Appendix 2

Cities Outlook
2016

centreforcities

Over the past year, there has been an increased recognition by central government that the UK's cities are the engines of national economic growth, and that local leaders are best positioned to take decisions to make that growth even stronger. Year on year, *Cities Outlook* provides cities with the tools to make those decisions both through its timely policy analysis and evidence base.

Cities Outlook 2016 challenges the government to go further, by aligning welfare spend, housing priorities and skills provision at the local level, and understanding the varying economic priorities for the country at a spatial level. This level of control will be vital for Leeds if it is to stay globally and nationally competitive, and if it is to tackle poverty, and deliver on the jobs and growth that the country needs.
Cllr Judith Blake, Leader, Leeds City Council

Cities Outlook is essential reading for anyone with an interest in city economies. The UK's largest cities and towns are where the most significant economic activity takes place, where jobs are created and where businesses can thrive.

At the Greater Birmingham Chambers of Commerce, we represent over 2,500 members of all industries, sizes and walks of life from England's second biggest city and the surrounding region. Understanding Birmingham's strengths and weaknesses relative to other large cities and the impacts of government policy is crucial to our work.

With the government committed to supporting businesses to grow, boosting wages and cutting the welfare bill, this year's report provides a timely and detailed picture of how different cities are performing, providing critical new insights on both the challenges and the opportunities they face as a result.

Every year *Cities Outlook* uses strong, reliable evidence and sharp analysis to give us in Greater Birmingham and the West Midlands the tools to help us understand our place better.
Paul Faulkner, Chief Executive, Birmingham Chamber of Commerce

Cities Outlook 2016 once again tells us in the clearest terms what we can gain from delivering policies and encouraging investment decisions that recognise the growing economic importance of our cities. The Centre for Cities team is surely capturing the zeitgeist in their drive to champion more powerful cities all across the UK.

The policy context in Scotland is often very different to that in other parts of the UK; that is what devolution is all about after all. But Glasgow – as Scotland's biggest city – has its own City Deal and is fully engaged with the UK Core Cities. We pay close attention to the publication of *Cities Outlook* as a thoughtful assessment of the relative progress that each of our cities is making.

The debate inside the business community about the role of the Living Wage is a forceful one. This year's *Outlook* gives a helpful new perspective on why that is so.
Stuart Patrick, Chief Executive, Glasgow Chamber of Commerce

The annual Centre for Cities *Cities Outlook* report provides a robust, independent view of the performance of our country's cities and larger towns. We will all be tracking performance trends and benchmarking ourselves against our neighbours and similar cities which is essential for our planning for economic development. As local authorities move to increasingly localised income streams, such as the retention of business rates, it is ever more important to know how attractive and competitive each place is for business and housing growth and inward investment. The *Outlook* report provides a strong factual base for such comparisons and always picks up on the key economic policy themes of our times. I recommend it wholeheartedly as an essential read and reference point for all those interested in the economies and competitiveness of the featured cities and towns.
Cllr David Renard, Leader, Swindon Borough Council

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Acknowledgements

All views expressed are those of Centre for Cities.

01

Cities Outlook 2016

Devolution, austerity and economic growth

Cities Outlook 2016

The political landscape has altered significantly since Cities Outlook 2015. A Conservative government is now implementing its manifesto commitments, from rebalancing the public finances to passing power down from Whitehall to town hall.

Against a backdrop of an economy that continues to grow, two big issues are likely to shape the current parliament. The first is the government's ambition to reduce public expenditure while still supporting economic growth. The second is the cross-party consensus that future national prosperity should be of benefit to all people and places across the UK.

To deliver in these areas, the government has set itself the challenge of creating a higher wage, lower welfare economy, in part by devolving power and funding from Whitehall to city-regions and providing investment to strengthen the 'Northern Powerhouse' and other regional economies.

Higher wage, lower welfare economy

Increasing wages while reducing welfare expenditure was at the heart of the 2015 Budget and subsequent Spending Review. This was encapsulated by the Chancellor's announcements of a 'National Living Wage' at the same time as reducing working tax credits and cutting the overall welfare budget by £12 billion.

These policies are a response to the challenge that, despite there being 1.3 million more jobs in 2014 than 2010 (980,000 of which were in cities) the real value of wages earned in 2014 was 5 per cent lower than in 2010. This has resulted in a squeeze for many households; one compounded by the geography of jobs growth, with London alone accounting for 43 per cent of all jobs growth in the four years to 2014.

Debates continue about whether the 'National Living Wage' will compensate for cuts in working tax credits, with the Institute of Fiscal Studies (IFS) arguing there will still be a hole in many families' finances.[1] There is also further discussion needed about the role of welfare expenditure in both supporting the most vulnerable (e.g. for those with disabilities) and helping people close to the labour market (e.g. top-ups for low wages, childcare support) while avoiding subsidising low paying employers or creating disincentives to work.

But as the policy agenda unfolds, there is an increasingly clear link between creating a higher wage, lower welfare economy and the government's commitment to devolve more powers to cities.

Devolution Deals

Devolution has continued to gain momentum since the Chancellor set out his initial vision in July 2014 and announced the range of new powers for Greater Manchester in November 2014. Devolution, and the Northern Powerhouse, also featured in the Chancellor's first speech after the May election. Since then Greg Clark, the new Secretary of State for Communities and Local Government and long-standing champion of devolution, has been working with city-regions to agree further Devolution Deals.

Five deals have been announced to date, with the Sheffield City Region, the North East, the Liverpool City Region, the West Midlands and Tees Valley agreeing to have directly elected metro mayors in exchange for greater powers over transport, skills, enterprise and labour market programmes, as well as additional funding. These deals are important steps towards providing cities with greater powers to adapt policy to their specific challenges. The hope is that, as has been the case in London and more recently Greater Manchester, more powers, funding and influence will flow to these areas over time.

Alongside these Devolution Deals, the local government funding settlement has also been radically reformed. In addition to managing further funding cuts (significant but less steep than initially feared), cities will have to adapt to a funding environment that is much more dependent on locally generated growth-based revenues – council tax and business rates – and much less reliant on central government needs-based grants.

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1 IFS (2015) An assessment of the potential compensation provided by the new 'National Living Wage' for the personal tax and benefit measures announced for implementation in the current parliament", London: IFS

Figure 1:
Devolution Deals - an overview

Combined Authority	Metro Mayor	30-year investment fund	Education & skills powers	Housing & planning	Transport	Health & social care
Greater Manchester	✓	£900m	Devolved Apprenticeship Grant for Employers	10-year £300 million Housing Investment Fund, strategic planning and compulsory purchase powers, power to create Mayoral Development Corporations	Consolidation and devolution of transport budget	Control of £6 billion integrated health and social care budget
Liverpool City Region	✓	£900m	Local commissioning of outcomes of Adult Skills Budget, to be fully devolved 2018/19	Strategic planning and compulsory purchase powers, power to create Mayoral Development Corporations	Consolidation and devolution of transport budget	
North East	✓	£900m	Creation of integrated employment and skills system, including devolution of Adult Skills Budget by 2018	Compulsory Purchase and Homes and Communities Agency (HCA) powers	Consolidation and devolution of transport budget	
Sheffield City Region	✓	£900m	Local commissioning of outcomes of Adult Skills Budget, to be fully devolved 2018/19	Strategic planning powers, power to create Mayoral Development Corporations	Consolidation and devolution of transport budget	
Tees Valley	✓	£450m	Local commissioning of outcomes of Adult Skills Budget, to be fully devolved 2018/19	Power to create Mayoral Development Corporations	Consolidation and devolution of transport budget	
West Midlands	✓	£1.1bn	Local commissioning of outcomes of Adult Skills Budget, to be fully devolved 2018/19	Compulsory Purchase and HCA powers	Consolidation and devolution of transport budget	

Source: Devolution agreements

The elevation of cities policy to the forefront of the government's growth agenda is significant and overdue in a country as centralised as the UK. But cities will be key to delivering other policy priorities too.

This is particularly important when it comes to reducing public expenditure, including the welfare bill. The siloed nature of public spending, by policy area and government department, has encouraged inefficiency and duplication. Given the scale of the government's ambitious public expenditure agenda, devolving more public service budgets to city regions offers the best chance of achieving the greater savings, reforms and improvements required.

02

Mapping the low wage, high welfare economy


2015 WORLD GYMNASTICS CHAMPIONSHIPS

How can the government deliver on its high wage, low welfare promise?

In the first Budget speech of the new Conservative government, Chancellor George Osborne set out his aim of both reducing the UK's spending on welfare and increasing wages.

"We have to move Britain from a low wage, high tax, high welfare society to a higher wage, lower tax, lower welfare economy."
George Osborne, Summer Budget 2015

This chapter explores the lessons that successful cities offer the government and Chancellor as they attempt to realise this goal. These cities are places where residents already earn high wages and receive relatively low levels of welfare spending. By analysing the factors driving this success, insights can be gained into the kinds of policy support that other cities, where welfare spending is higher and wages are lower, will need in order to improve their performance.

Box 1: The use of primary urban areas

The analysis undertaken in *Cities Outlook* compares cities' Primary Urban Areas (PUAs) – a measure of the built up area of a city, rather than local authority districts. Chapter 3 discusses PUAs, and the recent update of the definition, in more detail.

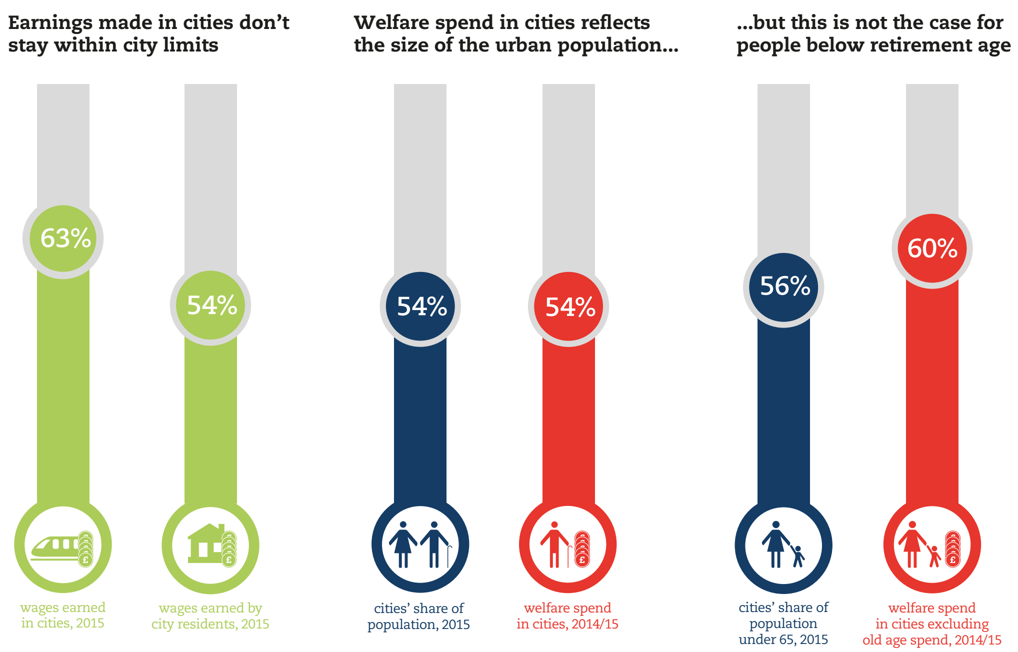
Cities, wages and welfare

Cities are where the majority of wages are earned in Britain, and where the majority of welfare spending takes place. As Figure 1 shows, cities account for 54 percent of the population, but generate 63 per cent of all wages in Britain. They are also home to 71 per cent of all knowledge intensive business services jobs, which tend to be higher skilled and better paid. But the wages of residents in cities tend to be lower, reflecting the fact that many urban workers actually live outside the city itself. City dwellers receive 54 per cent of all wages earned in Britain.

When looking at welfare overall, spending in cities is equivalent to population (54 per cent). But when old age benefits are removed – the majority of which are protected from cuts to welfare spending – the share of welfare spending in cities increases to 60 per cent, reflecting the younger demographic of urban Britain. These statistics underline the important role that improving city performance will have in achieving a higher wage, lower welfare economy.

Figure 2

Cities' share of population, wages and welfare spend



Source: ONS 2015, Annual Survey of Hours and Earnings; DWP 2015; HMRC 2015; DCLG 2015; Welsh Government 2015; Scottish Government 2015; NOMIS 2015, Population estimates; ONS 2015, Birth summary tables; National Registers of Scotland 2015, Births by sex, year and council area

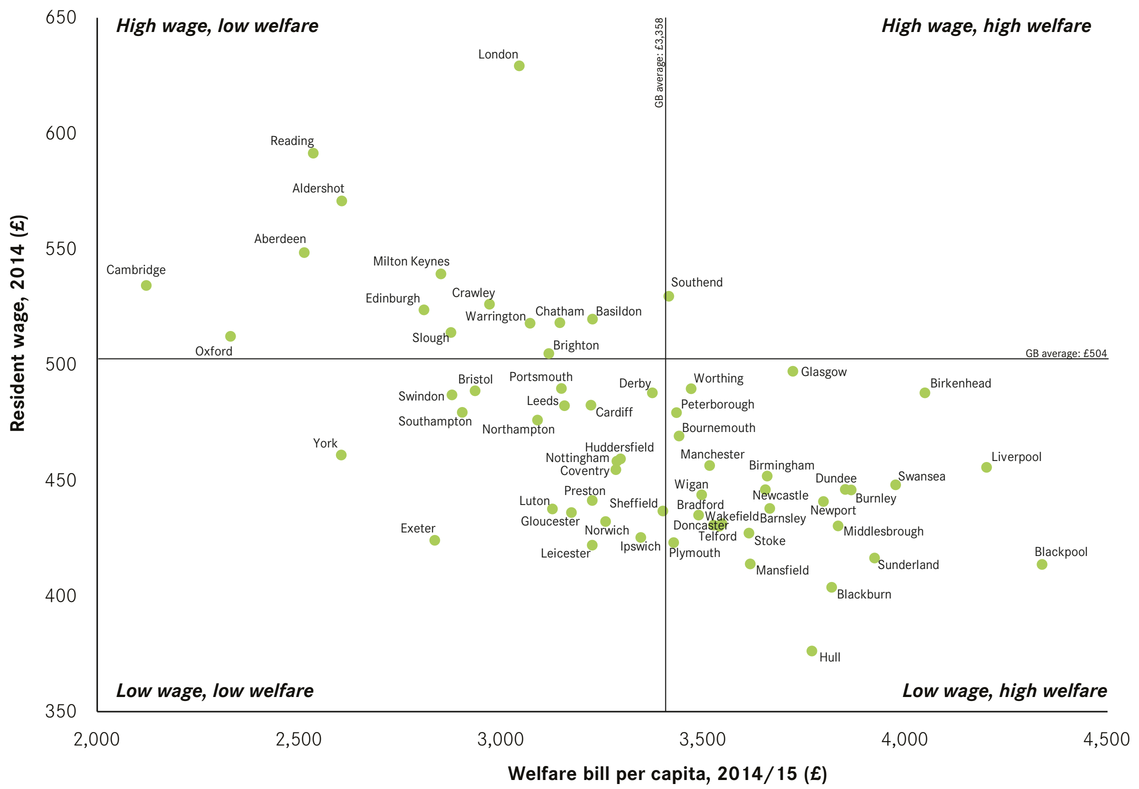
Which cities are already high wage, low welfare economies?

Some places are already delivering on the government's desire to have a higher wage, lower welfare national economy. As Figure 3 shows:

- 14 cities, such as Aberdeen and Reading, already have above average wages and below average levels of welfare per capita.
- 18 cities have below average levels of welfare, but also below average wages.
- The category with the highest number of cities is the one that the government is most concerned about; 29 cities are low wage, high welfare economies.
- Just one city, Southend, is classed as a 'high wage, high welfare' city, which is driven by its higher than average spend on old age benefits. For presentation purposes Southend is excluded from the following analysis.

Figure 3

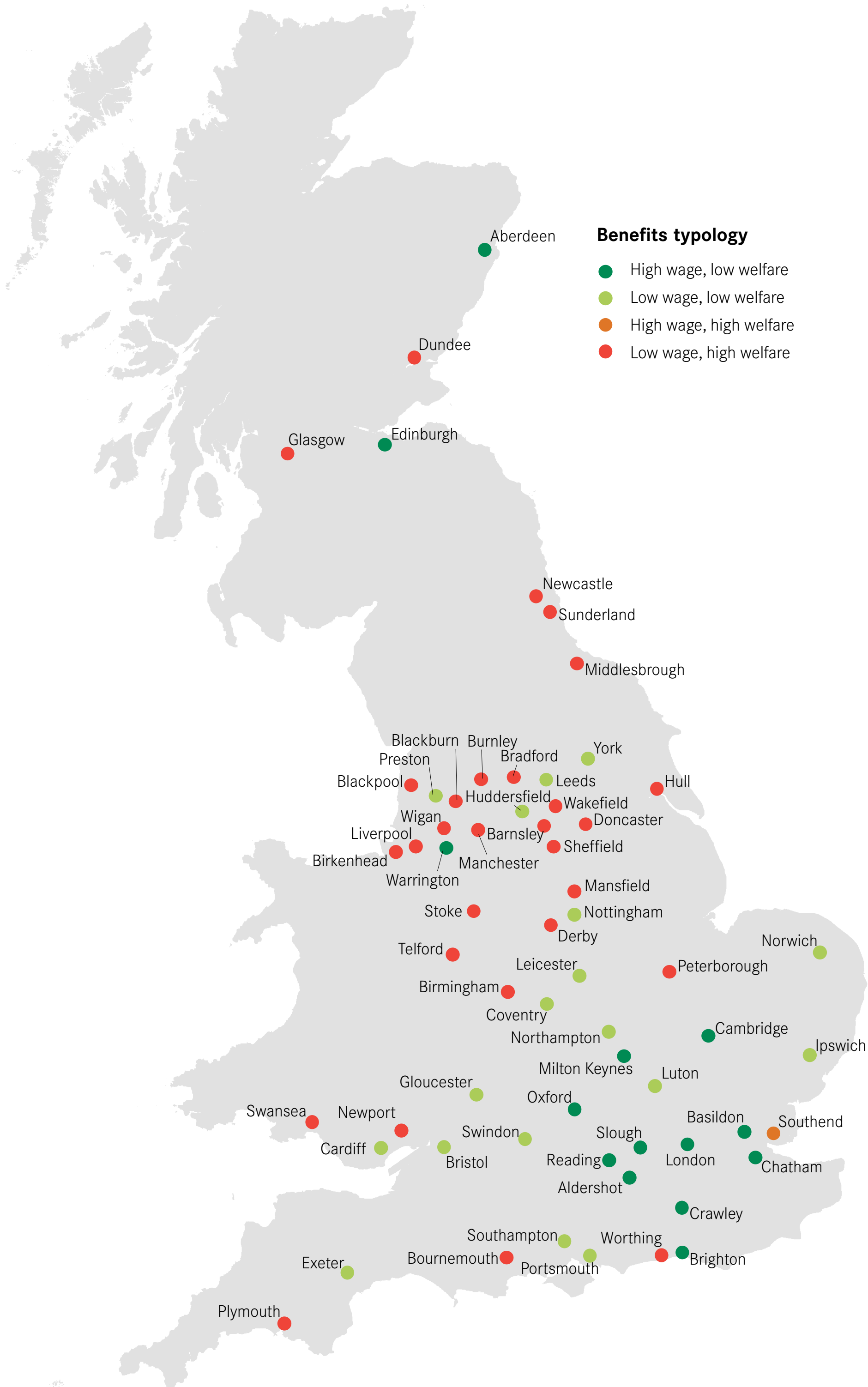
Resident wages and welfare



Source: ONS 2015, Annual Survey of Hours and Earnings; DWP 2015; HMRC 2015; DCLG 2015; Welsh Government 2015; Scottish Government 2015; NOMIS, Population estimates; ONS 2015, Birth summary tables; National Registers of Scotland 2015, Births by sex, year and council area

Figure 4

The geography of the high wage, low welfare economy



Source: Centre for Cities

There is a clear geography to these distinctions. As Figure 4 shows, 11 of the 14 cities that are 'high wage, low welfare' cities are in the South, with the exceptions being Aberdeen, Edinburgh and Warrington. And just four of the 'low wage, high welfare' cities are in the South – Bournemouth, Peterborough, Plymouth and Worthing.

For the government to achieve its ambition of creating a higher wage, lower welfare economy, a more detailed understanding is required of the factors driving these differences – including the ability of cities to create jobs, to attract and retain high skilled workers, and the recent growth in urban welfare spending.

Box 2: Measuring welfare in cities

Welfare spending in cities is overseen by three departments. The bulk of benefit spend, including Employment and Support Allowance and Housing Benefit, is overseen by the Department for Work and Pensions. HMRC is responsible for Child Benefit and Child and Working Tax Credits. And the Department for Communities and Local Government is responsible for Council Tax Support in England, while the devolved administrations deal with it in Wales and Scotland.

Most benefits have data available at the local authority level. Where this wasn't the case, the regional benefit spend was apportioned to the local authority according to that authority's demographic. For example, for maternity benefits, the share of births in a region that was in a specific local authority was used to allocate spend to the authority.

High wage, low welfare cities have created more jobs in recent years

Wage growth has been very weak across Britain in recent years. At the national level, wages were 5 per cent lower (in real terms) in 2014 than they were in 2010.

Residents in all three city groups have seen the real value of their pay packets fall. Cities with below average welfare spending have seen the largest falls, with real wages being 6 per cent lower in 2014 than 2010. This compares to the 4 per cent fall seen in the cities that have low wages and high welfare spend (see Figure 5). Even though more successful cities saw a slightly larger fall, it is worth noting that, on average, weekly wages were £155 (35 per cent) higher in these cities in 2014, than in cities that have low wages and high welfare bills.

Figure 5

Resident wage growth, 2010-2014

	Real resident wage growth, 2010-2014	Average weekly resident wage, 2014
High wage, low welfare	-6%	£604
Low wage, low welfare	-4%	£464
Low wage, high welfare	-4%	£449
Great Britain	-5%	£504

Source: ONS 2015, Annual Survey of Hours and Earnings

Although real wage growth has been disappointing in recent years, job creation has not. In 2014, there were over 1 million more jobs in Britain than in 2010. And this net job creation has been felt almost everywhere – just seven cities saw an overall fall in their number of jobs over the period. But both the size and type of this growth has varied across cities.

Private sector jobs have increased across all three groups of cities. But growth has been by far the strongest in the high wage cities that also have low welfare spending, which had 11 per cent more of these jobs in 2014 than in 2010. This was triple the increase seen in the low wage, high welfare group (see Figure 6).

The type of private sector jobs created has also varied across the three groups. Around one in three net new private sector jobs created in high wage, low welfare cities has been in knowledge intensive business services (KIBS), which tend to be higher skilled, better paid jobs. In the low wage cities that have high welfare spending, this figure was one in four. Interestingly, in low wage, low welfare cities - where private sector growth has been the lowest - the contribution of KIBS has been the highest – more than one in two net new private sector jobs was a KIBS job.

Figure 6

Change in jobs, 2010-2014

Source: NOMIS 2015, Business Register and Employment Survey

High wage cities with low welfare spending have also seen the strongest growth of publicly funded jobs in recent years. This is for two reasons: firstly, they have seen the smallest cuts to jobs in public administration. Secondly, reflecting their larger population growth and greater demand on services, they have also seen the largest increases in jobs in health and education, as shown in Figure 6.[2]

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2 Despite cuts to public sector funding, the number of publicly funded jobs has actually increased slightly in recent years. This is because cuts to jobs in public administration have been offset by growth in education and health, both of which have had their budgets ring-fenced.

Box 3: Definition of publicly-funded jobs

Publicly funded jobs are defined in this work as those jobs that fall into the sectors of:

- Public administration and defence
- Education
- Health

This definition is not perfect. But according to the ONS, it captured 85 percent of what the ONS classes as 'public sector' in 2013.[3] And of the remaining 15 percent, 7 percent were jobs in financial services – principally RBS, which is likely to be re-privatised – and communications – principally Royal Mail, which has now been privatised.

Our definition also captures those jobs, such as GPs, universities and sixth form colleges – the latter classed as public sector in Wales and Scotland but private sector in England – that are principally funded by the public sector. This does of course mean that private education and health care providers are also captured in this measurement, but unfortunately the data is not made available to create a more refined definition.

High wage, low welfare cities also tend to have much higher shares of skilled residents

High wage, low welfare cities tend to have more highly qualified people living in them. Cities with large shares of high skilled residents living in and around them are attractive to high skilled businesses. The higher skilled a person is, the more likely it is that they will be able to find employment and the less likely it is that they will require welfare support. For both of these reasons, skills is a very important factor in explaining the divergence seen between the different groups of cities.

3 ONS (2015) Guide to using public/private estimates from the Business Register and Employment Survey (BRES), Newport: ONS

Figure 7

Skills and school performance across cities

Category	Share of residents with a degree level (or equivalent) qualification, 2014	Share of residents with no formal qualification, 2014	Share of students achieving 5 A*-C including Maths and English, 2014*
High wage, low welfare	47%	7%	61%
Low wage, low welfare	34%	9%	54%
Low wage, high welfare	30%	12%	53%

Source: NOMIS 2015, Annual Population Survey; Department for Education 2015, GCSE and Equivalent Results in England; Welsh Government 2015, Schools in Wales: Examination Performance; Department of Education Northern Ireland (DENI) 2015, Qualifications and Destinations. Note: data for Wales is for Maths & English or Welsh. *Excludes Scottish cities

As Figure 7 shows, almost half of working age people in cities with high wages have a degree, compared to around one in three in low wage cities. School performance tends to be much higher too – cities that have higher paid residents and low welfare spend tend to see a higher share of pupils get at least five good GCSEs. This means that not only do high wage, low welfare cities have a larger stock of high skilled residents, but also that those entering either the workplace or higher education tend to be more highly qualified.

But high wage, low welfare cities have seen the largest growth of welfare in recent years

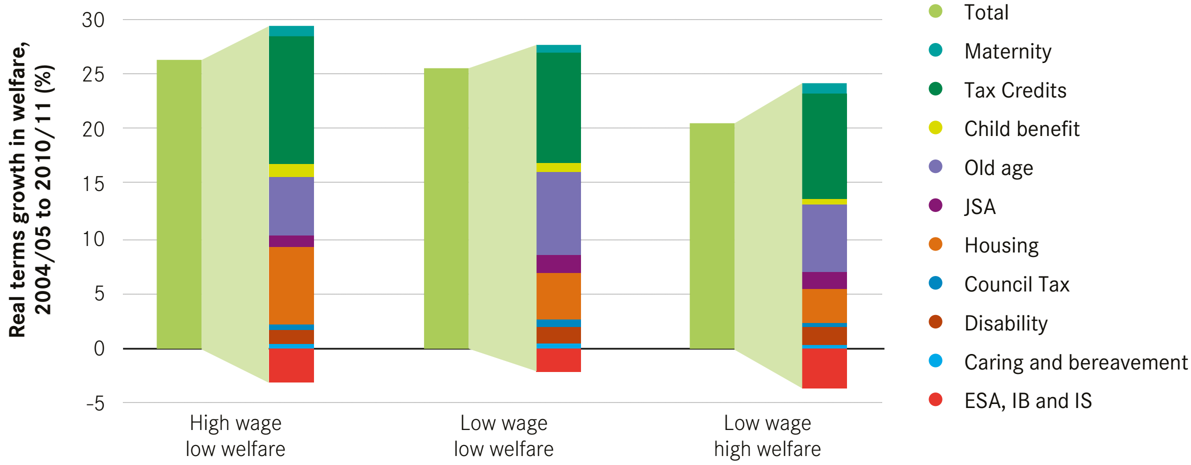
Spending on benefits in Britain has risen sharply in recent years. Between 2004/05 and 2010/11, real benefit spending increased by 24 per cent. But the geography of this is surprising – it was the cities with the lowest benefit spend at the start of this period, rather than the highest, which saw the largest increases.

Milton Keynes saw the largest increase of all cities – its total welfare bill increased by 45 per cent. It was followed by Peterborough, Slough and Swindon. Meanwhile Aberdeen, Dundee and Glasgow saw the smallest increases.

There were two principal reasons for this. Firstly, high wage cities with low welfare spending saw larger increases in housing benefit spend than low wage cities with a high welfare spend (see Figure 8). Secondly these cities also saw much larger population growth, which increased benefits spending linked to demographics, such as maternity pay and child benefit.

Figure 8

Real terms growth in welfare, 2004/05 to 2010/11



Source: DWP 2015; HMRC 2015; NOMIS 2015, Population estimates, ONS 2015, Birth summary tables; National Registers of Scotland 2015, Births by sex, year and council area

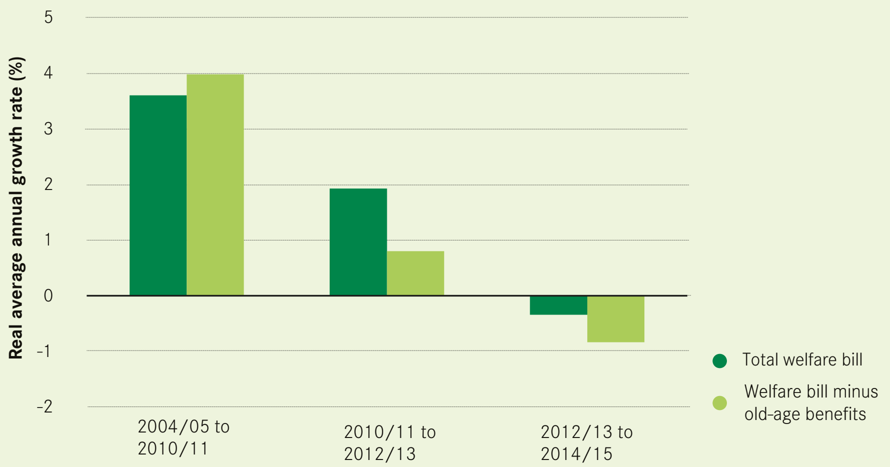
Box 4: National welfare spending since 2004/05

Over the term of the last Labour government, welfare spending outstripped economic growth. Between 2004/05 and 2010/11 the welfare bill grew at over 4 per cent a year in real terms, compared to an average annual growth rate of the national economy of 0.8 per cent. This growth of welfare spending was driven by tax credits, pension benefits and housing benefit.

In the first couple of years of the last parliament, welfare spending slowed, particularly welfare spending on things other than old age benefits, but it did continue to grow. This has changed since 2012/13. Benefit spend has declined in real terms, with welfare spend excluding old age benefits falling by 0.7 per cent a year. This decrease has been driven in part by the fall in unemployment seen in recent years, which has reduced spending on Jobseekers’ Allowance. But cuts to Child Benefit and Child and Working Tax Credits have also been important.

Figure 9

Real terms annual average growth in welfare, 2014/15 prices



Source: DWP 2015; HMRC 2015; DCLG 2015; Welsh Government 2015; Scottish Government 2015
Note: Pension benefits are defined as State Pension, Pension Credit, over 75 TV licences, Winter Fuel Allowance and Cold Weather Payments

This pattern has continued since 2010/11. All categories of cities have continued to see an overall increase in real benefit spend between 2010/11 and 2014/15, mainly as a result of old age benefit spending, as discussed in Box 4. But this increase has been smallest for low wage, high welfare cities, with housing benefit once again being the principal difference between the groups (Figure 10).

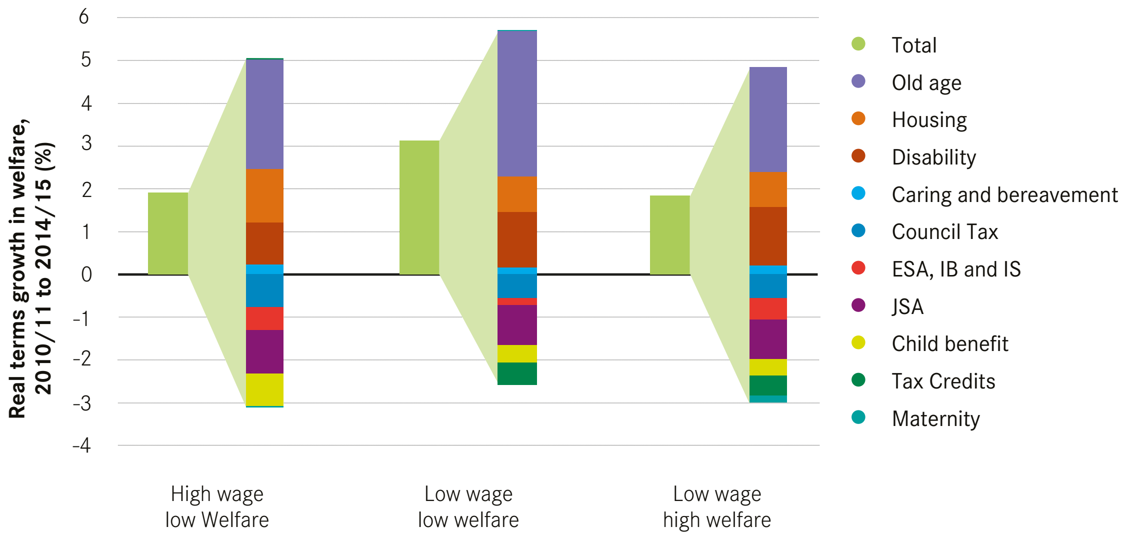
This analysis reveals a number of things about the nature of welfare across our cities. Firstly, the size of the welfare bill in cities where spending is above average is not simply a result of increases in welfare budgets over the last 10 years – spend is above average despite these cities seeing slower population growth. **The causes of high welfare spend in these cities are much more fundamental, and are likely to be due to long term structural weaknesses in their economies.**

Secondly, the larger increases in benefit spend in high wage, low welfare cities is in part a result of their economic strength. Growing demand to live in these cities in order to access jobs has tended to outstrip increases in the supply of housing, pushing up rents, and in turn, spending on housing benefits. As Figure

11 shows, housing benefit payments in high wage, low welfare cities were more than 50 per cent higher than other cities. **The increase in the benefit bill in recent years in these cities has occurred because of a structural problem not in their economies but in their housing markets.**

Figure 10

Real terms growth in welfare, 2010/11-2014/15



Source: DWP 2015; HMRC 2015; DCLG 2015; Welsh Government 2015; Scottish Government 2015; NOMIS 2015, Population estimates, ONS 2015, Birth summary tables; National Registers of Scotland 2015, Births by sex, year and council area

Figure 11

Housing affordability and housing benefit payments

Category	Housing affordability ratio, 2015	Average weekly housing benefit payment, Jun 2015
High wage, low welfare	14.5	£134
Low wage, low welfare	7.9	£81
Low wage, high welfare	6.8	£81

Source: Land Registry 2015, Price Paid Data, ONS 2015, Annual Survey of Hours and Earnings, DWP 2015; HMRC 2015; DCLG 2015; Welsh Government 2015; Scottish Government 2015

What are the implications for policy?

Those cities that have higher than average wages and lower than average welfare bills have seen the strongest growth in jobs, but also in welfare, in recent years. And their stronger economies make them well placed to continue to grow in the coming years. The challenge for the government will be to limit further increases in welfare spending in these cities, which have in part been driven by a combination of high demand to live in them and an insufficient response in terms of the expansion of supply of housing.

In low wage, high welfare cities, the government faces a very different challenge. Welfare cuts alone will neither help improve wages in these cities or reduce their requirement for welfare. They can attempt to bring down welfare spending directly through the spending decisions they take – the intention is to reduce total welfare spending by £12 billion by 2020 - but ultimately, the size of the welfare bill and the performance of the economy are interlinked.

The weaker economies of these cities means that they will need a range of economic policy interventions if they are to experience sustained economic growth at the same time as cuts to welfare spending. And while the introduction of the 'National Living Wage' and reductions in the personal allowance[4] will increase wages, they will not address the underlying reasons why wages are lower in these cities in the first place.

In responding to these challenges there are **three main areas for the government to focus on in their attempt to move from a low wage, high welfare economy to a high wage, low welfare economy.**

First, in cities with low wages and high welfare spending, cuts to bring down welfare must be accompanied by policies to improve the economy, particularly around skills. While much has been said about transport investment in the context of the Northern Powerhouse, much less has been said about improving school performance and adult education. But low skills will both hinder the opportunities available for people to move off welfare and into work and will hinder attempts by cities to attract investment from businesses.

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4 Income exempt from income tax.

Second, devolution would help all cities better integrate skills and employment interventions and welfare spending. Currently, spending on employment and skills programmes and benefit spending are not connected. This means that there are few financial incentives to invest in an employment and skills programme that helps to reduce welfare spend, because those responsible for investing in the former do not get to keep the savings made in the latter. This hinders the goal of getting people back into work.

Creating a link between these two areas of funding, for example through giving city regions control over both budgets and allowing them to keep some of the savings made, would be a way to address this. The devolution of health and social care budgets in Greater Manchester has been done with the aim of reducing spending by reducing duplication, better integrating services and allowing Greater Manchester to keep the savings made. The same principle holds for skills and employment and welfare spending, and the government should look to devolve these budgets to city regions too.

Finally, in high wage, low welfare cities, rising house prices will continue to increase demand for housing benefit. Short term freezes to housing benefit payments will temporarily limit increases in housing benefit spending, but they will not address the underlying cause of this increase. The simple answer is to build more houses in these cities. The government has announced its intention to build 400,000 extra affordable homes by 2020. These houses need to be built in cities where housing benefit payments are highest.

Each of these changes – improvements in education and skills levels, devolution and integration of budgets and services, and increases in housing supply within high demand cities – will take several years to deliver, and longer still for the full range of benefits to be felt. **Creating a higher wage, lower welfare economy will, in all likelihood, be the work not of one Parliament, but of several.**

Given the scale of the challenge facing a large number of cities, it is vital that the government acts now to lay the foundations for these changes, maintaining the momentum behind the devolution deals announced to date, and going much further in the years to come in equipping urban areas to fulfil their economic potential.

03

City monitor

The latest data

City monitor: the latest data

There is considerable variation in the economic performance of cities across the UK. The purpose of this chapter is to show the scale and nature of this variation by highlighting the performance of cities on 17 indicators covering:

- Population
- Business dynamics
- Productivity
- Innovation
- Employment
- Skills
- Wages
- Housing
- Environment
- Digital connectivity

For most indicators the 10 strongest and 10 weakest performing cities are presented. Tables of the full list of cities can be found on www.centreforcities.org/data-tool.

Box 5: Defining cities

The Primary Urban Area (PUA) defines a city as the built up area that it covers, which provides a consistent measure to compare concentrations of economic activity across the UK. This makes PUAs distinct from city region or combined authority geographies.

Of course, cities change throughout time. Some get larger, and some decline, and our definitions must reflect this. The final releases of the 2011 Census have allowed us to review the cities that we look at. After working with Newcastle University, the creators of the original PUA definition, this year’s Outlook for the first time presents data from our updated list of cities.

Basildon, Slough and Exeter have now been added to the list, while Grimsby and Hastings have dropped out. Some other cities have seen a change to their boundaries. The most noticeable is Manchester, which has seen the former PUAs of Rochdale and Bolton merge with the Manchester PUA.

For this reason comparisons with data in previous editions of Cities Outlook should be undertaken with caution. You can read the full methodological note on the PUA update at: www.centreforcities.org/publication/the-changing-geography-of-the-uk-economy/.

Population

Growing populations can give an indication of the economic opportunity that is available in cities. Cities that provide more job and career opportunities are likely to retain and attract more people than cities that do not.

- In 2014, 54 per cent of the UK population (approximately 34.7 million out of 64.6 million) lived in cities.
- The four biggest cities (London, Birmingham, Manchester and Glasgow) accounted for almost a quarter of the total UK population (24 per cent) and 45 per cent of the total population in cities.
- London alone is home to 15 per cent of the UK population and accounted for 28 per cent of the population living in cities.
- 23 out of 63 cities experienced double digit growth in population over the ten years between 2004 and 2014. The UK population grew by 8 per cent over the same period.
- The fastest growing cities (Slough, Milton Keynes, Peterborough and Swindon) had growth rates more than twice the national average in the decade between 2004 and 2014.
- Only one city – Sunderland – experienced negative growth, while the population remained the same in Blackpool and Burnley.

Table 1
Population growth

Rank	City	Annual growth rate (%)	Population, 2004	Population, 2014	Change, 2004-2014
10 fastest-growing cities by population					
1	Slough	1.8	120,800	144,600	23,800
2	Milton Keynes	1.7	219,500	259,200	39,700
3	Peterborough	1.5	163,500	190,500	27,000
4	Swindon	1.5	186,400	215,800	29,400
5	Luton	1.4	183,600	211,000	27,400
6	Cambridge	1.4	112,200	128,500	16,300
7	London	1.3	8,536,000	9,752,300	1,216,300
8	Coventry	1.2	298,200	337,400	39,200
9	Northampton	1.2	194,700	219,500	24,800
10	Exeter	1.2	110,700	124,300	13,600
10 slowest-growing cities by population					
54	Blackburn	0.4	141,400	146,700	5,300
55	Liverpool	0.4	597,300	619,500	22,200
56	Dundee	0.4	143,100	148,300	5,200
57	Stoke	0.3	364,200	377,100	12,900
58	Hull	0.2	253,000	257,700	4,700
59	Birkenhead	0.2	315,100	320,900	5,800
60	Middlesbrough	0.1	462,800	468,300	5,500
61	Burnley	0.0	176,300	177,100	800
62	Blackpool	0.0	217,800	217,500	- 300
63	Sunderland	-0.1	280,100	276,900	-3,200
	United Kingdom	0.7	59,950,400	64,596,800	4,646,400

Source: NOMIS 2015, Population estimates, 2004 and 2014 data

Business Dynamics

Strong city economies depend on the dynamism of businesses and entrepreneurs. The overall number of businesses in a city and the rates at which businesses are starting up and closing down are key indicators of the health of a city's economy.

Business starts and closures

- 61 per cent of UK business start-ups in 2014 were in cities, up from 60 per cent in 2013 and 57 per cent in 2009. Meanwhile, 58 per cent of overall UK business closures were in cities.
- The number of new businesses in the UK has increased by almost 50 per cent since 2009 (from 236,000 in 2009 to over 350,000 in 2014). There were more businesses in 2014 than at any time since the data was first collected in 2000.
- For the second year in a row since the recession, the number of start-ups exceeded the number of closures in all UK cities in 2014. However, there was considerable variation in the churn rate between the bottom ranked and top ranked cities; the lowest, Belfast, was 1.2 and the highest, Northampton, was 11.7.
- London was the number one city for start-ups per 10,000 population (100.1), followed by Northampton (80.6) and Milton Keynes (75.4), whereas Hull (31.4), Sunderland (30.2) and Belfast (28.8) were the lowest ranked cities.
- London was also the city with the highest number of closures (61.1 per 10,000 population), considerably above the second ranked city Reading (48).

Table 2

Business starts and closures per 10,000 population

Rank	City	Business start-ups per 10,000 population, 2014	Business closures per 10,000 population, 2014	Churn rate*
10 cities with the highest start-up rate				
1	London	100.1	61.1	7.5
2	Northampton	80.6	38.0	11.7
3	Milton Keynes	75.4	46.5	7.0
4	Reading	71.0	48.0	5.2
5	Brighton	67.2	46.5	4.8
6	Slough	64.3	46.3	5.3
7	Aldershot	58.8	41.8	4.1
8	Aberdeen	57.4	38.2	4.8
9	Edinburgh	56.1	37.9	5.2
10	Bristol	56.0	36.4	5.5
10 cities with the lowest start-up rate				
54	Exeter	36.6	31.4	1.7
55	Barnsley	36.6	25.4	4.8
56	Plymouth	34.0	31.0	1.4
57	Dundee	33.7	25.3	3.9
58	Swansea	32.5	26.2	2.8
59	Stoke	32.4	26.8	2.4
60	Mansfield	32.2	25.0	3.2
61	Hull	31.4	25.2	2.8
62	Sunderland	30.2	22.4	4.0
63	Belfast	28.8	25.4	1.2
	United Kingdom	54.3	38.1	4.5

Source: ONS 2015, Business Demography, 2014 data. NOMIS 2015, Population estimates, 2014 data.
*Difference between business start-ups and business closures as a percentage of total business stock.

Business stock

- Cities were home to 54 per cent of all UK businesses in 2014, up from 53 per cent in 2013 and 51 per cent in 2009.
- Northampton was the city with the fastest year on year growth in business stock (11 per cent between 2013 and 2014) followed by Doncaster (9 per cent). Over the last five years Slough has been the strongest performer, seeing growth of 29 per cent.
- London alone accounted for 22 per cent of total UK business stock, up from 19 per cent in 2009.
- The four biggest UK cities (London, Manchester, Birmingham and Glasgow) accounted for almost 30 per cent of the overall business stock in 2014. However the top 10 is dominated by medium-sized cities such as Reading and Brighton.
- Dundee (217), Plymouth (216) and Sunderland (192) had the lowest levels of business stock per 10,000 population in 2014.
- The geography of the top 10 and bottom 10 cities is stark. Seven of the top 10 cities were located in the Greater South East. Meanwhile no southern cities feature in the bottom 10.

Table 3

Business stock per 10,000 population

Rank	City	Business stock per 10,000 population, 2014	Business stock per 10,000 population, 2013	Change, 2013-14 (%)
10 cities with the highest number of businesses				
1	London	519	491	5.6
2	Reading	441	426	3.5
3	Brighton	431	415	3.7
4	Milton Keynes	415	390	6.2
5	Aldershot	414	405	2.4
6	Aberdeen	404	390	3.4
7	Bournemouth	372	366	1.8
8	Southend	367	357	2.8
9	Northampton	365	332	9.9
10	Basildon	364	352	3.3
10 cities with the lowest number of businesses				
54	Liverpool	235	225	4.2
55	Middlesbrough	234	220	6.6
56	Barnsley	231	223	3.8
57	Newport	228	219	4.2
58	Swansea	225	220	2.4
59	Mansfield	223	218	2.4
60	Hull	218	215	1.4
61	Dundee	217	209	4.1
62	Plymouth	216	217	-0.2
63	Sunderland	192	186	3.4
	United Kingdom	357	345	3.5

Source: ONS 2015, Business Demography, 2014 and 2013 data. NOMIS 2015, Population estimates, 2014 data.

Productivity and innovation

The creation and absorption of new ideas and innovations increase productivity, and productivity is the driver of long-run economic growth. Those economies that are better able to create and commercialise new ideas are better placed to grow in the future.

Productivity

- Only 17 out of 62 cities in 2014 had levels of productivity above the British average, with Reading, Slough and London having GVA per worker over 32 per cent above the national average of £53,700.
- Productivity increased between 2013 and 2014 in 48 out of 62 cities, with Leicester and Portsmouth recording GVA per worker growth of around 4 per cent.
- In the lowest ranked cities, York's productivity decreased by 2.3 per cent, and Swindon's GVA per worker was 3.3 per cent lower in 2014 than it was in 2013.

Figure 12

GVA per worker, 2014

City	GVA per worker	City	GVA per worker
Aberdeen	61,600	London	73,400
Aldershot	63,400	Luton	51,100
Barnsley	42,900	Manchester	47,100
Basildon	55,100	Mansfield	43,500
Birkenhead	43,500	Middlesbrough	45,100
Birmingham	45,700	Milton Keynes	63,700
Blackburn	40,300	Newcastle	43,900
Blackpool	40,400	Newport	43,900
Bournemouth	49,300	Northampton	48,200
Bradford	47,100	Norwich	47,700
Brighton	52,300	Nottingham	42,400
Bristol	53,200	Oxford	58,200
Burnley	48,500	Peterborough	50,600
Cambridge	55,900	Plymouth	47,100
Cardiff	44,400	Portsmouth	58,000
Chatham	54,200	Preston	45,300
Coventry	46,400	Reading	70,900
Crawley	57,200	Sheffield	43,700
Derby	55,200	Slough	70,900
Doncaster	42,900	Southampton	55,000
Dundee	46,600	Southend	49,100
Edinburgh	54,900	Stoke	44,300
Exeter	47,200	Sunderland	44,900
Glasgow	47,200	Swansea	41,800
Gloucester	52,100	Swindon	58,500
Huddersfield	45,200	Telford	44,500
Hull	42,300	Wakefield	44,200
Ipswich	48,500	Warrington	50,700
Leeds	48,000	Wigan	43,500
Leicester	45,900	Worthing	56,000
Liverpool	46,000	York	45,600
Great Britain	53,700		

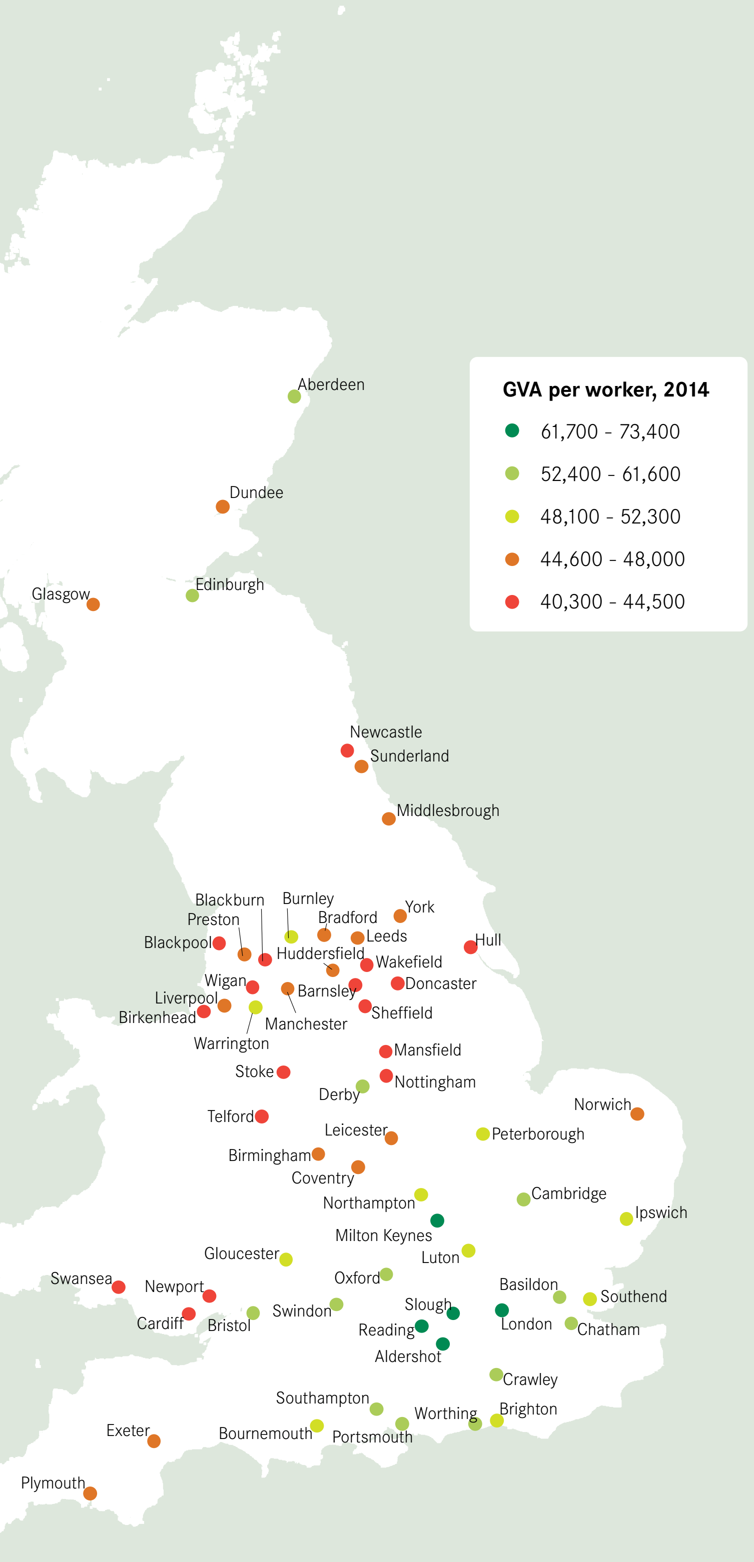

Table 4

GVA per worker

Rank	City	GVA per worker, 2014 (£)
10 cities with the highest GVA per worker		
1	London	73,400
2	Reading	70,900
3	Slough	70,900
4	Milton Keynes	63,700
5	Aldershot	63,400
6	Aberdeen	61,600
7	Swindon	58,500
8	Oxford	58,200
9	Portsmouth	58,000
10	Crawley	57,200
10 cities with the lowest GVA per worker		
53	Mansfield	43,500
54	Wigan	43,500
55	Birkenhead	43,500
56	Doncaster	42,900
57	Barnsley	42,900
58	Nottingham	42,400
59	Hull	42,300
60	Swansea	41,800
61	Blackpool	40,400
62	Blackburn	40,300
	Great Britain	53,700

Source: ONS 2015, Regional Value Added (Income Approach), 2014 data.

Innovation

- 61 per cent of all patents granted in the UK in 2014 were registered in cities.
- London was the city with the highest absolute number of patents in 2014 – its total of 370 represented 16 per cent of the UK total.
- Cambridge had by far the highest number of patents per 100,000 population, with almost 102. Aberdeen, the second ranked city, recorded 19.7 patents per 100,000 population in the same year.
- Small cities were the most innovative on this measure, with seven of the top 10 cities having fewer than 250,000 residents.

Box 6: Measuring Innovation

Patent data is widely used to measure innovation. There are a number of limitations with the patent data used here:

- Data is for patents granted through the UK Intellectual Property Office only, and so does not capture patents registered with the European Patent Office.
- The address of the patentee does not confirm that the innovative activity occurred at that address.
- Patents also only demonstrate more technical innovations and exclude process innovations, trademarks and creative innovation, much of which takes place within service sector businesses.

Despite its limitations, the data still offers some insight into where innovation occurs across the UK and, as shown in the tables, there is a great deal of variation across the country.

Table 5

UK patents granted per 100,000 population

Rank	City	UK patents granted per 100,000 residents, 2014
10 cities with highest number of UK patents granted		
1	Cambridge	101.9
2	Aberdeen	19.7
3	Aldershot	18.6
4	Coventry	17.5
5	Slough	15.2
6	Crawley	10.9
7	Peterborough	10.5
8	Oxford	8.9
9	Milton Keynes	8.5
10	Bristol	8.0
10 cities with lowest number of UK patents granted		
54	Glasgow	1.3
55	Leeds	1.3
56	Wigan	1.2
57	Hull	1.2
58	Sunderland	1.1
59	Middlesbrough	1.1
60	Belfast	1.1
61	Wakefield	0.9
62	Birkenhead	0.3
63	Chatham	0.0
	United Kingdom	3.6

Source: Intellectual Property Office 2015, FOI release: Patents granted registered by postcode, 2014 data. NOMIS 2015, Population estimates, 2014 data.

Employment

High employment rates, employment growth and low unemployment point to well-functioning labour markets, with high demand for workers amongst employers. Low employment rates and high unemployment are suggestive of a combination of poor skills and weaker employer demand.

Employment rate

- 43 out of 63 cities across the UK improved their employment rate in 2015, and 20 did so by two or more percentage points.
- Overall, the UK employment rate grew by 1.2 percentage points between 2014 and 2015, from 71.7 per cent to 72.9 per cent. The city average remained slightly lower than the national average, at 71 per cent.
- 32 cities had employment rates below the national average. To bring these cities up to the current UK average, 551,000 residents would need to find employment.
- Liverpool, the UK city with the lowest employment rate in 2015 (61.2 per cent), would need almost 48,600 of its residents to find employment to reach the UK average. Birmingham (the city with the highest deficit in absolute terms) would need 132,300 of its residents to find jobs to match the UK average.
- Southern cities tend to perform better than cities elsewhere. Only one of the top 10 cities was located in the North of England (Warrington, with 76.9 per cent in employment) and one in Scotland (Aberdeen, 77.3 per cent).
- Big cities tend to fare worse than the average, with Bristol being the only one of the 10 largest cities to have an employment rate above the national average.

Table 6

Employment rate

Rank	City	Employment rate, Jul 2014-Jun 2015 (%)	Employment rate, Jul 2013-Jun 2014 (%)	Percentage point change
10 cities with highest employment rate				
1	Aldershot	83.4	77.9	5.6
2	Northampton	78.6	73.3	5.4
3	Cambridge	77.5	78.7	-1.2
4	Bristol	77.5	72.3	5.3
5	Aberdeen	77.3	76.1	1.2
6	Warrington	76.9	79.6	-2.7
7	Basildon	76.9	74.4	2.5
8	Southampton	76.8	74.2	2.6
9	Exeter	76.5	79.1	-2.6
10	Swindon	76.5	78.0	-1.5
10 cities with lowest employment rate				
54	Burnley	67.0	61.9	5.1
55	Belfast	66.2	68.7	-2.5
56	Coventry	66.1	63.4	2.7
57	Blackburn	65.7	62.5	3.1
58	Bradford	64.9	66.0	-1.2
59	Birmingham	64.3	64.0	0.3
60	Hull	64.1	64.7	-0.6
61	Sunderland	63.9	66.1	-2.2
62	Dundee	63.8	61.4	2.4
63	Liverpool	61.2	60.9	0.2
	United Kingdom	72.9	71.7	1.2

Source: NOMIS 2015, Annual Population Survey, residents analysis, July 2013 – June 2014 and July 2014 – June 2015; DETINI 2015, District Council Area Statistics for Belfast, 2013 and 2014 data.

Unemployment

- Almost two thirds (64 per cent) of out of work claimants[5] lived in cities in 2015.
- 54 out of 63 UK cities experienced a reduction in the share of its claimants between 2014 and 2015.
- Interestingly, while cities such as Belfast, Bradford and Hull still had some of the highest claimant count rates, they were also the cities that experienced the largest reduction of claimants in the year from 2014 to 2015.

Private sector jobs growth

- 57 of 62 cities increased their number of private sector jobs between 2013 and 2014, and 32 did so by more than the British average (3.4 per cent).
- Five cities saw reductions in the number of private sector jobs, and in two cities this number dropped by more than 2 per cent (Portsmouth, 2.2 per cent and Slough, 3.5 per cent).

Public and private sector jobs ratios

- Out of 62 cities, only 16 had private to public sector jobs ratios above the British average of 2.8 in 2014.
- Crawley, Slough and Milton Keynes were the top ranked cities, recording respectively 7.5, 5 and 4.1 private sector jobs for every public sector position.
- In the bottom 10 cities, Oxford had almost the same number of private and public sector employees.

5 The headline claimant count published by ONS now includes Universal Credit claimants who are out of work, as well as Jobseekers Allowance claimants.

Table 7
Claimant count

Rank	City	Claimant count rate, Nov 2015 (%)	Claimant count rate, Nov 2014 (%)	Percentage point change
10 cities with the lowest claimant count				
1	Aldershot	0.7	0.8	-0.1
2	Cambridge	0.8	0.7	0.0
3	York	0.8	0.9	-0.2
4	Oxford	0.8	0.9	-0.1
5	Exeter	0.8	0.9	-0.1
6	Reading	0.9	1.0	-0.1
7	Bournemouth	1.0	1.2	-0.2
8	Worthing	1.0	1.3	-0.3
9	Southampton	1.1	1.3	-0.2
10	Crawley	1.2	1.3	-0.1
10 cities with the highest claimant count				
54	Sunderland	2.8	3.3	-0.5
55	Newport	2.8	3.6	-0.7
56	Blackburn	2.9	2.7	0.2
57	Dundee	2.9	3.4	-0.5
58	Blackpool	3.1	3.0	0.0
59	Birmingham	3.4	3.9	-0.5
60	Liverpool	3.6	3.6	0.0
61	Belfast	3.7	4.8	-1.2
62	Middlesbrough	3.7	4.0	-0.3
63	Hull	3.9	4.9	-1.0
	United Kingdom	1.8	2.1	-0.3

Source: NOMIS 2015, Claimant count, November 2014 and November 2015 data; Population estimates, 2014 data.
Note: data differ to NOMIS claimant count rates as latest available population estimates are used to calculate the figures above.

Table 8

Private sector jobs growth

Rank	City	Change, 2013-2014 (%)	Total private sector jobs,2013	Total private sector jobs, 2014	Net job gains or losses
10 cities with the highest net private sector jobs growth					
1	Oxford	12.7	54,600	61,600	6,900
2	Worthing	9.2	27,600	30,100	2,500
3	Cambridge	8.8	56,000	60,900	4,900
4	Luton	8.4	62,900	68,200	5,300
5	Bristol	8.3	271,900	294,500	22,600
6	Mansfield	7.5	59,000	63,400	4,400
7	Aberdeen	6.9	137,200	146,600	9,400
8	Burnley	6.3	46,600	49,500	3,000
9	Barnsley	5.9	52,600	55,700	3,100
10	Ipswich	5.9	45,800	48,500	2,700
10 cities with the lowest net private sector jobs growth					
53	Stoke	0.8	110,800	111,700	900
54	Leicester	0.5	156,700	157,400	700
55	Newport	0.4	70,700	71,000	300
56	Crawley	0.3	75,100	75,300	200
57	Bradford	0.0	130,400	130,500	100
58	Brighton	-0.2	105,000	104,800	-200
59	Gloucester	-0.4	39,300	39,100	-200
60	Preston	-1.4	123,300	121,500	-1,700
61	Portsmouth	-2.2	153,300	150,000	-3,300
62	Slough	-3.5	68,100	65,700	-2,400
	Great Britain	3.4	20,615,500	21,319,700	704,200

Source: NOMIS 2015, Business Register and Employment Survey, 2013 and 2014 data.
Note: Northern Ireland data not available so Great Britain figure is shown.

Table 9

Ratio of private sector to public sector jobs

Rank	City	Private to public ratio	Private sector jobs, 2014	Public sector jobs, 2014
10 cities with highest proportion of private sector jobs				
1	Crawley	7.5	75,300	10,100
2	Slough	5.0	65,700	13,200
3	Milton Keynes	4.1	129,800	31,900
4	Swindon	4.0	89,800	22,200
5	Aldershot	4.0	80,100	20,200
6	Warrington	3.9	98,900	25,200
7	Peterborough	3.6	83,000	23,100
8	Reading	3.5	134,900	38,200
9	London	3.5	4,220,300	1,206,100
10	Basildon	3.3	64,200	19,400
10 cities with lowest proportion of private sector jobs				
53	Blackburn	1.8	42,800	23,500
54	Worthing	1.8	30,100	16,800
55	Swansea	1.7	98,400	56,500
56	Gloucester	1.7	39,100	22,500
57	Plymouth	1.7	69,700	40,600
58	Birkenhead	1.7	63,300	37,100
59	Exeter	1.7	57,100	34,400
60	Cambridge	1.5	60,900	39,400
61	Dundee	1.5	44,900	30,300
62	Oxford	1.1	61,600	54,600
	Great Britain	2.8	21,319,700	7,669,600

Source: NOMIS 2015, Business Register and Employment Survey, 2014 data.
Note: Northern Ireland data not available so Great Britain figure is shown.

Skills

Skills levels are a key component of the success of a city economy. Those cities that have a high proportion of graduates tend to have stronger economies than those that have a large number of people with no formal qualifications.

High level qualifications

- While cities were home to 55 per cent of the UK working age population in 2014, they were home to 57 per cent of those with a degree or equivalent qualification.
- Only 16 cities out of 63 had shares of working age population with high level qualifications above the national average.
- The UK's highly skilled population is concentrated in a few cities. The top 10 cities combined accounted for almost 30 per cent of the total UK highly skilled population (and 22 per cent of the working age population), whereas the bottom 10 only accounted for 2.4 per cent of the population with high level qualifications (and 3.8 per cent of the working age population).
- North-South disparities in the distribution of the high skilled population are stark. Six of the top 10 cities are located in the South, while only one southern city (Southend) is in the bottom 10.
- Scottish cities perform relatively well when compared with the rest of the UK. Edinburgh, Aberdeen and Glasgow rank in the top 10 and Dundee in 14th position.

No formal qualifications

- Cities are home to 55 per cent of the UK working age population, but almost 59 per cent of the population with no formal qualifications.
- 27 of the 63 cities had shares of population with no formal qualification below the national average in 2014.
- Most of the best performing UK cities were small or medium sized, while three of the UK's biggest cities, Glasgow, Birmingham and Liverpool, had some of the highest shares of residents with no formal qualifications.
- Some cities have very polarised skills profiles: Glasgow had the 9th highest share of working age population with high level qualifications (43.6 per cent), but also had one of the highest shares of population with no formal qualifications (12.6 per cent). Similarly, Belfast was 15th in UK for highly skilled population (36.6 per cent), but had the second highest share of population with no formal qualifications (16.7 per cent).

Table 10

Residents with high-level qualifications

Rank	City	Percentage working age population with NVQ4 & above, 2014 (%)
10 cities with the highest percentage of high level qualifications		
1	Cambridge	61.4
2	Oxford	60.3
3	Edinburgh	56.3
4	London	48.1
5	Reading	47.5
6	Aberdeen	46.7
7	Brighton	46.5
8	Cardiff	46.0
9	Glasgow	43.6
10	Bristol	42.4
10 cities with the lowest percentage of high level qualifications		
54	Burnley	23.6
55	Mansfield	23.5
56	Blackburn	23.5
57	Stoke	23.5
58	Sunderland	23.2
59	Southend	22.9
60	Crawley	22.7
61	Barnsley	22.6
62	Hull	21.1
63	Wakefield	20.7
	United Kingdom	35.8

Source: NOMIS 2015, Annual Population Survey, residents analysis, 2014 data; DETINI 2015, District Council Area Statistics for Belfast, 2014 data.

Table 11
Residents with no formal qualifications

Rank	City	Percentage working age population with no formal qualifications, 2014 (%)
10 cities with the lowest percentage of no formal qualifications		
1	Exeter	1.9
2	Brighton	3.3
3	Aldershot	4.1
4	Reading	4.5
5	Oxford	4.5
6	Crawley	4.7
7	Edinburgh	4.8
8	Plymouth	4.9
9	York	4.9
10	Southampton	5.0
10 cities with the highest percentage of no formal qualifications		
54	Luton	12.2
55	Glasgow	12.6
56	Bradford	13.5
57	Dundee	14.3
58	Blackburn	14.6
59	Coventry	14.8
60	Birmingham	15.5
61	Liverpool	15.9
62	Belfast	16.7
63	Stoke	16.9
	United Kingdom	9.0

Source: NOMIS 2015, Annual Population Survey, residents analysis, 2014 data; DETINI 2015, District Council Area Statistics for Belfast, 2014 data.

Wages

Wages reflect the types of jobs available in cities. Those cities that have higher wages typically have a greater number of high skilled jobs than those that have lower wages.

Wage growth

- In 2015, the average weekly workplace wage in cities was equal to £545, compared to the UK average of £508.
- Workers in only 17 of 63 cities earned more than the UK average in 2015. Most of these cities were located in the Greater South East (10 of 17).
- Real weekly workplace earnings were higher in 43 out of 63 cities in 2015 than they were in the previous year. For 14 of these growth exceeded £20 per week in real terms.
- Nine of the 10 cities with the fastest real earnings growth were located in the South of England, with Basildon experiencing the largest increase of £40.
- 20 cities saw their weekly salaries decrease in real terms between 2014 and 2015, with Stoke recording the worst performance (-£56 per week), considerably worse than the second worst city Northampton (-£16).
- In absolute terms, London retained first position for highest weekly earnings, averaging £675 (£2 less than the previous year), followed by Crawley (£641) and Slough (£636). Huddersfield had the lowest weekly wage, £399 per week (up by £2 from the previous year).

Table 12

Average workplace wages

Rank	City	Wages, 2015 (av £ per week, 2015 prices)	Wages, 2015 (av £ per week, 2014 prices)	Wages, 2014 (av £ per week, 2014 prices)	Real wages growth, 2014-2015 (£ per week)
10 cities with the highest weekly workplace wages					
1	London	675	675	677	-2
2	Crawley	641	641	614	27
3	Slough	636	636	602	34
4	Reading	619	619	589	30
5	Aberdeen	617	617	624	-7
6	Derby	588	588	594	-6
7	Aldershot	587	587	597	-10
8	Cambridge	586	586	547	39
9	Oxford	585	585	556	29
10	Milton Keynes	577	577	577	-1
10 cities with the lowest weekly workplace wages					
53	Swansea	440	440	439	1
54	Doncaster	434	434	438	-4
55	Norwich	433	433	422	11
56	Birkenhead	430	430	422	7
57	Stoke	429	429	485	-56
58	Wigan	418	418	400	19
59	Mansfield	418	418	431	-14
60	Burnley	416	416	429	-13
61	Southend	403	403	403	0
62	Huddersfield	399	399	397	2
	United Kingdom	508	508	502	7

Source: ONS 2015, Annual Survey of Hours and Earnings (ASHE), average gross weekly workplace-based earnings, 2015 data; DETINI 2015, Annual Survey of Hours and Earnings (ASHE), average gross weekly workplace-based earnings, 2015 data. Own calculations for PUA-level weighted by number of jobs, CPI inflation adjusted (2005=100). Earnings data is for employees only, whereas the rest of the tables use employment data.
Note: ASHE statistics are based on a sample survey, so the statistical significance of the results should be treated with caution. CPI inflation between 2014Q2 and 2015Q2 was equal to 0, so 2015 earnings do not change if expressed in 2014 or 2015 prices.

Housing

Housing stocks and prices together provide useful insights into cities' housing markets, highlighting both supply and demand measures and their impact on house affordability.

Housing stock growth

- Cities accounted for 52.5 per cent of the total UK dwelling stock in 2014.
- The UK's dwelling stock increased by 0.6 per cent between 2013 and 2014.
- In 24 cities housing stock growth exceeded the UK average, with Cambridge topping the list and recording more than 2.6 per cent growth (more than twice the second placed city, Telford, with 1.2 per cent).
- Only one city (Dundee) did not increase its dwelling stock between 2013 and 2014.

House prices

- 16 out of 63 cities saw average house prices decrease between 2014 and 2015.
- 27 cities experienced housing price growth above the British average of 3.4 per cent, with Luton (10.8 per cent), Slough (11.2 per cent) and Cambridge (12.5 per cent) seeing the largest increases.
- Apart from Swindon, all of the top 10 cities with the largest house price increases were located in the Greater South East.
- House prices in London in 2015 were more than twice the British average (£530,000 compared to £260,400). Cambridge and Oxford were second and third with £469,600 and £453,500, far above the next city, Reading, with £343,500.
- At the opposite end of the ranking, Burnley had the lowest average house prices in 2015, with £99,600 (down by £6,000 from the previous year).
- 21 of the 27 cities that experienced house price growth above the British average were in South East, South West and East of England regions. All of the cities that saw a fall in house prices, with the exception of Peterborough, were in the Midlands or North of England.

Table 13
Housing stock growth

Rank	City	Change, 2013-2014 (%)	Housing stock, 2013	Housing stock, 2014	Change, 2013-2014
10 cities with the highest housing stock growth					
1	Cambridge	2.6	49,100	50,400	1,300
2	Telford	1.2	70,040	70,880	800
3	Milton Keynes	1.2	104,890	106,130	1,200
4	Peterborough	1.1	78,270	79,140	900
5	Exeter	1.1	51,560	52,110	600
6	Northampton	0.9	92,420	93,260	800
7	Gloucester	0.9	53,740	54,220	500
8	Edinburgh	0.8	237,520	239,530	2,000
9	Coventry	0.8	134,780	135,870	1,100
10	Bristol	0.8	302,790	305,180	2,400
10 cities with the lowest housing stock growth					
54	Burnley	0.3	79,380	79,600	200
55	Portsmouth	0.2	227,470	228,020	600
56	Luton	0.2	76,730	76,910	200
57	Birkenhead	0.2	145,970	146,270	300
58	Hull	0.2	117,110	117,350	200
59	Basildon	0.2	75,330	75,450	100
60	Blackpool	0.2	107,060	107,230	200
61	Oxford	0.1	57,690	57,760	100
62	York	0.1	86,860	86,930	100
63	Dundee	0.0	73,560	73,580	-
	United Kingdom	0.6	27,919,000	28,079,300	160,300

Source: Department of Communities and Local Government (DCLG), 2015, Dwelling stock estimates by local authority district 2013 and 2014 data. Scottish Neighbourhood Statistics 2015, Dwelling stock estimates 2013 and 2014 data. Northern Ireland Neighbourhood information service 2015, Land and Property Services, 2013 and 2014 data.

Table 14
House price growth

Rank	City	Annual growth, 2014-2015 (%)	Average house price, 2014 (£)	Average house price, 2015 (£)	Difference in average prices, 2014-2015 (£)
10 cities with the highest rises in house prices					
1	Cambridge	12.5	417,400	469,600	52,300
2	Slough	11.2	238,900	265,800	26,800
3	Luton	10.8	177,200	196,300	19,100
4	Aldershot	9.4	302,700	331,300	28,600
5	Reading	9.4	314,100	343,500	29,500
6	Crawley	8.9	240,100	261,500	21,400
7	Worthing	7.9	243,100	262,300	19,100
8	Southend	7.7	242,200	260,800	18,600
9	Milton Keynes	7.6	233,900	251,600	17,700
10	Swindon	7.2	180,900	193,900	12,900
10 cities with the lowest rises in house prices					
53	Wakefield	-1.7	144,500	142,000	-2,501
54	Newport	-2.0	154,400	151,400	-3,022
55	Telford	-2.0	161,400	158,200	-3,238
56	Blackpool	-2.0	148,000	145,000	-3,034
57	Middlesbrough	-3.1	142,900	138,400	-4,474
58	Sunderland	-3.8	130,500	125,500	-5,012
59	Swansea	-3.9	142,900	137,300	-5,562
60	Hull	-4.0	106,900	102,600	-4,282
61	Barnsley	-4.1	126,900	121,700	-5,182
62	Burnley	-5.7	105,600	99,600	-6,055
	Great Britain	3.4	251,700	260,400	8,600

Source: Land Registry 2015, Market Trend Data, Price Paid, 2014 and 2015 data. Scottish neighbourhood statistics 2015, Mean House prices, 2014 and 2015 data.
Note: 2015 prices in Scotland are an average of the first three quarters of the year. 2015 house prices in England and Wales are an average of the period January to November.

Housing affordability

- In 2015, the average house price in Britain was 9.8 times the average annual salary.
- Nine out of 62 cities were less affordable than the British average, with Oxford, London and Cambridge being the least affordable cities.
- In Oxford, the least affordable city, house prices were 16.2 times annual salaries. In Burnley, the most affordable city, this figure was 4.3.
- Annual earnings show much less variation across the UK than house prices do. In 2015, an average house in London (the most expensive) was 5.3 times more expensive than the average house in Burnley (the least expensive), while residents' annual salaries in Reading (the highest) were only 1.6 times annual salaries in Hull (the lowest).
- All the top 10 least affordable cities are located in the South of England, whereas many of the most affordable locations are in the North of England.

Figure 13

Housing affordability ratio, 2015

City	Ratio	City	Ratio
Aberdeen	7.7	Luton	8.2
Aldershot	11.2	Manchester	6.9
Barnsley	5.2	Mansfield	6.1
Basildon	9.2	Chatham	7.6
Birkenhead	6.6	Middlesbrough	5.9
Birmingham	7.3	Milton Keynes	8.9
Blackburn	5.7	Newcastle	6.6
Blackpool	6.7	Newport	6.2
Bournemouth	11.7	Northampton	7.4
Bradford	6.5	Norwich	9.2
Brighton	12.6	Nottingham	6.2
Bristol	9.7	Oxford	16.2
Burnley	4.3	Peterborough	6.7
Cambridge	15.9	Plymouth	7.8
Cardiff	7.9	Portsmouth	8.7
Coventry	6.7	Preston	6.7
Crawley	9.6	Reading	10.5
Derby	6.2	Sheffield	6.8
Doncaster	5.9	Slough	9.5
Dundee	5.7	Southampton	9.0
Edinburgh	8.6	Southend	9.7
Exeter	10.5	Stoke	5.7
Glasgow	5.9	Sunderland	5.7
Gloucester	7.4	Swansea	5.9
Huddersfield	6.5	Swindon	7.4
Hull	5.1	Telford	6.8
Ipswich	7.7	Wakefield	6.2
Leeds	7.1	Warrington	7.0
Leicester	7.4	Wigan	5.5
Liverpool	5.8	Worthing	10.1
London	16.2	York	9.6
Great Britain	9.8		

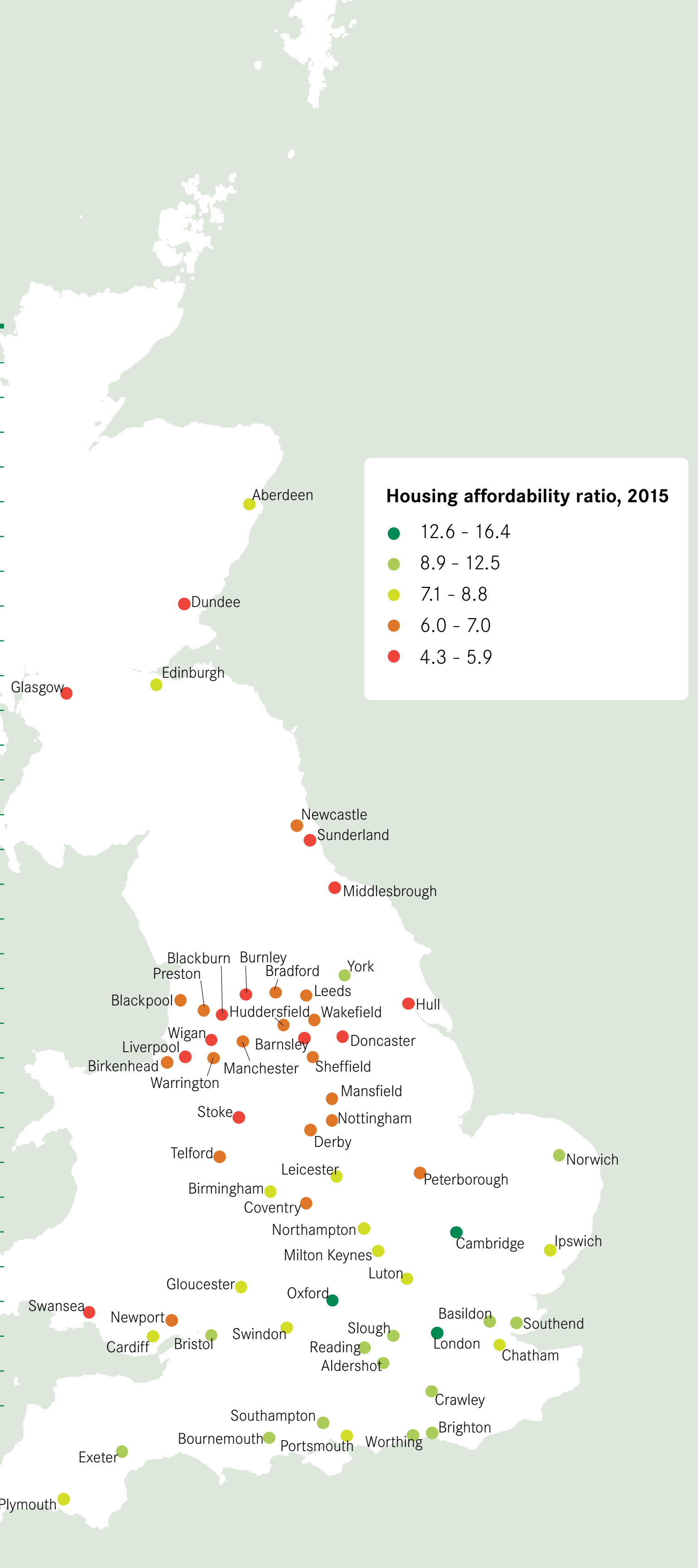

Table 15
Housing affordability ratio

Rank	City	Affordability ratio	House prices, 2015 (£)	Yearly wages, 2015 (£)
10 cities with highest affordability ratio				
1	Oxford	16.2	453,500	28,000
2	London	16.2	530,100	32,800
3	Cambridge	15.9	469,600	29,500
4	Brighton	12.6	339,900	27,000
5	Bournemouth	11.7	295,200	25,100
6	Aldershot	11.2	331,300	29,600
7	Exeter	10.5	247,500	23,700
8	Reading	10.5	343,500	32,900
9	Worthing	10.1	262,300	25,900
10	Bristol	9.7	249,200	25,700
10 cities with lowest affordability ratio				
53	Glasgow	5.9	154,900	26,400
54	Liverpool	5.8	135,200	23,500
55	Dundee	5.7	130,300	22,800
56	Blackburn	5.7	117,600	20,700
57	Stoke	5.7	121,800	21,500
58	Sunderland	5.7	125,500	22,200
59	Wigan	5.5	130,800	23,900
60	Barnsley	5.2	121,700	23,600
61	Hull	5.1	102,600	20,200
62	Burnley	4.3	99,600	22,900
	Great Britain	9.8	260,400	26,600

Source: Land Registry 2015, Market Trend Data, Price Paid, 2015 data. Scottish neighbourhood statistics 2014, Mean House prices, 2015 data. ONS 2015, Annual Survey of Hours and Earnings (ASHE), average gross weekly workplace-based earnings, 2015 data

Environment

Accounting for over 80 per cent of total greenhouse gas emissions, CO_2 emissions are one way to gauge how 'green' a city is and the size of its carbon footprint.

- In 2013, cities accounted for 54 per cent of the UK population but only 47 per cent of the UK's total CO_2 emissions.
- Average UK emissions per capita in 2013 totalled 7 tonnes (slightly down from 7.1 tonnes in 2012), but the city average was lower at 6.1 tonnes. All but five cities reduced their emission level in the year between 2012 and 2013.
- Swansea and Middlesbrough are significant outliers. They were two of only seven cities to emit more CO_2 than the national average.
- Big cities are significant emitters, but they are very efficient when emissions are considered on a per capita basis. London for example accounted for 11 per cent of total UK emissions in 2013, but was 16th out of 63 cities for per capita emissions with only 5.1 tonnes emitted for every resident (down from 5.3 tonnes in the previous year).

Table 16

Total CO_2 emissions per capita

Rank	City	Total CO_2 emissions per capita, 2013 (t)	Total CO_2 emissions per capita, 2012 (t)
10 cities with the lowest emissions per capita			
1	Chatham	4.2	4.4
2	Ipswich	4.2	4.3
3	Luton	4.2	4.4
4	Southend	4.2	4.4
5	Brighton	4.3	4.5
6	Worthing	4.3	4.5
7	Plymouth	4.7	4.9
8	Southampton	4.8	5.1
9	Portsmouth	4.8	5.0
10	Birkenhead	4.8	4.9
10 cities with the highest emissions per capita			
54	Milton Keynes	6.8	7.0
55	Aberdeen	6.8	7.2
56	Preston	6.9	7.1
57	Barnsley	7.0	6.9
58	Wakefield	7.2	7.4
59	Doncaster	7.7	7.9
60	Warrington	7.9	8.1
61	Newport	8.3	8.1
62	Swansea	26.7	19.4
63	Middlesbrough	29.2	26.1
	United Kingdom	7.0	7.1

Source: Department of Energy and Climate Change (DECC) 2015, CO2 emissions per capita, 2013 data. NOMIS 2015, Population Estimates, 2012 and 2013 data.

Digital Connectivity

Broadband connection is now a key component of the infrastructure offer that a city can make to businesses and entrepreneurs.

- In 2015 the percentage of fixed line connections reaching super-fast speeds across UK cities was 76 per cent, higher than the UK average of 63 per cent.
- In 58 out of 62 cities the proportion of postcodes achieving super-fast speed exceeded the UK average.
- Six of the top 10 cities were located in the Greater South East region, whereas eight of the bottom 10 cities were in the North West of England (Warrington, Burnley and Blackburn) and Yorkshire (Bradford, Sheffield, Doncaster, Huddersfield and Barnsley).

Table 17

Postcodes achieving super-fast broadband speeds (of those with fixed internet connection)

Rank	City	Postcodes achieving SFBB speeds, 2015 (%)
10 cities with the highest SFBB penetration rate		
1	Luton	88.0
2	Brighton	87.4
3	Crawley	86.7
4	Worthing	85.6
5	Derby	85.6
6	Slough	84.5
7	Belfast	83.7
8	Mansfield	83.6
9	Cambridge	83.5
10	Northampton	83.4
10 cities with the lowest SFBB penetration rate		
53	Warrington	68.1
54	Burnley	67.9
55	Norwich	67.6
56	Bradford	67.4
57	Sheffield	66.9
58	Glasgow	65.9
59	Doncaster	63.0
60	Huddersfield	62.7
61	Blackburn	61.2
62	Barnsley	60.2
	United Kingdom	63.4

Source: Ofcom 2015, Connected Nations Report, postcode level, 2015 data. Postcode data are allocated to PUAs.
Note: due to variations in broadband performance over time, the data should not be regarded as a definitive and fixed view of the UK's fixed broadband infrastructure. However, the information provided may be useful in identifying variations in broadband performance by geography and the impact of super-fast broadband on overall broadband performance. Hull has been excluded from this analysis due to poor measurement of the city's broadband provision.

January 2016

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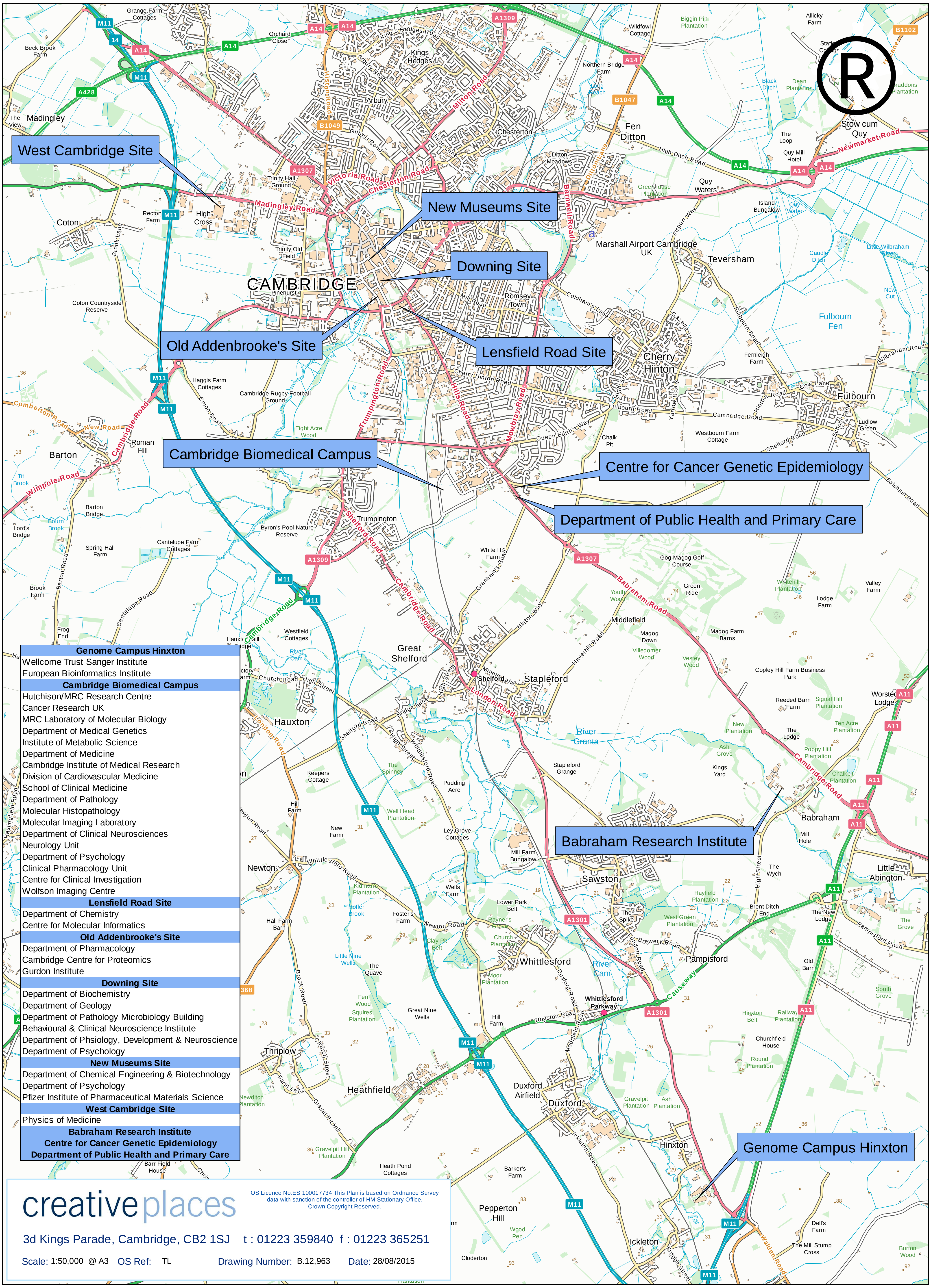
Appendix 3

Cambridge – Principal nodes of healthcare relevant life sciences research



Appendix 4

UNIVERSITY OF CAMBRIDGE
Estate Management

Roger Taylor MA FRICS
Director of Estate Strategy and
Project Director, North West Cambridge

Councillor Kevin Blencowe
Portfolio Holder for Planning Policy and Transport
Cambridge City Council
The Guildhall
Market Square
Cambridge
CB2 3QJ

6 October 2015

Dear Councillor Blencowe

Need for further research/commercial R&D and residential accommodation close to Cambridge Biomedical Campus

The University of Cambridge has extensive activity on the Cambridge Biomedical Campus, working alongside healthcare delivery by the hospital and research of third-party organisations that include Cancer Research UK and AZ. In due course we will be entering into further research activity alongside the new Papworth Hospital. We consider it a very important area for Life Sciences research.

The take up of land at the Biomedical Campus has been far faster than anyone had anticipated, and we feel it necessary to encourage Local Authorities to plan for development in this area as a consequence. In 2009, planning permission was granted for up to 215,000 sq m of floor space, approximately a third of which is intended for Addenbrooke's own development. Since that time, development projects by the MRC, Papworth Hospital, AZ and ourselves have been committed to on the other two thirds. As a result, the phase 2 land, originally anticipated for development post 2016, already has some reservations over it. In land take terms, Phase 1 provided a gross acreage of 70 acres, of which all but the land reserved for Addenbrooke's has been spoken for within a six year period. Phase 2 land will total approximately 15 acres and one can see that within just a few years from now that will have gone too.

With so little land now available at the Campus and with the Councils undertaking further work on the Local Plans, we feel we must write to draw your attention to the pending situation of need exceeding supply to 2031. Without action to address this now, the research and commercial R&D activity will be constrained in the early years of the plan period, unless further significant allocations can be made.

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In addition to the needs for growing research and commercial R&D activity, I would also point out that the University is growing its student activity on the south side of Cambridge as the Schools of Clinical Medicine and the Biological Sciences continue to play a central role at the Biomedical Campus. Additional residential accommodation on this side of the city would help to support growth in numbers of researchers and teaching staff as well as to create a highly sustainable, joined-up community where people can live close to where they work, study and undertake research (often at all hours of the day and night).

We very much hope that the release of land within easy walking and cycling distance of CBC to meet this demand will be considered with some urgency by both councils - to help ensure the ongoing competitiveness of this University into the future.

If there is any matter you wish to discuss in further detail I would, of course, be happy to meet.

Yours sincerely

Roger Taylor

Copy to:

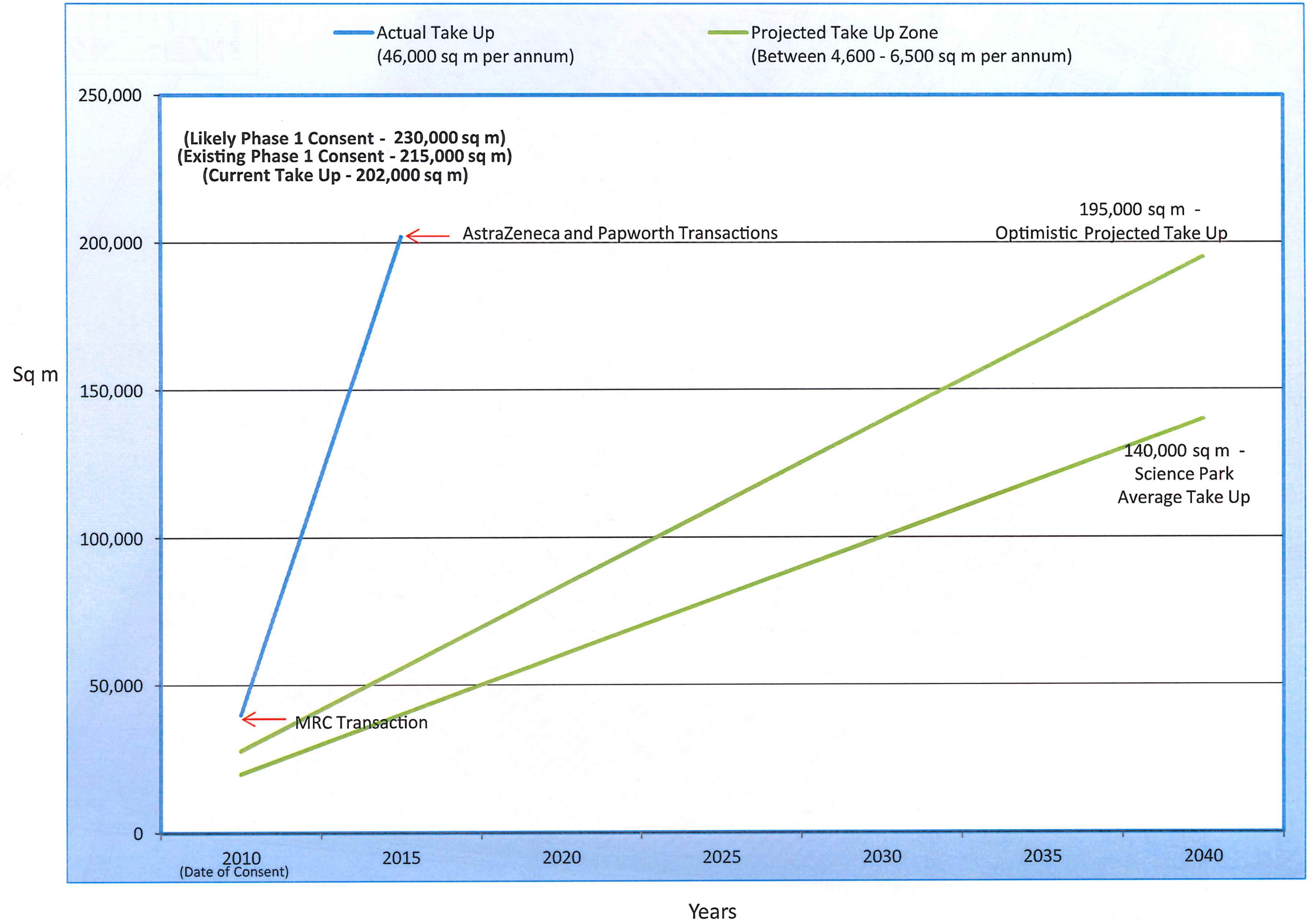
Ms Antoinette Jackson, Chief Executive, Cambridge City Council
Councillor Lewis Herbert, Council Leader, Cambridge City Council
Councillor Robert Turner, Planning Portfolio Holder, South Cambridgeshire District Council

Appendix 5

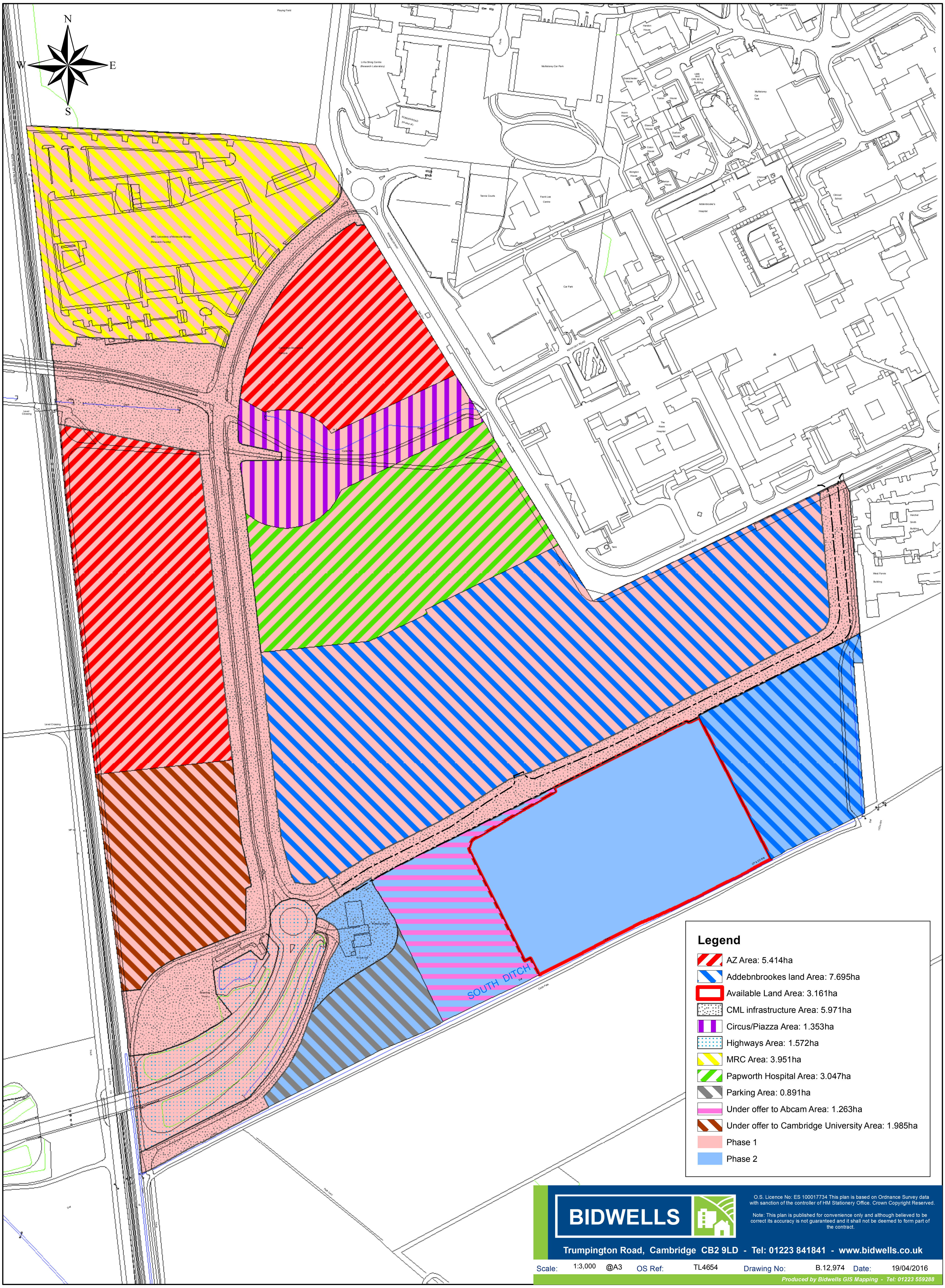
5

Anticipated Take Up Rate Compared to Actual Take Up Rate Cambridge BioMedical Campus (Phase 1)

BIDWELLS



Cambridge Biomedical Campus Phase 1 & 2 (Land take up)



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