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What do the latest official sub-national population projections suggest for Great Britain's 63 cities?

Addendum to 'People in cities: the numbers'

Foresight, Government Office for Science

What do the latest official sub-national population projections suggest for Great Britain's 63 cities?

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Foreword

The Future of Cities project is informed by working papers which are commissioned by the [Lead Expert Group](#) and written by authors from academia and industry.

These papers highlight the key challenges and opportunities facing cities in the UK out to 2065. The Expert Group will draw upon this evidence base to develop project outputs which will be published in 2014 and 2015.

These outputs will aim to inform near-term policy making in both local and central government, which achieves desirable long-term outcomes for UK cities.

Professor Sir Alan Wilson

I. Introduction

'[People in cities: the numbers](#)' was able to suggest some ballpark figures for the aggregate of the 64 UK cities by reference to the 2012-based national population projections, published by the Government Actuary's Department (GAD) and the Office for National Statistics (ONS) in November 2013. ONS released 2012-based sub-national projections in May, following the National Records of Scotland's (NRS) equivalent for Scotland. The Northern Ireland Statistics and Research Agency (NISRA) equivalent is expected later this year (updating its most recent 2008-based set) but Wales has decided to stick with its 2011-based set until the 2014-based national population projections become available in 2015/2016. It is now possible, therefore, to calculate projected population change for 2011-2036 on a consistent basis for 63 Primary Urban Areas (PUAs), i.e. omitting Belfast. It is possible to look at population change 2012-2037 for England and Scotland, but not Wales and Northern Ireland. The data sources and their web addresses are given at the end of the report.

The main part of this addendum reports the findings of an analysis of projected population change 2011-2036 as a single period, building directly on the 2011 endpoint of almost all the analyses in 'People in cities: the numbers' and allowing the inclusion of Wales's three PUAs. The report goes on to examine what the official projections to 2037 suggest for age structure, using the example of England and its 56 cities, and ends with two extra perspectives on the projected population changes. This report should be read in conjunction with the main paper, notably its concluding section (which discussed future prospects by reference to the national projections only) but also the sections on PUA definition and related classifications.

The principal findings are as follows:

- Projecting forward recent demographic trends for Great Britain as a whole gives a total population for 2036 that is 9.5 million larger than that of 2011. Of this, 6.7 million is accounted for by South & East England, this 70% share being considerably greater than its 53% share of the country's 2011 population.
- Great Britain's 63 cities are projected to see their combined population rise by 6.1 million during 2011-2036, i.e. 64% of the national total, which is larger than their 55% share of the 2011 population. London PUA's projected increase of 2.67 million comprises 28% of national growth, nearly twice its 2011 share. The rate of city population growth is expected to slow progressively after the first five years of the projection period, mainly due to an increasing number of deaths.
- In terms of growth rate, the 63 cities will contain 17.7% more people in 2036 than in 2011, compared to the overall British figure of 15.5%, with Major Cities (including London) up by 20.6%, Large Cities up by 15.9% and Small Cities up by 14.8%; all of these are higher than the non-cities' 12.3% increase in population.
- In terms of the 63 individual cities, none are projected to have a 2036 population smaller than in 2011. The biggest increases after London's extra 2.67 million are expected in Birmingham (+354,000), Manchester (+272,000), Bristol (+150,000), Edinburgh (+136,000), Leeds (+123,000) and Cardiff (+113,000) and with the smallest gains being for Blackburn, Burnley and Grimsby (each +4,000).

- These projections are, of course, only as reliable as the assumptions that underpin them. The key issue is whether the base-line trends used for the principal projection (essentially the latest 5 years of records, i.e. 2007-2012) can be expected to continue through the full 25 years of the sub-national projections. These include life expectancy rising by around 5 years, net immigration from overseas running at 165,000 a year and internal migration continuing to behave as it did during the recession and its aftermath.
- 'People in cities: the numbers' noted a wide 'zone' of variants around the 80m 'principal projection' for the UK in 2062, ranging from a high-assumption combination giving 93m to a low one of 68m. At sub-national level, the low and high migration assumptions for Edinburgh, for example, give a range of 577k to 665k around the principal projection of 619k for 2037.
- One out-of-line feature of the projections by age is a massive increase in the number of 50-69s in London's population between 2012 and 2037, which may be due to the projections of its migration exchanges with the rest of the UK being based on the average for 2007-2012, when the exodus of family-age adults from the capital was running at a much lower level than previously.
- Projections of the elderly population through to 2037 are likely to be highly accurate because these people are already born and migration is much less common at older ages. Primarily because of the baby-boom cohorts moving into old age, the principal projection for England indicates that the 70+'s share of total population will be 18.4% in 2037, compared to 11.7% in 2012, a rise of 6.7 % points.
- For the aggregate of the 63 cities, the rise in the 70+'s share will be less than nationally (up by 5.1 points from 10.3% in 2012 to 15.3% in 2037). On this basis, almost 1 in 4 people in Blackpool and Worthing will be aged 70+ by 2037, and at least 1 in 5 in Birkenhead, Southend, Bournemouth, Grimsby, Hastings, Sunderland and Portsmouth. As part of this trend, the number of those aged 90+ is expected to triple across the 63 cities during this 25-year period.
- By 2066 the ageing of the UK population will have slowed, as the baby-boomers reach the highest-mortality ages and the rate of rise in life expectancy is assumed to slow down, with these factors likely to affect city populations to a similar extent as the rest of the country.

2. Projected overall population change 2011-2036 for area aggregates

Key statistics relating to the projected change over this 25-year period are shown in Table 1. Projecting forward recent demographic trends for Great Britain as a whole gives a total population for 2036 that is 9.5m larger than that of 2011. Of this, 6.7m is accounted for by South & East England, this 70% share being considerably greater than its 53% share of Great Britain's 2011 population. North & West England's share of the projected growth is 22%, well down on their current share of 33%, with Wales and Scotland combined taking 8%, compared with their current share of 14%.

Table 1. Projected population change, 2011-2036, for Great Britain (GB), by regional division and settlement size

Area	Population		Change		National share	
	2011	2036	2011- 2036		2011	2011-2036
	000s	000s	000s	%	%GB	%GB
Great Britain	61,470.9	70,987.6	9,516.7	15.5	100.0	100.0
South & East England	32,557.8	39,268.8	6,711.0	20.6	53.0	70.5
North & West England	20,549.4	22,617.0	2,067.6	10.1	33.4	21.7
Wales & Scotland	8,363.7	9,101.8	738.1	8.8	13.6	7.8
Major cities	18,045.3	21,756.3	3,711.0	20.6	29.4	39.0
Large cities	7,924.7	9,187.5	1,262.9	15.9	12.9	13.3
Small cities	7,645.4	8,774.0	1,128.6	14.8	12.4	11.9
Large towns	10,675.3	11,981.8	1,306.6	12.2	17.4	13.7
Small towns & rural	17,180.2	19,287.9	2,107.7	12.3	27.9	22.1
All cities	33,615.4	39,717.9	6,102.5	17.7	54.7	64.1
South & East England						
London	9,514.1	12,185.7	2,671.6	28.1	15.5	28.1
Large cities	3,831.0	4,486.6	655.6	17.1	6.2	6.9
Small cities	3,807.2	4,531.3	724.1	19.0	6.2	7.6

Area	Population		Change		National share	
	2011	2036	2011- 2036		2011	2011-2036
	000s	000s	000s	%	%GB	%GB
North & West England						
6 major cities	7,477.0	8,436.5	959.5	12.8	12.2	10.1
Large cities	3,270.3	3,628.6	358.3	11.0	5.3	3.8
Small cities	3,084.1	3,345.6	261.5	8.5	5.0	2.7
Wales & Scotland						
Glasgow	1,054.2	1,134.1	79.9	7.6	1.7	0.8
Large cities	823.4	1,072.3	249.0	30.2	1.3	2.6
Small cities	754.1	897.1	143.0	19.0	1.2	1.5

The rest of Table 1 shows the split of Great Britain's growth 2011-2036 by the five settlement size types, both in aggregate and split between the three regional divisions. The 63 cities are projected to see their combined population rise by 6.1 million between 2011 and 2036, i.e. 64% of the Great Britain total, which is larger than their 55% share of the 2011 population. Well over half of this 6.1m of city growth is accounted for by the Major Cities category, and three quarters of the latter by London alone. Non-city Britain accounts for just over one-third of projected national growth, with the Small Towns & Rural category accounting for nearly two-thirds of this, although both the non-city categories underperform their 2011 shares.

The fourth data column in Table 1 shows how these growth numbers and shares of national growth translate into rates of change for the 25-year period and how the latter compares with the national average growth rate of 15.5% for the period, though more readily visualised in chart form. Figure 1 shows that the strongest performers are South & East England and the Major Cities, both growing by just over 20%, with both of these being boosted by London's 28% growth (see Figure 2). Growth of the other two regional divisions is 10% or less (Figure 1). Across the five settlement sizes, the Large Cities are the only other group to exceed the national rate, with rates falling off with decreasing size of place – a complete reversal of the 'counterurbanisation' pattern of the 1980s (see People in cities: the numbers). But within the three regions separately (Figure 2), the positive relationship between city size and projected growth rate holds only for North & West England, with South & East England's Small Cities having a somewhat higher projected growth than its Large Cities and with Large Cities leading the way in Wales and Scotland (these being the two capitals of Cardiff and Edinburgh, well ahead of its sole Major City of Glasgow).

Figure 1. Population change, 2011-2036, for 3 regional divisions and 5 settlement sizes

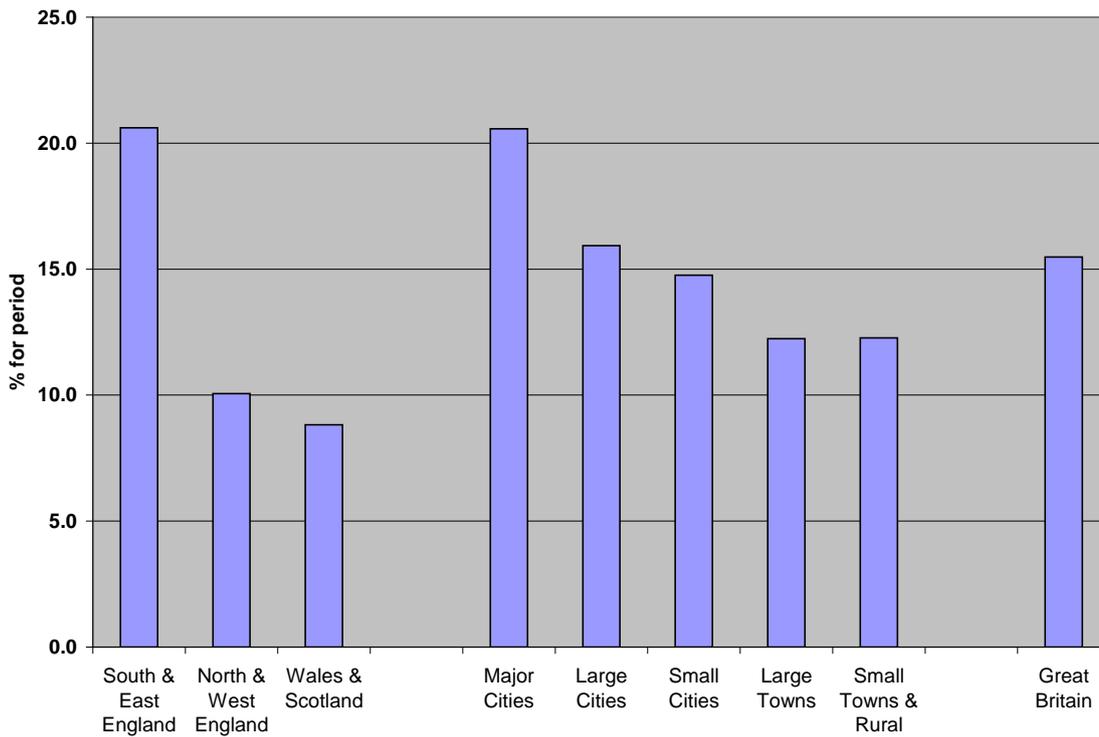
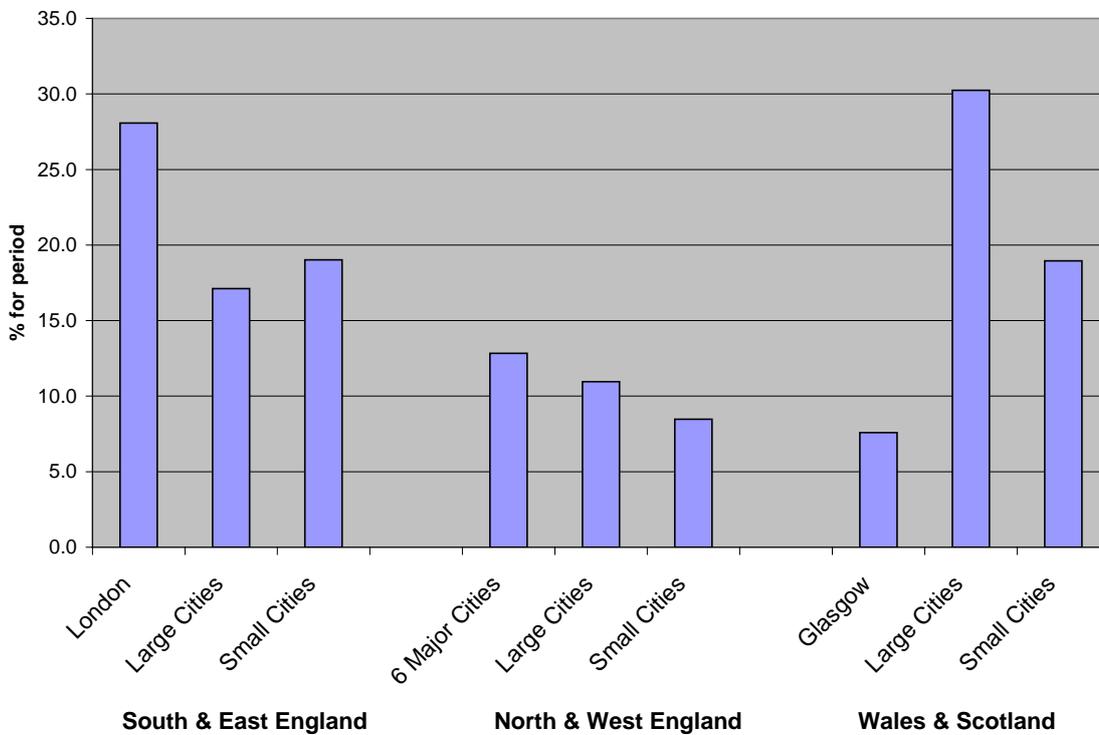


Figure 2. Population change, 2011-2036, for 3 city sizes by regional division



3. Projected overall population change 2011-2036 for individual cities

Table 2 shows the top and bottom 10 of the 63 cities on the basis of both absolute and relative growth for the 25-year period to 2036.

Table 2. Top and bottom 10 cities on the basis of projected 2011-2036 total population change and change rate

Top 10 cities

Rank		000s	Rank		%
1	London	2671.6	1	Cardiff	32.7
2	Birmingham	353.5	2	Coventry	30.8
3	Manchester	272.4	3	Milton Keynes	29.3
4	Bristol	150.1	4	Aberdeen	28.7
5	Edinburgh	135.9	5	Edinburgh	28.4
6	Leeds	122.5	6	London	28.1
7	Cardiff	113.1	7	Crawley	28.0
8	Sheffield	97.7	8	Luton	26.6
9	Coventry	97.6	9	Swindon	26.5
10	Nottingham	94.1	10	Peterborough	24.1

Bottom 10 cities

Rank		000s	Rank		%
54	Hastings	14.1	54	Hull	6.1
55	Cambridge	13.4	55	Liverpool	5.7
56	Telford	13.4	56	Rochdale	5.0
57	Doncaster	13.0	57	Blackpool	4.6
58	Birkenhead	11.2	58	Doncaster	4.3
59	Rochdale	10.7	59	Birkenhead	3.5
60	Sunderland	5.1	60	Blackburn	2.8
61	Burnley	4.3	61	Burnley	2.4
62	Blackburn	4.2	62	Grimsby	2.4
63	Grimsby	3.8	63	Sunderland	1.9

In terms of absolute numbers, it can be seen that the projections put London PUA in a class of its own, as was already the case for the historical trends of 1981-2011 reviewed in WP3. The biggest absolute gainers after London are projected to be Birmingham (+354,000), Manchester (+272,000), Bristol (+150,000), Edinburgh (+136,000), Leeds (+123,000) and Cardiff (+113,000). None of the 63 cities will see a reduction in numbers according to these projections: the smallest gains are projected for Grimsby, Blackburn and Burnley (each +4,000), with Sunderland also below 10,000 despite containing Washington New Town within its local authority boundary. Telford New Town is also among the smallest gainers, as too is Cambridge (see below).

In terms of growth rate, at the top end it is projected that in 2036 Cardiff will have one extra resident for every three living there in 2011. Eight other cities will see growth of at least 25% over the 25-year period: Coventry, Milton Keynes, Aberdeen, Edinburgh, London, Crawley, Luton and Swindon. London's high position here is particularly impressive, as the only Major City in the top 10 and especially given its huge size. At the other end of the scale, Liverpool is the only Major City to feature in the bottom 10, although it is still projected to contain 5.7% more residents in 2036 than in 2011.

4. Projected overall population change 2011-2036: a personal assessment

These projections are, of course, only as reliable as the assumptions that underpin them. 'People in cities: the numbers' noted a wide 'zone' of variants around the 80 million 'principal projection' for the UK in 2062, ranging from a high-assumption combination giving 93 million to a low one of 68 million (see Table 14 in the main paper). The key issue is whether the base-line trends used for the principal projection (essentially the latest 5 years of records, i.e. 2007-2012) can be expected to continue through the full 25 years of the sub-national projection.

The major uncertainty at the UK level is whether net immigration to the UK will stay at around its projected 165,000 a year over this period. If so, it will progressively outpace the level of natural increase which is projected to fall back from its current 260,000 a year to 140,000, this latter being primarily due to rising numbers of deaths as the 1950s/ 1960s baby boomers move into the high-mortality ages. In recent years the population growth of almost all of the 63 cities has been buoyed up by the rising tide of net immigration, so any substantial fall in the latter would likely take some cities into negative growth.

The crucial unknown at sub-national level relates to the future prospects for within-UK migration. The latest projections assume a continuation of the patterns of 2007-2012, which were very different from those of 2002-2007 and indeed the decade before that, most notably with a marked reduction in the level of gross out-migration from the Major Cities, notably London (see Figure 10 in the main paper). Research is needed to establish whether a sustained economic recovery will lead to a reversion to previous cyclical patterns as opposed to the UK having entered a new regime of much reduced residential mobility.

Some impression of the possible scale of uncertainty for individual cities can be gained from the variant projections available for the unitary authorities of Scotland and Wales, which emphasise the importance of the migration component in producing uncertainty. For instance, for the City of Edinburgh Council Area (which is used as the definition of its PUA by Foresight), the principal 2012-based population projection for 2037 is 619,000. The range on the basis of the 'possible' range of life expectancy is between 613,000 and 625,000 and on the basis of the range of fertility rates is between 606,000 and 636,000, but for the low and high range of migration assumptions the 2037 outturn population span is between 577,000 and 665,000, meaning an increase of between 95,000 and 183,000 over the City's 2012 population of 482.6k. The 2011-based variant projections for Wales look forward only 15 years to 2026 and do not provide a high and low migration outturn, just a zero-migration one: for Cardiff, the latter gives an outturn population of 378,000 for 2026, compared with the principal projection of 413,000 – again a substantial difference in growth from its 2011 population of 345,000. ONS does not produce variants of its sub-national projections, but a similar scale of uncertainty might be expected for England's 56 cities and this can only get more pronounced if attempting to look further ahead to 2065.

In this context, it is important to note the caution that accompanies all the official population projections, namely that they take no account of any policy decisions that may be prompted by the release of the population projections themselves or other considerations. They are merely 'projections' that factor in the impact of current policies insofar as they have affected population change during the calibration period of 2007-2012. Nor do they take account of the capacity of places to absorb the projected growth, raising the question – for instance – as to whether

London's PUA will be able to accommodate the extra 2.67 million projected for 2011-2036 as opposed to a proportion of this London-generated growth spilling over into surrounding areas and beyond.

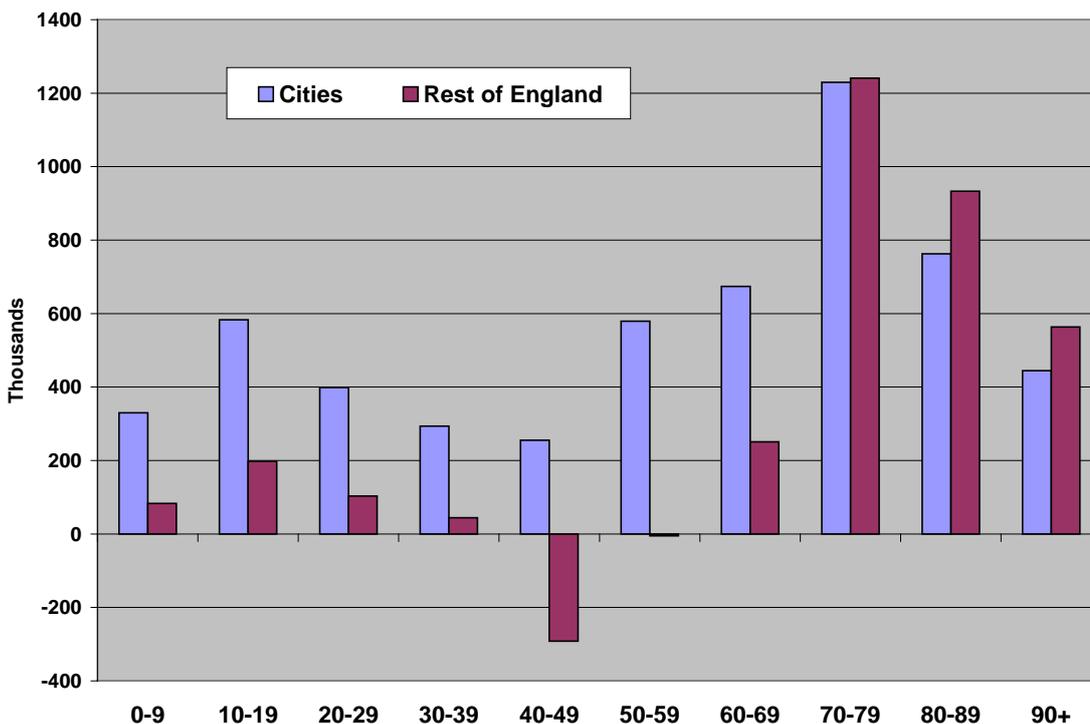
Another cautionary note should be sounded in relation to interpreting the scale of population change projected for individual cities, given the way that they are defined in terms of the best fit of whole local government areas to their continuously built-up 'urban areas'. There are two separate, but potentially overlapping, issues here. One concerns underbounding of the main built-up area. For example, as noted in the main paper, Aberdeen, Dundee and Hull are good examples of where the named local authority excludes some of the newer suburbs where past development has 'spilt' over the boundary and where their future growth will be projected for the surrounding local government area. The other case is where the main built-up area is entirely contained within the named local authority but only because of the strict imposition of a green belt or similar development controls, meaning that recent growth has had to leapfrog the protected zone into physically separate urban areas in adjacent local authorities. This is the likely explanation for Cambridge featuring in the bottom 10 cities on projected increase in population size 2011-2036 in Table 2.

5. Projected population ageing for England's 56 cities to 2037

In the context of the cautionary notes in the previous section, one of the real certainties about the future populations of cities is that they will comprise considerably more older people. There are two main reasons why this high degree of certainty exists. One is that the baby-boom cohorts of the late 1950s and 1960s will be progressing through the older age groups between now and the later 2030s, though this process will be all but over by 2065. The other is that there is a general consensus that life expectancy will continue to rise, with a quite small range of uncertainty around the central assumption of it being five years higher in 2037 than in 2012 for the UK as a whole. Moreover, the number of older people will, by definition, not be affected by the birth rate between now and 2037 and also, because rates of both international and internal migration peak amongst 16-29 year olds and decline steeply above this age, migration is unlikely to affect the numbers of elderly people very much over a 25-year projection period, even for individual cities. On the other hand, the proportions of older people in the all-ages population will be affected to some extent by uncertainties about the sizes of the younger groups which will be affected by any deviations in birth rate and migration from the central assumptions. Given these caveats, the focus here is on just the case of England 2012-2037, but this is ample for demonstrating the scale of change in age structure, given that this accounts for 56 of the UK's 64 cities as defined by Foresight.

Figure 3 introduces the picture by showing the projected change between 2012 and 2037 in the size of 10-year age groups, comparing the aggregate of the 56 cities with that of the rest of England (i.e. the towns and rural areas).

Figure 3. Projected change in the size of 10-year age groups, 2012-2037, for the aggregate of 56 cities compared with the rest of England



It can be seen that the cities account for most of the projected increase in all the age groups up to and including the 60-69 year olds. Indeed, the total number of 0-59 year olds living in non-city England is projected to be hardly any larger in 2037 than in 2012, up by just 133,000, whereas it grows by almost 2.5 million across the 56 cities. The largest absolute increases, however, are for the 70-79 and 80-89 age groups and in these two cases, as well as for the 90+ group, the cities and the rest of England account for much more equal shares.

Table 3 goes into more detail about the changes projected for the 56 cities combined. While all the 10-year age groups contribute to the cities' projected overall growth of 5.55 million between 2012 and 2037, as just seen in Figure 3, those of 60 and over add the largest numbers and together account for 3.11 million or significantly more than half. The biggest absolute increase is for the 70-79s, i.e. in 2037 containing the cohort born 1958-1967 which takes the place of those aged 70-79 in 2012, i.e. those born during the low-fertility years 1933-1942. It is the 90+ group, however, that is projected to experience the largest percentage growth, tripling in numbers between 2012 and 2037.

Table 3. Projected population change by age group, 2012-2037, for the aggregate of the 56 cities of England

Age group	Population (000s)		Change for period		Age composition (%)		
	2012	2037	000s	%	2012	2037	% point change
0-9	3980.3	4309.9	329.6	8.3	12.7	11.7	-1.0
10-19	3691.3	4274.2	582.9	15.8	11.8	11.6	-0.2
20-29	4839.2	5237.6	398.4	8.2	15.5	14.2	-1.3
30-39	4507.1	4800.6	293.5	6.5	14.4	13.0	-1.4
40-49	4454.3	4709.4	255.1	5.7	14.3	12.8	-1.5
50-59	3615.3	4194.3	579.0	16.0	11.6	11.4	-0.2
60-69	2953.5	3627.4	673.9	22.8	9.5	9.9	0.4
70-79	1930.1	3159.8	1229.7	63.7	6.2	8.6	2.4
80-89	1059.8	1822.6	762.8	72.0	3.4	5.0	1.6
90+	218.6	662.9	444.3	203.2	0.7	1.8	1.1
All ages	31247.7	36798.0	5550.3	17.8	100.0	100.0	0.0

Table 3 also shows that the three oldest age groups are all projected to substantially increase their shares of the cities' total populations, with the proportion aged 70 and over rising by 5.1 % points from 10.3% to 15.3%. This, however, is smaller than the 6.7 % point rise for England as a whole, where 18.7% will be 70+ in 2037 on this basis, owing to non-city areas continuing to be home to an older population than the cities. As mentioned above, a high degree of confidence can be attached to the absolute numbers of older people and their trends and somewhat less to the age composition percentages because of there being less certainty about the changes in the younger population, but the likely range of variation in the latter is not going to undermine the general picture of population ageing shown in Table 3.

Table 4 presents key features relating to the 70+ age group for individual cities in the form of top 10s on the proportion of their populations in this age group in both 2012 and 2037, the percentage point change in that share over that 25-year period, and the percentage increase in numbers for that. According to these projections, almost one in four (24%) of Blackpool and Worthing will be aged 70+ by 2037, with Birkenhead, Southend, Bournemouth, Grimsby, Hastings, Sunderland and Portsmouth with at least one in five. These percentages represent a substantial increase on the range of 12% - 16% for the top 10 cities in 2012, but Telford and Aldershot have even higher % point increases in their 70+ shares, up by 8.9% points. Milton Keynes also features in the top 10 of percentage point increases, with its number of 70+ projected to increase by more than two and a half times (+163% over its 2012 number). Altogether eight cities are projected to see at least a doubling of their numbers of 70+ year olds.

Table 4. Top 10 cities on the basis of people aged 70 and over and change in this, 2012-2037

Rank		% all ages 2012		Rank		%all ages 2037	
1	Blackpool	16.2		1	Blackpool	24.2	
2	Worthing	15.5		2	Worthing	23.9	
3	Bournemouth	15.0		3	Birkenhead	22.0	
4	Southend	14.0		4	Southend	21.9	
5	Birkenhead	13.9		5	Bournemouth	21.4	
6	Norwich	13.3		6	Grimsby	20.8	
7	Grimsby	13.0		7	Hastings	20.4	
8	Portsmouth	12.5		8	Sunderland	20.4	
9	Hastings	12.3		9	Portsmouth	20.2	
10	Sunderland	12.3		10	Mansfield	19.9	

Rank		2012-2037 change in %		Rank		2012-2037 change in N	
1	Telford	8.9		1	Milton Keynes	163.4	
2	Aldershot	8.9		2	Swindon	123.4	
3	Worthing	8.4		3	Aldershot	105.9	
4	Sunderland	8.1		4	Northampton	104.5	
5	Hastings	8.1		5	Reading	103.5	
6	Milton Keynes	8.0		6	Telford	103.0	
7	Birkenhead	8.0		7	Chatham	101.2	
8	Mansfield	8.0		8	Gloucester	100.8	
9	Blackpool	8.0		9	Crawley	95.6	
10	Southend	7.9		10	Warrington	95.2	

The rest of this section provides more information on variants on this main theme of population ageing for England's cities to 2037, putting the 70+ group back into its wider context and providing more geographical detail. Table 5 starts the ball rolling by showing the projected change in the size of the five broad age groups used in 'People in cities: the numbers'. As regards the 70+ group, the Major Cities in both parts of England will account for half of the cities' increase in this age group, but the largest single gainer of 70+ are the Small Towns & Rural category of places. The Small Cities of North & West England are the only type of place in Table 5 where the increase in the 70+ group is larger than their increase of all ages (277,000 versus 258,000), such that the aggregate of the other age groups is shrinking in size. However, the 70+ group also contributes the lion's share of the all-ages increase for North & West England as a whole and also for the Small Towns & Rural and the Large Towns categories across the whole of England. At the other extreme, the 70+ group makes a much smaller contribution to the total population increase in South & East England, the Major Cities as a whole and London in particular (only 685,000 out of 2,644,000 here). London, however, is projected to account for over half of England's increase in 50-69 year olds (809,000 out of 1,499,000), but this must surely be partly the result of basing assumptions on the period 2007-2012 when the level of out-migration from London by 30-year olds and over was much lower than previously. This factor could also help to account for the reduction in the numbers of 30-49 year olds projected for the towns and rural areas, as the latter have traditionally been the parts of England that have gained most from the exodus of family-building-age adults from London, which then age in place in their new locations.

Table 5. Projected change in numbers in broad age groups, 2012-2037, for England, its 2 regional divisions, 5 settlement sizes and city size groups by region, thousands

Area	0-14	15-29	30-49	50-69	70+	All ages
England	894.9	800.7	300.9	1498.9	5174.5	8671.8
Region						
S&E England	750.9	703.8	435.9	1396.1	3350.4	6637.7
N&W England	144.0	96.9	-135.0	102.8	1824.1	2034.1
Size						
Major Cities	472.4	417.1	534.5	960.5	1197.8	3581.9
Large Cities	111.1	138.2	21.2	131.8	593.3	995.2
Small Cities	88.9	83.2	-7.1	160.6	645.7	973.2
Large Towns	98.1	86.7	-62.4	146.5	940.0	1211.5
Small Towns & Rural	124.4	75.5	-185.3	99.5	1797.7	1910.0
Region & city size						
<i>S&E England</i>						
London	361.0	318.3	470.9	809.3	684.7	2643.8
Large Cities	71.6	105.6	20.0	112.6	331.7	640.7
Small Cities	82.1	85.7	28.4	149.5	369.0	714.9

Area	0-14	15-29	30-49	50-69	70+	All ages
<i>N&W England</i>						
Major Cities	111.4	98.8	63.6	151.2	513.1	938.1
Large Cities	39.5	32.6	1.2	19.2	261.6	354.5
Small Cities	6.8	-2.5	-35.5	11.1	276.7	258.3

Figures 4 and 5 translate these absolute change numbers into percentage change for the 25-year period for the 5 settlement sizes and the 6-way classification of cities by size and region respectively. Figure 4 is arranged so as to highlight the contrast between the rate of growth expected for the 70+ group compared to all of the others. It also reveals that the rate of growth of the 70+ group is least for the Major Cities and rises progressively down the size hierarchy. For all of the other broad age groups, this pattern is reversed, with the Major Cities seeing the greatest percentage increase and the Small Towns & Rural category the lowest, indeed with a decrease in 30-49 year olds for the latter. The Major Cities' increase is especially great for the 50-69 year olds, which is largely due to the London effect (see Figure 5).

Indeed, the most striking feature of Figure 5 – besides the fact that all 6 region/size types of English city share quite similarly in the high percentage increase in the 70+ age group – is the large increase projected for London's 50-69 age group. It is impressive that, across the age groups, London's growth rates exceed those of all the other five types (with the sole exception of the 70+ group's higher growth in the South & East's Small Cities), but London's 45% increase for its 50-69 year olds is completely out of line with elsewhere. The likelihood of this becoming reality, however, has already been questioned above, and this may apply to some extent to the three younger broad age groups, too. If gross out-migration from London to the rest of England were to move back towards its pre-recession level and away from the 2007-2012 level used in the migration assumptions for these projections, then this would impact on the other 5 types to a greater or lesser extent.

Figure 4. Projected percentage change in size of broad age groups, 2012-2037, for 5 settlement size groups of England

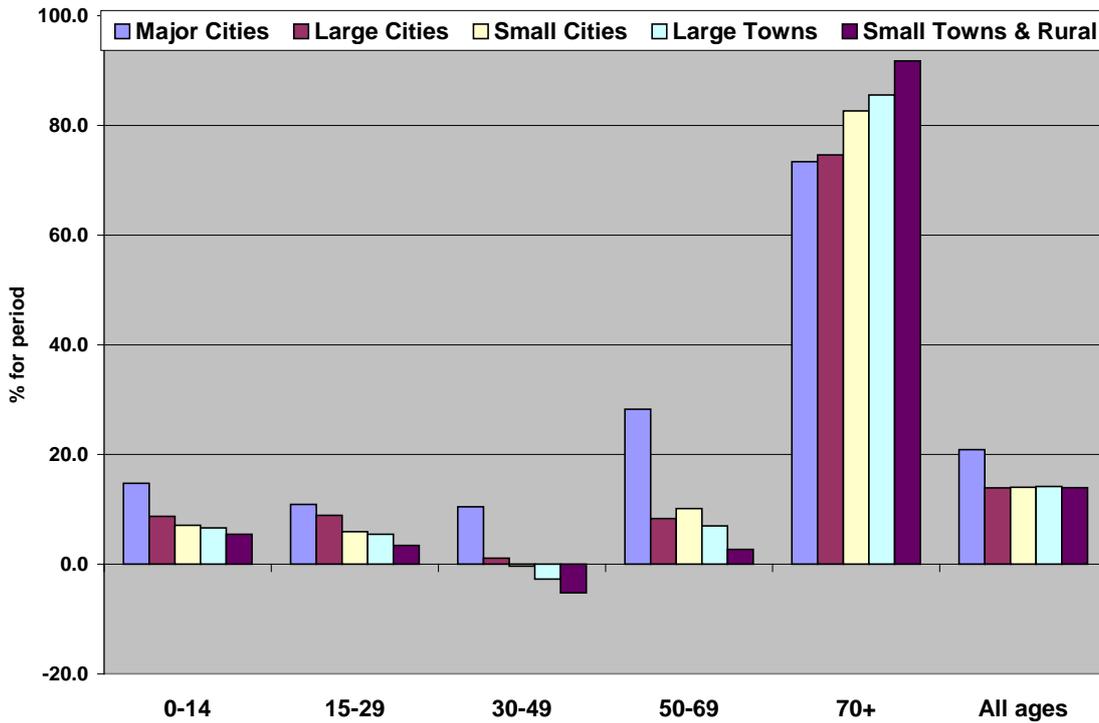


Figure 5. Projected percentage change in size of broad age groups, 2012-2037, for the 6 region/size city types of England

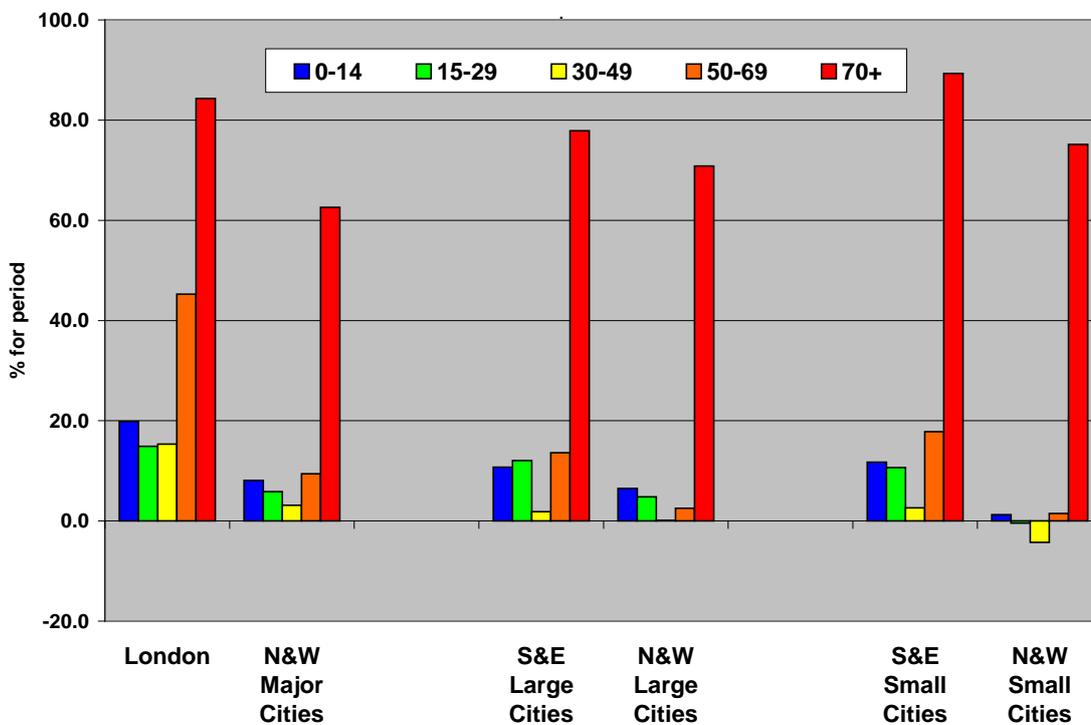


Figure 6 shows how these changes in the size of the broad age groups, if they were to come to pass, would impact on the age composition of England and its 5 settlement size types. As expected, the dominant feature of the change between 2012 and 2037 is the expansion of the 70+ group's share of total population across the board, pushing down on the other groups' shares. The biggest percentage point impact is outside 'City England', especially on the Small Towns & Rural category, where by 2037 one in every four people is projected to be aged 70+ and almost half (48.5%) will be at least 50 years old. By contrast, around two in every three of the residents of the Major Cities is aged under 50.

Figure 6. Age composition, 2012 and 2037, for England and its 5 settlement size groups

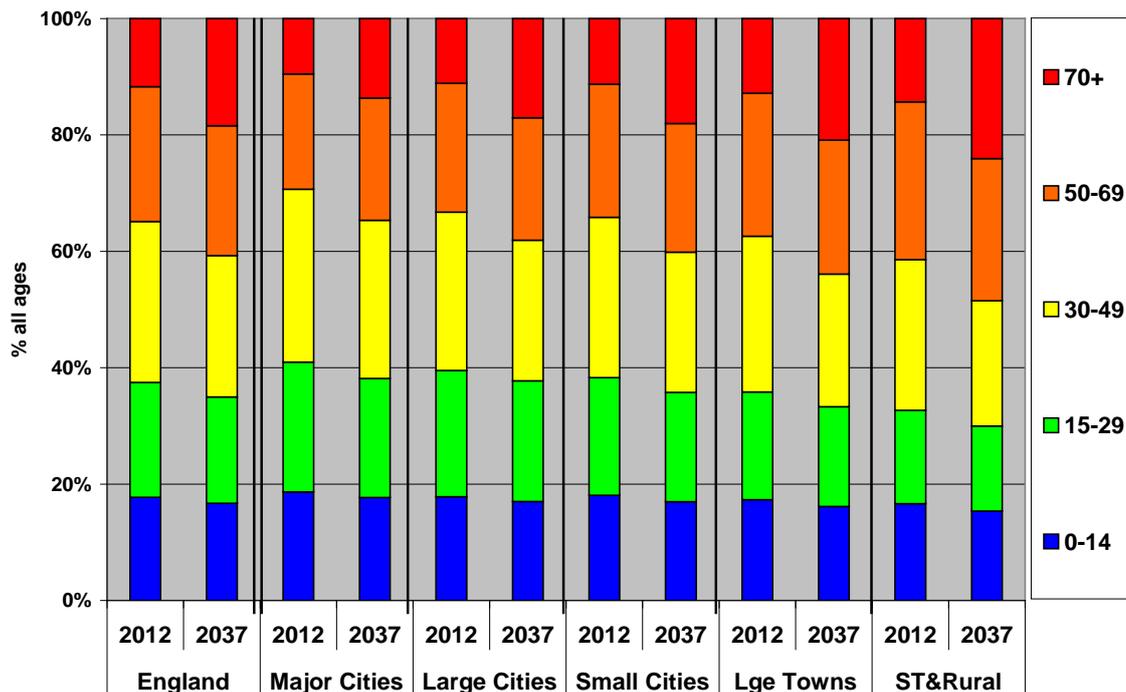


Figure 7 shows the percentage point change in the size of the broad age groups for this five-fold settlement size classification, as well for England as a whole and its two regional divisions. This makes very clear the progressively larger increase in the share of the 70+ group down the size hierarchy, as well as this being a somewhat more important feature of the North & West than the South & East. It also shows the progressively greater shrinkage of the 15-29 year olds' share down the hierarchy, as well as the apparent anomaly of the Major Cities' rising share of 50-69 year olds.

Figure 8 confirms the anomalous position of London in relation to the rise in the Major Cities' share of 50-59 year olds. In relation to the 70+ group, it can be seen that its percentage point rise increases with declining city size and, at each hierarchical level, is larger in the North & West than in the South & East.

Figure 7. Projected %-point change in age structure, 2012-2037, for England, 2 regional divisions and 5 settlement size groups

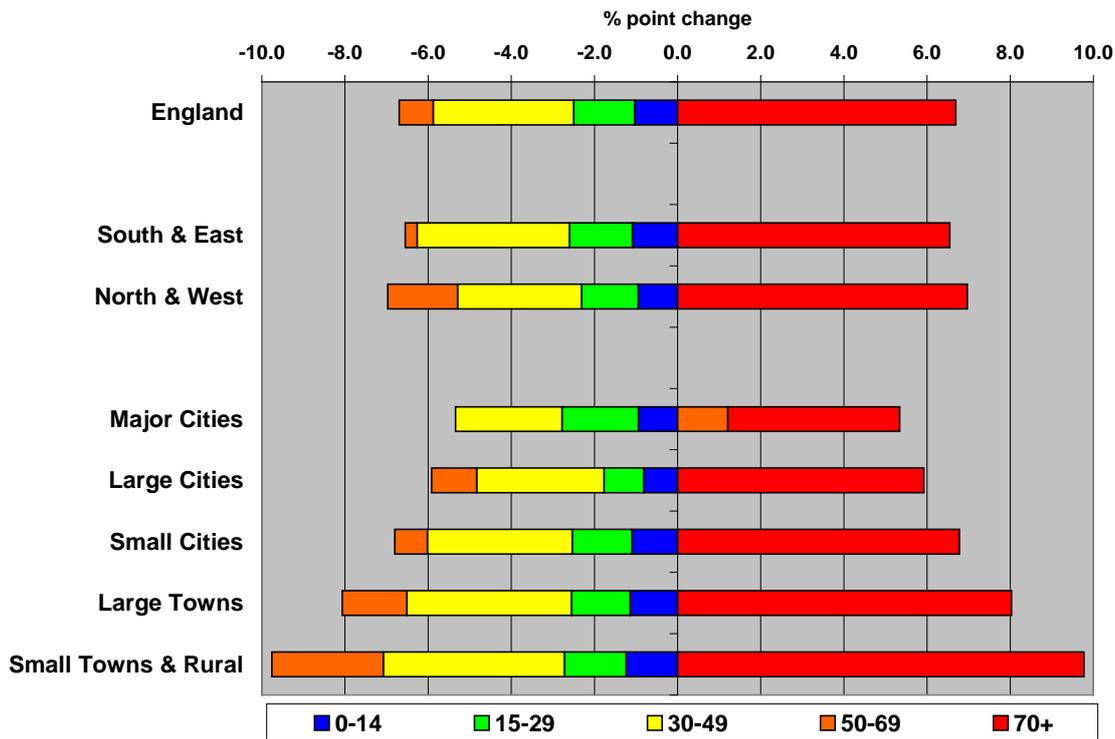
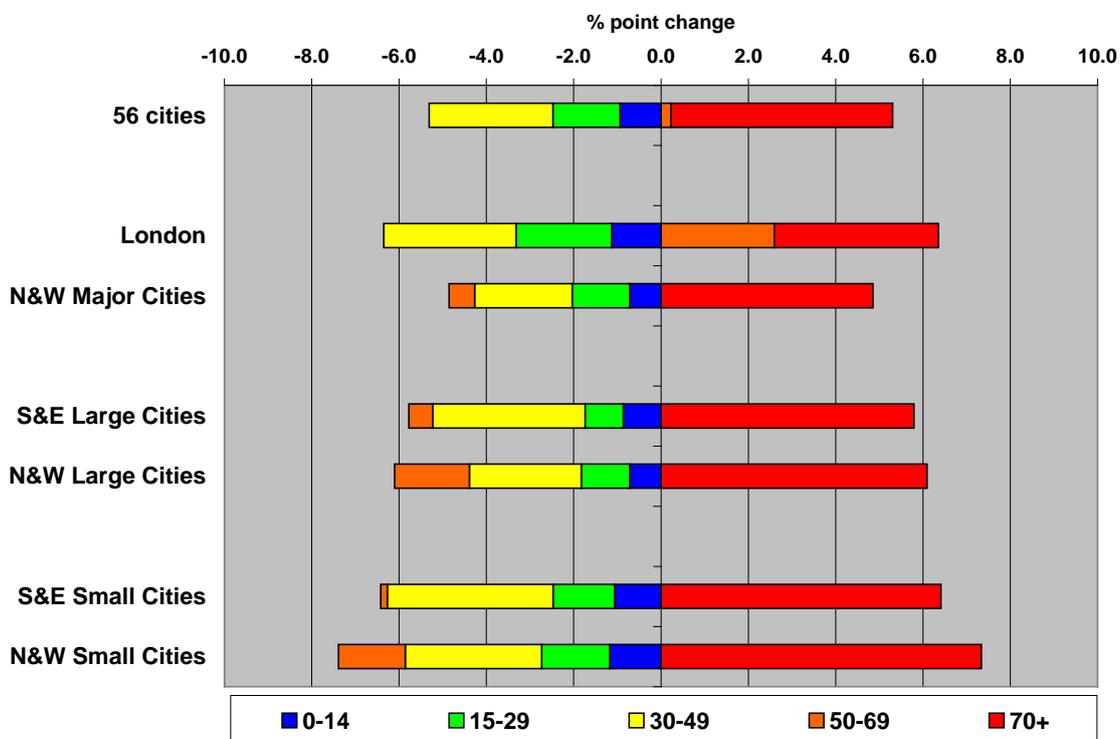


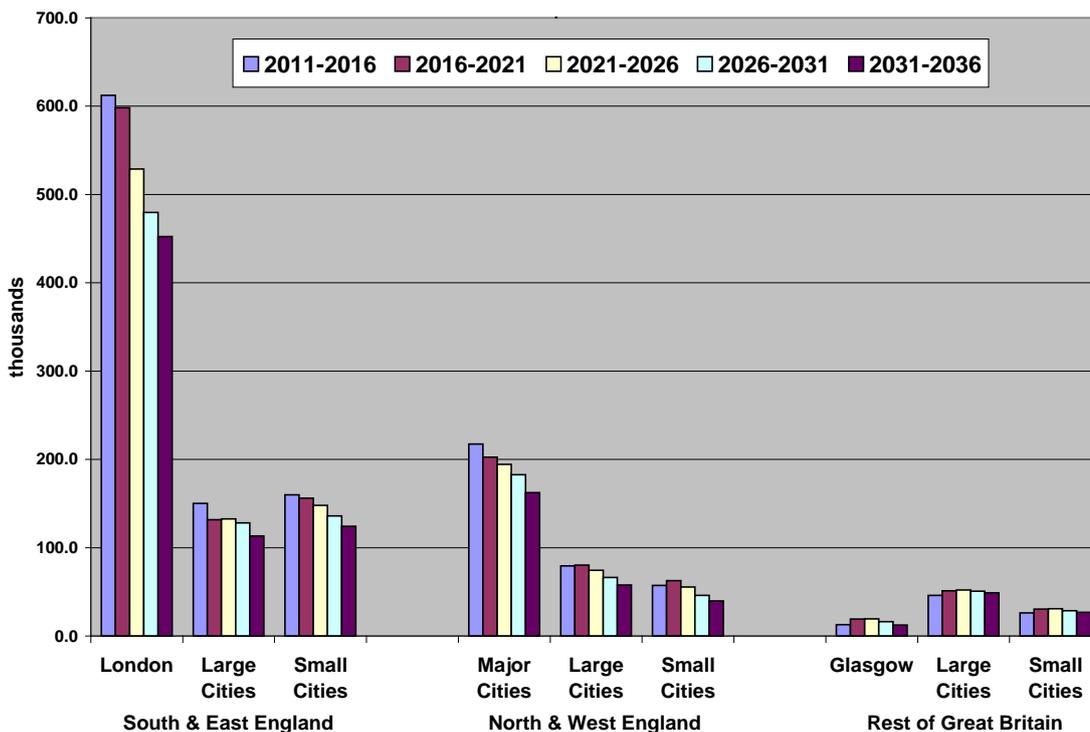
Figure 8. Projected %-point change in age structure, 2012-2037, for the aggregate of England's 56 cities and the 6 region/size types



6. Two final perspectives

Up until now, this report has looked at the changes indicated by the official projections just on the basis of one single 25-year period. While Foresight Future of Cities is primarily interested in change to 2065 and only secondarily in 2040 (and even this is beyond the endpoint of the latest sub-national projections), it is perhaps worth noting that the projections show a decelerating level of population growth over the next 25 years for British cities, just as they do for Great Britain as a whole. For the aggregate of the 63 cities, the total increase projected for successive five-year periods drops from a 1.36 million increase for 2011-2016 to one of 1.33 million in 2016-2021, to 1.24 million in 2021-2026, to 1.13 million in 2026-2031 and to 1.04 million in 2031-2036. How this pans out across the city size types is shown in Figure 9, which shows the consistency of this trend. This change is primarily due to the effect of the numbers of deaths rising as the baby-boom cohorts move progressively further into the high-mortality age range, beginning to enter their 80s by 2036.

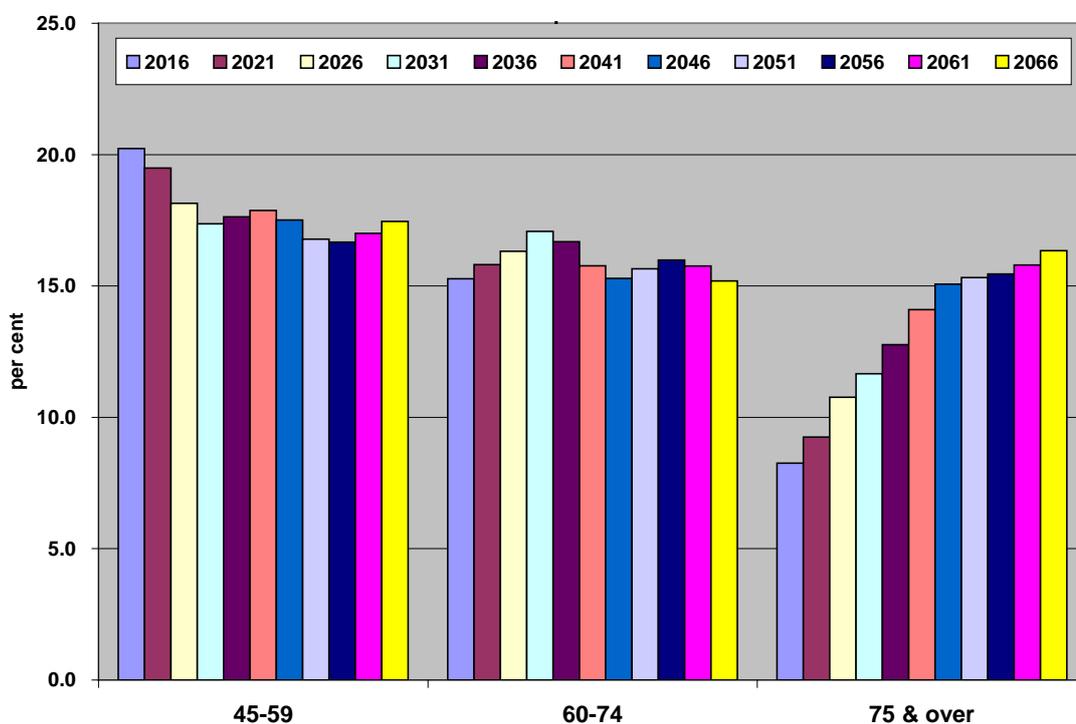
Figure 9. Projected change in population numbers, 2011-2036, by 5-year periods, for the region/size types of cities of Great Britain, in thousands for the period



The other perspective relates to the passage of the baby-boom cohorts through the higher age groups. To examine this not just to 2037 but up to the end of the Foresight horizon, it is necessary to revert to the national population projections. Figure 9 shows how the importance in the total population of the three 45+ age groups shown alters at five-year intervals from the projection for 2016 through to that for 2066. The 45-59 age group has already peaked by 2016, because its mid-point age of 52 represents those born in 1964, the peak of the post-war baby boom. The proportion of 60-74 year olds continues to rise until 2031 and undergoes another uplift after 2046, this being produced by the ‘echo’ effect of the baby-boomers’ children together with the feeding through of the acceleration of immigration in the 1990s and 2000s (primarily by people in their 20s and 30s). Meanwhile, the proportion of those aged 75+ rises very steadily

until 2056, not just because of the progress of the baby-boomers but also because this is where the main impact of increasing life expectancy is felt. In this longer-term perspective, therefore, before the end of Foresight’s ultimate horizon of 2065, the pace of population ageing has slowed significantly. Of course, if the scale of immigration or the birth rate were to move above the assumed level for this central projection or if life expectancy were to rise more slowly than expected, then the pace of population ageing would have slowed even further by this stage; or alternatively – under the obverse of these assumptions – it could have accelerated. While Figure 9 relates to the whole UK, for its cities the trends are likely to be very similar, given that they make up an increasing majority of the UK’s total population and also that their ageing trends through to 2037 have followed the national pattern quite closely, if in a somewhat muted way.

Figure 9. Projected change in the share of total UK population accounted for by the older age groups, 2016-2066



7.A note on data sources

As outlined in the introduction, the above analyses are based on the latest available official population projections produced by the national statistical agencies. These are 2012-based for England and Scotland and 2011-based for Wales. As Northern Ireland's are still the 2008-based ones (with the 2012-based ones scheduled for later this year), these have not been used here. The analysis has also drawn on the 2011 population estimates for England and Scotland in order to calculate projected population change 2011-2036 for the whole of Great Britain on a consistent basis.

These data sets are Crown copyright. They have been downloaded by permission from the relevant web pages of the three national statistical agencies, as follows:

www.ons.gov.uk/ons/rel/npp/national-population-projections/2012-based-projections/stb-2012-based-npp-principal-and-key-variants.html

www.ons.gov.uk/ons/rel/snpp/sub-national-population-projections/2012-based-projections/stb-2012-based-snpp.html

www.ons.gov.uk/ons/rel/pop-estimate/population-estimates-for-england-and-wales/mid-2012/mid-2012-population-estimates-for-england-and-wales.html

<https://statswales.wales.gov.uk/Catalogue/Population-and-Migration/Population/Projections/Local-Authority>

www.gro-scotland.gov.uk/statistics/theme/population/projections/sub-national/2012-based/



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