



Updating the evidence base on English cities

Final Report



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Final Report

Experian plc

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Department for Communities and Local Government

This research was commissioned by the previous government.

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Executive summary

The State of the English Cities report published in 2006¹ provided a comprehensive analysis of city performance. Four years after its publication, and with major changes in the economic and political context, this report seeks to take stock of new evidence and developments on the most critical urban issues, albeit with a more limited scope and scale.

Introduction and methodology

The Department for Communities and Local Government (DCLG) commissioned Experian to review and update the evidence base on key urban issues since 2006. The main aims included:

- to review the quantitative and qualitative evidence developed since the publication of the State of the English Cities report
- to update key headline indicators to show how cities' performance in a variety of areas (economic performance, worklessness, and urban regeneration) has changed
- to identify key gaps in the evidence base in order to support future policy making.

This research was undertaken by Experian's Economic Policy team, along with an advisory team providing expert guidance and feedback.² The research was undertaken in two stages including both qualitative and quantitative research techniques. The first stage involved a literature review to ensure the report was built on the available evidence base and followed four key themes: Economic performance, worklessness, physical regeneration, and cities and future trends.

The second stage focused on the quantitative elements, updating 30 indicators from the State of the Cities database to 2008/09 figures to provide new evidence related to the different themes. Those geographies set out in the State of the English Cities report (Primary Urban Areas and Travel to Work Areas) were used again, but where possible were updated to reflect the real geographies of English cities.

Much research on urban issues uses local authority boundaries as units for analysis, but these do not reflect the way in which cities' economies function. People live, work and spend their leisure time between different local areas, and businesses often make location decisions based on a wider city offer which does not conform to a single local authority's boundary. This report builds on existing research and provides new analysis of cities' performance at a geographical level that captures cities' built-up areas (Primary Urban Areas) and their wider local economies (Travel to Work Areas).

¹ ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM.

² The advisory panel consisted of Professor Michael Parkinson CBE, European Institute for Urban Affairs and Liverpool John Moores University, Professor Mike Coombes, Centre for Urban and Regional Development Studies at Newcastle University, and Professor James Simmie, Oxford Brookes University.

What has remained the same?

Cities remain important drivers of economic growth. Many cities have key assets which make them more – not less – significant in an increasingly globalised world. Many are centres of economic activity and strategic decision-making. They provide essential infrastructure, such as:

- a wide range of professional services and suppliers giving businesses the flexibility to adapt to changing conditions
- concentrations of intellectual resources in universities and research institutions, which encourage high levels of innovation
- cultural resources, commercial and residential facilities, which make them desirable places to live, do business and study
- proximity to airports
- internet broadband connectivity.

Despite this, the performance of English cities has been mixed. There are long-standing economic, social and regeneration challenges for cities highlighted in the State of the English Cities report which are still relevant today. Although there were improvements in cities' performance over the last decade in a number of areas (for example, employment grew in many cities, and worklessness and crime declined), the recession has seen much of this improvement stalling, particularly in terms of economic growth and worklessness. Further, in relative terms the strongest performers and weakest performers (with regards to economic indicators, such as employment and productivity) identified in 2006 have largely remained unchanged, with the majority of high performers located in the south and east. Yet this is no straight forward north/south divide, with many cities in the north – such as Leeds, Manchester, and Sunderland – seeing higher than average jobs growth and pockets of high value-added services.

What has changed?

Since the State of the English Cities report was published there has been renewed interest in academic research on the benefits of the concentration of economic activity, or 'agglomeration economies'.³

³ Agglomeration economies' refer to the benefits from the concentration of economic activity. The latter includes a greater choice of suppliers, labour and office space, and often better connectivity. The concentration of economic activity also favours the flow of knowledge that enables innovation. Proximity enables close contact between technical and scientific staff, promoting collaborative projects spurring creativity and innovation. For example, see Manchester Independent Economic Review (2008) *The case for agglomeration economies*. Manchester: MIER.

In addition, new views have emerged emphasising the need to look at functional or real economies, and the benefits from increasing interaction between different cities. The evidence of the economic relevance of cities and agglomeration economies has led to discussion about the most appropriate geographical scale for different areas of policy and the most effective governance arrangements to administer this, although the evidence on the impact of devolution of decision-making on economic outcomes is still limited.

Over recent years growth in many cities, particularly cities undergoing structural change from declining manufacturing industries, has been based to a large extent⁴ on public sector jobs growth, and regeneration of city centres encouraging retail services and construction activity.

Overall, the recession has disproportionately impacted areas with already high levels of worklessness.⁵ The challenging economic climate brought to the fore the fact that in some areas the persistence of worklessness is also related to the limited availability of jobs.

The recession also posed fundamental challenges to regeneration investment. Private sector investment has been squeezed by the lack of credit and increased risk aversion, and the budget for regeneration activity has been reduced.

Some long-term trends identified have become more pressing. The impact of an ageing population and increasing migration on city economies have become far greater issues. Climate change has also received increased attention, with new legislation encouraging cities to tackle these issues.

Conclusion

Since this report was commissioned there have been numerous and significant changes to the policy and economic context that the English cities operate in.

Decentralisation and a renewed focus on localism have been key themes of the Coalition Government's approach. This has led to a number of new policy tools being implemented which will have an impact on the future of cities:

- The Local Enterprise Partnerships, which will replace the Regional Development Agencies, will be based around 'functional' rather than administrative geography, and will be jointly run by local authorities and the private sector.

⁴ Larkin, K. (2009) Public sector cities: trouble ahead. *Surviving Recession Series*. London: Centre for Cities; Webber, C. and Swinney, P. (2010) *Private Sector Cities: A new geography of opportunity*. London: Centre for Cities.

⁵ There are a number of definitions of the workless population. For a more detailed discussion see Section 2. For worklessness headline statistics we used those inactive and unemployed sourced from the Annual Population Survey and total benefit claimants drawn from the Department for Work and Pensions. The latter includes Job Seeker's Allowance, Incapacity Benefit, Employment and Support Allowance, Income Support and Severe Disablement Allowance.

- The Regional Growth Fund is intended to assist with the rebalancing of the economy, and a movement away from reliance on a narrow range of sectors. It is designed to stimulate growth and private sector employment, particularly in areas and communities currently dependent on the public sector.
- Part of the Big Society agenda will include giving local people more tools to participate in their local area, and allow more initiatives to grow from the neighbourhood up.

The recent recession provides an entirely different economic context for this update, compared to the original report. With public sector employment facing cuts and fundamental changes to regeneration activity and the availability of resources, there are questions over exactly which sectors will support future city growth. Further, the differing geographical impact of the recession has highlighted that in some cities worklessness is associated not only with issues such as low qualifications, but also the limited availability of jobs. Interventions must therefore address the causes of worklessness at the local level, but also the issue of the supply of jobs which is thought to operate at a much wider spatial scale. Local Enterprise Partnerships have been established with the aim of allowing local areas to have more influence over their functional economies, and creating jobs whilst addressing barriers to employment, particularly for those in the most deprived neighbourhoods will be a key challenge.

Limited resources indicate that the policy approach to financing regeneration will have to change, for example by pooling resources from different policy areas and leveraging private sector investment through new financing mechanisms; as well as different approaches such as those promoted by the Big Society concept.

Beyond the economic situation, there are a new set of long term challenges, namely the increasing competition from emerging countries, the transition to a low-carbon economy, the financial implications of an ageing population, and the impacts of international migration on local labour markets. Some of the trends have the potential to exacerbate existing disparities. Arguably, more prosperous cities, with a skilled workforce and an innovative business base, are better equipped to adapt to external change. This will be a key challenge for the new Regional Growth Fund.

Finally, new evidence on agglomeration economies has highlighted the need to consider the effects of the concentration of economic activity on economic and social outcomes, and of interactions between different city economies. Indeed, given the introduction of Local Enterprise Partnerships, monitoring performance at a 'functional' geographic level will become increasingly important in the development of economic growth strategies.

Remaining evidence gaps and how they can support future policy making

Throughout the course of the study we identified key evidence gaps that need to be filled if future policy development is to fully support city growth:

Economic performance

- There is no substantial evidence on the links between different governance arrangements and economic outcomes.
- Additionally, there are gaps related to the economic outcomes and distributional effects of increasing economic interaction with and between different city economies.
- A number of key indicators of economic performance are not available at the city and Travel to Work Area level including data on output and productivity, innovation capacity, and employment and output in new key growth industries. Given the Coalition Government's emphasis on rebalancing the economy, and ensuring cities reliant on traditional industries diversify by fostering private sector growth, understanding business performance, entrepreneurship and its drivers is critical to encourage business investment.

Worklessness

- This is a key area where there is a lack of evidence for the optimal spatial level of intervention. There is growing evidence that tackling the supply side problems of worklessness at the neighbourhood level on its own is unlikely to be effective unless this considers the wider labour and housing market dynamics that operate on the demand side and at broader geographical levels than that of the neighbourhood.⁶

Regeneration activity

- There is a need to establish the links between regeneration activity and economic performance more clearly. This reflects the difficulties of attaching a value to regeneration activity given that the speed of change is often slow and it is often difficult to quantify issues such as quality of place/life.
- Gaps remain around understanding how to make the best use of existing policy levers and how best to position communities and local areas as the key building blocks driving regeneration activity going forward.
- There is also a need to acknowledge the restrictions the planning system poses on land and the consequences for house prices and affordability. The planning system is currently going through a period of change, with the abolition of Regional Spatial Strategies and a push towards localism and community

⁶ Turok, I. and Robson, B. (2007) Linking Neighbourhood Renewal to City-Regional Growth. *Journal of Urban Regeneration and Renewal*, 1(1), pp.44–54.

engagement. Local Enterprise Partnerships, operating at a functional economic area level, will be well-placed to consider future housing needs that take into account future demand as well as the most effective use of current stock.

Future trends

- A lack of data at city level on trade, foreign investment and broadband take-up limits our understanding of the differential impact of globalisation and technological change on city economies. This information is critical for cities to understand the impact of these trends and adapt accordingly.
- Additionally, there is a lack of evidence on the likely impacts of changing patterns of migration on specific city economies. Improvements to migration data are also required in order to have an accurate measure of net migration (to take into account outflows – most sources do not account for migrants leaving the country – and that incorporates short-term migration). Filling this gap is important to help cities adapt and respond to population flows and their impact, and use the skills of migrants in the most effective way given particular skill gaps. This will become increasingly important in light of ageing population trends.

Introduction

Since the publication of the State of the English Cities report in 2006⁷ there have been major changes in the economic and policy context and new developments in the evidence base.

At the time the State of the English Cities report was written, the economy was undergoing significant economic growth; and cities were seen with renewed optimism as areas with increasing potential to drive local and national economies. There was growing investment in cities, and an increased appetite for urban lifestyles.

Four years after the release of the State of the Cities report, it is time to take stock of the evidence on cities' performance. Although of a much smaller scale than the original State of the Cities, this report seeks to test the evidence base. Do the key findings of the State of the English Cities report still hold? What has remained the same and what has changed since then?

Aims and scope of this project

The Department for Communities and Local Government (DCLG) commissioned Experian to review and update the evidence base on key urban issues since 2006. In particular the aims were threefold:

- to review how the quantitative and qualitative evidence has developed since the publication of the State of the English Cities report
- to update key headline indicators to show how cities' performance in a variety of areas (economic performance, worklessness, and urban regeneration) has changed
- to identify key gaps in the evidence base.

The objective of this project was not to produce a second State of the English Cities report. The scope and remit of this project was of a much smaller scale, seeking to bring together recent evidence on some of the most pressing urban issues.

This report is aimed at those interested in tracking performance of cities: local, regional and central government policy makers, as well as analysts and researchers thinking about cities and urban policy. This report seeks to inform policy development by providing updated evidence on cities' performance, and seeks to identify future research priorities.

⁷ ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM.

How we did it

This research was undertaken by Experian’s Economic Policy team, along with an advisory team, who provided general steer and feedback to the team’s outputs. In order to build on the work carried out previously, the project advisory team consisted of academics involved in the State of the English Cities report: **Professor Michael Parkinson CBE**, European Institute for Urban Affairs and Liverpool John Moores University, **Professor Mike Coombes**,⁸ Centre for Urban and Regional Development Studies at Newcastle University, and **Professor James Simmie**, Oxford Brookes University.

The research was undertaken in two stages including both qualitative and quantitative research techniques. The first stage involved a literature review to ensure the report was built on the available evidence base. It followed the four key themes and research questions set out by DCLG: Economic performance, Worklessness, Physical regeneration, and Cities and future trends.

A workshop was held with key stakeholders from DCLG and other central government departments to discuss emerging findings, and inform the areas of focus of the research. In addition, an additional 10 consultations with experts in the field were carried out to capture their views on recent developments in the urban agenda.

The second stage focused on the quantitative elements of this project. We updated 30 indicators from the State of the Cities database to provide new evidence related to the different themes identified during the literature review phase and held a cross-government workshop to review which indicators to retain and update, and which new ones to add.

We used the same geographies set out in the State of the English Cities report, that is, Primary Urban Areas and Travel to Work Areas, but where possible we updated them to reflect the real geographies of English cities. Primary Urban Areas measure the built up areas of cities with a population in excess of 125,000 and Travel to Work Areas reflect the wider economy of a city as they take into account commuting patterns. There are 56 Primary Urban Areas and 55 urban Travel to Work Areas.

In the case of the Primary Urban Areas, where available we used detailed data at lower super output areas⁹ to provide a more accurate picture of these areas.¹⁰ In the case of Travel to Work Areas we updated the definitions using 2001 definitions (the State of the English Cities report used 1991 definitions) and include only those Travel to Work Areas related

⁸ Mike Coombes played a key role in defining the geographies used throughout this report.

⁹ Super Output Areas (SOAs) are a unit of geography used in the UK for statistical analysis, developed and released by Neighbourhood Statistics. SOAs were created with the intention that they would not be subject to frequent boundary change. This makes SOAs more suitable than other geography units (such as wards) because they are less likely to change over time, and thus SOAs are more suitable to change over time analysis. There are different layers of SOAs (i.e. three different but related geography boundaries). Lower Super Output Areas (LSOAs) have a minimum population 1000, mean population 1500. For more details, see the Appendix.

¹⁰ Constructing Primary Urban Areas and Travel to Work Areas from the lowest geographic level possible means that these city geographies are constructed from more detailed, granular information.

to each urban area. For more details on the methodology, particularly the geographical definitions used throughout this report, as well as a list of the updated indicators, please see the method notes in the appendix.

This report

This report updates the evidence base on the English cities – their performance and progress, challenges and opportunities.

Much research on urban issues uses local authority boundaries as units for analysis, but these do not reflect the way in which cities' economies function. People live, work and spend their leisure time between different local areas, and businesses often make location decisions based on a wider city offer which is not necessarily limited to a single local authority's boundary. This report builds on existing research and provides new analysis of cities' performance at a geographical level that actually captures cities' built-up areas (Primary Urban Areas) and their wider local economies (Travel to Work Areas). It is structured as follows:

Section 1 provides an overview of cities' **economic performance** over time using updated headline indicators.

Section 2 examines the role of cities in tackling **worklessness**.

Section 3 looks at **physical regeneration**, particularly in a context of tighter public spending.

Section 4 discusses the impact of **future trends** on cities, such as globalisation and technological trends, environmental trends, and demographic changes including international migration.

Section 5 concludes by highlighting key developments since the publication of the State of the English Cities report and **summarises evidence gaps**.

Section 1

Economic performance: the evidence so far

1.1 Why cities matter

Much economic activity is concentrated in cities: the 56 urban areas considered in this study account for 61 per cent of employees in England (4 per cent more than their population), and when their surrounding areas are also considered they represent 78 per cent of England's total employees and 85 per cent of total output.¹¹ In other words, cities and their surrounding areas are key centres of employment making a critical contribution to the UK economy.

The reasons why many cities are key drivers of growth lie in the benefits that come from the concentration of economic activity. Cities provide businesses with a choice of suppliers, labour and office space, and better connectivity. Cities also offer better connectivity with wider access to broadband, shared services (such as professional services) and airports.¹²

The concentration of economic activity favours the flow of knowledge that enables innovation.¹³ Proximity enables close contact between technical and scientific staff, promoting collaborative projects spurring creativity and innovation. As the State of the English Cities report¹⁴ established, cities matter more not less in a global economy, where high-value goods and services are a key competitive advantage.

Some contend that the benefits from the concentration of economic activity depend on the sector, type of product, trade costs and market locations.¹⁵ There is some evidence for the UK and other countries showing that structural change from manufacturing to services favours agglomeration economies.¹⁶

¹¹ Throughout this report Travel to Work Areas and 'cities and their surrounding areas' are used interchangeably. Figures based on full-time equivalent employment sourced from the Annual Business Inquiry for 2008. Output figures based on Experian data. For more details on the geographical definitions and indicators used, see the Introduction and Method Notes in the Appendix.

¹² Storper, M. (2009) *Agglomeration, Trade and spatial development: bringing dynamics back in. Paper for the 50th anniversary of JRS.*

¹³ *Ibid.*

¹⁴ ODPM (2006) *State of the English Cities, Volume 1.* London: ODPM.

¹⁵ For example, see Graham (2007) *Agglomeration, productivity and transport investment. Journal of Transport Economics and Policy*, 41(3) and Storper, M. (2009), *op. cit.*

¹⁶ *Ibid.*

The concentration of activity not only provides benefits for businesses, it also offers advantages to households. Cities can offer a wide range of leisure and retail facilities, as well as higher quality amenities, such as hospitals and schools, which are not viable in smaller places.¹⁷

But there are also diseconomies of scale related to cities. Space becomes scarce; and congestion, together with pollution, can increase with cities' size. In addition, more businesses choosing to locate in the same place will foster greater competition, which will generate productivity benefits, but will also squeeze businesses' profit.¹⁸ It is the greater productivity benefits from agglomeration economies that make it worthwhile for businesses to pay higher wages and business unit costs. When the benefits from the concentration of economic activity outweigh these diseconomies of scale, then growth can become self-reinforcing. That is why a city like London, despite being expensive, is a highly desirable place to live, work, study and do business.

Attempts have been made to estimate the benefits from the concentration of economic activity. Research for the Manchester Economic Review¹⁹ found that firms' productivity, investment and innovation in the Manchester area is associated with the benefits of being a large and diverse urban environment, giving firms the flexibility to choose from a wide range of suppliers.²⁰

1.2 Revisiting urban economic performance

The economic outlook over the last decade

Recent evidence on cities' performance over the decade from 1998 to 2008 confirms many of the trends identified in the State of the English Cities report published in 2006. We would not expect long-standing trends to reverse in such a short period of time.

But the State of the English Cities report was written in a different context. At that time, the business cycle was going through an expansionary phase and there was optimism about the potential of cities, albeit tempered by differing economic performance across different urban areas.²¹

¹⁷ Turok, I. and Mykhnenko, V. (2008) *Resurgent European cities? Urban Research & Practice*. Glasgow: Department of Urban Studies and Centre for Public Policy for Regions. This points refers particularly to work done by Glaeser, E. and Gottlieb, J. (2006) Urban resurgence and the consumer city. *Urban Studies*, 43(9), pp. 1275-1299; Florida, R. (2004) *The rise of the creative class*. New York: Basic Books; and Clark, T.N., Lloyd, R., Wong, K.K., Jain, P. (2002) Amenities drive urban growth. *Journal of Urban Affairs*, 24, pp.493-515.

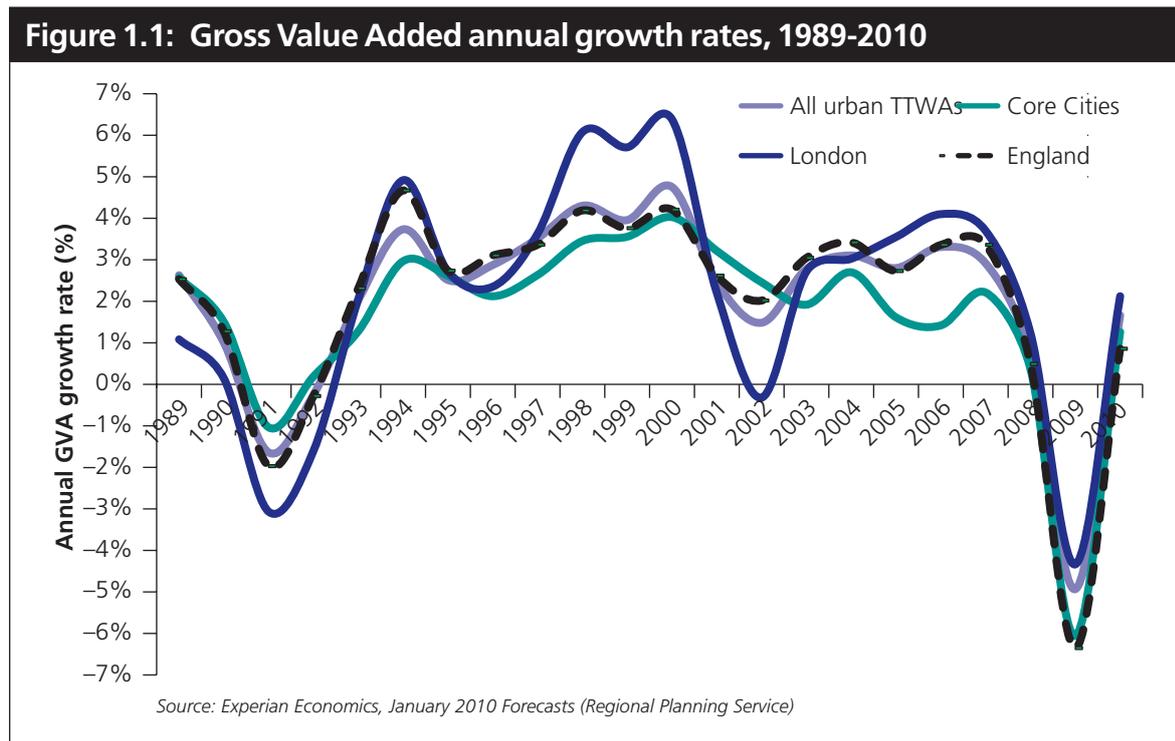
¹⁸ Agglomeration often refers to two different concepts 'urbanisation economies' and 'localisation economies'. The former refer to the advantages to an individual firm that result from the joint location of firms in different and unrelated activities. 'Localisation economies', in turn, arise from the co-location of many firms in the same industry. Benefits derived from proximity include labour pooling for the specific sector, and the benefits from relative ease of communication, supplies, labour and innovative ideas due to the proximity among firms.

¹⁹ Manchester Independent Economic Review (2008) *The case for agglomeration economies*. Manchester: MIER.

²⁰ A number of recent studies also looked at whether enhancing economic interaction between cities can improve economic outcomes. See Jones, A., Clayton, N., Tochtermann, L., Hildreth, P., Mar, A. (2009) *City Relationships: economic linkages in Northern regions*. Newcastle: Northern Way. Overman, H. et al (2009) *Strengthening economic linkages between Leeds and Manchester: feasibility and implications*, Report for the Northern Way. Newcastle: Northern Way.

²¹ ODPM (2004) *Our cities are back: competitive cities make prosperous regions and sustainable communities*. London: ODPM.

Evidence suggests that urban areas, particularly the core cities,²² follow the business cycle. The resurgence identified in the State of the English Cities report is largely explained by the period under consideration i.e. the expansionary phase of the cycle. Core cities' performance is generally below the England average, with the exception of a short period of time during the early 2000s where declines in output occurred at a slower rate.²³ By contrast, in this period London was disproportionately affected by the 'dot-com bubble' given the capital's greater concentration of IT and business services; other core cities suffered to a lesser extent.



A detailed look at recent data on employment shows that only cities in the south east and London had a higher than average growth in number of jobs between 1998 and 2008. In particular travel to work areas in the north and west, which include among others, places such as Stoke, Wirral and Ellesmere Port, and Bradford,²⁴ saw the number of jobs decline during the 10 year period (Figure 1.2).

²² The core cities include Birmingham, Bristol, Leeds, Liverpool, Manchester, Newcastle, Nottingham, and Sheffield. For over 10 years these cities have been grouped in a network, the Core Cities Group, see www.corecities.co.uk.
²³ This is consistent with some of the findings from Champion, T. and Townsend, A. (2009) *The fluctuating record of economic regeneration in England's second order city-regions*. *Spatial Economics Research Centre Discussion Paper, N13*.
²⁴ See the appendix for more details on the classification of cities by size and location.

Figure 1.2 also suggests that jobs growth over the last decade, with the exception of London, is negatively related to city size, with smaller cities in the south east performing better on this measure, and large cities in the north and west featuring negative growth.²⁵ That said, many of these small cities in the south east are highly connected to the London economy. Reflecting this, recent work on relationships between cities has shown that connectivity and links between these cities and the capital – both in terms of labour markets and businesses’ supply chains – are critical to explaining the strong economic performance of cities in the south east and the east of England.²⁶

Figure 1.2: Full-time equivalent jobs growth, 1998-2008 (%)²⁶



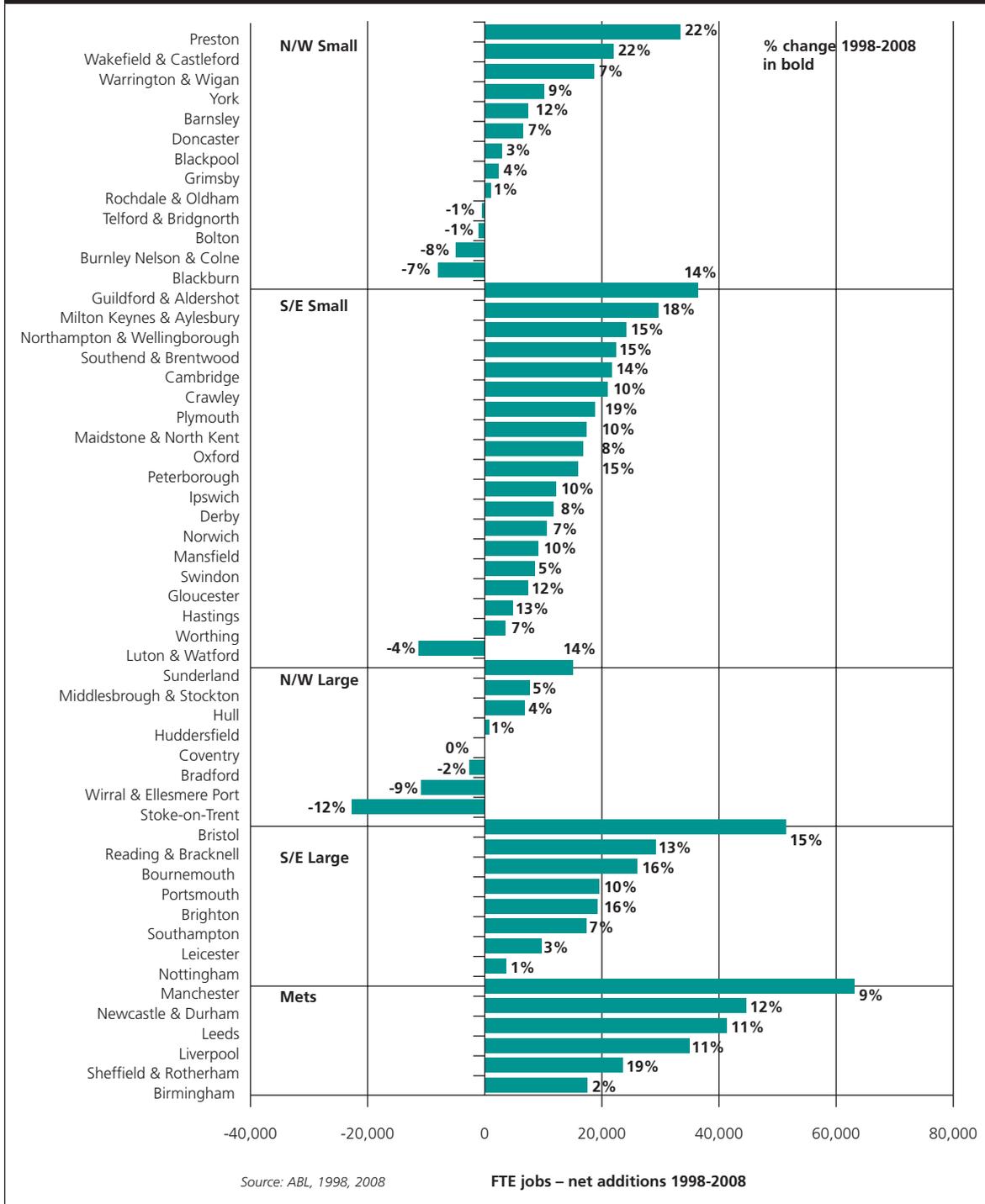
The performance of different Travel to Work Areas shows that the picture is more complex than aggregate numbers suggest. Figure 1.3 shows that there are some cities and their surrounding areas in the north that experienced recent high growth in the number of jobs (such as Preston and Wakefield and Castleford). Most areas in the south – with the exception of Luton – have seen positive change in the number of jobs. It is mostly large northern cities and their surrounding areas (such as Stoke-on-Trent, Wirral and Ellesmere Port, Bradford) that have seen a percentage decline in full-time jobs between 1998 and 2008.

²⁵ This would be in line with Turok et al. (2008) findings on the relative lower importance of city size in explaining economic performance. Turok, I. and Mykhenko, V. (2008) *Resurgent European Cities? Urban Research and Practice*. Glasgow: Department of Urban Studies and Centre for Public Policy for Regions. The authors examined the trajectories of over 150 cities in Europe, including a sample of UK cities. They found some preliminary evidence that city size may not be an important factor in explaining economic performance; instead economic structure appeared to be critical in driving cities’ economic growth.

²⁶ Hall, P. and Pain, K. (2006) *The Polycentric Metropolis*. London: Earthscan; Lucci, P. and Hildreth, P. (2008) *City Links: Integration and Isolation*. London: Centre for Cities.

²⁷ The Annual Business Inquiry covers all UK businesses registered for Value Added Tax (VAT) and/or Pay As you Earn (PAYE). The Annual Business Inquiry obtains details on these businesses from the Office for National Statistics Inter Departmental Business Register (IDBR). In order to calculate full-time equivalent jobs growth using the Annual Business Inquiry a ratio was applied. To remain consistent with the previous report and database this was FT (full-time jobs) + 0.5PT (part time jobs)

Figure 1.3: Full-time equivalent jobs net additions and change by Travel to Work Areas, 1998-2008²⁷



London values have been removed for reasons of scale. The England average change was over 8 per cent.

With regards to the core cities,²⁹ all except for Nottingham and Birmingham experienced higher than average growth in the number of jobs between 1998 and 2008. Since it has

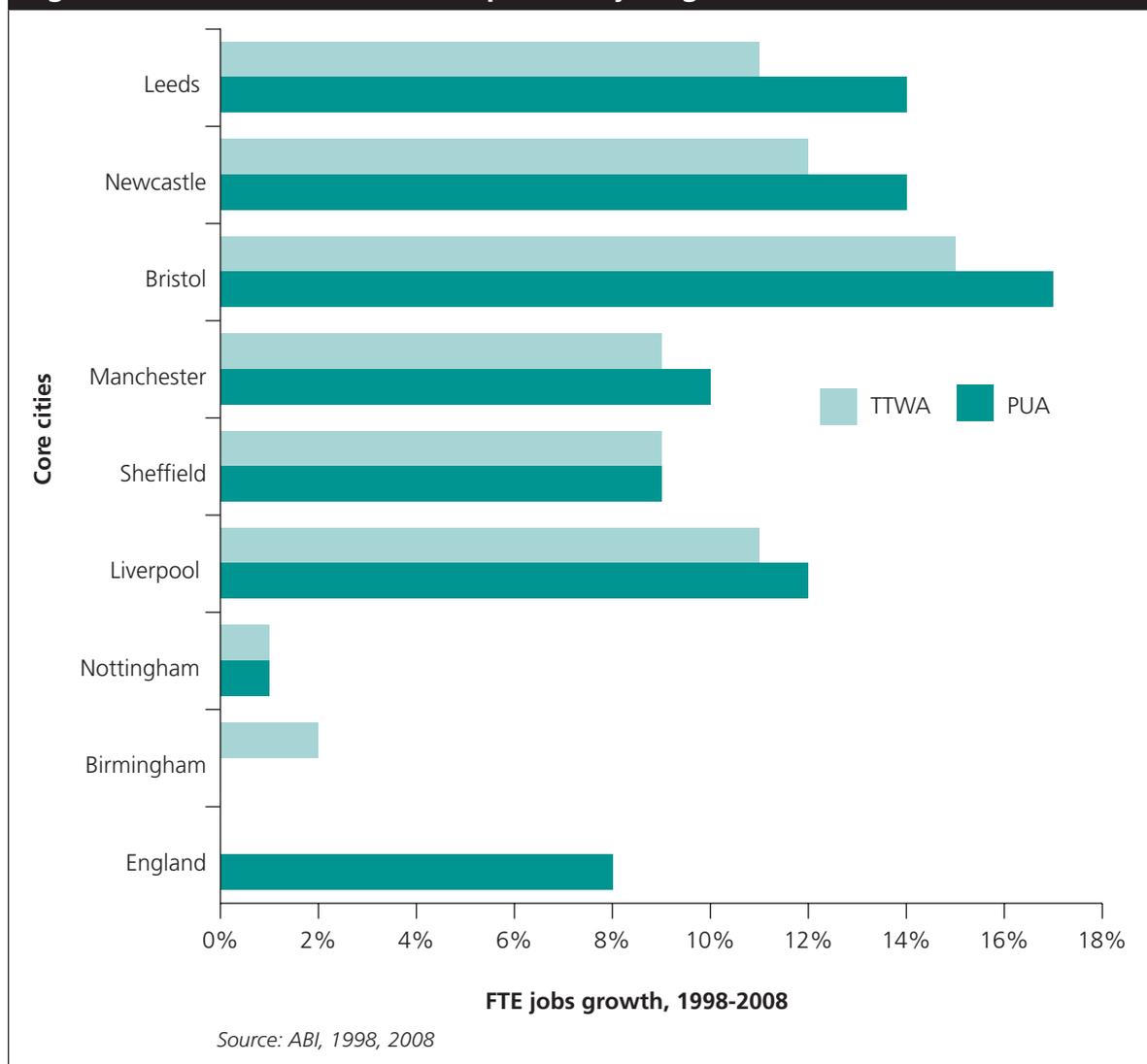
²⁸ Groups of cities by size follows the definition used in ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM. More details included in the Appendix. Note that this considers only employee jobs

²⁹ For a definition of core cities, see footnote 16.

been commonly argued that the core cities have been drivers of employment in their respective wider areas, it is interesting to explore further the performance of the Travel to Work Area against the core urban areas.

It is clear from Figure 1.4 that between 1998 and 2008 growth in the number of jobs in Leeds, Newcastle and Bristol Primary Urban Areas was larger than in their Travel to Work Areas. This was also the case – albeit to a lesser extent – in Manchester, Sheffield and Liverpool.³⁰ This suggests that these core cities have been key drivers of jobs growth within their wider areas over the last decade.³¹

Figure 1.4: Core cities full-time equivalent jobs growth, 1998-2008



³⁰ A more detailed look at the different time periods does show that growth for Bristol and Manchester's urban areas has been higher between 1998 and 2003, whereas Leeds and Liverpool's Primary Urban Areas experienced more recent growth (2003-2008). Newcastle saw a consistent performance throughout with the urban area registering higher employment growth than the Travel to Work Area. Townsend and Champion (2009) contend that the core cities have only outperformed their wider Travel to Work Areas between 1998 and 2002. Differences in the results observed by Champion and Townsend (2009) can be explained by the geographical definition used and time periods considered.

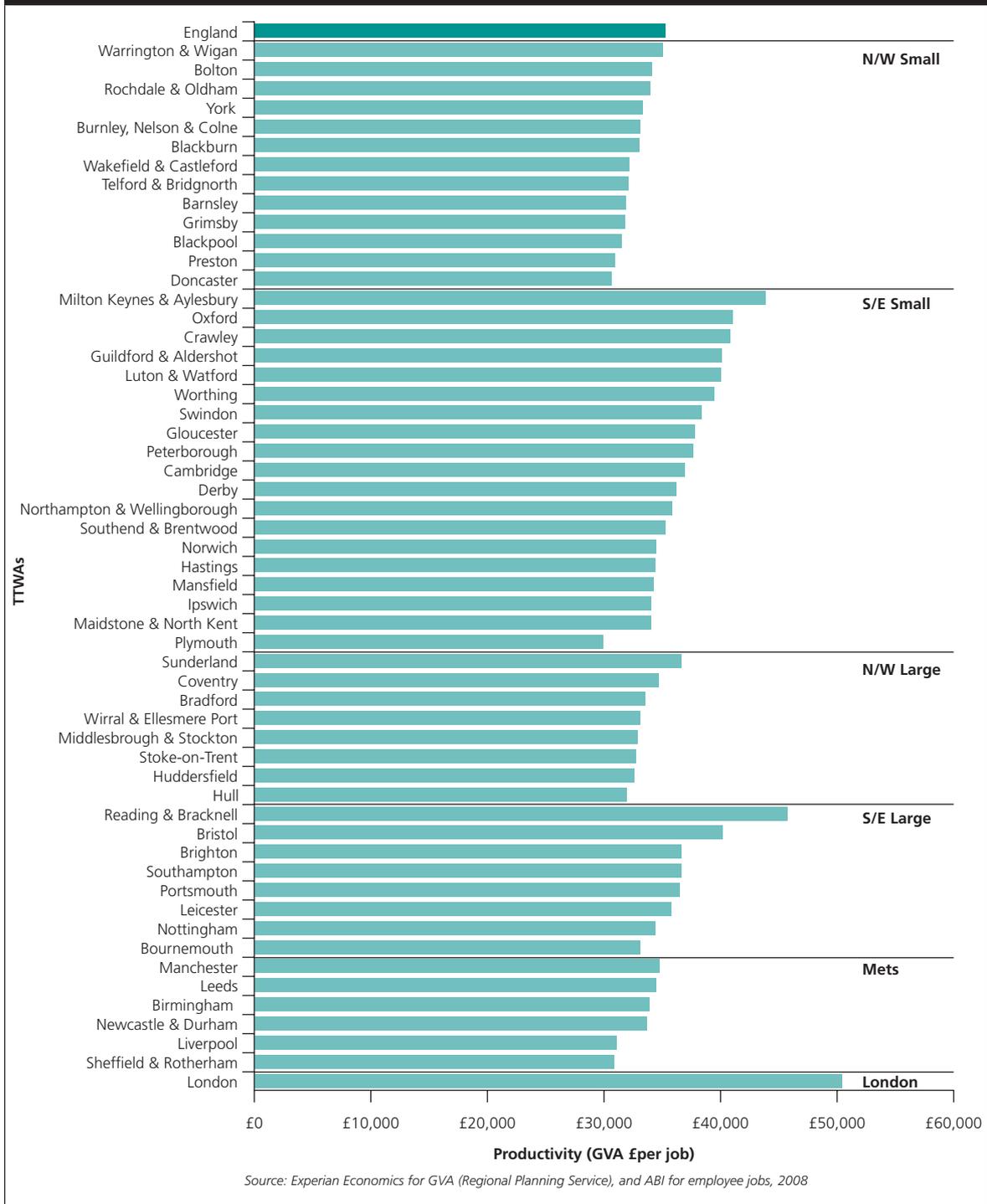
³¹ On the surface this could appear to contradict findings from figure 1.2. This showed core cities (in figure 1.2 these are referred to as Metropolitan cities and exclude Bristol and Nottingham) underperformed the English average on employment growth. However, the average for the core cities is pushed down by those cities that experienced little or low jobs growth over the last decade.

Employment growth does not provide insight into the types of jobs created in different cities and the productivity gains for each economy. Turok et al. (2008)³² found that cities in the UK showed signs of accelerated growth, but when compared to other cities in Europe, UK cities tended towards slightly lower income growth but higher jobs growth. This indicates that employment growth may be largely based on low productivity jobs.

Evidence of which Travel to Work Areas are most productive, i.e. which produce the highest output levels per employee, provides further insight into which are the best performing areas.³³ Cities such as Reading, Bristol, Milton Keynes, Oxford, amongst others, show higher than average productivity rates. Manchester (followed by Leeds), Warrington and Wigan, and Sunderland (with its Nissan car plant) feature among those cities with the highest productivity within 'Mets' (metropolitan areas), northern large and small cities groups respectively, but with the exception of Sunderland they still lag behind the England average.

³² Turok, I. and Mykhenko, V. (2008) *Resurgent European Cities? Urban Research and Practice*. Glasgow: Department of Urban Studies and Centre for Public Policy for Regions.

³³ Labour productivity is the amount of goods and services that a labourer produces in a given amount of time. This is calculated by dividing the total Gross Value Added output of an area by the number of workers. This shows which areas are the most productive, i.e. which areas generate the most Gross Value Added per worker. For more details on the groupings of cities by size, see the Appendix.

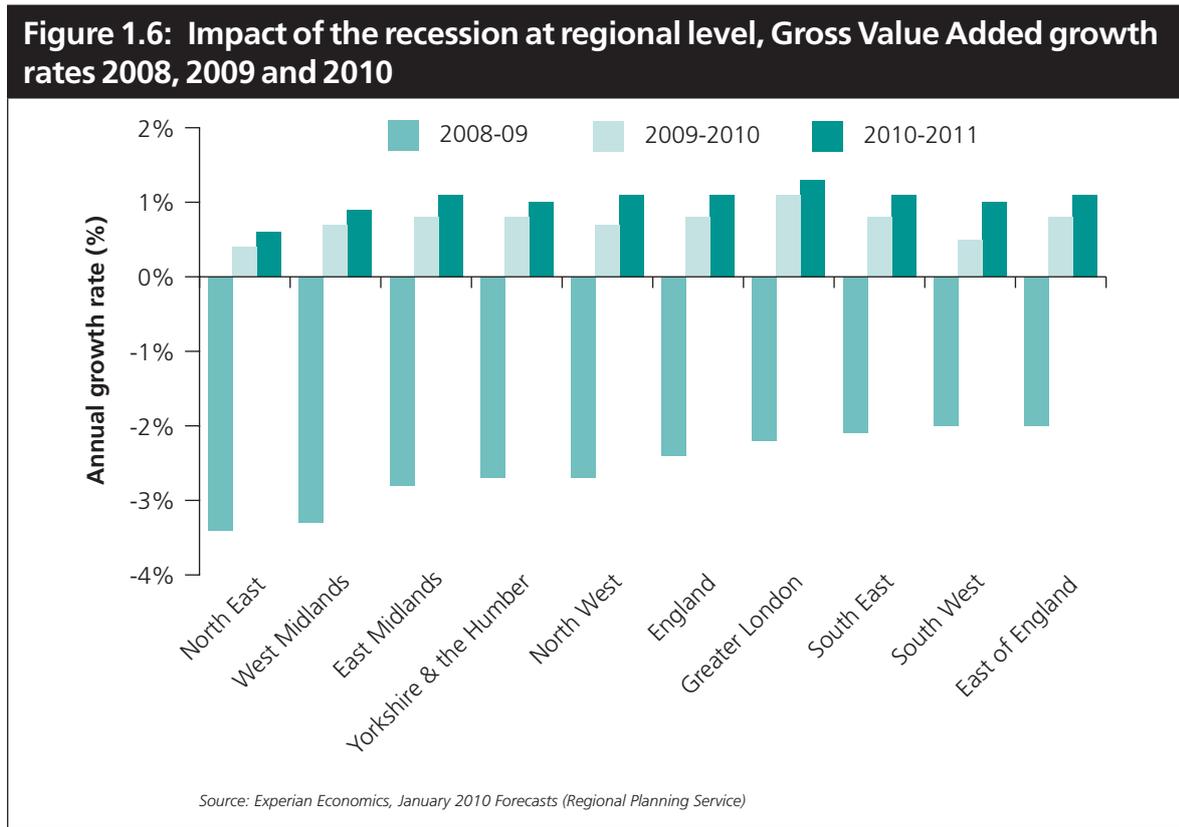
Figure 1.5: Travel to Work Areas – Productivity 2008 (Gross Value Added per job)

The impact of the recession

The impacts of the recession have been wide ranging, impacting all sectors of the economy. Although financial and business services were at the heart of this recession, and were initially thought to be the main losers, it soon became apparent that the manufacturing and construction sectors were also badly affected.³⁴

³⁴ Experian (2008) *Resilient local economies: surviving the downturn. Policy Insight*. London: Experian. Centre for Cities (2010) *Cities Outlook*. London: Experian.

Spatially, this meant that the recession had a negative impact in some areas of the north with a high share of employment in manufacturing, and less so in areas with a concentration of employment in financial and business services, such as London and the greater south east (Figure 1.6). Compared to the 1980s and 1990s recession, the impact appears less severe.³⁵ Analysis of the impact of the recession on the labour market shows that places with a legacy of industrial restructuring – for example Hull, Birmingham, and Rochdale were hit hardest. In other words, there is now evidence suggesting that many of the less prosperous cities have been hit the hardest by the recession.³⁶



During previous recessions, declines in employment tended to be more severe than falls in output.³⁷ Hence, while there are signs of economic recovery and the labour market has appeared reasonably flexible, it is possible that labour market contraction could still be protracted and prolonged. Analysis of recent increases in claimant unemployment shows that places like Hull, Middlesbrough, Grimsby and Birmingham, which already had high claimant rates in 2008, saw large increases during the recession, this is further explored in Section 2 of this report.

³⁵ In the second quarter of 2010 the unemployment rate stood at 7.8 per cent, a decrease of 0.2 percentage points compared to the previous quarter. Quarter two 2010 was the third quarter in which the UK economy expanded, following six consecutive quarters of economic contraction. Compared to previous recessions, the unemployment rate during the last two years has remained lower. In the ninth quarter following the onset of the 1980s recession, the unemployment rate stood at 10.4 per cent. In the ninth quarter following the start of the 1990s recession, the unemployment rate was 9.9 per cent. www.statistics.gov.uk/cci/nugget.asp?id=2294

³⁶ Clifton, J., Dolphin, T., and Reeves, R. (2009) *Building a Better Balanced UK Economy: Where will jobs be created next? IPPR Tomorrow's Capitalism*. London: IPPR; Brinkley, I. (2009) *Recession and recovery to 2020, A Knowledge Economy Report*. London: Work Foundation.

³⁷ Experian (2009) *The UK recession: a comparison with previous downturns. Retrospective analysis. A report for the NWDA*. London: Experian.

Having reviewed cities' recent performance, we now turn to explore the drivers behind growth and differential outcomes.

1.3 Examining the drivers of growth

Economic performance is influenced by a complex mix of factors, such as the business environment (the innovation and investment capacity of firms within an urban area), the skills base, the physical infrastructure, wider social factors and, arguably, the decision making structures in place. These are outlined in Box 1 below. In this section we discuss the first two factors, the business environment (innovation, connectivity, and specialisation/diversification) and the skills base. Other enablers of growth are examined in subsequent sections of this report.

Box 1: Economic performance – a conceptual framework

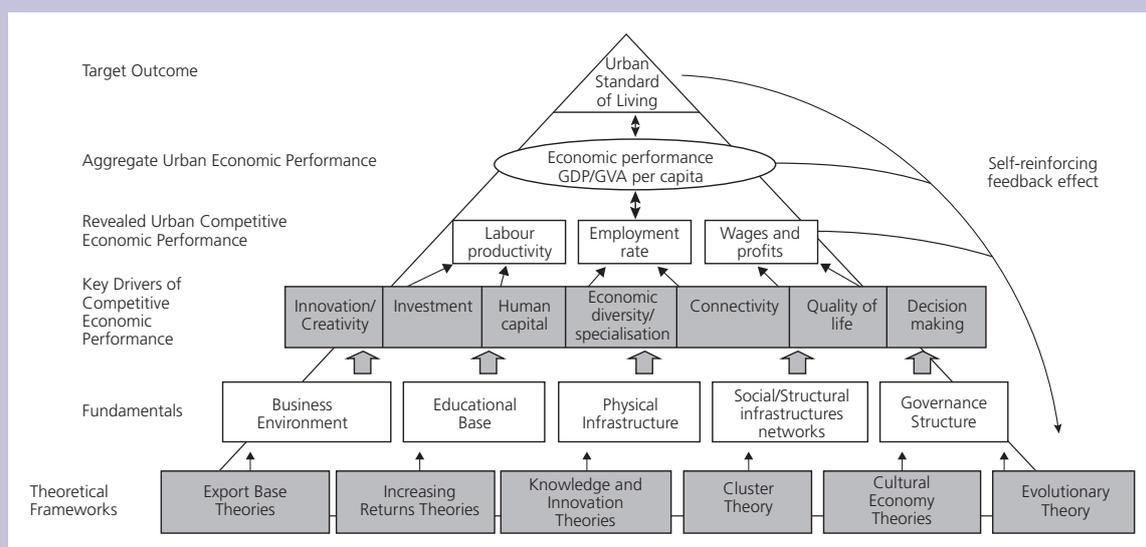
The factors behind economic performance have been well-researched in the economic literature. Our analytical approach to a city's economic performance draws on that already developed in the State of the English Cities report. The report focuses on economic performance rather than city 'competitiveness' because the latter raises a number of questions, not least, in what sense do cities compete with each other.³⁷ We define a city's economic performance as underpinned by its ability to continually upgrade its business environment, skill base, and physical, social and cultural infrastructures. In doing so, it can attract and retain high-growth, innovative and profitable firms, and an educated, creative and entrepreneurial workforce. This, in turn, enables a city to achieve a high rate of productivity, high employment rate, high wages, and low levels of income inequality and social exclusion. Ultimately, economic performance matters because it impacts on the standard of living enjoyed by a city's residents.

³⁸ There is a vast literature referring to urban 'competitiveness'. See for example Martin, R. (2005) *Thinking about regional competitiveness: critical issues*. Background 'think-piece' paper commissioned by emda; ODPM (2004), *Our cities are back: competitive cities make prosperous regions and sustainable communities*. London: ODPM.

Box 1: Economic performance – a conceptual framework (*continued*)

Economic performance is influenced by a host of factors/economic fundamentals, such as the business environment (the innovation and investment capacity of the city); the skills base, the physical infrastructure, wider social factors and, arguably, the decision making structures in place.³⁸ Whereas the business environment (innovation, connectivity and specialisation/diversification) and the skills base are factors explored further in Section 1.3, wider social, physical factors are examined in Sections 2 and 3 respectively. The figure below from the State of the English Cities report summarises the conceptual framework used throughout this report.

It is worth emphasising that the current report analyses trends for these different fundamentals and key drivers of economic performance, and where possible links it back to measures of revealed performance such as productivity or the employment rate. Attributing relative weight to these factors to explain differences in performance across cities is beyond the scope of this study, and would be constrained by data limitations at the city level.



Source: ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM.

The business environment

An innovative business base

As widely documented in the literature,⁴⁰ knowledge-based industries have a significant impact on economic performance. By knowledge-based sectors we mean those industries where the

³⁹ It is important to note the similarities with other commonly used frameworks. For example, the HM Treasury productivity framework refers to five key drivers of productivity: investment, innovation, skills, enterprise and competition. Innovation, enterprise, some aspects of investment mostly related to R&D activity, and those elements of competition applicable at the local level (that is, trade and foreign investment) are reflected in 'business environment' factors. Other aspects of investment, namely those associated with capital investment, are captured in 'physical infrastructure'. Skills have been identified as a separate key factor in both frameworks. BERR (2008) *The 2008 Productivity and Competitiveness Indicators*. London: BERR.

⁴⁰ For example, see Parkinson et al. (2006), op.cit; Morris, K. (2010) *Flat or Spiky: The changing location of the British knowledge economy*. London: Work Foundation.

use of intangible resources such as knowledge and specialist skills plays a predominant part in the creation of wealth. To illustrate this point, the State of the English Cities report defined a number of key knowledge-intensive sectors including the creative industries, high-tech industries, and certain business sectors (detailed definitions of these sectors are included in the appendix). Using these definitions, Figure 1.7 below shows those urban Travel to Work Areas with the highest proportion of employment in these key sectors.

A high proportion of jobs in these sectors are in areas located in urban Travel to Work Areas such as Reading, Oxford and Bristol. In the case of knowledge-intensive business sectors, Manchester also appears among those wider urban areas with a high proportion of jobs in the sector. In addition, Preston and Derby feature a significant proportion of jobs in high-tech industries. Most of these cities, showed a higher than average performance in productivity (Figure 1.5), with only Preston and Manchester seeing lower than average productivity.

Figure 1.7: Top 10 Travel to Work Areas for jobs in key sectors (as % of total employees), 2008⁴¹

Creative industries		High-tech industries		Knowledge-intensive business services (KIBS)	
TTWA	Rate (%)	TTWA	Rate (%)	TTWA	Rate (%)
Reading & Bracknell	15.7	Preston	11.8	Reading & Bracknell	24.5
Guildford & Aldershot	14.0	Cambridge	10.5	Guildford & Aldershot	21.8
Milton Keynes & Aylesbury	10.1	Derby	8.5	Cambridge	17.5
London	10.1	Guildford & Aldershot	6.1	Milton Keynes & Aylesbury	16.1
Oxford	9.0	Reading & Bracknell	5.8	London	14.7
Cambridge	8.9	Oxford	5.4	Oxford	14.1
Worthing	7.8	Portsmouth	5.0	Luton & Watford	12.5
Southampton	7.2	Crawley	4.6	Manchester	11.7
Bristol	6.9	Worthing	4.5	Bristol	11.1
Brighton	6.9	Swindon	4.5	Worthing	10.8
England	4.3	England	1.9	England	7.1

Source: Annual Business Inquiry, 2008

⁴¹ For a definition of the sectors used, see Method Notes in the appendix.

More generally, high value added industries are characterised by an innovative business base, which contributes to strong economic performance. Many studies have found a strong association between innovation capacity (the ability to generate and exploit new ideas)⁴² and economic growth.

Although the existing evidence base at the city level is limited, recent studies have looked at the UK geography of innovation at regional level. The greater south east⁴³ displayed the strongest capacity to generate knowledge. In addition to London and the south east, the south west and Yorkshire and Humber were the regions with the strongest capacity to exploit this knowledge commercially.⁴⁴ This is generally consistent with previous findings of the State of the English Cities report on the innovation capacity of different urban Travel to Work Areas.

Although patent data and research and development (R&D) expenditure are limited measures of innovation and should be interpreted with caution, they largely portray similar trends, with the east and south east of England outperforming the other regions.⁴⁵

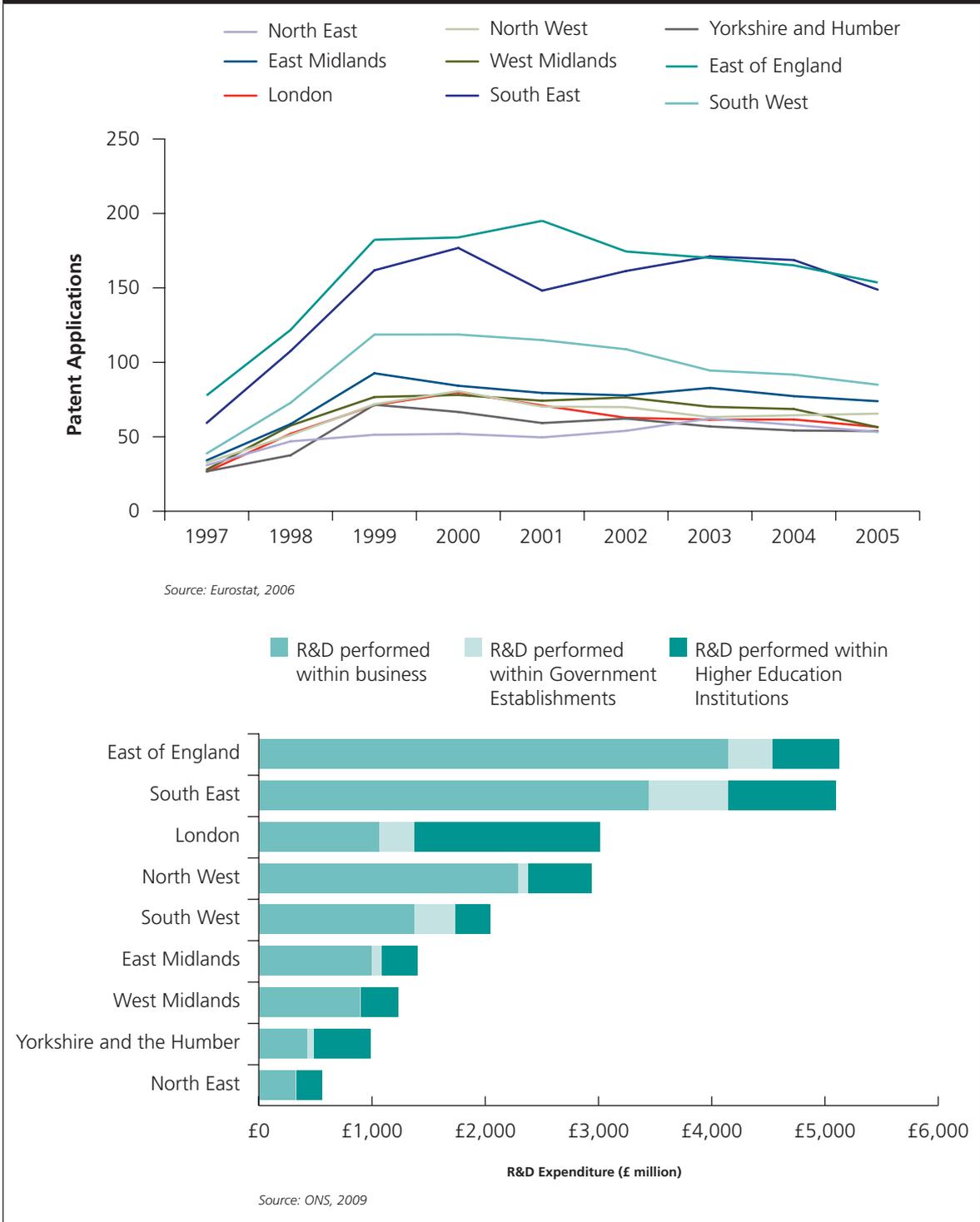
⁴² NESTA (2008) *History matters. Unlocking innovation in British cities and regions. Policy Briefing*. London: NESTA. Some of these studies measure innovation capacity using the Community Innovation Survey (CIS), which reports the number of firms introducing new products. www.bis.gov.uk/policies/science/science-innovation-analysis/cis

⁴³ The Greater south east includes London, the south east and east.

⁴⁴ NESTA (2008) *Innovation by Adoption: Measuring and mapping absorptive capacity in UK nations and regions*. London: NESTA. According to NESTA, knowledge creation capacity refers to the capacity available in a city or region to be a source of new ideas, discoveries and innovations (through university research, business R&D, and the training of new talent). *Knowledge exploitation capacity* is the capacity to use knowledge commercially and extract value from it through the creation of innovation enterprises or product innovations.

⁴⁵ A number of caveats need to be made with regards to the use of patents and R&D data to measure innovation. In the case of patents, not all inventions are patented and not all patents are equally significant. Furthermore, the propensity to patent varies greatly between industry sectors and unit size. In addition, patents are filed at the owner's private address meaning that some regional information may be inaccurate. In the case of R&D expenditure, it underestimates the innovation of small firms and considers only a small part of innovation activities in services. For more information see: PREST/CRIC (2006) *The Use and Limitations of Indicators in the Context of City-Region Development Strategy*.

Figure 1.8: Patent application per million population and R&D expenditure by region



Recent research has furthered our understanding of the factors affecting cities' diverse performance in terms of innovation: history, particularly long-term economic and structural development, plays a key role in the capacity of cities to generate and commercially exploit new ideas. But most importantly, cities with a strong performance in innovation are often

found to be plugged into international networks. This is a critical point given that policy has focused more on encouraging networks between universities and local businesses, relative to fostering international links.⁴⁶

Connectivity: an open economy

Trade and foreign direct investment are critical factors to economic performance, yet remain under-researched areas at the city level due to data limitations.

Air travel makes a critical contribution to the connectivity of cities. Here the cities outside the south and east are at a disadvantage. The airports around London dominate in both the regular flights to business destinations and the passenger numbers using them.⁴⁷

Some evidence at the regional level suggests there has been a decline in both foreign direct investment and exports in the northern regions. A recent study found that the north saw a decline in its foreign direct investment share (the proportion of foreign direct investment projects in the north out of all projects in England) between the late 1980s and mid-2000s, whereas the south east saw an increase of all investment projects located in the region, much of it in the services sector, but also some in manufacturing. In addition, foreign direct investment in services appears to be moving from some areas of the south east to neighbouring places, suggesting the possibility of diseconomies of scale, finding new places with lower costs.⁴⁸

Recent data on exports of goods sourced from UK Trade and Industry (UKTI) suggests the south east, the north west, London, followed by the east of England are among those areas with highest total values of exports in goods. However, on a per capita (working age) basis the north east has the second highest value of exports, behind the south east, with London below the national average (Figure 1.9). Obviously, these figures need to be interpreted with caution since trade is often recorded by head offices which are predominantly located in London and the south east.⁴⁹ Although covering an earlier period (1970s to 1990s), Rowthorn (1999) found that the north experienced a steep decline in its export base coupled with long-term decline in the traditional manufacturing sector.

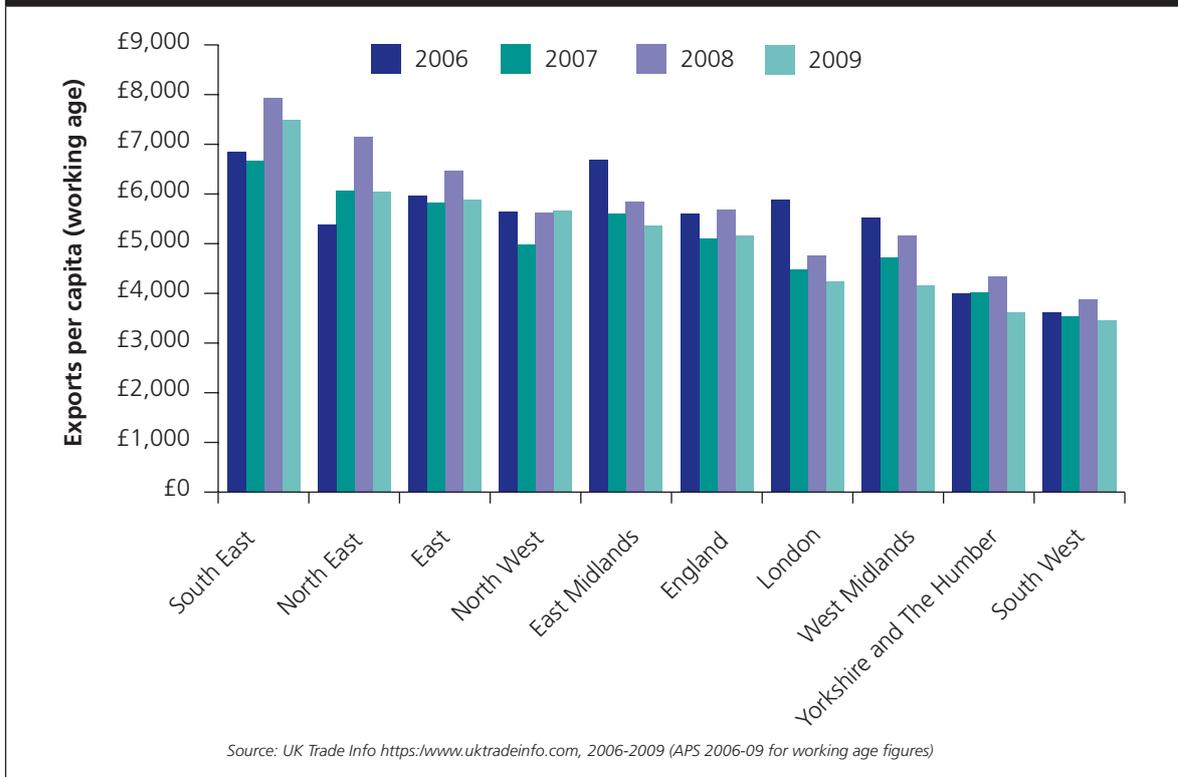
⁴⁶ NESTA (2008) *History matters. Unlocking innovation in British cities and regions*. Policy Briefing. London: NESTA.

⁴⁷ ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM.

⁴⁸ Jones, J. and Wren, C. (2008) *FDI Location across British regions and inward investment policy*. SERC Discussion Paper 13. London: SERC; Jones, J. and Wren, C. (2008) *Foreign Direct Investment and Prospect for the Northern regions*. SERC Discussion Paper 4. London: SERC.

⁴⁹ Given the data limitations on exports, Rowthorne (1999) provided an indication of the level of exports at the local level using a measure of 'tradeable employment' as a proxy for the export base. It includes agriculture, mining, manufacturing, armed forces and a proportion of financial and business services. For more details, see Rowthorne, R. (1999) *The political economy of full employment in modern Britain. The Kalecki Memorial Lecture*.

Figure 1.9: Total exports in goods over time (£ per capita – working age population), 2006-2009



Specialisation/diversification: a balanced business base?

Over the last decade, UK growth has not been sufficiently diverse with financial and business services and the public sector driving a large proportion of this growth.⁵⁰ In addition, the availability of credit fuelled consumer spending, and subsequently growth in the construction and retail service sectors. By contrast, manufacturing continued to lose ground partly due to technological change and growing overseas competition. This sectoral picture has spatial implications with many cities featuring a large concentration of lower-value added manufacturing (for example Burnley, Huddersfield, Blackburn and Hull) and recent growth in retail and construction sectors, particularly around the recent development of city-centres (Portsmouth, Newcastle, Sunderland, Middlesbrough are amongst some of the cities where the retail sector outperformed the average).

In light of the recession, and the impact it has had on all these different industries, there are big questions around which sectors will support city growth in the future. This is now the key challenge for cities going ahead.

In the case of business services, although it was initially largely affected by the recession, it remains a sector where the UK enjoys a comparative advantage and therefore a sector

⁵⁰ See for example Clifton, J., Dolphin, T., and Reeves, R. (2009) *Building a Better Balanced UK Economy: Where will jobs be created next? IPPR Tomorrow's Capitalism*. London: IPPR.

which may continue to drive growth in the future.⁵¹ Figure 1.10 shows those urban Travel to Work Areas that have a higher than average concentration of jobs in the banking and business services sector, and therefore would be affected by future developments in the sector.

Figure 1.10: Jobs concentration in banking and business services, 2008			
TTWA and Location Quotients (LQs)⁵²			
Reading & Bracknell	1.79	Portsmouth	1.18
London	1.69	Peterborough	1.18
Guildford & Aldershot	1.58	Southampton	1.17
Bristol	1.38	Oxford	1.16
Leeds	1.38	Norwich	1.13
Luton & Watford	1.37	Southend & Brentwood	1.13
Milton Keynes & Aylesbury	1.36	Swindon	1.13
Manchester	1.33	Bournemouth	1.13
Crawley	1.26	Nottingham	1.11
Northampton & Wellingborough	1.25	Worthing	1.10
Cambridge	1.22	Ipswich	1.02
Brighton	1.21	Warrington & Wigan	1.00

Source: Annual Business Inquiry, 2008

⁵¹ Clifton, J., Dolphin, T., and Reeves, R. (2009) *Building a Better Balanced UK Economy: Where will jobs be created next? IPPR Tomorrow's Capitalism*. London: IPPR.

⁵² The graph shows location quotients, that is, the concentration of employment in the sector compared to the English average. Numbers higher than one denote a higher concentration than English average

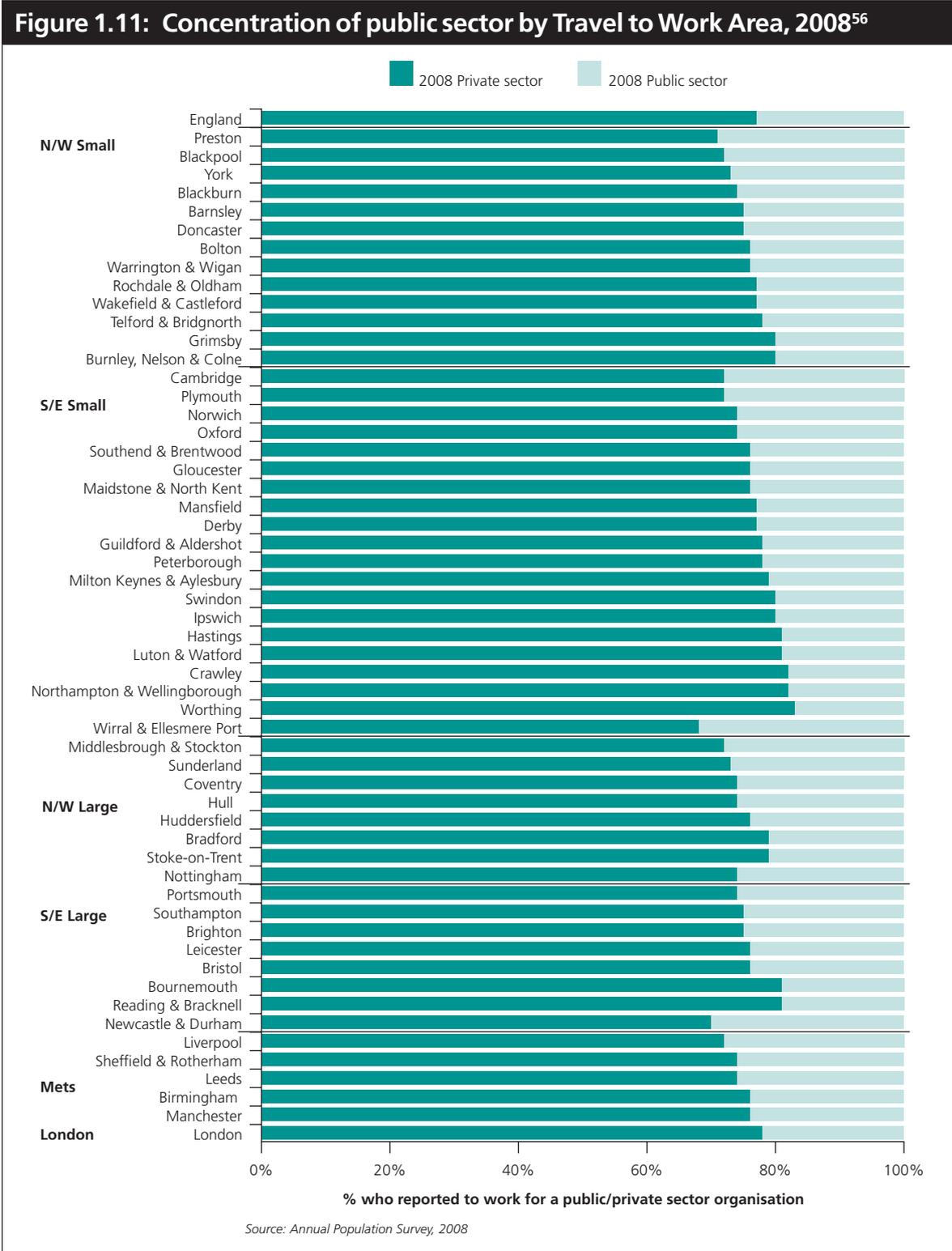
Given public spending constraints, the growth in jobs enjoyed by the public sector will no longer be sustainable.⁵³ Figure 1.11 illustrates the concentration of public sector employment for our 55 urban Travel to Work Areas. It uses a broad definition of public sector (drawn from the Annual Population Survey)⁵⁴ that does not distinguish between its different components but provides an indication of those wider urban areas with a higher than average proportion of employment in the sector. It is important to note that the survey asks respondents whether they work in the public or private sector. The response is self-defined, which may mean there is some ambiguity for third sector workers, or workers in public sector supported businesses. Other sources, such as the Office for National Statistics Public Sector Estimates do not provide figures at local level.

In the case of Annual Business Inquiry jobs data, the Standard Industrial Classification codes commonly used to reflect public sector jobs (84: Public Administration and Defence; Compulsory Social Security, 85: Education, and 86: Human Health and Social Work Activities) still include a number of private services (with the exception of Standard Industrial Classification code 84). Using the Annual Population Survey, Wirral and Ellesmere Port, Newcastle and Durham, Preston, Cambridge and Middlesbrough and Stockton appear to have large concentrations of public sector employment. Many cities, including all the core cities, featured among those with a high proportion of employment in the sector.⁵⁵

⁵³ See for example, Champion, T. and Townsend, A. (2009) *The fluctuating record of economic regeneration in England's Second-Order city Regions 1984-2007. SERC Discussion Paper 33.*

⁵⁴ Data on public sector employment has been sourced from the Annual Population Survey. This gives an estimation of the number of people working in the public sector. The survey asks respondents whether they work in the public or private sector. It is also important to note that the Annual Population Survey often suffers from small sample size at the local level. As such results should be interpreted with caution.

⁵⁵ This is generally consistent with the findings of Larkin, K. (2009) *Public sector cities: trouble ahead. Surviving Recession Series.* London: Centre for Cities.



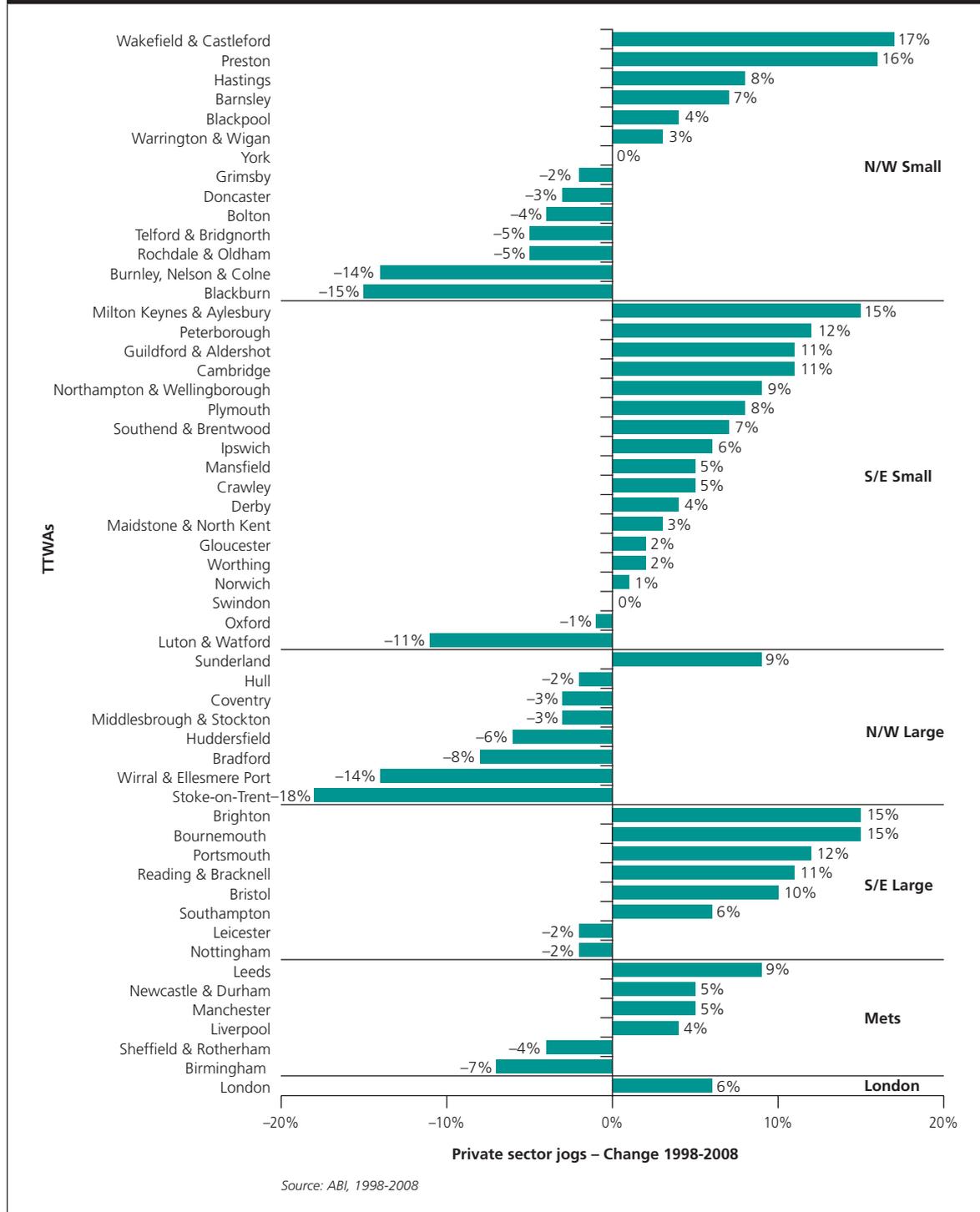
With spending cuts in the public sector and the ensuing job losses now a reality, cities need to foster growth in their private sectors to create employment opportunities.⁵⁷ Over the last 10 years there is evidence that the private sector of the cities in the north and west of England have contracted. As can be seen in Figure 1.12 below, Stoke-on-Trent, Blackburn,

⁵⁶ See footnote 47 for more details on the source.

⁵⁷ Webber, C. and Swinney, P. (2010) *Private Sector Cities: A new geography of opportunity*. London: Centre for Cities.

Burnley, Nelson and Colne and Wirral and Ellesmere Port have all lost large proportions of their private sector jobs between 1998 and 2008 while Wakefield and Castleford, Preston and Milton Keynes and Aylesbury saw their relevant private sectors grow on this measure. Cities in the south and east have seen greater growth in private sector job opportunities over the same period, with the greatest growth observed in Brighton and Bournemouth.

Figure 1.12: Private sector jobs growth, 1998-2008



A skilled workforce

A highly skilled workforce is fundamental to driving growth in high-value added sectors. Challenging economic conditions have intensified interest in this area given the potential long-lasting effect of increasing unemployment on deskilling and the need to meet the demands of emerging sectors.⁵⁸

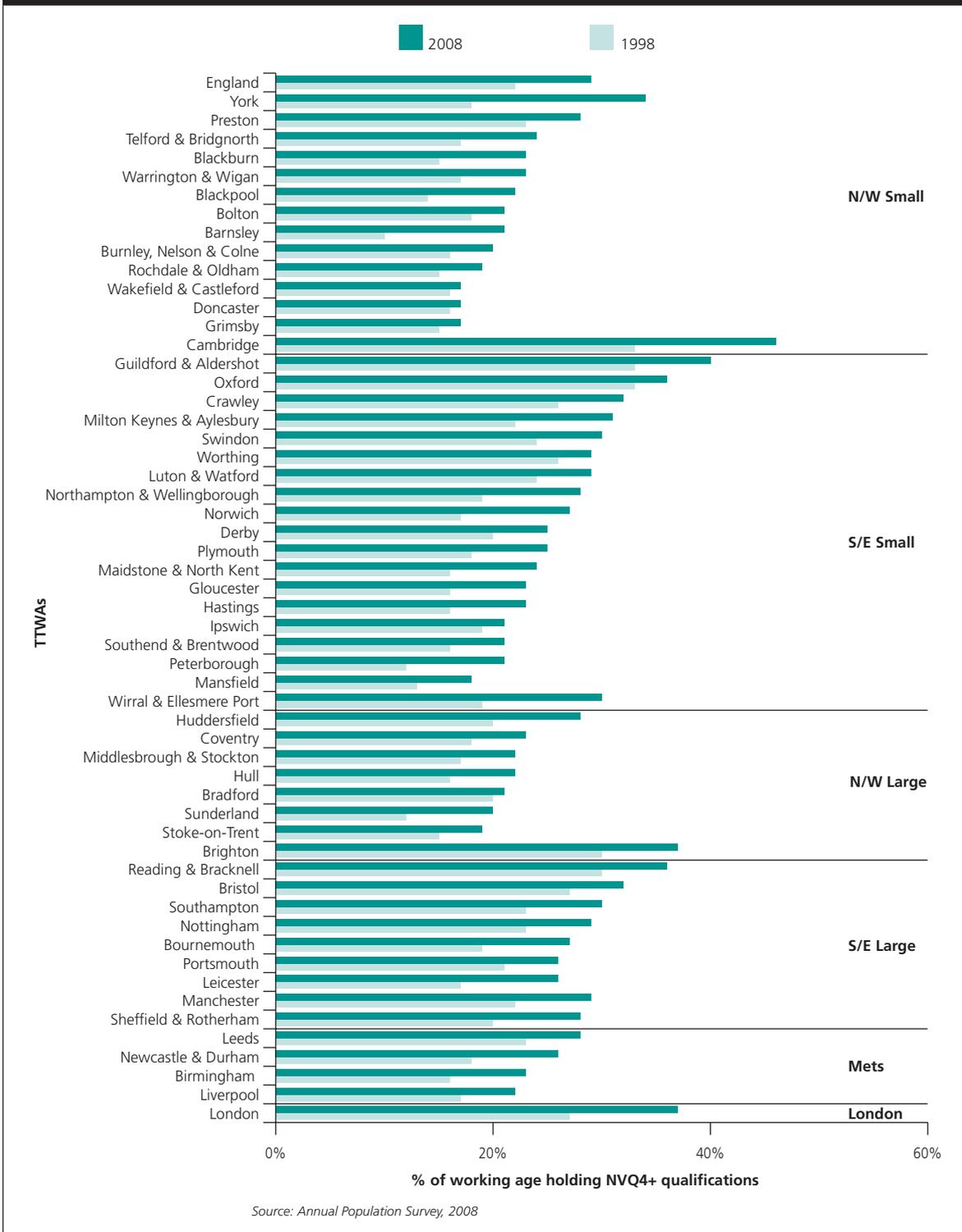
A look at the most recent data suggests that many cities identified as having higher than average productivity, such as London, Reading, Bristol, Milton Keynes, Oxford, Crawley, and Guilford and Aldershot (Figure 1.4), also feature a high proportion of the workforce educated to graduate level. However, the relationship between the proportion of those holding NVQ4+ qualifications and productivity is not clear cut and depends on the specific context of different city economies, their sectoral composition and labour markets, where intermediate skills also play an important role.

High performers are generally consistent with findings of the State of the English Cities Report. The report showed that most of these cities (London, Reading, Oxford, Cambridge, and Bristol) also experienced high growth in the percentage of those holding a degree during the 1990s.

In addition, Figure 1.13 shows that between 1998 and 2008 some areas starting from a low base have seen recent strong growth. This is the case of Travel to Work Areas such as Sunderland, Peterborough, Blackpool and Blackburn.

⁵⁸ UKCES (2010) *Skills for Jobs: Today and Tomorrow*. London: UKCES. This recent audit by the UK Commission for Employment and skills (UKCES) reinforces the importance of increasing skill levels to match the needs by future economic growth over the longer term.

Figure 1.13: NVQ4+ qualifications as proportion of working age population, 1998 and 2008



This section has illustrated some of the factors behind differential performance between cities. Although the data at the city level is patchy, what is available points to cities in the greater south east having higher jobs growth and productivity, a larger proportion of jobs in high-value added sectors, a higher innovation capacity, being plugged in the global economy and with a large proportion of skilled workers than the English average, and other cities in the north and Midlands.

1.4 Key messages

Many cities are centres of economic activity, employment and innovation. As such they are relevant to national economies.

This review of city economic performance suggests the performance of cities between 1998 and 2008 has been mixed. Small and large cities in the south east, such as Milton Keynes, Northampton, Cambridge, Crawley, Bristol and Reading experienced jobs growth while some large urban areas in the north, such as Stoke, Wirral and Ellesmere Port, and Bradford saw a decline in the number of jobs. Small and large cities in the south east also showed a strong performance on measures of productivity and key factors behind growth, such as the presence of high-value added sectors and a skilled workforce.

Manchester, Preston and Derby also featured among those cities with a high share of jobs in knowledge-intensive sectors (business services in the case of Manchester and high-tech in the case of the Preston and Derby) and the former also had a high proportion of skilled workers. So far, the story of mixed performance does not differ significantly from that portrayed in the economic performance chapter of State of the Cities report, published in 2006. This is to be expected, since long-standing differences in performance would not change in such a short period of time.

As well as commonalities, there have been changes since the publication of the State of the English Cities report, not least a new economic context dominated by the recession. In this section we showed that cities on average follow the business cycle, and much of the urban renaissance considered in the State of the English Cities report was explained by the period under consideration, i.e. the expansionary phase of the cycle. Emerging evidence suggests that the recession has affected less prosperous cities to a greater extent with a high share of jobs in manufacturing, exacerbating in some cases long-standing disparities between cities' performance.

Some experts consulted during the course of the research suggested that over the last decade not enough attention was paid to the quality of jobs created, with many cities growing their sectors based on a few industries that proved vulnerable in the current climate. With public sector employment likely to face cuts, and regeneration activity going through fundamental changes, the recession has raised a big question mark around which sectors will support city growth in the future, particularly in less prosperous cities. This remains a key challenge for many cities going forward.

There have also been developments in the research agenda and new views on cities' economic performance. There has been a growing body of literature devoted to understanding the benefits from the concentration of economic activity. Most recently, a fair amount of work has also been undertaken to better understand the interactions between different cities' economies – their labour markets, firms and housing markets – and how strengthening these interactions could enhance economic outcomes.⁵⁹

Throughout this study we have identified a number of key evidence gaps:

- Establishing links between different governance arrangements and economic outcomes is an area where there is still no substantial hard evidence, and, with the changes to sub-regional governance, it is of increasing relevance – for instance with the introduction of Local Enterprise Partnerships. Conceptually, it has been argued that decentralisation can incentivise growth through close tailoring of public services to users and addressing local circumstance. It is also argued that it can encourage creativity and innovation, and improve accountability and transparency. Some have raised a few caveats, arguing that if areas to which powers are decentralised have different capacities, decentralisation could deepen inequalities.⁶⁰ Further, it could increase bureaucratic costs if economies of scale for some common services are lost. Therefore, there are also gaps related to the optimal spatial levels of intervention for different areas of policy (a point also developed in Section 2).
- There are also gaps related to understanding the economic outcomes and social consequences of increasing economic interaction between different city economies (for example supply chains, commuting, and housing markets).⁶¹ These issues will be critical in supporting economic growth strategies founded in natural economic areas – now responsibility of the new Local Enterprise Partnerships – and in informing key transport investments and spatial planning policies.

⁵⁹ Overman, H. et al. (2009) *Strengthening economic linkages between Leeds and Manchester: feasibility and implications. Report for the Northern Way*. Newcastle: Northern Way; Lucci, P. and Hildreth, P. (2007) *City Links: Integration and Isolation*. London: Centre for Cities; Overman, H. and Rice, P. (2008) *Resurgent cities and regional economic performance. SERC Policy Paper 1*. London: LSE; Jones, A., Clayton, N., Tochtermann, L., Hildreth, P., Mar, A. (2009) *City Relationships: Economic Linkages in Northern regions*. Newcastle: Northern Way.

⁶⁰ Rodriguez-Pose, A. and Gill, N. (2005) On the 'economic dividend' of devolution. *Regional Studies*, 39(4), pp.405–420.

⁶¹ A number of recent studies, such as work carried out for the Northern Way, Manchester Independent Economic Review, and research undertaken at the Spatial Economic Research Centre at LSE, have started to fill some of these gaps.

- Finally, we identified some gaps related to the lack of indicators of innovation and entrepreneurship at the city level. Given the Government's emphasis on rebalancing the economy, and fostering private sector growth, understanding business performance, entrepreneurship and its drivers is critical to encouraging business investment. However, a number of key indicators of economic performance are not available at the city and Travel to Work Area level, which limited the analysis presented in the previous sections. These include data on output and productivity; innovation capacity; employment and output in new key growth industries such as the green sector (which is difficult to grasp using Standard Industrial Classification codes).

Section 2

Worklessness

This section looks at trends in worklessness - an important determinant of city performance. Tackling unemployment and physical regeneration (the quality of the built environment and public realm – the subject of the next section) – are interrelated areas of policy seeking to achieve an overarching aim: improving economic outcomes.

Worklessness is a wider measure of unemployment covering all those of working age who are not in employment.⁶² There is no strict definition of ‘worklessness’ and it can take many definitions, as is evidenced by the several ways of measuring it in this section, including those who are inactive, unemployed and those claiming out of work benefits. With this challenge now aggravated by the recession, it is critical to review the most recent trends and how the economic situation has affected different cities’ labour markets.⁶³

2.1 The geography of worklessness prior to the recession

While cities contain 58 per cent of Great Britain’s population they are home to 59 per cent of total benefit claimants and 66 per cent of the workless population. Urban Travel to Work Areas include 76 per cent of the population and 81 per cent of total claimants and the workless population.⁶⁴

Some of the effects of worklessness on a city economy include:

- reducing the likely work readiness of the available labour force, thereby having an impact on a city’s attractiveness to potential employers
- eroding skills during long periods of unemployment, with a long-term impact on a city’s economy
- decreasing the levels of spending in a city as those out of work have lower incomes
- displacing funds – budgets spent by local authorities tackling problems arising from worklessness reduce the amounts available for spending on other programmes that could benefit the city in other ways.⁶⁵

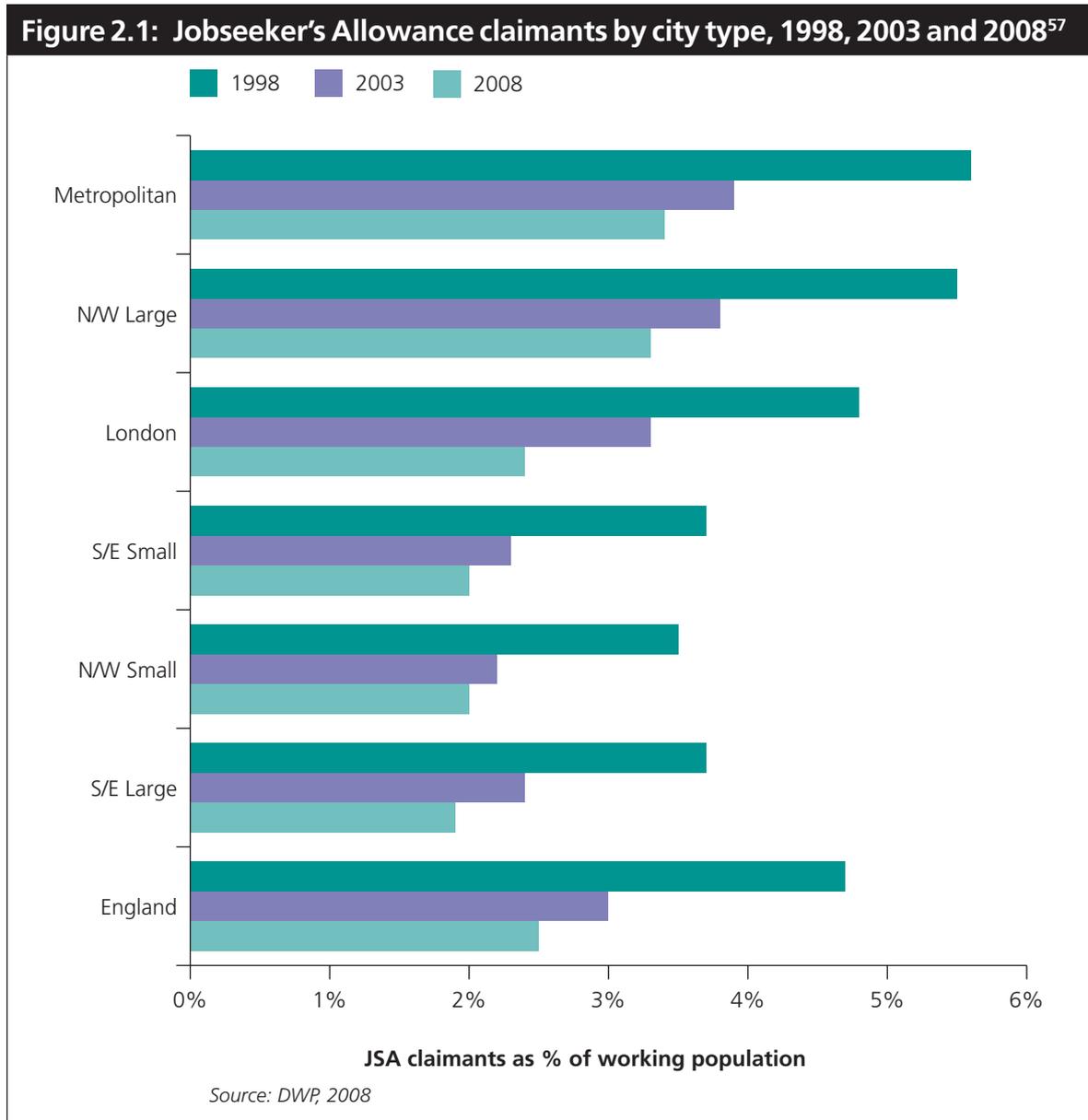
⁶² ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM.

⁶³ We acknowledge that lack of employment is just one aspect, among many, of social deprivation (with other aspects of deprivation including health, income, education and housing). However, given its relevance in light of the recession, and the fact that other aspects of deprivation take longer periods of time to show change, this section mainly focuses on worklessness.

⁶⁴ The workless population includes those inactive and unemployed sourced from the Annual Population Survey, 2008. Total benefit claimants drawn from the Department for Work and Pensions, 2008 including Jobseeker’s Allowance, Incapacity Benefit, Employment and Support Allowance, Income Support and Severe Disablement Allowance.

⁶⁵ Simmons, D. and Bivand, P. (2008) *Worklessness: a city approach*. London: CESI.

An analysis of Jobseeker’s Allowance claimants in 2008 shows that metropolitan and large cities in the north and west⁶⁶ had the highest rates while many southern and eastern urban areas had low claimant rates (Figure 2.1). Between 1998 and 2008, the story is one of positive change, with Jobseeker’s Allowance claimant rates falling in every urban area. Even between 2003 and 2008 the Jobseeker’s Allowance claimant rate increased in only five urban areas (Peterborough, Worthing, Milton Keynes, Hastings and Burnley).



A more detailed look shows that cities in the south (such as Cambridge, Bournemouth, Bristol, Oxford, and Reading, among others) and York had the lowest Jobseeker’s Allowance claimant rates in 2008. Northern urban areas including Hull, Liverpool and

⁶⁶ For more details on the groupings of cities by size, see the Appendix. Metropolitan areas include Birmingham, Leeds, Sheffield, Liverpool, Manchester, and Newcastle.

⁶⁷ Data refers to monthly Jobseeker’s Allowance claimant rates for January 1998, 2003 and 2008. The denominator is working age population.

Birmingham, and Hastings in the south featured the highest rates (Figure 2.2), but many of these cities experienced higher than average reductions in the Jobseeker's Allowance claimant rate between 1998 and 2008. Whereas the England average saw a fall of 2.2 percentage points, Hull saw a reduction of its Jobseeker's Allowance claimant rate by 4.1 percentage points, Liverpool 3.7 and Hastings by 3.3.

Figure 2.2: Top and bottom Primary Urban Areas for Jobseeker's Allowance claimant proportions, 2008

Rank	PUA	Claimant rate 2008 (%)	Rank	PUA	Claimant rate 2008 (%)
1	Wakefield	0.8	56	Hull	5.0
2	Crawley	0.9	55	Liverpool	5.0
3	Reading	1.1	54	Hastings	4.7
4	York	1.2	52	Birmingham	4.4
5	Aldershot	1.2	53	Birkenhead	3.8
6	Bristol	1.3	51	Coventry	3.7
7	Oxford	1.3	50	Sunderland	3.5
8	Bournemouth	1.4	49	Middlesbrough	3.4
9	Swindon	1.4	48	Newcastle	3.4
10	Cambridge	1.6	47	Grimsby	3.3
	England	2.5		England	2.5

Source: DWP, 2008

The Jobseeker's Allowance claimant count⁶⁸ can, however, understate the true scale of unemployment, failing to capture those who are unemployed but not claiming benefits (these people are included in the International Labour Organisation measure), or those who are on incapacity benefits but "could reasonably be expected to have been in work in a genuinely fully employed economy".⁶⁹ Recent research suggests that many cities had real rates of unemployment in excess of 10 per cent before the recession began.⁷⁰

⁶⁸ Unemployment measures all people who meet the internationally agreed definition of unemployment recommended by the International Labour Organisation. Unemployed people in the UK are: without a job, want a job, have actively sought work in the last four weeks and are available to start work in the next two weeks or; out of work, have found a job and are waiting to start it in the next two weeks. The International Labour Organisation may be a more useful measure but it is a survey and is prone to sample size limitations at the city level. It is different from the claimant count, which measures only those people who are claiming unemployment-related benefits (Jobseeker's Allowance). The number of unemployed people in the UK is substantially higher than the claimant count. Not everyone who is unemployed is eligible for, or claims Jobseeker's Allowance. Many unemployed people (especially women) are not eligible for Jobseeker's Allowance because they have a partner who is in work and/or because of their financial position. While most recipients of Jobseeker's Allowance would be classified as unemployed, some would fall into the 'employed' or 'economically inactive' categories.

⁶⁹ Fothergill, S. (2009) *The impact of the recession on unemployment in Industrial Britain*. Barnsley: Industrial Communities Alliance.

⁷⁰ Ibid.

While the JSA claimant rate in England in 2008 was 2.5 per cent, the International Labour Organisation unemployment rate was 6 per cent. Spatially, the recent pattern portrayed by the International Labour Organisation measure is similar to that described by measures of Jobseeker's Allowance claimants: the majority of urban areas with the lowest unemployment rates were southern and eastern cities and those with highest rates located in the north and west. With the exception of Sunderland, many of the cities with high unemployment rates have shown lower than average jobs growth during the last decade as described by Figure 1.3 in Section 1. The trends over time, however, are different to those captured by Jobseeker's Allowance claimants. Whereas London and cities in the south and east saw little change in unemployment rates between 1998 and 2008 in line with the England average, northern and western cities and metropolitan cities all saw the International Labour Organisation unemployment rate rise during this period: the average increase in the International Labour Organisation rate in metropolitan areas was 1.8 per cent points and 1.5 per cent points for large northern and western large cities.⁷¹

Figure 2.3: Top and bottom 10 Primary Urban Areas for the International Labour Organisation unemployment rate, 2008

Rank	PUA	Rate (%)	Rank	PUA	Rate (%)
1	Aldershot	2.2	56	Birmingham	10.4
2	Crawley	3.4	55	Leicester	10.1
3	Bristol	3.8	54	Luton	9.6
4	Southend	4.0	53	Hull	8.9
5	Milton Keynes	4.1	52	Middlesbrough	8.8
6	Reading	4.3	51	Sunderland	8.6
7	Southampton	4.3	50	Burnley	8.6
8	Blackpool	4.3	49	Grimsby	8.5
9	Oxford	4.4	48	Birkenhead	8.2
10	Worthing	4.4	47	Bolton	8.1
	England	6.0		England	6.0

Source: Annual Population Survey, 2008

Figure 2.4 shows inactivity rates within urban areas, which provides a picture of all of those of working age who are not in work. Inactivity rates are used to measure the numbers of people who are neither in work nor looking for work. Liverpool (32.0%), Hull (31.7%), Cambridge (29.4%) or Blackburn (29.2%), among others, have rates of inactivity higher than the English average. Cambridge's presence can be attributed to a particularly high student population who do not work. For the same reason Oxford, while not included in the bottom 10, has a 23 per cent inactivity rate.

⁷¹ For more details on the definitions of cities by size, please see the Appendix.

Figure 2.4: Top and bottom 10 Primary Urban Areas for inactivity rates, 2008

Rank	PUA	Rate (%)	Rank	PUA	Rate (%)
1	Aldershot	14.0	56	Liverpool	32.0
2	Northampton	15.0	55	Hull	31.7
3	Swindon	15.5	54	Cambridge	29.4
4	Reading	16.2	53	Blackburn	29.2
5	Milton Keynes	16.7	52	Birmingham	27.1
6	Ipswich	17.1	51	Middlesbrough	26.2
7	Crawley	17.3	50	Coventry	25.9
8	Warrington	17.4	49	Barnsley	25.8
9	York	18.7	48	Burnley	25.8
10	Brighton	19.8	47	Hastings	25.6
	England	21.1		England	21.1

Source: Annual Population Survey, 2008

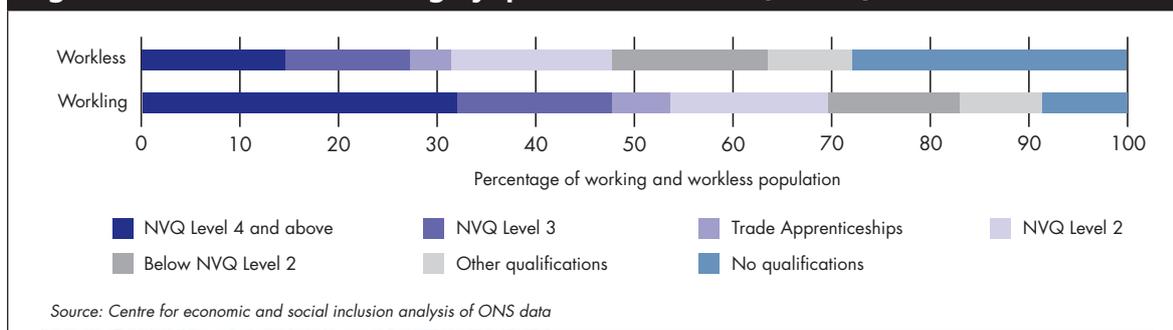
Also counted among those who are economically inactive are those who claim Employment and Support Allowance, formerly incapacity benefit. On the whole, northern and western and metropolitan cities are those which are most likely to have high rates of Incapacity Benefit/Employment and Support Allowance claimants, though Hastings in the south stands out as having a high rate of Incapacity Benefit/Employment and Support Allowance claimants. Hastings is also one of the most deprived urban areas in the south east as evidenced by the Index of Multiple Deprivation, described in Figure 3.5 in Section 3.

Figure 2.5: Top and bottom 10 Primary Urban Areas for Incapacity Benefit/ Employment and Support Allowance claimants, 2008

Rank	PUA	Rate (%)	Rank	PUA	Rate (%)
1	Reading	3	56	Hastings	13
2	Wakefield	3	55	Liverpool	12
3	York	3	54	Worthing	11
4	Crawley	3	53	Sunderland	11
5	Oxford	4	52	Blackburn	11
6	Cambridge	4	51	Barnsley	10
7	Doncaster	4	50	Stoke	10
8	Milton Keynes	4	49	Bolton	10
9	Southampton	4	48	Wigan	10
10	Aldershot	5	47	Burnley	9

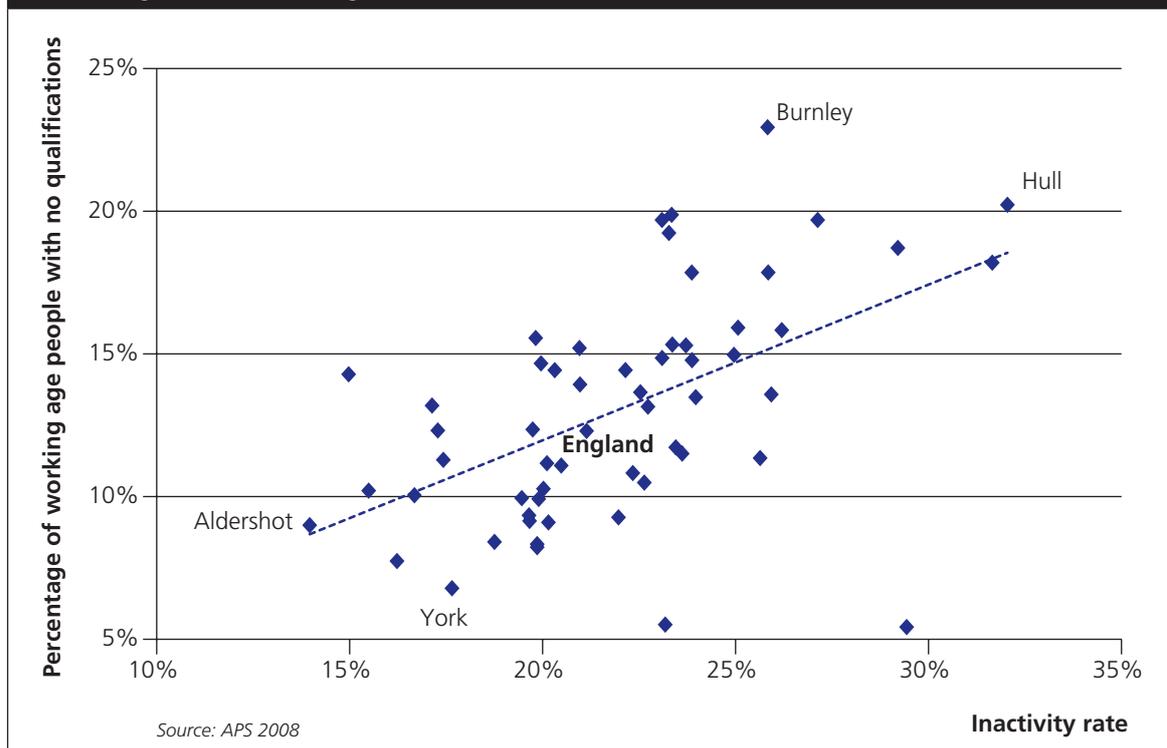
The barriers to an individual’s ability to work are well-documented and wide-ranging, depending on the specific context of cities’ economies and their labour markets. For example, Figure 2.6 below shows the links between worklessness and low skills, with those out of employment more likely to be poorly qualified.

Figure 2.6: Whether working by qualification level (for UK)



There appears to be a strong relationship between those urban areas with high rates of worklessness and a high percentage of the population with no qualifications (Figure 2.7). In Burnley, for example, 23 per cent of the population have no qualifications and there is an inactivity rate of 26 per cent. By contrast, in York only 7 per cent of people have no qualifications and the inactivity rate is only 18 per cent.

Figure 2.7: Proportion of working age population with no qualifications and inactivity rates (Primary Urban Areas)



However, it is not just qualifications that can act as a barrier to an individual's ability to work. For these individuals – who are furthest from the labour market – there are multiple barriers to employment. Recent research from Green and Hasluck⁷² highlights that issues such as access to housing, healthcare, and childcare need to be addressed before an individual is able to work.

Other barriers to work identified in the literature include the physical accessibility of available job opportunities, including transport costs. In addition, institutional factors have also been singled out as relevant in explaining the persistence of worklessness. These can extend to “the workings of labour market intermediaries seeking to match labour supply and demand, the workings of the benefit system such that some individuals derive little or no benefit from working”.⁷³ In addition, low pay can act as a disincentive to leave benefits. It could mean that returning to work offers no financial gains, if individuals need to work long hours and face additional costs, such as public transport.⁷⁴

⁷² Green, A. and Hasluck, C. (2009) Action to reduce Worklessness: What Works? *Local Economy*, 24(1).

⁷³ Green, A. (2009) *Addressing the problem of worklessness: the role of regeneration*. Regeneration Futures Roundtable. London: DCLG.

⁷⁴ Crisp et al. (2009), *op. cit.*

Barriers to the ability to work not only include an individual's skills or institutional factors. In many local areas there are deficiencies in the demand side of the market. In some English cities – particularly those where significant de-industrialisation has occurred – some evidence points to a lack of suitable jobs being available.⁷⁵ Many areas with a high rate of Jobseeker's Allowance claimants, such as Hull, Burnley, and Grimsby, have also experienced low employment growth and in many cases decline in the last decade (see Figure 1.3 in Section 1). The importance of this aspect of worklessness has become even more apparent in the light of the current economic climate.

2.2 The impact of the recession on worklessness

As yet, we do not know the full extent of the consequences of the recession for the labour market. Although there is evidence suggesting that the impact of the downturn on the labour market could be less pronounced than initially expected, we know from previous recessions that the effects on employment are often long-lasting.⁷⁶

As a result of the downturn, the numbers of those out of work has increased across each of England's urban areas. Research from the Joseph Rowntree Foundation shows that falls in the employment rate have disproportionately affected the lowest qualified, the young, and those already living in deprived areas.⁷⁷ For example, the 10 per cent of communities which had the highest Jobseeker's Allowance claimant rates in 2005 are also those which have experienced the largest increases in claimant rates between 2005 and 2009.⁷⁸ Figures on Jobseeker's Allowance claimant rates between January 2008 and January 2010 show that places such as Hull, Middlesbrough, Grimsby and Birmingham were among those with high claimant rates in 2008 (Figure 2.2) that saw large increases during the recession.⁷⁹ In addition, unemployment has increased the most in those communities with high proportions of manufacturing workers, particularly in the west Midlands and the north of England.⁸⁰

⁷⁵ See Beatty, C., Fothergill, S., Houston, D., Powell, R. and Sissons, S. (2010) *Women on Incapacity Benefits*. Sheffield: Centre for Regional Economic and Social Research. This study suggests that of those claiming Incapacity Benefits around 940,000 people are 'hidden' unemployed and would find work if there was a sufficiently high level of labour market demand in their local area. Further, the New Deal for Communities evaluation identified a similar issue. In 2006, 29.1 per cent of respondents to a survey of out-of-work residents in New Deal for Communities areas identified a lack of suitable jobs as a barrier to finding work. DCLG (2009b) *Understanding and Tackling Worklessness Volume 1: Worklessness, Employment and Enterprise*. London: DCLG.

⁷⁶ Experian (2009) *The UK recession: a comparison with previous downturns. Retrospective analysis*. A report for the NWDA. London: Experian.

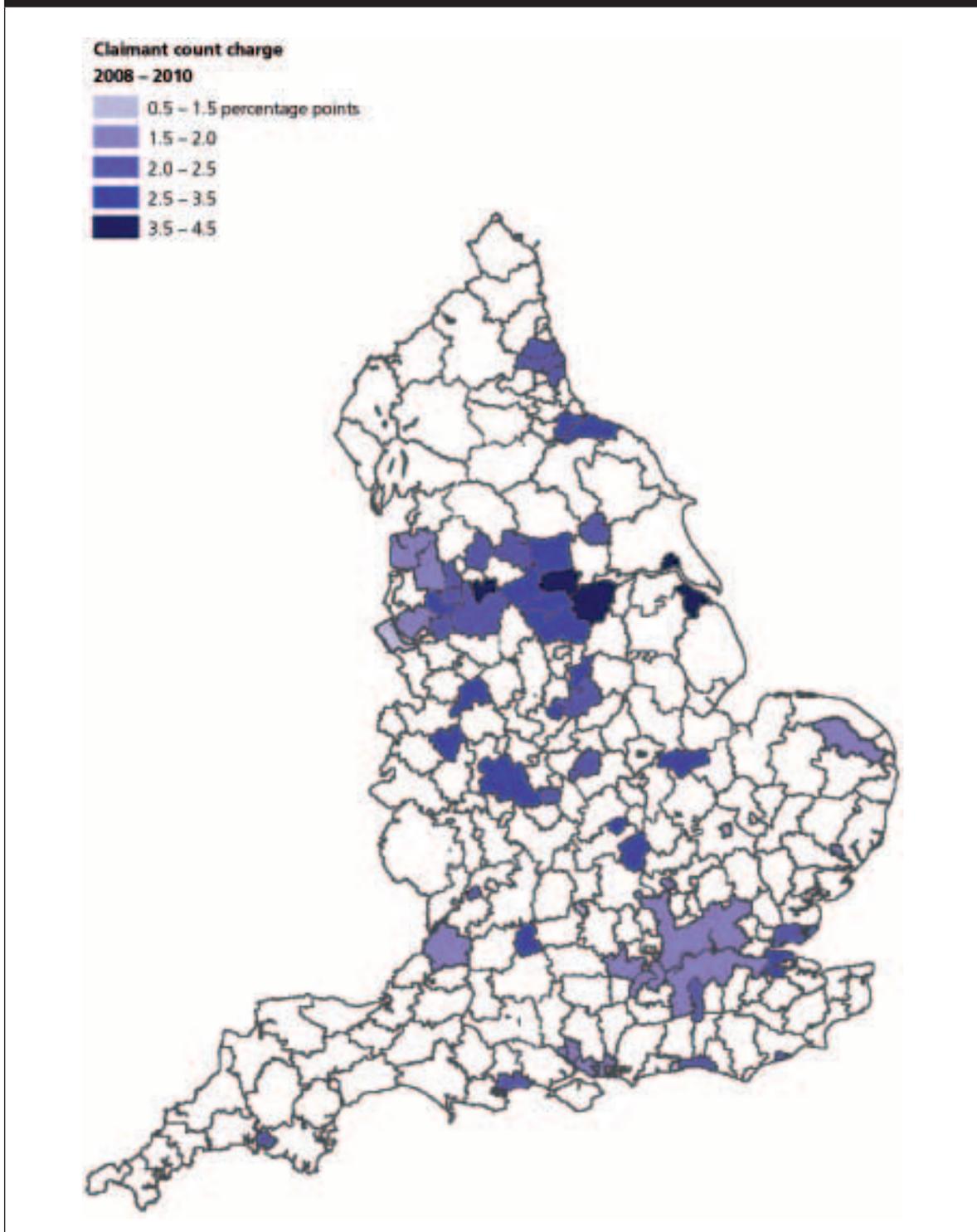
⁷⁷ Tunstall, R. (2009) *Communities in the recession: the impact on deprived neighbourhoods*. London: Joseph Rowntree Foundation; Crisp, R. et al. (2009), *op. cit.*

⁷⁸ *Ibid.*

⁷⁹ Sourced from the Department for Work and Pensions, 2010.

⁸⁰ Tunstall, R. et al. (2009) *Communities in the recession: the impact on deprived neighbourhoods*. London: Joseph Rowntree Foundation.

Figure 2.8: Jobseeker's Allowance Claimant rate change between 2008 and 2010



Source: Department for Work and Pensions, 2010

A key issue with regards to the impact of the recession is its disproportionate effect on youth unemployment.⁸¹ By preventing labour market entrants from gaining employment experience, sustained youth unemployment may reduce their future productivity leading to lower incomes and poorer labour market experiences in later life. People who have a spell of worklessness in their 20s suffer impacts on their subsequent earning power to an extent not matched by an unemployment spell in later life stages.⁸²

Youth unemployment is highest in Hastings and in metropolitan and northern and western cities. Southern cities tend to have lower Jobseeker's Allowance claimant rates among their young people, even though recently there have been increases across the board.

Figure 2.9: Youth unemployment rates (Jobseeker's Allowance claimants), 2008⁷³

Rank	PUA	Rate (%)	Rank	PUA	Rate (%)
1	Oxford	1	56	Hastings	9
2	Cambridge	1	55	Liverpool	8
3	York	1	54	Birkenhead	8
4	Reading	1	53	Birmingham	7
5	Aldershot	1	52	Hull	7
6	Crawley	1	51	Sunderland	7
7	Bournemouth	1	50	Middlesbrough	7
8	Wakefield	1	49	Grimsby	6
9	Bristol	1	48	Blackburn	6
10	Southampton	2	47	Wigan	6

Source: Department for Work and Pensions, 2010

In short, the recession appears to have hit those places which already had a long-history of worklessness hardest, and triggered a rise in youth unemployment. In addition, the recession has brought the issues around the availability of suitable jobs to the fore.

⁸¹ Shaheen, F. (2009) *Sticking plaster or stepping-stone? Tackling urban youth unemployment. Surviving the Recession Series*. London: Centre for Cities. It is important to note that youth unemployment was an issue before the onset of recession and that the current youth cohort is smaller than in the past.

⁸² Bell, D. and Blanchflower, D. (2009) *What should be done about rising unemployment in the UK. IZA Discussion Paper No. 4040*. Bonn: IZA.

⁸³ Youth is defined as aged 18 to 24 in this instance.

2.3 Key messages

The geography of worklessness shows that the proportion of people out of work is higher in large cities, such as Hull, Liverpool, Burnley and Middlesbrough, and lower in smaller cities, with the exception of Hastings. London also displays high levels of worklessness exposing some of the contrasts and deep inequalities evident across the capital. Large cities, particularly Birmingham and Liverpool, also feature among those with high levels of Jobseeker's Allowance claimants and unemployment rates above the English average.

A number of factors correlate with the persistence of worklessness and their relative incidence and importance depends on different cities' local circumstances. For example, low levels of skills and deprivation are associated with worklessness. Other barriers to work – whether suitable transport connecting people to jobs is available, whether its costs are prohibitive given levels of pay, or simply whether pay is too low to provide incentives to work – have also been identified in the literature. However, perhaps more fundamentally, the lack of jobs matching the skills of the local workforce has been highlighted as another critical factor in explaining the stubborn presence of pockets of worklessness in some northern cities.

Despite some improvements over the last decade in getting people back to work, with Jobseeker's Allowance claimant rates down in most cities between 1998 and 2008, the recession reversed some of these trends with the numbers of those out of work increasing across every single one of England's urban areas. Most importantly, evidence suggests it hit those least qualified, the young and those already living in highly deprived areas the hardest. As an example, Hull, Middlesbrough, Grimsby and Birmingham, cities with high Jobseeker's Allowance claimant rates in 2008, were among those seeing large numbers of newly unemployed.

There is no doubt that the recession has accentuated the challenge posed by worklessness, particularly for those cities where the number of people out of work was already high. Worklessness can further entrench deprivation, resulting in multiple and persistent barriers to employment. That is why it is essential to ensure that the short-term effects of labour market decline do not result in long-term unemployment. A similar argument applies to youth unemployment – if untackled it can leave permanent scars with losses for both the individual and the economy.⁸⁴

More fundamentally, the period of recession made clear how a lack of available jobs can impact on the labour market. It made clear that in some cities, worklessness is also associated with the unavailability of jobs matching workers' skills. With public sector

⁸⁴ Bell, D. and Blanchflower, D. (2009) *What should be done about rising unemployment in the UK. IZA Discussion Paper No. 4040*. Bonn: IZA.

employment likely to face cuts, and regeneration activity going through significant changes, the recession has raised big questions and new challenges around which sectors will support city growth and job creation in the future.

Finally, during the course of this study we identified key gaps in the evidence base related to tackling worklessness:⁸⁵

- There is a lack of evidence of the optimal spatial level of intervention. There is growing evidence that tackling the structural and institutional problems of worklessness at the neighbourhood level is unlikely to be as effective unless this considers the wider labour and housing market dynamics that operate at broader geographical levels than that of the neighbourhood.⁸⁶ In other words, even if concentrated in particular neighbourhoods, with labour markets spanning over different districts, there is a case to be made for formulating strategy at a level that considers the wider dynamics of the labour market and the economy and that takes an integrated approach to dealing with all the barriers to finding work.⁸⁷
- Further, experts⁸⁸ highlighted that the availability of jobs in particular areas is often not emphasised enough when formulating policy to tackle this stubborn policy area.

⁸⁵ Recent evaluation of regeneration policy by DCLG (see, for example, the evaluations of the New Deal for Communities programme and the National Strategy for Neighbourhood Renewal) suggests that regeneration activity has had a larger impact on 'place' based indicators (crime and health) than 'people' based indicators including worklessness.

⁸⁶ For example, Green argues that while the sub-regional level may be critical when formulating strategy, the neighbourhood may be a better option for implementation and delivery – although residents of deprived areas still need to be encouraged to look 'outwards'. Green, A. (2009) *Addressing the problem of workless: the role of regeneration. Regeneration Futures Roundtable*. London: DCLG. See also Turok, A. and Robson, B. (2006) Linking Neighbourhood Regeneration to City-Region Growth. Why and how? *Journal of Urban Regeneration and Renewal*, No 1.

⁸⁷ Integrating different policy areas – housing, transport and economic development has also been emphasised as critical to effectively tackle the barriers to an individual's ability to work. This was also one of the implications from the evaluation of the National Strategy for Neighbourhood Renewal. DCLG (2010) *Evaluation of the National Strategy for Neighbourhood Renewal*. London: DCLG.

⁸⁸ This includes interviews conducted with a number of academics as well as the advisory panel for this project.

Section 3

Physical regeneration

The characteristics of a city's built environment and public realm – the housing stock, employment space, the perception of safety, green space, the quality of amenities and public areas, and transport links – have a bearing on how attractive cities are as places to live, work, and do business.⁸⁹

However, the specific challenges faced by cities' physical fabric will vary substantially depending on their particular context and history. For example, many prosperous cities in high demand, such as Cambridge, have to deal with insufficient supply of housing, limited released land to build new houses, and increasing transport congestion. Cities with a history of economic decline confront a very different set of issues, often including the need to widen a limited range of housing types, converting industrial land no longer in use, or dealing with poor connectivity, particularly in deprived areas.

In recent years, a fair amount of regeneration activity has focused on tackling some of the problems faced by less prosperous cities, and areas within cities, seeking to make them more attractive to workers and businesses, as well as raising the overall quality of life of their residents.

The hard evidence on cities' physical assets at the city level is limited, not least because it is an area that is harder to quantify. Bearing these restrictions in mind we present a few variables that provide an indication of a city's offer below, supplementing this information, where relevant, with evidence from previous studies and research.

With less public money available for regeneration activity in the future, prioritising spending in this area as well as finding new mechanisms to fund regeneration activity will be a critical challenge.

⁸⁹ For example, Cushman & Wakefield carry out an annual survey of businesses to understand relative attractiveness of European cities for investment, which take into account many of the factors mentioned above (transport links, quality and cost of accommodation, amongst others). See www.europeancitiesmonitor.eu/wp-content/uploads/2009/10/ECM_2009_Final.pdf

3.1 The evidence so far

Housing

Housing – its type, price and quality – can impact the desirability of a city as a place to live and work for different types of workers.⁹⁰ Better quality housing (and relevant amenities) can indirectly create jobs by helping to boost the attractiveness of the area to business start-ups and private sector investment.^{91, 92}

High average house prices provide an indication of cities that are in high demand, and are therefore attractive for people to live and work. However, in the context of the UK planning policy, high prices are also often a result of tight planning restrictions, which restrict supply.⁹³ In addition, it is important to note that high prices can price some residents out, creating affordability issues and limiting the mobility of those with fewer resources. Further, policy attempts to improve poor areas could increase prices and force deprived residents out. The latter are often left with few options for cheap housing in many cases concentrated in specific areas within cities.⁹⁴

Analysis of house price data shows that it is desirable places for people to live and work, London, Oxford and Cambridge, that top the list for highest average house prices. At the opposite end of the spectrum, it is cities such as Wigan, Rochdale and Barnsley that display the lowest average house prices. But house prices also reflect wage and cost of living differentials across cities. People's decisions on where to live are influenced by a range of factors, including amenities and quality of life offered (often associated with more rural places) and the presence of social networks and jobs. Sometimes people are willing to accept lower wages, if other qualities of the area compensate for this.⁹⁵

⁹⁰ Glossop, C. (2008) *Housing and Economic Development: Moving forward together*. London: Centre for Cities and Housing Corporation Centre for Research and Market Intelligence.

⁹¹ DCLG (2009) *A typology of the functional roles of deprived neighbourhoods*. London: DCLG; Hastings, A. et al (2005). *Environmental problems & service provision in deprived and more affluent neighbourhoods*. London: JRF.

⁹² Turok, I. and Robson, B. (2007) Linking Neighbourhood Renewal to City-Regional Growth. *Journal of Urban Regeneration and Renewal*, 1(1), pp.44–54.

⁹³ Cheshire, P. (2009) *Urban Containment, Housing Affordability and Price Stability - Irreconcilable Goal*. SERC Policy Paper 4. London: LSE.

⁹⁴ Cheshire, P. (2007) *Segregated neighbourhoods and mixed communities. A critical analysis*. London: JRF.

⁹⁵ ODPM: Housing, Planning, Local Government and the Regions Select Committee (2002-03). *Reducing Regional Disparities in Prosperity: Ninth Report of Session 2002-03*. London: TSO.

Figure 3.1: Average house prices (£) 2008

Rank	PUA	Average House Price	Rank	PUA	Average House Price
1	London	£358,374	56	Hull	£100,634
2	Oxford	£334,419	55	Burnley	£108,077
3	Cambridge	£286,811	54	Blackburn	£115,688
4	Crawley	£269,890	53	Grimsby	£118,702
5	Aldershot	£263,131	52	Stoke	£119,836
6	Reading	£259,642	51	Mansfield	£119,883
7	Brighton	£257,787	50	Sunderland	£126,967
8	Bournemouth	£252,609	49	Barnsley	£127,995
9	Southend	£212,038	48	Rochdale	£128,712
10	Worthing	£210,204	47	Wigan	£128,838

Source: DCLG, 2008.

The increase in house prices across each urban area over the last decade is evidence of the expansionary phase of the business cycle. Brighton, London, Southend and Bournemouth feature both in the top 10 for high prices in 2008 and the change over the last decade, with house prices in Brighton up by more than 200 per cent over the 1998-2008 period.

Figure 3.2: Change in house prices (%) 1998-2008

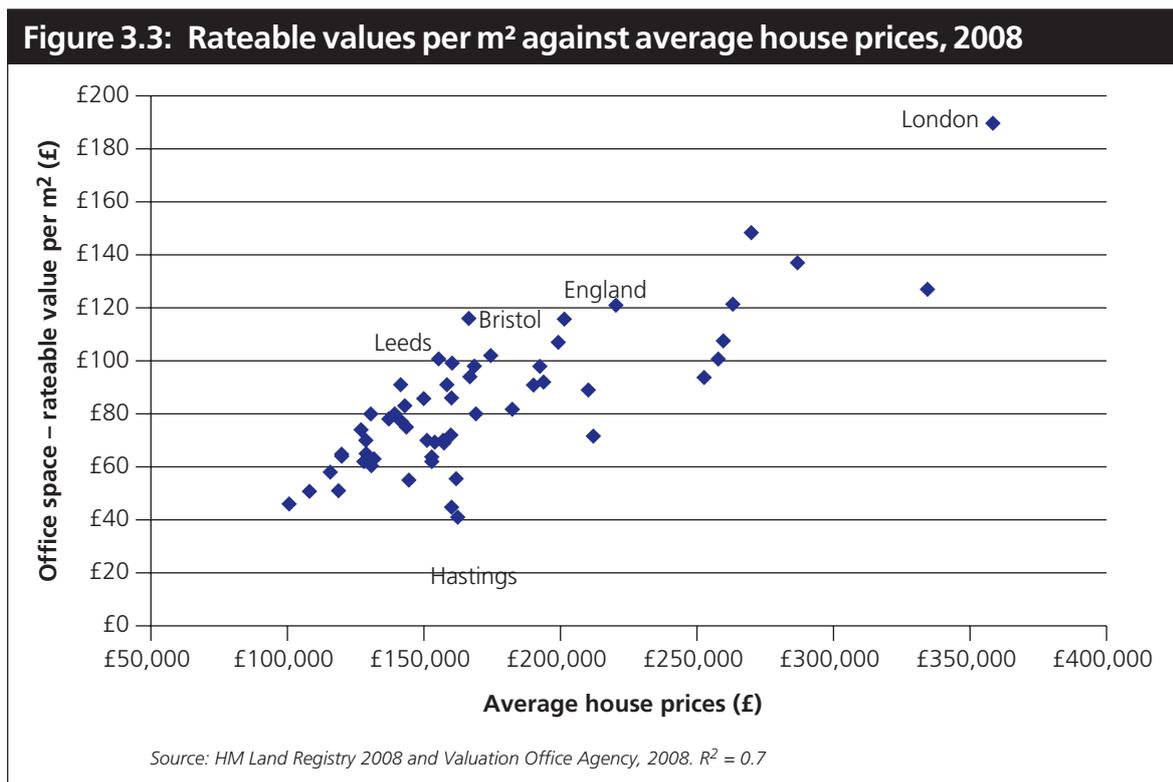
Rank	PUA	Average Change (%)	Rank	PUA	Average Change (%)
1	Brighton	217	56	Swindon	123
2	Hastings	195	55	Reading	125
3	Norwich	194	54	Aldershot	127
4	Luton	190	53	Middlesbrough	133
5	Plymouth	188	52	Warrington	134
6	Southend	178	51	Northampton	137
7	Birkenhead	178	50	Preston	142
8	Bournemouth	178	49	Birmingham	142
9	Peterborough	177	48	Nottingham	143
10	London	174	47	Milton Keynes	144
	England	151			

Source: DCLG, 2008.

Office space

The price and quality of the available work space can also have a bearing on businesses’ decisions over where to locate, with research suggesting that improving the design of office space can boost productivity by as much as 11 per cent.⁹⁶ However, businesses can face a trade-off between high-demand areas, which are expensive due to the quality of their amenities, and locations where the associated amenities and housing range may be limited but costs are lower. As argued in Section 1, different business activities will have different location priorities, with some industries, particularly those requiring a large amount of land and performing routine functions, likely to prioritise affordability over the benefits of locating in high demand areas.⁹⁷

Alongside house prices, rateable value of office space also provides an indication of which cities are in high demand for businesses. London, Oxford and Cambridge also top the list for most expensive office space. In fact, there is a strong relationship between house prices and rateable values for office space (Figure 3.3).



Ahead of London, it is Milton Keynes that has shown the greatest increase in rateable value of office space between 1998 and 2008, reflecting the city’s growth over the past decade. The cities with the highest rateable values have also enjoyed significant percentage increases over the period analysed, as continued attraction of businesses and workers perpetuate high prices.

⁹⁶ CABA (2005) *The impact of office design on business performance*. London: CABA.

⁹⁷ For example, see Graham (2007) Agglomeration, productivity and transport investment. *Journal of Transport Economics and Policy*, 41(3) and Storper, M. (2009), *op. cit.*

Relatively deprived areas with a lack of suitable office space, and derelict land in need of remediation are at a disadvantage when it comes to attracting new businesses, since the quality of infrastructure often sought after by some types of firms is not readily available.

Figure 3.4: Rateable value for office space per m², 2008

Rank	PUA	Rateable Value	Rank	PUA	Rateable Value
1	London	£189.66	56	Hastings	£41.00
2	Crawley	£148.37	55	Blackpool	£44.77
3	Cambridge	£137.00	54	Hull	£46.00
4	Oxford	£127.00	53	Burnley	£50.76
5	Aldershot	£121.37	52	Grimsby	£51.00
6	Leeds	£116.00	51	Bradford	£55.00
7	Bristol	£115.75	50	Birkenhead	£55.52
8	Reading	£107.54	49	Blackburn	£58.00
9	York	£107.00	48	Middlesbrough	£60.42
10	Warrington	£102.00	47	Barnsley	£62.00

Source: DCLG, 2008.

Crime, deprivation, and public realm

Variables such as crime and deprivation also impact on the location decisions of businesses and workers. Mobile firms and skilled labour may be deterred from moving or investing in an area associated with decline, deprivation, and crime. This is not only due to the stigma and perceptions attached to these areas, but also higher insurance premiums and costs of additional security.⁹⁸ The Index of Multiple Deprivation can be used to analyse which areas have the highest concentrations of deprived areas and may be less appealing to businesses and workers.

Unsurprisingly, many of the cities which have a large concentration of deprived areas, such as Blackburn, Burnley, Hull and Grimsby, also have low house prices and office space values.

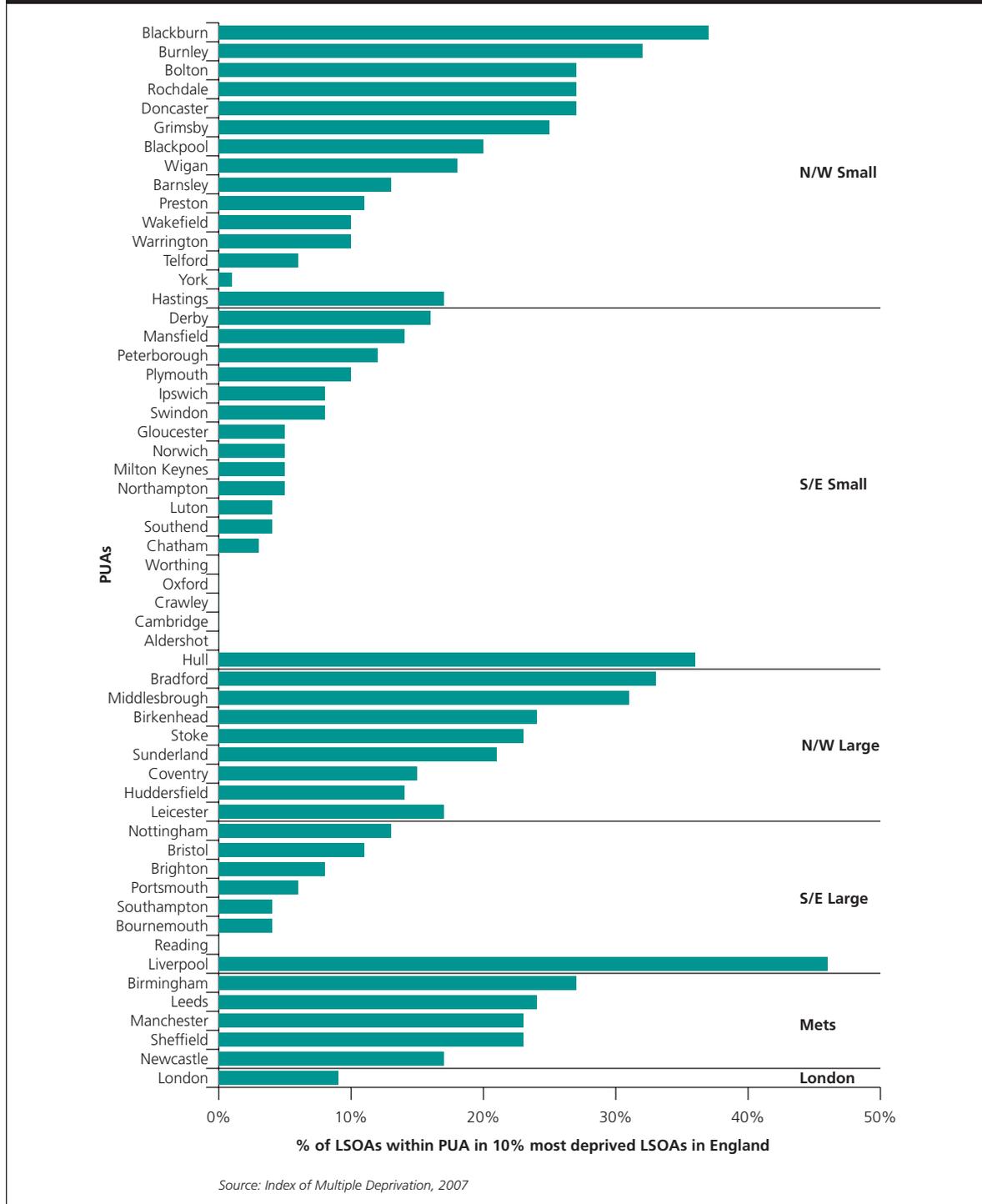
Looking at crime more closely, the Index of Multiple Deprivation suggests increased polarisation between the most and least deprived cities and their surrounding areas as levels of crime go up in the former and down in the latter.⁹⁹ High levels of crime can act as a disincentive to locating in an area. There is also evidence to suggest that businesses

⁹⁸ Turok, I. and Robson, B. (2007) Linking Neighbourhood Renewal to City-Regional Growth. *Journal of Urban Regeneration and Renewal*, 1(1), pp.44–54.

⁹⁹ Index of Multiple Deprivation/Social Disadvantage Research Centre; Absolute change (+/-) in violent crime by IMD decile- 2000/1-04/054.

consider crime, or the perception of crime, in an area to be one of the most important factors in making investment decisions.¹⁰⁰

Figure 3.5: Proportion of Lower Super Output Areas (of total Lower Super Output Areas in the Primary Urban Areas) in 10% most deprived Lower Super Output Areas in England, 2007



¹⁰⁰ GLA Economics (2005) Retail in London: Working Paper B – Retail and Regeneration - 69 per cent of respondents considered crime and the perception of crime in deprived areas to be one of the most significant factors to consider when making investment decisions.

While the prevalence of burglaries in England's cities is not perfectly mirrored by deprivation levels, it is interesting to observe that many of those cities and their surrounding areas with the highest levels of burglaries per 10,000 people are also the most deprived: more than one fifth of the Lower Super Output Areas of Leeds, Grimsby, Hull, Bradford, Doncaster, Burnley and Manchester are in the top 10 per cent most deprived Lower Super Output Areas in the country.¹⁰¹

Figure 3.6: Burglaries per 10,000 population, 2008⁹²

Rank	PUA	Burglaries /10,000	Rank	PUA	Burglaries /10,000
1	Birkenhead	55	56	Leeds	203
2	Worthing	59	55	Grimsby	202
3	Aldershot	66	54	Hull	195
4	Norwich	67	53	Mansfield	193
5	Crawley	68	52	Bradford	183
6	Southend	77	51	Doncaster	183
7	Preston	80	50	Burnley	177
8	Chatham	81	49	Manchester	172
9	Brighton	83	48	Bristol	171
10	Warrington	86	47	Northampton	169

Source: Neighbourhood Statistics, 2008.

There is also evidence that deprived areas often have fewer local amenities, less public and open space, while their assets tend to be poorly managed and maintained.¹⁰³ This also implies that these areas are at a disadvantage when it comes to the quality of the public space and facilities. Finally, these aspects – low crime, the quality of public realm including street cleanness – are amongst those attributes that residents consider highly important when they choose a place where to live and work.¹⁰⁴

Transport

Another area related to cities' offer that is difficult to quantify but is, nevertheless, critical to city economies, is the quality of local transport. Transport connectivity enables people and businesses to access services, employment centres and key markets. In areas of high demand, delays associated with congestion can affect quality of life and have costs for both businesses and employees, eroding some of the benefits associated with the

¹⁰¹ It should be noted that levels of crime are a variable used in the Index of Multiple Deprivation.

¹⁰² Home Office and Office for National Statistics Mid-Year Population Estimates.

¹⁰³ Hastings, A. et al (2005). *Environmental problems and service provision in deprived & more affluent neighbourhoods*. London: JRF.

¹⁰⁴ Cabinet Office Strategy Unit (2009) *An Analysis of Urban Transport*. London: Cabinet Office.

concentration of economic activity.¹⁰⁵ In fact, it has been estimated that congestion costs about £10bn per year to urban areas' economies – about a third of total transport costs for these areas.¹⁰⁶

Good connectivity to both internal and external markets are often important factors in business location decisions.¹⁰⁷ Indeed, improvements in transport rank often rank high amongst the business community.¹⁰⁸ The Eddington Transport Study found that there are productivity benefits from improved connectivity. A 10 per cent reduction in travel times was forecast to increase productivity between 0.4 and 1.1 per cent.¹⁰⁹ Therefore, improving accessibility and connectivity can deliver economic benefits for urban areas.

In addition, the quality of local transport can affect how residents feel about a place. Together with low crime, health services and clean streets, the quality of transport and lack of congestion is amongst those attributes that make a place an enjoyable place to live in.¹¹⁰

Further, areas in need of regeneration are often poorly connected to public services.¹¹¹ As argued in Section 2 on worklessness, accessibility (including the cost of transport) is one of the many barriers often faced by those out of work. Investing in transport infrastructure (and where relevant subsidising costs for low earners) can be important to linking deprived areas to employment centres.¹¹²

In short, transport and other areas of policy, including economic development and spatial planning (for example higher density and larger settlements are associated with lower distances travelled and a greater use of public transport) are intrinsically interrelated and cannot be formulated in isolation from one another.

The link to economic performance

Despite the significant impact that infrastructure (be it housing, the public realm, workspace or transport) can have as an enabler of economic growth, the need to improve a city's offer cannot be assessed without an in-depth understanding of the geography of jobs and where future job creation is likely to come from. The literature on cities' economic performance has recently included a number of studies stressing this point.¹¹³ This means

¹⁰⁵ Glossop, C. (2008) *Housing and Economic Development: Moving forward together*. London: Centre for Cities and Housing Corporation Centre for Research and Market Intelligence.

¹⁰⁶ Cabinet Office Strategy Unit (2009) *An Analysis of Urban Transport*. London: Cabinet Office.

¹⁰⁷ For instance, access to markets is one of the key criteria used to rank cities attractiveness for businesses in the Cushman & Wakefield European Cities Monitor. www.europeancitiesmonitor.eu/wp-content/uploads/2009/10/ECM_2009_Final.pdf

¹⁰⁸ Cabinet Office Strategy Unit (2009), *Op. Cit.*

¹⁰⁹ HM Treasury (2006) *Eddington Transport Study*. London: HM Treasury.

¹¹⁰ Cabinet Office Strategy Unit (2009), *Op. Cit.*

¹¹¹ See for example, Meadows, P. (2008) *Local initiatives to help workless people find and keep paid work*. London: JRF. www.jrf.org.uk/publications/local-initiatives-help-workless-people-find-and-keep-paid-work

¹¹² Some of these issues are also identified in DCLG (2008) *Why Place Matters and Implications for the Role of Central, Regional and Local Government*. London: DCLG.

¹¹³ Storper, M. and Scott, A. (2009) Rethinking human capital, creativity and urban growth. *Journal of Economic Geography*, 9, pp.147-167.

that investing only in the built environment may not have the desired effect in attracting highly skilled workers.

This is a critical point: improving the built environment without understanding the geography of business investment and job creation may not result in improved economic performance.¹¹⁴ The importance of combining physical regeneration with economic interventions to create a viable economic future for deprived areas has been recognised.¹¹⁵ This also poses particular challenges for cities experiencing long-term decline. City economies previously based on the manufacturing sector may not only need to reinvent themselves to encourage new sources of private investment and jobs growth, but also have to deal with the legacy of a physical fabric that may no longer be adequate.

There are new developments in the academic literature looking at this issue.¹¹⁶ The idea of 'Shrinking Cities' – those urban areas facing population decline and a supply of poor quality industrial land, a legacy of the industrial past – is relatively new, but the challenge of dealing with a declining economic base has been long-standing. Cities today are facing new challenges and whereas globalisation has contributed to the concentration of growth and development spots, other cities are seeing a declining population and economy. This strand of research looks at land use strategies that can be applied to deal with an urban fabric that is no longer in use. These include: greening vacant lots, developing a database of property conditions and classifying city neighbourhoods, facilitating the acquisition of vacant property, targeted investments, compulsory purchase, and comprehensive planning for decline, among others.

In short, the transformation of the urban fabric needs to be planned in conjunction with the needs of future business investment, job creation and the needs of the resident population.

3.2 Regeneration during the recession and beyond

So far, we reviewed different city performance with respect to a wide range of variables indicative of their offer as a place to live, work and study, which have a bearing on workers and businesses' location decisions, as well as a direct impact on residents' welfare. For many years, regeneration activity has targeted places suffering physical, economic and social decline. But the situation has been compounded by the recession, with limited finance posing a significant challenge.

¹¹⁴ National Business Survey – IPSOS Mori: www.ipsos-mori.com/Assets/Docs/Publications/sri-national-business-survey-wave-two.pdf

¹¹⁵ Glossop, C. (2009) Regenerating cities. In: *Regeneration in a downturn: what needs to change?* London: Smith Institute.

¹¹⁶ For more details see, Pallagst, K. et al (2009) *The Future of Shrinking Cities: Problems, Patterns and Strategies of Urban Transformation in a Global Context*. Berkeley, California: University of Berkeley, Institute of Urban and Regional Development; Andersen, L. L. (2009) *Shrinking Cities and the Need for a Reinvented Understanding of the City*. Aalborg: Aalborg University, Department of Architecture and Design; Couch, C., Karecha, J., Nuisl H., Rink, D. (2005) Decline and Sprawl: An Evolving Type of Urban Development – Observed in Liverpool and Leipzig. *European Planning Studies*, 13; Pyl, M. (2009) *Right sizing a shrinking city Land use strategies from Youngstown, OH*. Toronto: University of Toronto, Department of Geography; Pallagst, K. et al. (2009) *The Future of Shrinking Cities: Problems, Patterns and Strategies of Urban Transformation in a Global Context*. Berkeley, California: University of Berkeley, Institute of Urban and Regional Development.

During the 1990s and early 2000s many cities (including large cities in the north like Manchester, Leeds, Liverpool, Newcastle, amongst others) benefited from increasing private sector investment in mixed use developments, city centre living, retail, leisure, and service-based sectors, facilitated by a buoyant national economy and extensive public expenditure.¹¹⁷

There were concerns even prior to the recession about the sustainability of this development model. In particular, the conditions of huge demand for city centre apartments fuelled by the buy-to-let market; the expansion of retail; and the availability of cheap, easy credit for builders and buyers appeared to be over. More fundamentally, this model did not tackle the underlying issue, that is, the integration to the economy of those harder to reach groups. The past two decades have seen a major transformation of many city centres, but worklessness in areas nearby has proved difficult to tackle.¹¹⁸

Emerging evidence suggests the impact of the recession on regeneration activity has been substantial. The repercussions of the recession have been significant on both residential and commercial property developments given the lack of liquidity. The housing market has been badly affected with house prices falling substantially,¹¹⁹ reduced house building, leading to mothballed sites, and greater levels of unemployment alongside hard-hit share prices for house-builders.¹²⁰

The recession has also increased pressure on social housing waiting lists, as more people lose their jobs and cannot afford mortgage repayments or private rent rates. According to Shelter, over 1.7 million households or 5 million people were waiting for social housing in 2010, up from 1 million households in 2001.¹²¹

The economic downturn has impacted more severely on the commercial property sector.¹²² Commercial property values began to fall sharply in the second half of 2007, more because of a shift in sentiment in the market than a change in the terms and availability of credit – this saw the swing from rising to falling returns on property. Analysis by the Investment

¹¹⁷ See Hackett, P. ed. (2009) *Regeneration in a downturn: what needs to change?* London: The Smith Institute.

¹¹⁸ Bloxam, T. (2009) Beyond the urban renaissance. In: *Regeneration in a downturn: what needs to change?* London: The Smith Institute. Nathan, M. and Urwin, C. (2007) *City People: City centre living in the UK*. London: ippr made a similar point emphasising how increasing city-centre living in major cities dominated by young single professionals did not spread to close by areas of deprivation. Recent evaluation of regeneration programmes suggests ‘people’ outcomes, including worklessness has proved more difficult to tackle than other areas, such as crime. There has been some recent evaluation work. For example, DCLG (2010) *Evaluation of the National Strategy for Neighbourhood Renewal: Local research project*. London: DCLG, and DCLG (2010) *The New Deal for Communities Experience: A Final Assessment*. London: DCLG.

¹¹⁹ House prices fell by over 19 per cent between Q4 2007 and Q1 2009 according to the Nationwide House Price Index: www.nationwide.co.uk/hpi/downloads/UK_house_prices_adjusted_for_inflation.xls. Further, see DCLG (2010) *Primary Urban Areas and Travel to Work Area Indicators: Updating the evidence base on cities*. London: DCLG. www.communities.gov.uk/publications/corporate/statistics/primaryurbanareas042010

¹²⁰ There have been a number of mothballed housing schemes across the UK. See: Carpenter, J (2010) *Mothballed schemes to share £27.5m of Kickstart cash*. Available [Online] at: www.regen.net/news/ByDiscipline/Housing/login/994216/

¹²¹ Shelter, *The Housing Crisis*, Available [Online] at: http://england.shelter.org.uk/housing_issues/the_housing_crisis and LGA, 2008: *5 million people waiting for social housing by 2010*.

¹²² The Investment Property Databank UK Property Index suggests that commercial properties lost 26.4 per cent of their value in 2008 referenced in Parkinson, M. (2010) *The Credit Crunch, Recession and Regeneration in the North: What's happening, What's Working, What's Next? Report commissioned by the Northern Way*. Newcastle: Northern Way.

Property Databank indicated that regeneration areas appear to have been more vulnerable to the market downturn than investment properties – in 2007, total returns for all property fell by 6.0 per cent in regeneration areas, in comparison to falls of only 3.4 per cent on average across the UK. Meanwhile, other survey evidence now suggests that stakeholders believe activity levels are likely to be cut by 50 per cent for mixed use development, 41 per cent for office, 33 per cent for retail, 23 per cent for industrial and 28 per cent for leisure.¹²³

As set out in Section 1, the emerging evidence on the spatial impact of the downturn suggests that cities with a high concentration of employment in manufacturing and construction¹²⁴ are likely to have been impacted more heavily – possibly resulting in delayed development opportunities and reinforcing a cycle of decline in the hardest hit areas. Regeneration activity in areas in the north and Midlands has been hit hardest, with marginal places (second-order cities or peripheral areas in core cities) most affected.¹²⁵

The recession has posed a number of new challenges to regeneration in English cities, including more uncertainty and less access to credit; reduced private sector capacity; increased pressure on affordability; and the need to change models of delivery, as well as altering attitudes to risk.

The recession has made clear that the approach to physical regeneration of the last decade will no longer be sustainable. A more risk-averse private sector, lower liquidity, and a squeeze in the regeneration budget means that there will be fewer resources available to improve infrastructure in different areas, and cities most in need of regeneration are the most likely to feel the impact.

3.3 Key messages

The evidence presented in this section suggests that city performance on a number of variables indicative of the quality of built environment (house prices, rateable value of office space, deprivation and crime) is associated with their wider performance on other economic outcomes/indicators. Cities such as Hull, Burnley, Blackburn were identified as having low house prices and rateable values for workspace, and high concentrations of deprived areas. These same cities (among others) have also seen low productivity and limited job creation over the last decade.

¹²³ *Ibid.*

¹²⁴ This relates back to the economic performance section and the reasons for these sectors being hard hit needs to be further disentangled as they differ for each of these sectors. While manufacturing has been impacted by the recession, given the lack of global demand, construction has been at the heart of the crisis, fuelled by consumer spending and the availability of cheap credit.

¹²⁵ Parkinson, M. (2010) *The Credit Crunch and Regeneration in the North: What's happening? What's working? What's next? Report commissioned by the Northern Way*. Newcastle: Northern Way.

This reflects the interlinkages between city economies and the wider physical environment and means that improving a city's built environment cannot be assessed without an in-depth understanding of the geography of jobs and where future job creation is likely to come from. More fundamentally, it highlights the importance of taking a holistic approach to regeneration steering away from compartmentalising regeneration issues.

Emerging evidence suggests that the recession has exacerbated existing challenges; worsening the conditions of areas with a long history of deprivation and in need of regeneration, with potential consequences for the physical fabric of UK cities. Importantly, as a result of unprecedented economic conditions, it may be impossible to draw upon past regeneration methods in order to revitalise those urban areas that need it most. Further, it is now local government, and communities that will increasingly be driving regeneration activity. More limited public and private sector investment will dramatically alter the regeneration agenda. With tighter fiscal conditions, and constrained regeneration budgets, one of the biggest questions for urban policy lies in understanding how to prioritise regeneration spending. Most importantly, this means that existing policy levers will need to be clearly targeted and used effectively.

More fundamentally, through consultations with experts in the field, we identified a number of evidence gaps related to critical areas for policy interventions.

- A number of experts recognised the need to establish the links between regeneration activity and economic performance. This reflects the difficulties of attaching a value to regeneration activity given that the speed of change is often slow and it is often difficult to quantify issues such as quality of place/life.¹²⁶
- Further, there are gaps around understanding how to make the best use of existing policy leavers and how best to position communities and local areas as the key building blocks driving regeneration activity going forward.
- Finally, other experts¹²⁷ emphasised the need to acknowledge the restrictions the planning system poses on land and the consequences for house prices and affordability. This is critical since the lack of affordable housing is an ongoing challenge for many UK cities, and more so after the recession.

¹²⁶ This point was raised in recent evaluation work. For example, see DCLG (2010) *The New Deal for Communities Experience: A Final Assessment*. [http://extra.shu.ac.uk/ndc/downloads/general/A per cent20final per cent20assessment.pdf](http://extra.shu.ac.uk/ndc/downloads/general/A%20per%20cent20final%20assessment.pdf)

¹²⁷ This was a result of consultations undertaken with a number of academics. See also Cheshire, P. (2009) *Urban Containment, Housing Affordability and Price Stability – Irreconcilable Goal*. SERC Policy Paper 4. London: LSE.

Section 4

Cities and future trends

In addition to many of the pressing issues described in the previous sections – securing job growth emerging from the recession, investing in places and people – cities' prospects are also shaped by their capacity to adapt to change. This section looks at key long-term trends – technological, environmental and demographic – and discusses their likely impact on cities' economic performance.¹²⁸

4.1 Globalisation and technological trends

Globalisation and technological advances continue to shape the economic, social and physical development of cities.¹²⁹ Just as industrialisation served to shape and direct the ways in which cities expanded and functioned previously, so too will changes to technology impact on the future shape of urban geography, albeit in a different way. Cities have developed around industrial activity for predominantly economic reasons. The geographic concentration of economic activity occurs because transport costs for goods, people and ideas give individuals and organisations incentives to locate close to each other – as described in Section 1. If such costs and benefits did not exist, then economic activity would spread evenly over space.¹³⁰

The increase in online communication in economic interactions has altered transport costs for a number of sectors and industries. The continuation of this trend may impact upon future choices about business location. If technological advances mean that industrial activity is no longer as constrained by transport costs, businesses may choose to relocate some of their functions, potentially away from urban areas (as with off shoring of manufacturing). Companies could now locate in cheaper locations, which would increase competition from emerging markets for business investment. This is arguably more likely to affect those cities more reliant on this type of investment, often low cost locations in less prosperous cities.¹³¹

Nevertheless, in many respects, globalisation has made some cities more important, not less. It increases the importance of some urban areas as centres of growth, as specialisation,

¹²⁸ The STEEP UK Analysis analysed some of these trends. For more information see: www.eurescom.de/public/projects/P1300-series/p1302/Public-Deliverables/P1302-d2-STEPP-UK.pdf

¹²⁹ Globalisation is a notoriously ubiquitous term. The elements of globalisation important in this context are the rise in trade, international travel, and multinational firms that have impacted upon city economies by altering the business, trade and employment landscape.

¹³⁰ Ioannides, Y, Overman, H Rossi-Hansberg, E and Schmidheiny (2007) *The Effect of Information and Communication Technologies on Urban Structure*. CEP Discussion Paper.

¹³¹ *Ibid.*

scale and location increasingly determine the competitiveness of business clusters.¹³² As such, the size and market presence of cities may be key to their future prosperity in the global economy. Thus, the effects of globalisation will vary by city, depending upon the asset base, the local population and the sectoral composition of each – for example cities with a large presence of a low-value added manufacturing sector are more exposed to increasing competition from emerging markets.

Some cities may be in a better position to embrace technological changes due to the standard of their IT connectivity. Recent analysis of broadband take up at the regional level shows there is a deep digital divide between the north and the south.¹³³ The northern regions and nations on the other hand only have 26.1 broadband lines per 100 residents compared to 32.9 broadband lines per 100 residents in the south.

The specific impact that globalisation and technological trends will have on cities is uncertain, not least due to the lack of hard evidence on these issues. Cities need to adapt to these trends and increasing international competition, with under-performing cities often having fewer tools to adjust. To some extent, globalisation and the transition towards a service-based economy could exacerbate existing disparities between English cities, and this trend could be set to continue.

4.2 Environmental trends

Due to the concentration of people, transport, and industry, cities are major emitters of pollutants. Some are more vulnerable than others to the impact of climate change, for instance depending on their location and exposure to flood risk, but all will be central to its mitigation.¹³⁴

In the case of England, our 55 Travel to Work Areas include 76 per cent of the English population and produce 71 per cent of total CO₂ emissions.¹³⁵ This means cities have lower emissions per head than rural areas. A number of cities and their surrounding areas have particularly high levels of CO₂ emissions per capita (Figure 4.1). Middlesbrough and Stockton has a rate that is over three times higher than the national average (29.4 compared to 8.4 kt CO₂ per capita). Nineteen other Travel to Work Areas have higher per capita emissions than England as a whole, including other northern Travel to Work Areas with heavy process industries, such as Wirral and Ellesmere Port, and Telford and

¹³² S. (2001) *The Global City*. Princeton, New Jersey: Princeton University Press.

¹³³ The deep divide in broadband take up, Point Topic, [Online] Available at: <http://point-topic.com/content/dslanalysis/bbav10091027.htm>

¹³⁴ Although it is important to note the role played by world cities in energy consumption and carbon footprint (since they concentrate a large proportion of the world population, see for example C40 Cities, [Online] Cities and Climate Change Available at: www.c40cities.org/climatechange.jsp), in the context of English cities it is important to recognise the efficiencies achieved by density, particularly with regards to carbon emissions produced by road transport which are naturally higher in rural areas. It is also important to note that some cities can be vulnerable to the problem of 'urban heat islands' (by building large cities in what once was a rural setting, we can disturb the weather and give the location its own micro-climate), which could challenge the way we plan and develop urban settlements.

¹³⁵ DECC, Full Local CO₂ emission estimates, 2007

Bridgnorth, plus some affluent southern cities and their surrounding areas, with large rural hinterlands such as Cambridge, Swindon and Oxford. In the case of Redcar and Cleveland within the Middlesbrough and Stockton Travel to Work Area high industrial emissions from manufacturing and chemical plants and a small population help explain its large per capita carbon footprint.

Figure 4.1: Top and bottom 10 Travel to Work Areas for carbon emissions per capita in 2007 (kt CO₂)

Rank	TTWA	Emissions per capita	Rank	TTWA	Emissions per capita
1	Brighton	5.6	55	Middlesbrough & Stockton	29.4
2	Gloucester	5.9	54	Peterborough	13.4
3	Hastings	5.9	53	Grimsby	12.5
4	Bradford	6.0	52	Wirral & Ellesmere Port	10.4
5	Rochdale & Oldham	6.2	51	Cambridge	10.0
6	Portsmouth	6.2	50	Blackburn	9.9
7	Luton & Watford	6.2	49	Swindon	9.7
8	Coventry	6.2	48	Telford & Bridgnorth	9.3
9	Southend & Brentwood	6.3	47	Southampton	9.2
10	Mansfield	6.4	46	Oxford	9.1
	England	8.4		England	8.4

Source: Department of Energy and Climate Change, 2007

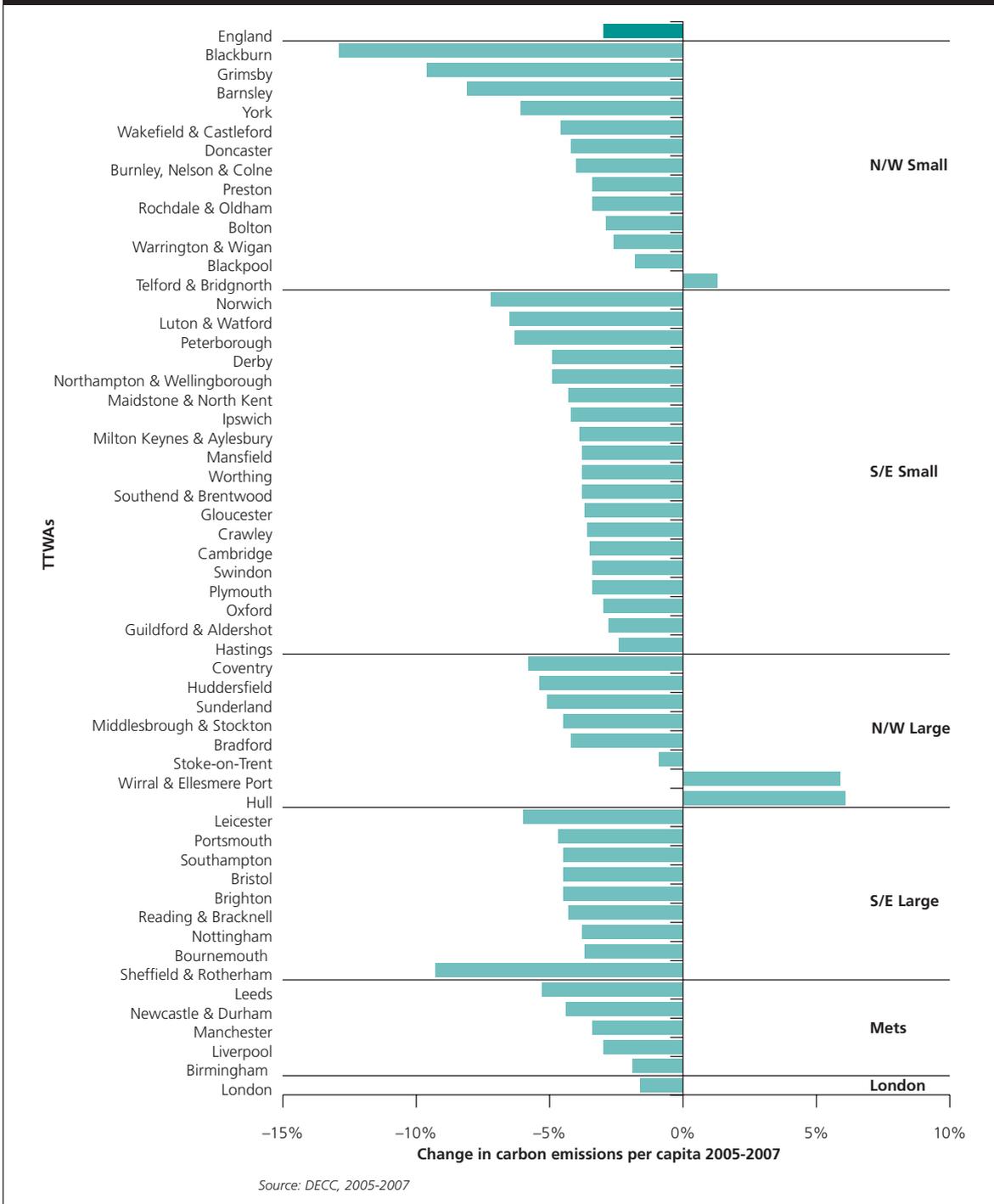
In line with the government's commitment to tackling climate change, and to some extent given ongoing changes in the industrial structure,¹³⁶ a decrease in carbon emissions per capita is clearly visible at the Travel to Work Area level (Figure 4.2). In fact with the exception of three Travel to Work Areas, all cities have seen a reduction in levels of carbon emissions over the period 2005-2007, albeit a relatively short period of time. The majority of cities have higher reduction rates than the England average; the higher concentration of population in urban areas can lead to lower carbon emissions. Thirteen Travel to Work

¹³⁶ The previous Government, through the Department of Energy and Climate Change, put forward a number of initiatives to reduce carbon emissions. The central initiative is entitled the UK Low Carbon Transition Plan – a document that outlines how the UK will meet the desired 34 per cent cut in emissions on 1990 levels by 2020.

Areas, however, have a lower emission reduction rate than England. These include some areas with a relatively low per capita emissions rate, such as Hastings, and those with particularly high rates such as London and Liverpool. The three Travel to Work Areas showing an increase in emissions per capita over the period – Telford and Bridgnorth, Wirral and Ellesmere Port and Hull – saw carbon emissions rise despite negligible increases in population.

The correlation between cities and their surrounding areas with the highest per capita emissions and those with the greatest reductions in emissions over a three year period (2005-07) is particularly interesting. The largest reductions are visible in some of the Travel to Work Areas with particularly high emissions per capita. Blackburn, Grimsby, and Peterborough have all shown substantial reductions in emissions, suggesting that it is possible for the greatest per capita polluters to reduce their emissions at a larger proportional rate. However, Wirral and Ellesmere Port and Telford and Bridgnorth, both in the top 10 for high carbon emissions, have seen increases in their per capita CO₂ emissions over the 2005-2007 period.

Figure 4.2: Percentage change in carbon emissions (kt CO₂) per capita ('000s) 2005-07*



* Full local CO₂ emission estimates

There may be potential for cities to combine reductions in CO₂ emissions with the generation of new green technologies. Cities have higher rates of innovation and can provide opportunity to introduce clean energy systems, sustainable transportation and waste management to reduce greenhouse gas emissions.¹³⁷ With access to updated data scientists and experts can assess impacts and vulnerability and, with local stakeholders, design and implement effective adaptation strategies to reduce climate change.¹³⁸ However, critical questions remain as to whether growth in these sectors on the whole would benefit the urban share of employment or businesses, or given the nature of their services, particularly when it comes to new sources of energies that may require large space or specific natural characteristics, rural locations could be preferred. Finally, some have questioned the UK and its cities' ability to compete with other countries, such as Korea, the US, Japan and Germany, which have made the development of the green technologies sector a key priority.¹³⁹

Although there is limited data on the size and economic contribution of the sector at the city level there is some evidence at the regional level.¹⁴⁰ This suggests that a high volume of employment in the 'green' sector is concentrated in London and the south east. In addition, the east and north east have significant presence in the sector in terms of value, employment and recent growth, while the west Midlands joins the south east with a specialism in renewable energy.¹⁴¹ The large presence of the 'green' sector in London and the south east follows, to some extent, the uneven geography of innovation identified in Section 1.

The development of green technologies may bring opportunities, but in many cities development will be slow, reflecting the major infrastructural improvements that will be required. As with any major structural change different cities will adapt at different rates, depending on current assets and infrastructure, skills levels of the workforce, characteristics of the business base and how energy-efficient it is. This will pose big challenges for struggling economies with a manufacturing legacy, particularly given that most of the funding, given the current macro-economic context, will have to come from the private sector.

¹³⁷ *Ibid.*

¹³⁸ *Ibid.*

¹³⁹ Korea, for example, launched the world's first 'green new deal' stimulus package in January 2009, planning over \$38m in spending on various 'green' projects. China is completing a \$440bn package to support wind and solar energy. Such green growth projects create a wealth of investment and employment opportunities, particularly at the city level. In the UK, green technologies are a growing area of focus. Investment in low carbon technologies was at the heart of the March 2010 Budget with Alistair Darling introducing a Green Investment Bank, an Offshore Wind Infrastructure Competition and the publication of the Energy Market Assessment. The Green Growth Race, OECD Observer, [Online] Available at: www.oecdobserver.org/news/fullstory.php/aid/2928/The_green_growth_race.html

¹⁴⁰ There are difficulties in defining the sector using available SIC codes definitions which do not capture many of these new activities.

¹⁴¹ Innovas (2009) *Low Carbon and Environmental Goods and Services: an industry analysis, Report commissioned by BERR.* London: BERR.

4.3 Demographic change

Cities' populations have been subject to demographic shifts. Improved healthcare has increased life expectancy, while more intercontinental travel opportunities, and a common European labour market have blurred boundaries across countries, fostering the movement of people and international migration.

Are cities' populations set to grow?

As stated in Section 1, during the 1990s and early 2000s, there was a change in the way that cities were perceived, with many commentators referring to 'resurgent cities' not only because of their economic potential but also in terms of population growth. However, the latter was in many cases fuelled by city centre living and the buy-to-let market – a market that is now facing big challenges, as discussed in Section 3.

Analysis of mid-year population estimates shows that just over half of our cities and their surrounding areas (23 out of our 55 Travel to Work Areas) have populations growing at a faster rate than the England average (the English rate of population growth was 3.2 per cent for the period 2003-2008). Cities of all sizes (York, Leeds, Bristol, Bradford and Cambridge) experienced fast growth. With a few exceptions, such as Liverpool, Wirral and Ellesmere Port, and Barnsley, the overall trend is for increased population growth (Figure 4.3).

The Office for National Statistics sub-national population projections point to continued population growth over the coming decades (Figure 4.4). England's population is projected to expand by 15.4 per cent over the 2008-2028 period. Growth in cities and their surrounding areas is expected to grow at a marginally slower rate – 14.1 per cent over the 20 year period analysed. The four Travel to Work Areas expected to witness the greatest population growth are forecast to expand by over 20 per cent. These are Northampton and Wellingborough (27.8%), Cambridge (26.7%), Bradford (26.1%) and Bristol (25.5%). The case of Bradford is rather different, but the other three appear to illustrate one of the most important factors in differential growth across the country: the residential preferences of people which drive the pattern of internal migration.

There is a long-standing southward drift due to the difference in levels of prosperity. In fact, Cambridge, Bristol and Northampton were also identified as experiencing significant job growth over the last decade in Section 1.¹⁴² Given that economic prosperity features among the factors considered in people's decisions on where to live, population change trends mirror, to some extent, some of the economic disparities outlined in the review of cities' economic performance (Section 1) and also reflects the importance of quality of life and place and job prospects in people's decisions on where to live discussed in Section 3.

¹⁴² There are important caveats to this statement. As stated above population change can also be a consequence of above average birth rates among certain ethnic groups located in particular places. In addition, the latter assumes mobility which is feasible to certain extent, particularly among skilled workers.

Figure 4.3: Percentage change in total population 2003 – 2008

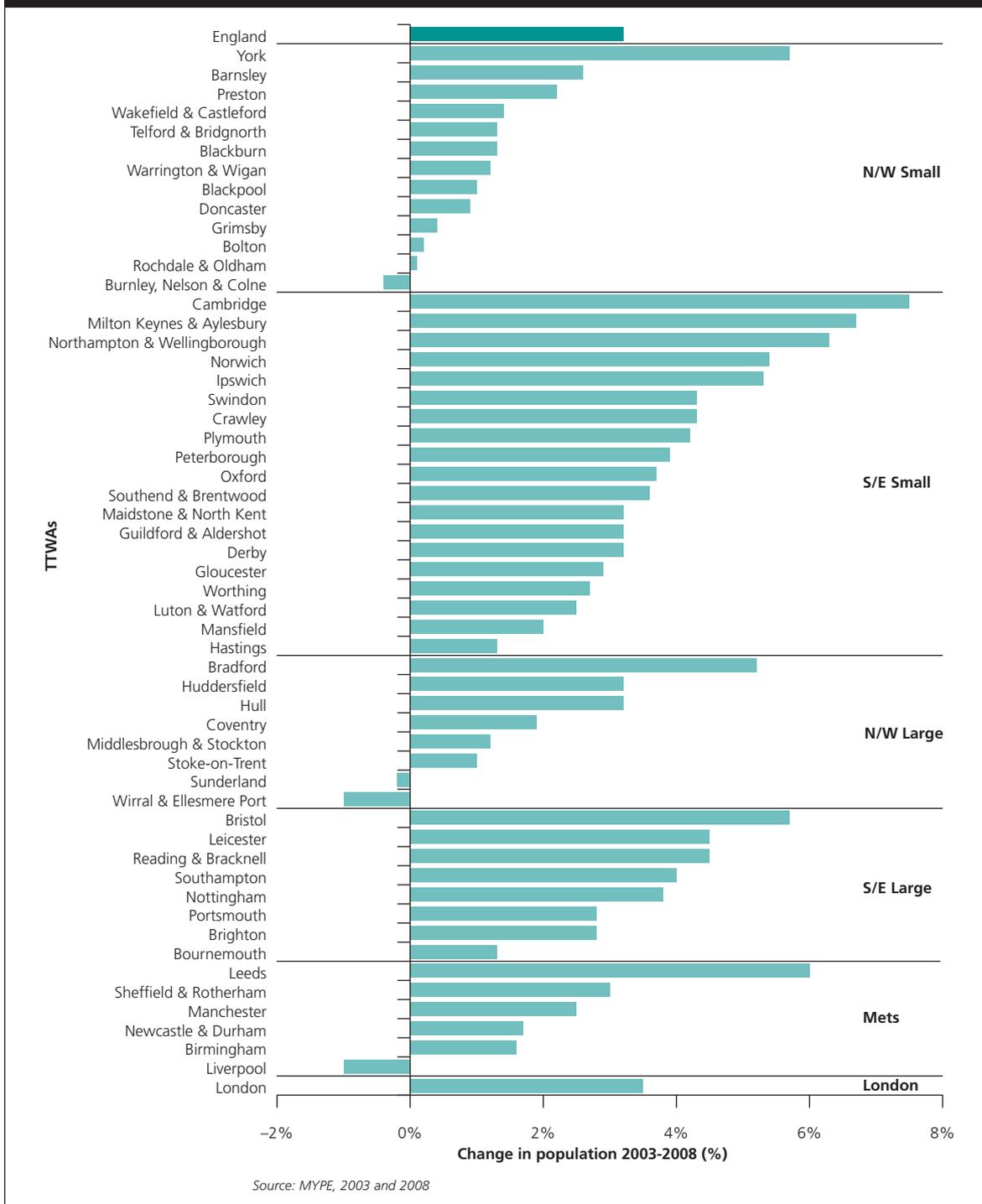
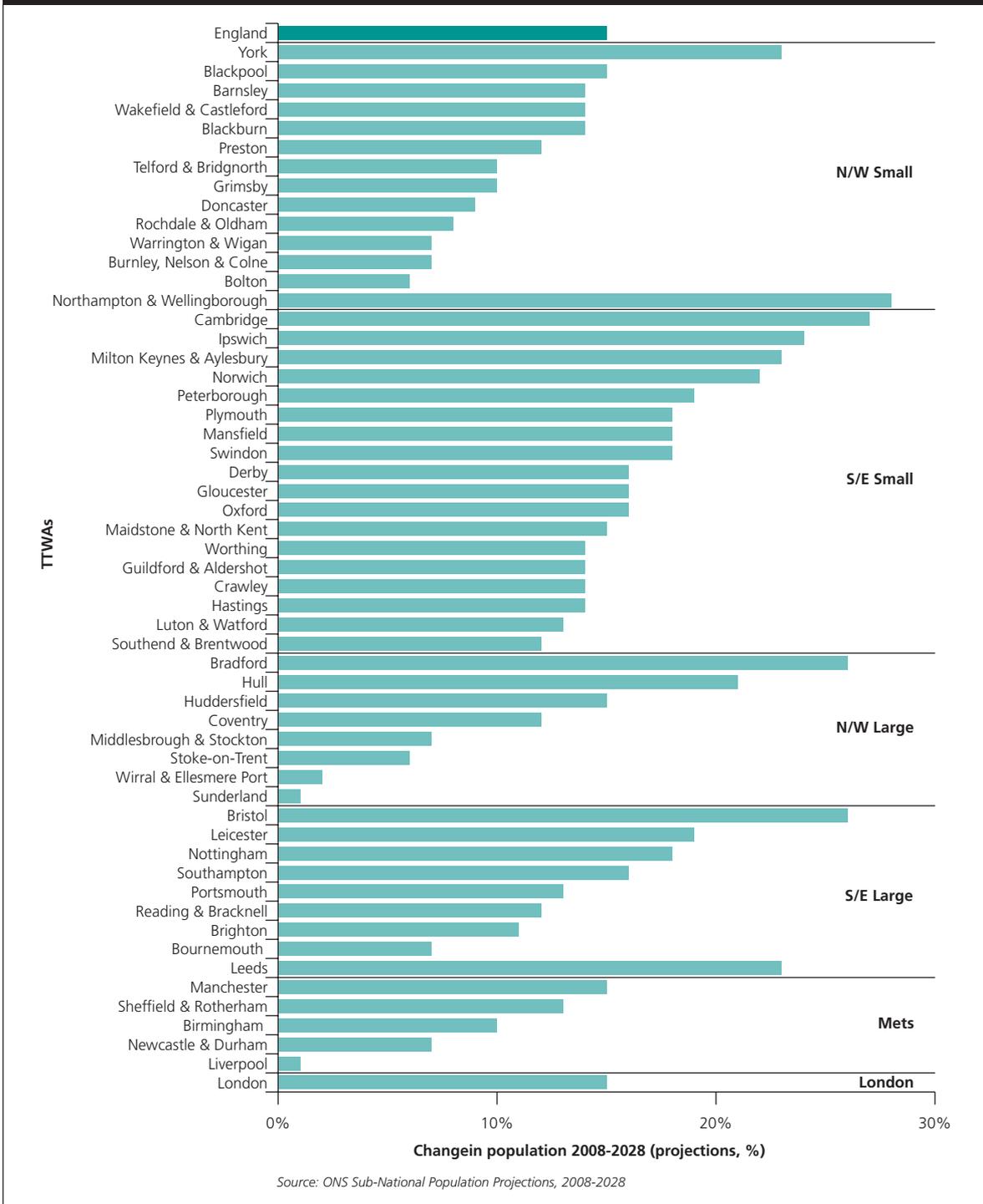


Figure 4.4: Office for National Statistics Sub-National Population Projections, 2008-2028



Cities and the ageing population

As well as growth in population size, cities are affected by a number of other demographic shifts such as the ageing of the population. According to mid-year population estimates, in 2008 22 per cent of the English population was over 60, compared to 20.8 per cent in 2003. While the decline in working age population is expected to be more pronounced in rural areas,¹⁴³ cities will also be affected.¹⁴⁴

Only nine Travel to Work Areas have witnessed a higher increase than the England average in the proportion of residents aged over 60 during the 2003 to 2008 period. Nonetheless, all but four Travel to Work Areas have shown an increase in the proportion residents over 60 from 2003 to 2008. These exceptions to the rule are mostly those Travel to Work Areas which attract younger learners and workers.

Figure 4.5: Top and bottom 10 Travel to Work Areas for increase in proportion of 60+ population 2003-2008

Rank	TTWA	Change (%)	Rank	TTWA	Change (%)
1	Telford & Bridgnorth	2.4	55	Leeds	-0.5
2	Maidstone & North Kent	1.5	54	Bradford	-0.4
3	Peterborough	1.4	53	Brighton	-0.4
4	Preston	1.4	52	London	-0.1
5	Warrington & Wigan	1.4	51	Manchester	0.1
6	Grimsby	1.4	50	Nottingham	0.2
7	Milton Keynes & Aylesbury	1.3	49	Worthing	0.2
8	Swindon	1.3	48	Bristol	0.3
9	Mansfield	1.2	47	Sheffield & Rotherham	0.3
10	Wakefield & Castleford	1.1	46	Newcastle & Durham	0.3
	England	1.2		England	1.2

Source: MYPE, 2010

¹⁴³ As the ageing population continues to grow rural areas will witness increased internal migration from urban areas. Champion, T (2007) *Towards a better understanding of migration across the urban-rural system*. Newcastle: RERC.

¹⁴⁴ Experian (2010) *Age matters: realising the potential of an ageing population*. Report commissioned by Yorkshire Forward. London: Experian.

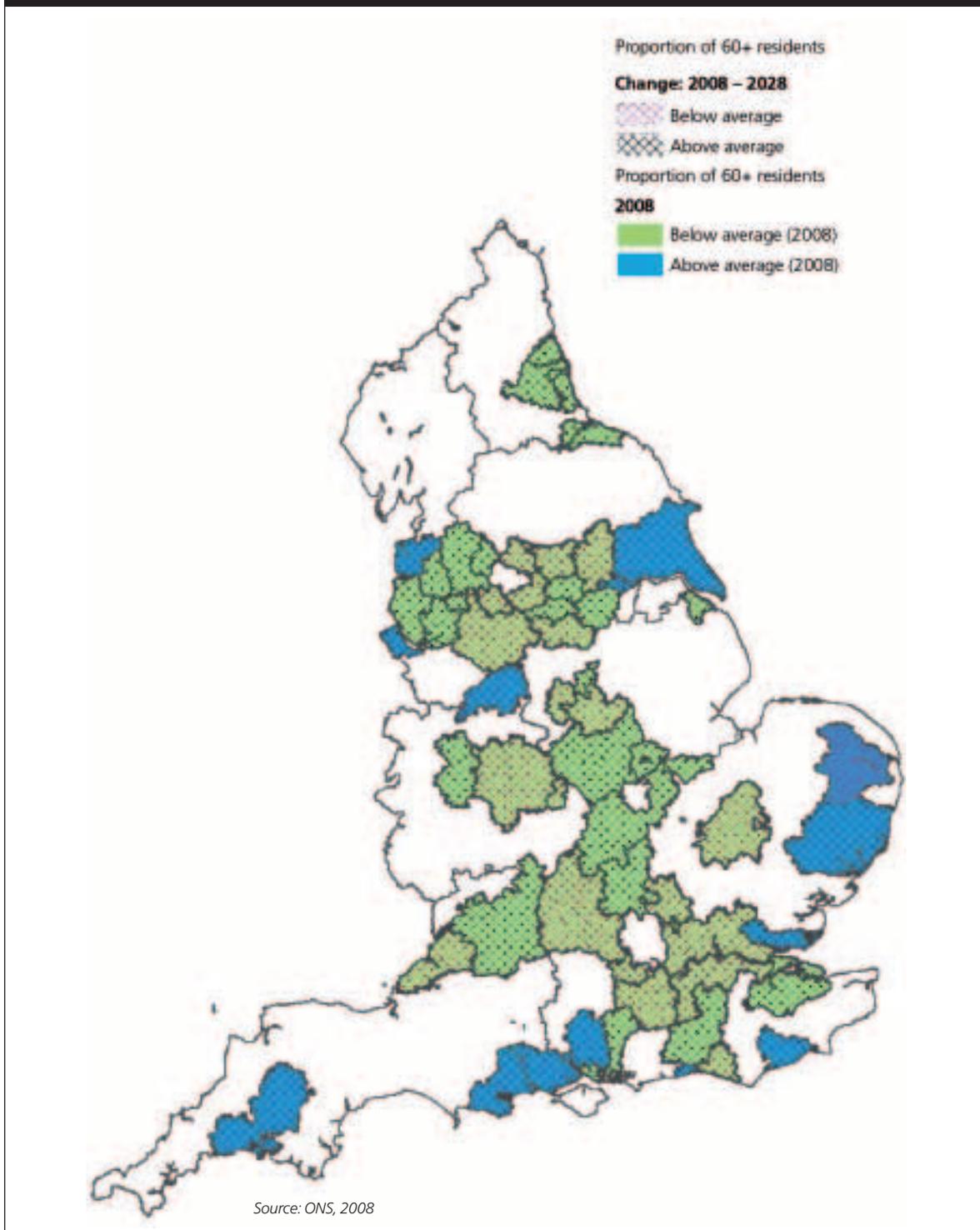
Analysis of the Office for National Statistics sub-national population projections shows that the proportion of older residents is expected to increase across all Travel to Work Areas (Figure 4.6).¹⁴⁵ The proportion of the population aged over 60 is currently 22.0 per cent and is expected to rise to 26.9 per cent by 2028. With the exception of Leeds, all cities and their surrounding areas are expected to see an increase in the proportion of residents over 60 between 2008 and 2018, and a subsequent increase between 2018 and 2028. Telford and Bridgnorth is expected to see the biggest increase, with the proportion of residents aged over 60 expected to be 9.0 per cent higher by 2028, putting strain on public finance and service delivery. Some of these cities are also those currently facing significant economic challenges, for example Hastings, Blackpool, and Stoke-on-Trent.

At the national level, having proportionately fewer working-age people to support a larger older population will put pressure on the funding of future pensions. Reduced mortality and morbidity rates, and changes in attitudes and needs will potentially make it attractive to extend work opportunities for those aged between 65 and 74, reducing the gap in the workforce. Meeting the high 'replacement rates' required for many jobs as the workforce retires and the working age workforce becomes smaller will also be important.¹⁴⁶

¹⁴⁵ Here retirement age refers to residents aged 60+.

¹⁴⁶ UKCES (2010) *Skills for Jobs: Today and Tomorrow*. London: UKCES.

Figure 4.6: Increase in proportion of Travel to Work Area population of 60+ 2008-2028 ¹³⁷



¹⁴⁷ Here retirement age refers to residents aged over 60.

International migration

Migration is another central factor contributing to demographic change.¹⁴⁸ A great number of migrants settle in cities, drawn by employment prospects and access to services, amenities and attractions. However, given the limitations of migration statistics, it is hard to quantify exactly what proportion of migrants settle in cities. Despite the key gaps in hard data, a recent report estimated that approximately 77 per cent of all recent A8 migrants settled in urban areas.¹⁴⁹ Analysis of the Department for Work and Pensions National Insurance Numbers allocated to foreign workers data shows that in 2008, 2.2 per cent of cities and their surrounding areas' combined working age population were migrants (a similar proportion to that of England as a whole). London has the greatest proportion of migrants with overseas workers constituting 4.9 per cent of the total working age population, followed by Peterborough and Cambridge. In addition, levels of migrant workers have increased over the 2003-2008 period, particularly Peterborough (a 2.1 percentage point increase), London (a 1.8 percentage point increase), and Cambridge (a 1.6 percentage point increase).

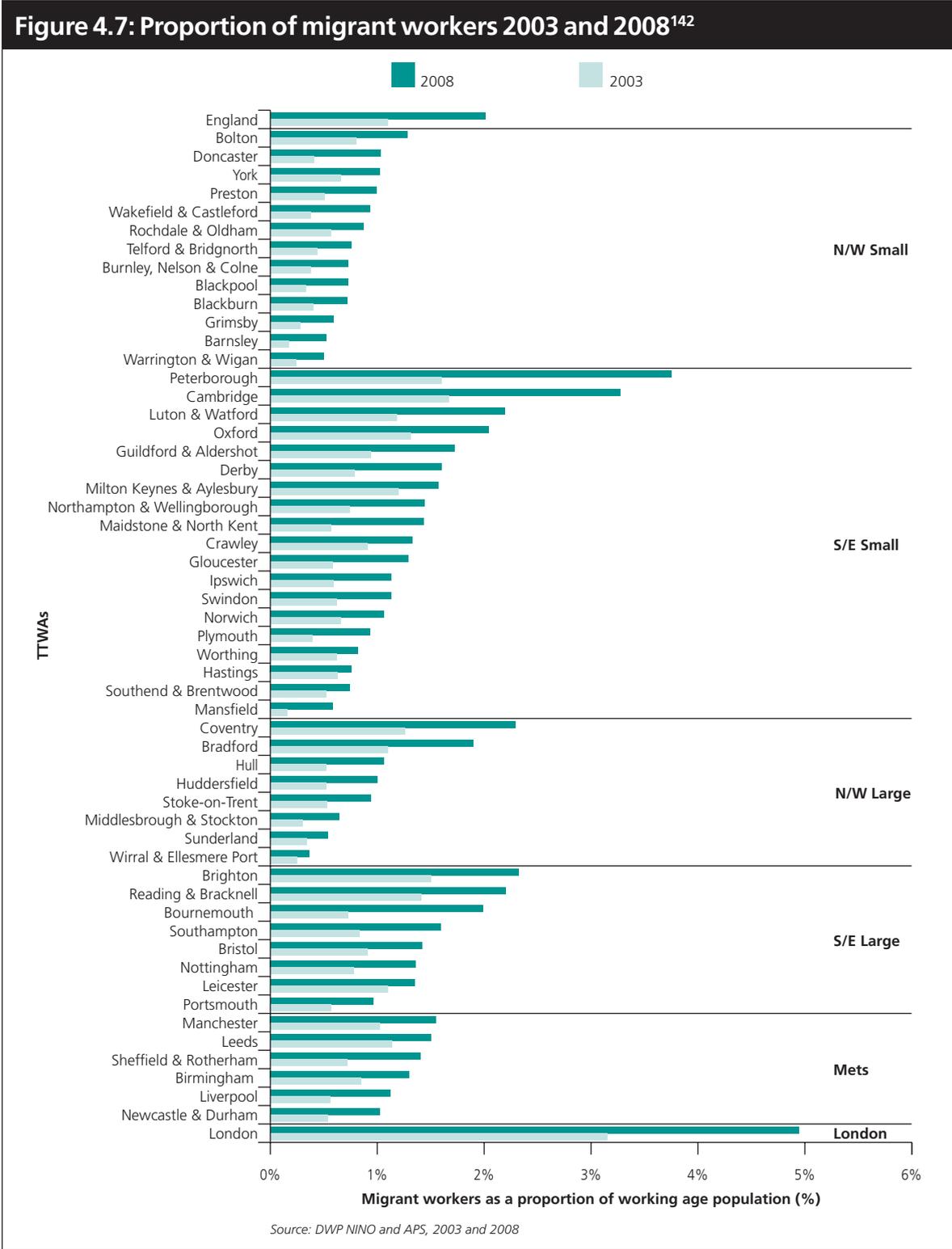
There has been much speculation regarding the effects of the recession on migration. Office for National Statistics figures show that 616,000 National Insurance Numbers were allocated to non-UK nationals in the year to September 2009, 14 per cent fewer than in the year to September 2008. The proportion of A8 inflows was down 36 per cent between June 2008 and June 2009.¹⁵⁰ The likely impacts of changing patterns of migration on city economies is still uncertain and depends on the net effects of migration inflows and outflows, the specific characteristics of different cities, such as the skills of the local workforce, and the performance of the sectors employing a high proportion of migrants.¹⁵¹

¹⁴⁸ In 2004, the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia, Cyprus and Malta joined the European Union and many individuals chose to relocate to Britain to take advantage of the then favourable labour market conditions. Over 78,000 EU Accession nationals registered for a National Insurance Number in 2004 (and over 244,000 the year after) compared with just 24,000 in 2003; Department for Work and Pensions National Insurance Number registrations. Available at: http://research.dwp.gov.uk/asd/asd1/tabtools/nino_alloc_summ_tables_may10.xls

¹⁴⁹ A8 is a term commonly used in the literature to refer to migrants from the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia. This percentage refers to migrants captured using Workers Registration Scheme data – migrants from A8 countries are normally asked to register with this scheme if they wish to work with an employer in the UK for more than one month. Workers Registration Scheme figures for urban areas sourced from Commission for Rural Communities (2007) *A8 migrant workers in rural areas Briefing Papers*. Cheltenham: CRC.

¹⁵⁰ ONS/DWP (2010) *Migration Bulletin* – available at: www.statistics.gov.uk/pdfdir/migrn0510.pdf

¹⁵¹ The importance of net migration needs to be acknowledged. Unfortunately outflows statistics for international migration are limited, but many migrants only stay for short periods of time moving back to their home countries. In addition, there is a significant amount of UK citizens leaving abroad.



¹⁵² Migrant worker levels are based upon National Insurance Number registrations. This source provides information on all non-UK nationals working or claiming benefits legally. The number of National Insurance Numbers allocated to overseas nationals in a local authority area should provide a good indication of the number of people from overseas arriving to work. However, it provides no information on out-migration. National Insurance Number registration data can underestimate migration inflows because there are exemptions, such as the self-employed.

4.4 Key messages

Since the publication of the State of the English Cities report in 2006, many external changes affecting cities have become increasingly pressing.

Globalisation and technological trends

So far globalisation has benefited some cities as specialisation, scale and location increasingly determine the competitiveness of business clusters in a service-based economy.¹⁵³ As a result some urban areas have increased their presence in the global economy and benefited from it. But with real distances shortened by technological advances, other cities appeared to have suffered as increasing competition from cheap locations in emerging markets eroded their competitive edge. Furthermore, evidence on IT connectivity, an increasingly essential requirement for city economies, suggests there is a deep digital divide between cities in the north and the south.

Environmental trends

The transition to a low carbon economy will require substantial changes to businesses and households' current practices and cities' infrastructure (from public transport to more energy efficient housing and the provision of new sources of energy). The green agenda poses particular challenges for economies struggling with a manufacturing legacy, particularly given that most of the funding to incentivise more carbon efficient behaviours and infrastructure, in the current macro-economic context, will have to come from the private sector.

Demographic change

Cities will also have to address the challenges posed by an ageing population. With the exception of Leeds, all cities and their surrounding areas are expected to see an increase in the proportion of residents age over 60 in the next 20 years. With a smaller workforce and increasing demands for care and leisure services from the elderly this will put a greater strain on city economies.

Further, over recent years, numbers of migrants, particularly from EU countries, has increased in all cities and their surrounding areas, according to data sourced from National Insurance numbers granted to overseas workers. The same data suggests London, Cambridge and Peterborough saw the largest concentrations of migrants in 2008.¹⁵⁴

Finally, through an extensive literature review and consultations with experts in the field, we identified a number of evidence gaps related to critical areas for policy interventions:

- Given the current emphasis on promoting private sector growth, the lack of data at city level on trade, foreign investment, and broadband take-up limits analysis

¹⁵³ Sassen, S. (2001) *The Global City*. Princeton, New Jersey: Princeton University Press.

¹⁵⁴ Department for Work and Pensions National Insurance Number data can be accessed at data.gov.uk

on the differential impact of globalisation and technological change on city economies which constrains the analysis needed to inform policy in this area. This was also highlighted in Section 1.

- There remain big gaps in the evidence, particularly regarding the expansion of the 'green sector' and 'green' jobs and how this will play out spatially. Some studies at the regional level suggest the sector has a larger presence in London and the south east, but more evidence is needed. This is particularly relevant given that the transition to a greener economy is part of the Coalition Agreement¹⁵⁵ and understanding its potential and spatial distribution is key to enable cities capitalise on this as a growth sector.
- There is a lack of evidence on the likely impacts of the changing patterns of migration on specific city economies. Improvements to migration data are required in order to have an accurate measure of net migration (that is, one that takes into account outflows – most sources do not account for migrants leaving the country – and that incorporates short-term migration). Filling this gap is important to help cities adapt and respond to population flows, and using the skills of migrants in the most effective way given particular skill gaps. This will become increasingly important in light of ageing population trends.

¹⁵⁵ The Coalition: our programme for government (2010) available at www.direct.gov.uk

Section 5

Conclusion

The State of the English Cities report¹⁵⁶ published in 2006 provided a comprehensive analysis of city performance across a wide range of areas. Four years after its publication, and with major changes in the economic and political context, this report is of a more limited scope and scale, but, has sought to take stock of new evidence and academic developments on the most pressing urban issues.

How much has cities' performance changed over recent years? Do some of the key findings identified in 2006 still hold true? How has the recession impacted cities' performance? Are there new challenges not considered then that have become more prominent?

Since this report was commissioned there have been numerous and significant changes to the policy context. Decentralisation and a renewed focus on localism have been key themes of the Coalition Government's approach. This has led to a number of new policy tools being implemented which will have an impact on the future of cities:

- The Local Enterprise Partnerships, which will replace the Regional Development Agencies, will be based around 'functional' rather than administrative geography, and will be jointly run by local authorities and the private sector.
- The Regional Growth Fund is another tool designed to assist with the rebalancing of the economy, and a movement away from reliance on a narrow range of sectors. It is designed to stimulate growth and private sector employment, particularly in areas and communities currently dependent on the public sector.
- Part of the Big Society agenda will include giving local people more tools to participate in their local area, and allow more initiatives to grow from the neighbourhood up.

How these policy tools will operate is set out in detail in the recent local growth white paper.¹⁵⁷

New evidence, old debates

Cities are centres of economic activity, employment and innovation and as such were identified as critical to regional and national economic performance in the State of the

¹⁵⁶ ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM.

¹⁵⁷ BIS (2010) *Local Growth: Realising every place's potential*. London: BIS.

English Cities report. In a global economy, areas with a competitive advantage in high-value added activities benefit from the concentration of economic activity since connectivity, access to a range of suppliers, and a wider pool of workers to choose from can encourage innovation and productivity gains. That said, and as discussed in more detail below, the global economy affects cities with a mixture of assets and economic history in different ways. And some, particularly those undergoing structural change from manufacturing industries, are likely to feel more intensely the increasing competition from emerging markets as they struggle to diversify.

Reflecting the findings from the State of the English Cities report, the record of cities' performance remains mixed. Updated evidence on economic performance, worklessness and cities' offer as a place to live, work and study show that despite improvements over the last decade (prior to the recession) high performers on a wide range of measures are located in the south and east. These cities benefit from proximity to the capital, access to key airports, research centres and a highly skilled workforce. But trends in city performance are more complex than a north/south divide line suggests, with many cities in the north, such as Manchester, Leeds, Newcastle or Sunderland seeing higher than average jobs growth or pockets of high-value added services, particularly in the case of the former two.

New context: the recession appears to have aggravated long-standing issues

The State of the English Cities report was written in the context of a buoyant economy and widespread private and public investment. Since then, there have been dramatic changes in the economy, with increases in unemployment and sustained contraction, which have exacerbated some of the long-standing challenges identified in the 2006 report.

The emerging evidence on the impact of the recession raises concerns regarding the future of some cities. Prior to the recession many cities grew their economies based on a few industries that are proving vulnerable in the current climate. With public sector employment facing cuts, and regeneration activity going through fundamental changes – reduced resources and increased need for innovation and efficiency – the recession has led to questions being raised around which sectors will support city growth in the future. Identifying new sources of private investment and jobs is one of the biggest challenges facing many cities going forward, although these challenges will be greater in some cities than others.

More fundamentally, the differential geographical impacts of the recession have highlighted that in some cities worklessness is not only associated with issues such as low qualifications, but also with the limited availability of jobs. This raises the challenge of both tailoring interventions to address the causes of worklessness at the local, or neighbourhood level, whilst also addressing factors which influence the supply of jobs,

which are thought to operate at a much wider spatial scale. Local Enterprise Partnerships have been established with the aim of allowing local areas to have more influence over their functional economies, and creating jobs whilst addressing barriers to employment which will be a key challenge, particularly for those in the most deprived neighbourhoods.

Emerging evidence suggests that the impacts of the recession have exacerbated existing regeneration challenges – worsening the conditions of areas with a long history of worklessness and deprivation, with potential consequences for the physical fabric of English cities. A lack of public sector finance and a more risk averse private sector means that the policy approach to financing regeneration also needs to change, for example by pooling resources from different policy areas and leveraging private sector investment through new financing mechanisms. This also raises the challenge of how regeneration spending should be prioritised, and whether it should focus on the most deprived areas or those with the most potential for growth. There is also the question of how existing policy levers, including mainstream spend, can more effectively target deprived areas within cities.

A new set of challenges: an ageing population, migration, climate change

In addition to the key challenges posed by the economic situation, cities will have to adapt to a series of long-term trends which have become more prominent over recent years and will impact on city growth. Integration with global markets including increasing competition from emerging countries, the transition to low carbon economies, the financial implications of an ageing population and the impacts of international migration on local labour markets are among those challenges cities will need to deal with. Although the impact will vary depending on cities' assets and labour markets, some of these trends have the potential to exacerbate existing disparities. Arguably, more prosperous cities, with a skilled workforce and an innovative business base, are better equipped to adapt to external change. One mechanism which is designed to support less prosperous areas which may be less well prepared to deal with external change is the Regional Growth Fund, especially for those reliant on the public sector.

New views: agglomeration and interactions between cities

Since the State of the English Cities report was published there have been new developments in the evidence relating to agglomeration economies¹⁵⁸ and the interaction between city economies. A number of studies have highlighted the need to consider the effects of the concentration of economic activity and of interactions between different city

¹⁵⁸ 'Agglomeration economies' refer to the benefits from the concentration of economic activity. The latter includes a greater choice of suppliers, labour and office space, and often better connectivity. The concentration of economic activity also favours the flow of knowledge that enables innovation. Proximity enables close contact between technical and scientific staff, promoting collaborative projects spurring creativity and innovation. For example, see Manchester Independent Economic Review (2008) *The case for agglomeration economies*. Manchester: MIER.

economies on economic and social outcomes. Taking into account the way that labour markets, housing markets, and the economy works beyond the administrative unit – often referred to as the ‘functional’ or ‘real’ economy – is important to inform effective economic development policy.

In fact, local areas and businesses forming new Local Enterprise Partnerships have been encouraged to reflect ‘functional’ geographies. By updating a number of key indicators at city and urban Travel to Work Area – the latter in particular a measure of functional geographies – this report adds value to the existing evidence base. Monitoring performance at this geographical level will become increasingly important for Local Enterprise Partnerships as they build the evidence base that will support their economic growth strategies, pinpointing current barriers as well as opportunities for future growth.

Where the gaps remain

Throughout the course of this study we identified some of the key evidence gaps that need to be filled if future policy development is to fully support city growth.

Evidence gaps: summary box

Economic performance

- Establishing links between different governance arrangements and economic outcomes is an area where there is still no substantial hard evidence, and given changes to sub-regional governance it is an area of increasing relevance. Conceptually, it has been argued that decentralisation can incentivise growth through close tailoring of public services to users and addressing local circumstance. It is also argued that it can encourage creativity and innovation, and improve accountability and transparency. However, there may be some negative aspects; for example, if areas to which powers are decentralised have different capacities, decentralisation could deepen inequalities.¹⁴⁹ Further, it could increase bureaucratic costs if economies of scale for some common services are lost. Closely monitoring the impact of new governance arrangements, such as Local Enterprise Partnerships, on economic performance would contribute to the evidence base in this area.

¹⁵⁹ Rodriguez-Pose, A. and Gill, N. (2005) On the ‘economic dividend’ of devolution. *Regional Studies*, 39(4), pp.405-420.

Evidence gaps: summary box (*Continued*)

- Reflecting its emergence as an increasing area of both policy and academic interest and the complexities associated with quantifying these issues, there are also gaps related to the economic outcomes and distributional effects of increasing economic interaction (for example supply chains, commuting, housing markets) within and between different city economies. This is critical to support economic growth strategies founded in functional economic areas – which will be the responsibility of the Local Enterprise Partnerships after 2012 – and to inform key transport investment and spatial planning policies. Therefore, Local Enterprise Partnerships should consider whether and how strengthening links within and between economic functional areas could maximise economic gains. Further, distributional effects should be assessed, since increasing links between different areas could affect groups of society in different ways. As an example, commuting is more common amongst highly skilled workers (not least because of the costs involved) and therefore increasing labour market interactions enabled by transport investment could have an impact on specific types of workers.
- Finally, we identified some standard gaps related to the lack of indicators of innovation and entrepreneurship at the city level. Given the Government's emphasis on rebalancing the economy, and ensuring cities reliant on traditional industries diversify by fostering private sector growth, understanding business performance, entrepreneurship and its drivers is critical to encouraging business investment. However, a number of key indicators of economic performance are not available at the city and Travel to Work Area level, which limited the analysis presented in the previous sections. These include data on output and productivity; innovation capacity; employment and output in new key growth industries such as the green sector (which is difficult to grasp using Standard Industrial Classification codes).

Worklessness

- There is a lack of evidence for the optimal spatial level of intervention. There is growing evidence that tackling the supply side problems of worklessness at the neighbourhood level on its own is unlikely to be effective unless this considers the wider labour and housing market dynamics that operate on the demand side and at broader geographical levels than that of the neighbourhood.¹⁵⁰ In other words, even if concentrated in particular neighbourhoods, with labour markets spanning over different districts, there is a case to be made for formulating strategy at a level that considers the wider dynamics of the labour market and the economy, as well as the local context, and that takes an integrated approach to deal with both supply and demand side barriers. However, this does not mean there is not a role for neighbourhood level intervention, and part of the Big Society approach will be encouraging locally driven action.

¹⁵⁰ Turok, I. and Robson, B. (2007) Linking Neighbourhood Regeneration to City-Region Growth. Why and how? *Journal of Urban Regeneration and Renewal*, 1(1), pp.44–54.

Evidence gaps: summary box *(Continued)*

Regeneration activity

- There is the need to establish the links between regeneration activity and economic performance more clearly. This reflects the difficulties of attaching a value to regeneration activity given that the speed of change is often slow and it is often difficult to quantify issues such as quality of place/life.
- Further, there are gaps around understanding how to make the best use of existing policy levers and how best to position communities and local areas as the key building blocks driving regeneration activity going forward. This has implications for the emerging localism agenda, and for the Big Society approach.
- Finally, there is also the need to acknowledge the restrictions the planning system poses on land and the consequences for house prices and affordability. The limited land released to build new houses in some areas in high demand drives prices up, posing challenges around the provision of affordable housing. The planning system is currently going through a period of change, with the abolition of Regional Spatial Strategies and a push towards localism and community engagement. Local Enterprise Partnerships, operating at a functional economic area level, will be well-placed to consider future housing needs that take into account future demand as well as the most effective use of current stock. But there are still evidence gaps around how the new system, encouraging more community-led initiatives, will operate in practice, and the implications for the provision of much needed affordable housing in the future.

Future trends

- The standard gaps related to innovation and entrepreneurship will be key to identifying opportunities for private sector growth, the lack of data at city level on trade, foreign investment, and broadband take-up limits our understanding of the differential impact of globalisation and technological change on city economies. This information is critical for cities to understand the impact of these trends and adapt accordingly.
- Finally, there is a lack of evidence on the likely impacts of changing patterns of migration on specific city economies, and their impact on different sizes of city. Improvements to migration data are also required in order to have an accurate measure of net migration (to take into account outflows, most sources do not account for migrants leaving the country – and that incorporates short-term migration). Filling this gap is important to help cities adapt and respond to population flows and their impact, and use the skills of migrants in the most effective way given particular skill gaps. This will become increasingly important in light of ageing population trends.

Evidence gaps: summary box *(Continued)*

- Arguably, there are economies of scale in collecting these statistics at the national level to fill the gaps identified in this section. This information is critical to understand the differential spatial impact of these trends and how they could shape city economies, as well as how to mitigate any potential negative impact and take advantage of future opportunities.

Section 6

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Appendix: Method notes

1. Defining Primary Urban Areas and Travel to Work Areas

Throughout this report we used the same geographies as set out in the State of the English Cities report,¹⁶¹ that is, Primary Urban Areas and Travel to Work Areas, but where possible we updated them. Primary Urban Areas measure the built up areas of cities with a population in excess of 125,000 and Travel to Work Areas reflect the wider economy of a city as they take into account commuting patterns. There are 56 Primary Urban Areas and 55 urban Travel to Work Areas.

In the case of the Primary Urban Areas, where available we used detailed data at Lower Super Output Areas¹⁶² to provide a more accurate picture of these areas.¹⁶³ In the case of Travel to Work Areas we updated the definitions using 2001 definitions (the State of the English Cities Report used 1991 definitions) and include only those Travel to Work Areas related to each urban area.

Key challenges

There are a number of challenges associated to compiling datasets for Primary Urban Areas and Travel to Work Areas. Some relate to the 'input' data the research needs. Given the diverse set of issues examined in this report, a variety of datasets was needed. These datasets were not always available for the same set of areas or 'input' geography – for example some datasets are available for local authority districts only, others for lower super output areas, and wards. Further, since the research focused on change over the last decade several of the sets of geographical areas for which the datasets are released have changed over time (for instance for some datasets data was available at Lower Super Output Areas level for recent years but at ward level for pre-2001 data). Taken together, these challenges meant that the database has to be compiled not only from different sets of areas but also from different 'vintages' of some of these sets of areas (for example 2003 and 1991 wards).

Another challenge stemmed from the 'output' data the research needs. There are two key sets of areas for which data was compiled (Primary Urban Areas and Travel to Work Areas),

¹⁶¹ ODPM (2006) *State of the English Cities, Volume 1*. London: ODPM.

¹⁶² Super Output Areas (SOAs) are a unit of geography used in the UK for statistical analysis, developed and released by Neighbourhood Statistics. SOAs were created with the intention that they would not be subject to frequent boundary change. This makes SOAs more suitable than other geography units (such as wards) because they are less likely to change over time, and thus SOAs are more suitable to change over time analysis. There are different layers of SOAs (i.e. three different but related geography boundaries). Lower Super Output Areas (LSOAs) have a minimum population 1000, mean population 1500.

¹⁶³ Constructing Primary Urban Areas and Travel to Work Areas from the lowest geographic level possible means that these city geographies are constructed from more detailed, granular information.

none among the sets of standard administrative areas for which datasets are published. This means that 'look-up' files had to be created so that data inputs available for standard sets of areas could be compiled for our non-standard areas. In many cases there is no exact match possible from input areas to output areas and so a 'best-fit' is required.

Similar problems were confronted in creating the database for the original State of the English Cities report and database. For this research a number of useful 'look-up files' were created between relevant sets of areas (where any best-fitting involved was evaluated to keep the level of data approximation within acceptable limits). However, some of these look-up files and best-fits had to be updated for the purposes of this research. This was the case for Travel to Work Areas. While the State of the Cities Database used Travel to Work Areas defined using the 1991 Census, these have now been updated using 2001 Travel to Work Areas.

Probably the single most significant source of challenges faced was the core concept for the research, that of urban areas. Urban area boundaries change over time, and this fact alone ensures that they are not readily matched to administrative areas (which have to display a degree of inertia). Whereas administrative areas are usually defined by a process of compromise between many competing considerations, urban areas are defined by a rigid process which only takes into account a very few purely geographical factors. Box A1 below includes an outline of this process, taken from metadata released with Census urban area data.

Box A1: Metadata supplied by the Office for National Statistics with the Key Statistics for Urban Areas

The starting point is the identification by Ordnance Survey of areas with land use which is irreversibly urban in character. This comprises

- permanent structures and the land on which they are situated, including land enclosed by or closely associated with such structures
- transportation corridors such as roads, railways and canals which have built up land on one or both sides, or which link built-up sites which are less than 200 metres apart
- transportation features such as airports and operational airfields, railway yards, motorway service areas and car parks
- mine buildings, excluding mineral workings and quarries; and
- any area completely surrounded by built-up sites.

Areas such as playing fields and golf courses are excluded unless completely surrounded by built-up sites. The prerequisite for the recognition of an urban area is that the area of urban land should extend for 20 hectares or more. Separate areas of urban land are linked if less than 200 metres apart. Land between built-up areas is not regarded as urban unless it satisfies one of the conditions listed above.

The second stage allocated an Output Area to an area of urban land where it fell entirely within the land or when the majority or largest proportion of the population located by the one metre coordinate references of addresses fell within the land. Such boundaries will, however, often surround substantially larger areas than the boundaries around urban land.

Figure A2: Input and output geographies required to update the evidence base on cities

01OA	Output Areas defined for the 2001 Census
01LSOA	Lower-layer Super Output Areas defined for the 2001 Census
01ward	Wards used to report the 2001 Census
01LA	Unitary/District local authority areas used to report the 2001 Census
01PUA	Primary Urban Areas: (divisions of) Urban Areas defined for the 2001 Census
01TTWA	Travel to Work Areas defined using the 2001 Census
01 PUA-TTWA	01 TTWAs identified as encompassing (groups of) PUAs
01NUTS3	Eurostat NUTS Level 3 areas
09LA	Unitary/District local authority areas as at the end of 2009
09MAA	Multi-Area Agreement areas (as identified for this research by DCLG)
81/91/01tract	Tracts defined by Sheffield University to support small area time series analyses
91ward	Wards used to report the 1991 Census
91LA	Unitary/District local authority areas used to report the 1991 Census
91TTWA	Travel to Work Areas defined using the 1991 Census
91 PUA-TTWA	91 TTWAs identified as encompassing (groups of) PUAs

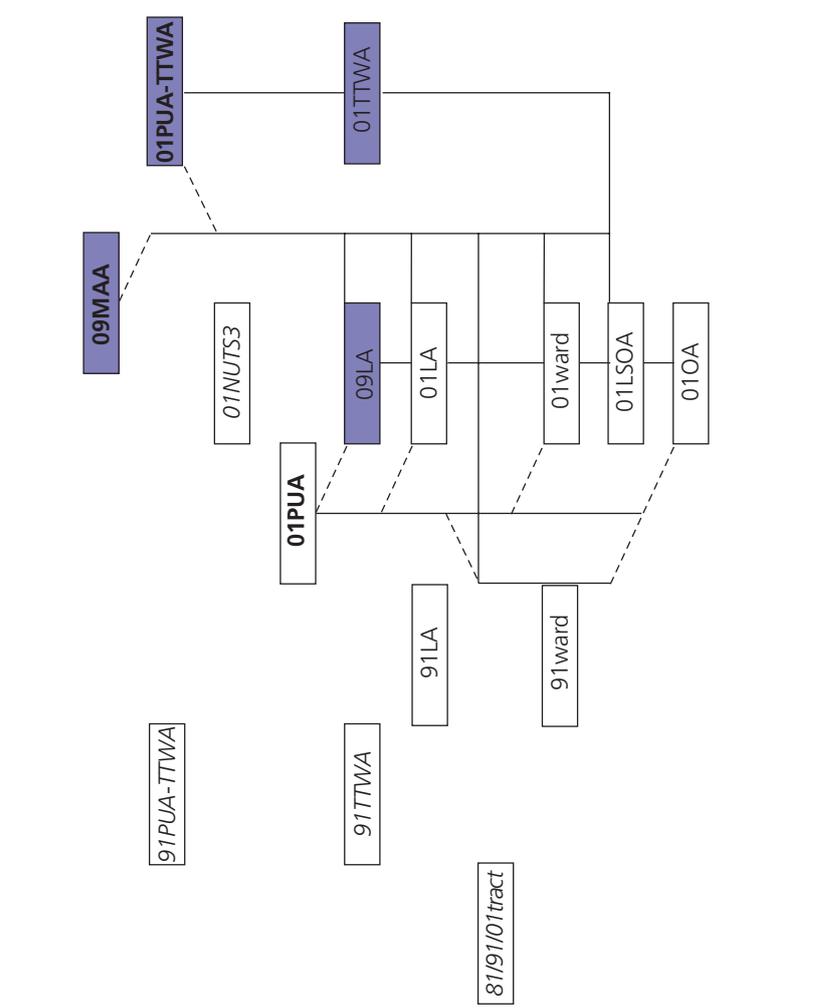


Figure A2 summarises the geographic relationships between the sets of areas relevant for this research. Each of the boxes is a set of areas in all or part(s) of England (nb. some areas can straddle the borders). They are laid out in the diagram so that, in general, sets of areas defined more recently are placed to the right of those defined previously. More importantly, sets of larger areas are above sets of smaller areas. This is crucial because data cannot be transferred from larger areas to smaller areas, hence data cannot flow downwards in the diagram.

Sets of areas named in italics are not part of the current research; they are shown to reflect their presence in the existing State of the Cities Database. Sets of areas whose boxes are shaded did not exist when the State of the Cities Database was created and so new look-up lists had to be created to allow data made available for these areas to be used. Sets of areas named in BOLD are those for which data output was required.

The lines in the diagram represent look-up lists between one set of areas and another. Lines which cross are separate from each other. Lines that are entirely vertical or horizontal are exact look-ups (i.e. there was no need to 'best fit'). Those lines in which there is a section at a diagonal – where the lines are broken – are the look-ups which do involve a 'best fit' between the smaller areas and the larger.

Our approach

The original brief for this research set as the ideal outcome that 01LSOAs would be the sole set of building block areas. Unfortunately this ideal could not be achieved as the research required drawing upon a wide range of data which in many cases was not available at this geographical level.

We created look-up files between (a) 'input' areas, that is the geographical areas for which the datasets needed are produced and (b) the 'output' sets of areas for the research (01PUAs, 01PUA-TTWAs and 09MAAs). For example, a look-up was needed between new local authority boundaries (09LAs) and urban areas (01PUAs). For this research, 01LSOAs were the default building block areas.

The first task was to produce a best-fit to 01PUAs from 01LSOAs. There were two possible approaches. One was to refer to 01OAs because these were the basis of the original ('gold standard') 01PUA definitions (nb. as stated in Box A1 these are themselves a best-fit to the true urban areas). The alternative was to refer to the definition used in the original State of the Cities based on 01wards ('silver standard'). The difference between the two options arises where 01wards include more than one 01LSOA which, if allocated independently, would not be all allocated in the same way.

In general, 01PUA boundaries which do not fall along local authority boundaries tend to lie just outside urbanised authority boundaries, so as to include some urban overspill within an adjacent, primarily rural, local authority. These more rural authorities typically have small population wards, with the result that these 01wards are often matched by single 01LSOAs. As a result, the match to 01PUAs directly from 01LSOAs will often give little if any more precision than matching via 01wards. No single improvement of boundary precision from the direct allocation of 01LSOAs – compared to allocating 01LSOAs via 01wards – is likely to be of more than a few 01LSOAs 'either way' and so the effects of this on the data values for 01PUAs (whose populations range upward from 125,000) will be limited.

At the same time, there were two positive advantages to adopting the 01ward basis here. The first was that it reduced the number of different versions of PUAs in the new study. The second was that it gives the opportunity for the creation of 'cleaner' time series data: 01LSOAs all fit exactly into 01wards and so data from the original State of the Cities research can be aligned with recent data based on 01LSOAs and change analysis then conducted without any concerns over possible effects from shifts in boundary alignment.

Evaluating our approach

This final section tests the argument a direct match between 01PUAs and 01LSOAs would not be too different to the match via 01wards. The analysis was done for three 01PUAs selected by DCLG:

2B	Birmingham
2S	Sheffield
2Y	Leeds ¹⁶⁴

The evaluation involved compiling look-ups of all Output Areas (01OAs) for each of these three 01PUAs on the following bases:

- **gold** the original allocation from the OS/ONS analysis of continuously built-up areas in 2001
- **gilded** a new best-fit of 01LSOAs (based on where the majority of the 01LSOA population was allocated according to the **gold** 01OA-based allocation above)
- **silver** the allocation of 01LSOAs based on the allocation of their 'parent' 01wards in the original State of the Cities research (using the method as described for **gilded** but using the 01wards instead of 01LSOAs)

The evaluation then used the 2001 Census total resident population at the OA level to determine whether shifting from the **silver** to the **gilded** best-fit would make any material difference. The key findings are based on the most severe relevant test: the population common to *both* best-fits as a percentage of the population in *either* of them. To summarise, the results were as follows.

Birmingham	97.5%
Sheffield	96.2%
Leeds	98.1%

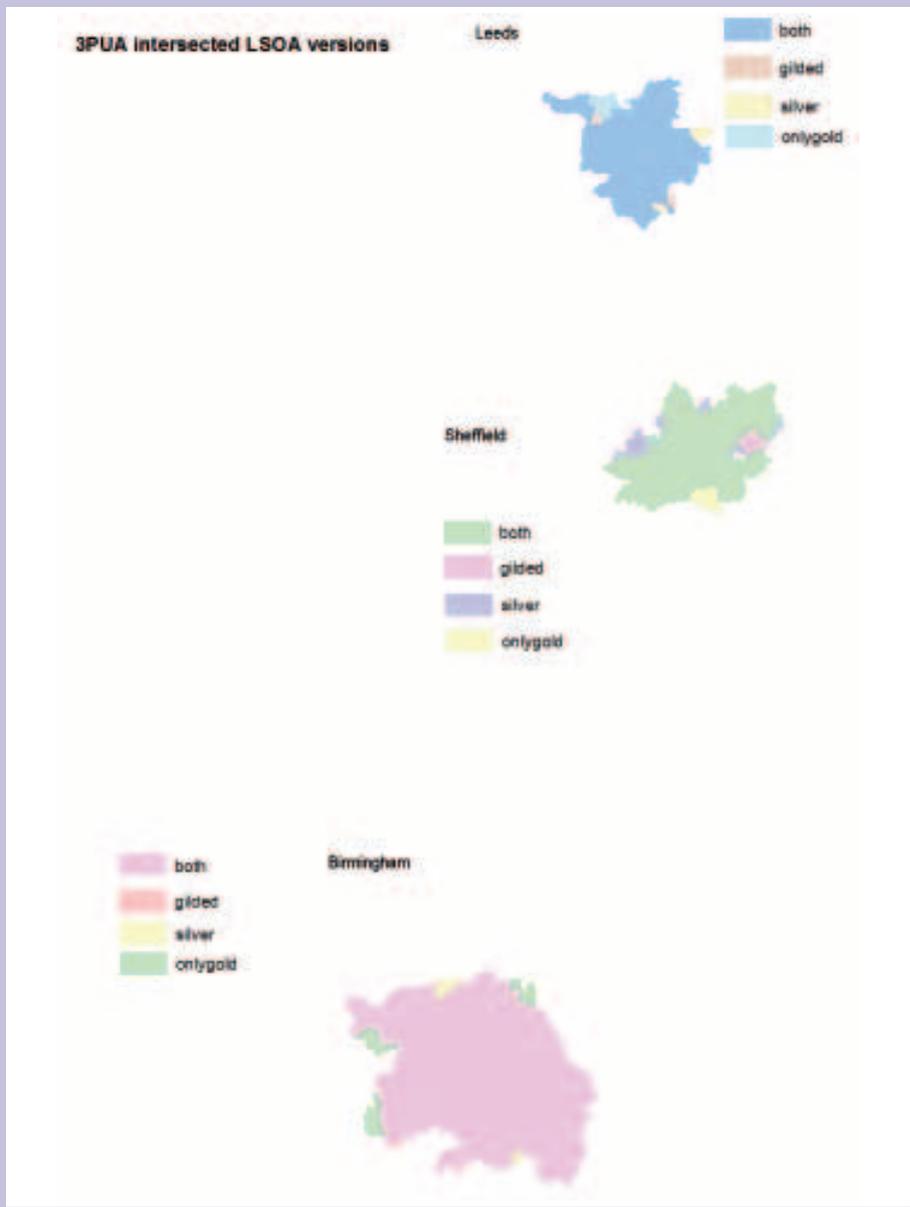
It should be stressed that these values tend to exaggerate the 'shortfall' from a 100 per cent match because they include both the 'false positives' and the 'false negatives' in the calculation. For example, if one approach had defined London as including Staines but not Esher while the other version had included Esher but not Staines the calculation used here divides the area in common – excluding both towns – by the combination of all the areas involved, even though neither version considered this to be the 'correct' version of London. Put simply, this calculation could be said to be double counting the mismatch involved; it is also likely that in many cases the two types of error will 'cancel each other out' to some degree.

¹⁶⁴ The original 'West Yorkshire Urban Area' was earlier split into several 01PUAs (e.g. creating separate Leeds and Bradford 01PUAs).

- On the basis of these results, it seems reasonable to conclude that little appreciable improvement in the matching of 01LSOAs to the **gold** definitions would be achieved by switching to the **gilded** basis from the **silver** basis which this research proposed and subsequently implemented.

Box A3: Best-fitting Test

The map below shows the allocation of area to each of the 3 PUAs mentioned above (Birmingham, Sheffield and Leeds) on any of the three bases above (nb. additional **only gold** category covers those areas that were allocated to the respective PUA on the gold basis but are not included in either of the **gilded** or **silver** best-fits). ‘Both’ shows the overlap between the gilded and silver best fits.



Applying the definition to the data

Once the definitions for three sets of output geographies were agreed – Primary Urban Areas, Travel to Work Areas – different lookup tables were created to match the different input areas to these geographies. Input geographies included the 01LA (Unitary/District local authority areas used to report the 2001 Census); 09 LA (Unitary/District local authority areas at the end of 2009); and 01LSOA (Lower-layer Super Output Areas defined for the 2001 Census) for most recent data. For historical data, ward based data was also used.

Using these different lookup tables, data was aggregated to Primary Urban Areas and Travel to Work Areas and updated for 30 indicators. Updates included three points in time 1998, 2003 and 2008, where possible. As a rule, data available at a lower-geographical level was used where available. However, for a number of indicators local authority district/unitary authority was the lowest level of geography available. This is the case for indicators sourced from the Annual Population Survey, the Annual Survey of Hours and Earnings, and a number of other indicators on crime, migration, population, housing and office space prices.

Detailed information on the different indicators updated can be found on the DCLG website.¹⁶⁵

In this report most indicators, particularly for the economic performance section, were analysed using Travel to Work Areas, since they provide a better approximation of the way the economy works, that is the city and its wider economy. However, in certain instances, for example in the case of worklessness and regeneration, we used primary urban areas to reflect performance at the city level and to provide consistency with the geographies used in the original State of the English Cities report.

Additional information

This last section includes:

- the definition of Primary Urban Areas based on 2001 local authority/unitary districts. Please note that this definition was only used for those indicators where lower geographical levels were not available
- the classification of cities by size and location used throughout this report
- the definition of key sectors used in Section 1 on economic performance.

¹⁶⁵ DCLG (2010) Primary Urban Areas and Travel to Work Area Indicators: Updating the evidence base on cities. DCLG: London. www.communities.gov.uk/publications/corporate/statistics/primaryurbanareas042010

Local authority based definition of Primary Urban Areas and Travel to Work Areas

LA/UA Code (2001)	LA/UA	PUA
24UL	Rushmoor	Aldershot/Camberley
43UJ	Surrey Heath	Aldershot/Camberley
00CC	Barnsley	Barnsley/Mexborough
00CN	Birmingham	Birmingham/ Wolverhampton
00CR	Dudley	Birmingham/ Wolverhampton
00CS	Sandwell	Birmingham/ Wolverhampton
00CT	Solihull	Birmingham/ Wolverhampton
00CU	Walsall	Birmingham/ Wolverhampton
00CW	Wolverhampton	Wolverhampton
00EX	Blackburn with Darwen	Blackburn
00EY	Blackpool	Blackpool
30UF	Fylde	Blackpool
30UQ	Wyre	Blackpool
00BL	Bolton	Bolton
00HN	Bournemouth	Bournemouth/Poole
00HP	Poole	Bournemouth/Poole
19UC	Christchurch	Bournemouth/Poole
00CX	Bradford	Bradford/Keighley
00ML	Brighton and Hove	Brighton
45UB	Adur	Brighton
00HB	Bristol, City of	Bristol
00HD	South Gloucestershire	Bristol
30UD	Burnley	Burnley/Nelson
30UJ	Pendle	Burnley/Nelson
12UB	Cambridge	Cambridge
00CQ	Coventry	Coventry
43UF	Reigate and Banstead	Crawley/Reigate
45UE	Crawley	Crawley/Reigate
00FK	Derby	Derby
00CE	Doncaster	Doncaster
23UE	Gloucester	Gloucester
00FC	North East Lincolnshire	Grimsby/Cleethorpes
21UD	Hastings	Hastings/Bexhill
00CZ	Kirklees	Huddersfield/Dewsbury
00FA	Kingston upon Hull, City of	Hull

Local authority based definition of Primary Urban Areas and Travel to Work Areas (Continued)

LA/UA Code (2001)	LA/UA	PUA
42UD	Ipswich	Ipswich
00DA	Leeds	Leeds
00FN	Leicester	Leicester
31UB	Blaby	Leicester
31UJ	Oadby and Wigston	Leicester
00BX	Knowsley	Liverpool/St.Helens
00BY	Liverpool	Liverpool/St.Helens
00BZ	St. Helens	Liverpool/St.Helens
00AA	City of London	London
00AB	Barking and Dagenham	London
00AC	Barnet	London
00AD	Bexley	London
00AE	Brent	London
00AF	Bromley	London
00AG	Camden	London
00AH	Croydon	London
00AJ	Ealing	London
00AK	Enfield	London
00AL	Greenwich	London
00AM	Hackney	London
00AN	Hammersmith and Fulham	London
00AP	Haringey	London
00AQ	Harrow	London
00AR	Havering	London
00AS	Hillingdon	London
00AT	Hounslow	London
00AU	Islington	London
00AW	Kensington and Chelsea	London
00AX	Kingston upon Thames	London
00AY	Lambeth	London
00AZ	Lewisham	London
00BA	Merton	London
00BB	Newham	London
00BC	Redbridge	London
00BD	Richmond upon Thames	London
00BE	Southwark	London
00BF	Sutton	London
00BG	Tower Hamlets	London
00BH	Waltham Forest	London
00BJ	Wandsworth	London
00BK	Westminster	London

Local authority based definition of Primary Urban Areas and Travel to Work Areas (Continued)

LA/UA Code (2001)	LA/UA	PUA
22UH	Epping Forest	London
26UB	Broxbourne	London
26UC	Dacorum	London
26UJ	Three Rivers	London
26UK	Watford	London
29UD	Dartford	London
29UG	Gravesham	London
43UB	Elmbridge	London
43UC	Epsom and Ewell	London
43UE	Mole Valley	London
43UG	Runnymede	London
43UH	Spelthorne	London
43UM	Woking	London
00KA	Luton	Luton/Dunstable
00BM	Bury	Manchester/Salford
00BN	Manchester	Manchester/Salford
00BP	Oldham	Manchester/Salford
00BR	Salford	Manchester/Salford
00BS	Stockport	Manchester/Salford
00BT	Tameside	Manchester/Salford
00BU	Trafford	Manchester/Salford
37UB	Ashfield	Mansfield
37UF	Mansfield	Mansfield
00LC	Medway	Medway Towns
00MG	Milton Keynes	Milton Keynes
34UF	Northampton	Northampton
33UC	Broadland	Norwich
33UG	Norwich	Norwich
00FY	Nottingham	Nottingham
17UG	Erewash	Nottingham
37UD	Broxtowe	Nottingham
37UE	Gedling	Nottingham
38UC	Oxford	Oxford
00JA	Peterborough	Peterborough
00HG	Plymouth	Plymouth
00MR	Portsmouth	Portsmouth/Fareham
24UE	Fareham	Portsmouth/Fareham
24UF	Gosport	Portsmouth/Fareham
24UH	Havant	Portsmouth/Fareham
30UE	Chorley	Preston/Chorley
30UK	Preston	Preston/Chorley

Local authority based definition of Primary Urban Areas and Travel to Work Areas (Continued)

LA/UA Code (2001)	LA/UA	PUA
30UN	South Ribble	Preston/Chorley
00MA	Bracknell Forest	Reading
00MC	Reading	Reading
00MF	Wokingham	Reading
00BQ	Rochdale	Rochdale
00CF	Rotherham	Sheffield/Rotherham
00CG	Sheffield	Sheffield/Rotherham
00MS	Southampton	Southampton
24UD	Eastleigh	Southampton
00KF	Southend-on-Sea	Southend
22UE	Castle Point	Southend
22UL	Rochford	Southend
00CM	Sunderland	Sunderland/Washington
00HX	Swindon	Swindon
00EC	Middlesbrough	Teesside
00EE	Redcar and Cleveland	Teesside
00EF	Stockton-on-Tees	Teesside
00GF	Telford and Wrekin	Telford
00GL	Stoke-on-Trent	The Potteries
41UE	Newcastle-under-Lyme	The Potteries
00CB	Wirral	The Wirral
13UE	Ellesmere Port & Neston	The Wirral
00CH	Gateshead	Tyneside
00CJ	Newcastle upon Tyne	Tyneside
00CK	North Tyneside	Tyneside
00CL	South Tyneside	Tyneside
00DB	Wakefield	Wakefield
00EU	Warrington	Warrington
00BW	Wigan	Wigan/Leigh
45UH	Worthing	Worthing/Littlehampton
00FF	York	York

Definition of cities by size and location

These definitions are the same used in the State of the English Cities Report (2006).

Group	Primary Urban Areas
London	London
Mets	Birmingham/Wolverhampton
	Leeds
	Liverpool
	Manchester
	Sheffield
	Newcastle
South and East Large	Bournemouth
	Brighton
	Bristol
	Leicester
	Nottingham
	Portsmouth
	Reading
	Southampton
North and West Large	Bradford
	Coventry
	Huddersfield
	Hull
	Sunderland
	Middlesbrough
	Stoke
	Birkenhead
	Wigan
South and East Small	Aldershot
	Cambridge
	Crawley
	Derby
	Gloucester
	Hastings
	Ipswich
	Luton
	Mansfield
	Chatham
	Milton Keynes
	Northampton
	Norwich
	Oxford
	Peterborough
	Plymouth
	Southend
	Swindon
	Worthing

Group	Primary Urban Areas
North and West Small	Barnsley Blackburn Blackpool Bolton Burnley Doncaster Grimsby- Preston Rochdale Telford Wakefield Warrington York

Definition of key sectors (Standard Industrial Classification codes 2003)

These definitions are the same used in the State of the English Cities Report (2006), and State of the Cities Database.

'Medium-high- tech industries'

- 29 Manufacture of machinery and equipment not elsewhere classified
- 31 Manufacture of electrical machinery and apparatus not elsewhere classified
- 34 Manufacture of motor vehicles, trailers and semi-trailers
- 241 Manufacture of basic chemicals
- 242 Manufacture of pesticides and other agro-chemical products
- 243 Manufacture of paints, varnishes and similar coatings, printing ink and mastics
- 245 Manufacture of soap and detergents, cleaning and polishing preparations, perfumes and toilet preparations
- 246 Manufacture of other chemical products
- 247 Manufacture of man-made fibres
- 352 Manufacture of railway and tramway locomotives and rolling stock
- 354 Manufacture of motorcycles and bicycles
- 355 Manufacture of other transport equipment not elsewhere classified

'Knowledge industries - hi tech'

- 73 Research and development
- 2416 Manufacture of plastics in primary forms
- 2417 Manufacture of synthetic rubber in primary forms
- 2441 Manufacture of basic pharmaceuticals
- 2442 Manufacture of pharmaceutical preparations
- 3001 Manufacture of office machinery
- 3002 Manufacture of computers and other information processing equipment
- 3110 Manufacture of electric motors, generators and transformers
- 3120 Manufacture of electricity distribution and control apparatus
- 3162 Manufacture of other electrical equipment not elsewhere classified
- 3210 Manufacture of electronic valves and tubes and other electronic components

- 3220 Manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy
- 3310 Manufacture of medical and surgical equipment and orthopaedic appliances
- 3320 Manufacture of instruments and appliances for measuring, checking, testing, navigating and other purposes, except industrial process control equipment
- 3330 Manufacture of industrial process control equipment
- 3340 Manufacture of optical instruments and photographic equipment
- 3530 Manufacture of aircraft and spacecraft
- 7210 Hardware consultancy
- 7260 Other computer related activities

‘Knowledge industries - Narrow definition KIBS SIC codes’

- 721 Hardware consultancy
- 722 Software consultancy and supply
- 723 Data processing
- 724 Data base activities
- 726 Other computer related activities
- 741 Legal, accounting, book-keeping and auditing activities; tax consultancy; market research and public opinion polling; business and management consultancy; holdings
- 742 Architectural and engineering activities and related technical consultancy
- 743 Technical testing and analysis
- 744 Advertising
- 73 Research and development

‘Knowledge industries - Wide definition KIBS SIC 2003 codes’

- 65 Financial intermediation, except insurance and pension funding
- 66 Insurance and pension funding, except compulsory social security
- 67 Activities auxiliary to financial intermediation
- 7011 Development and selling of real estate
- 7032 Management of real estate on a fee or contract basis
- 7210 Hardware consultancy
- 7221 Publishing of software
- 7222 Other software consultancy and supply
- 7230 Data processing
- 7240 Data base activities
- 7411 Legal activities
- 7412 Accounting, book-keeping and auditing activities; tax consultancy
- 7413 Market research and public opinion polling
- 7414 Business and management consultancy activities
- 7415 Management activities of holding companies
- 7420 Architectural and engineering activities and related technical consultancy
- 7430 Technical testing and analysis
- 7440 Advertising
- 7450 Labour recruitment and provision of personnel
- 803 Higher education

'Knowledge industries - creative industries SIC 2003 codes'

- 72 Computer and related activities
- 221 Publishing
- 742 Architectural and engineering activities and related technical consultancy
- 744 Advertising
- 7481 Photographic activities
- 9211 Motion picture and video production
- 9220 Radio and television activities
- 9231 Artistic and literary creation and interpretation
- 9232 Operation of arts facilities

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