The Work Foundation

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Suzanne Tose	East Riding of Yorkshire Council
Andrew Hewitt	East Riding of Yorkshire Council
Phil Glover	North East Lincolnshire Council
Laura Farr	North Lincolnshire Council
Patrick Bowes	Yorkshire Forward
Prof Andy Jonas	University of Hull
Sue Mitchell	Government Office for Yorkshire and The Humber

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