Article

Understanding towns in England and Wales: an introduction

The first in a series of articles that provide new data and analysis on towns in England and Wales, to help inform policy.

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Correction

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There was an error in the quadrant categorisations within the data download associated with Figure 5. These have now been corrected. The data shown in Figure 5 and the data values in the data download were not affected by the error.
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1. Main points

This article is the first in a series in which the Office for National Statistics (ONS) will provide new data and analysis on towns in England and Wales.

The analysis includes 1,186 urban areas with a population between 5,000 and 225,000. These "towns" were home to approximately 32.6 million people in 2017, covering more than half (56%) of the population in England and Wales.

The average employment rate of residents in towns in 2017 was slightly higher (75.7%) than the average for England and Wales overall (74.9%). The rate was highest for small towns (77.3%) and lowest for large towns (74.3%).

Within England, deprivation levels in towns were slightly lower than in non-town areas, with 28% of the town population living in the 30% most deprived English neighbourhoods, compared with 33% of non-town residents.

When analysing towns, it can be useful to distinguish between towns that have high levels of jobs and others that are more residential in nature. Both these types of towns can have either high or low levels of income deprivation among residents.

Between 2009 and 2017, 49% of towns had employment growth above the average for England and Wales, but only 30% of towns had population growth above the England and Wales average.

Employment declined between 2009 and 2017 in 26% of towns, most commonly among residential towns with higher levels of income deprivation.

Population declined between 2009 and 2017 in 14% of towns, most commonly among residential towns with lower levels of income deprivation.

2. Introduction

This article is the first in a series in which the Office for National Statistics (ONS) will be providing new data and analysis on towns in England and Wales. Policy interest around towns has been increasing recently and it is important that data and analysis are available to inform emerging thinking on the topic.

One challenge in examining towns is how to provide an analysis that captures their considerable diversity. For example, some towns are among the most prosperous places in the country for residents to live, while others are sometimes described as "left behind". Equally, some towns are centres of local economies, home to many local jobs, while other towns are largely residential, home to many out-commuters or retired people.

One aim of this article is to suggest an approach to analysing towns that looks both at their workplace and residential aspects. This can help illustrate the differences between towns, both in the functions they have and the inequalities between them.

The article also looks at evidence on recent growth in towns, providing data on both population and employment growth since 2009. Knowledge of which towns have been growing and which have not can help differentiate the experiences of different towns and inform appropriate policies.
This first article provides a short introduction and some initial data and analysis. We will follow up with additional articles, looking in more detail at how towns are progressing, using data on demographics, economy, health and a range of other topics.

3. Things you need to know about this release

Towns definition

Typically, official statistics are published using a number of standard geographies, with these usually following administrative boundaries. For example, data are published at local authority level or aggregated up from local authority level to provide data for local enterprise partnerships or combined authorities. Local authority data are not suitable for investigating the topic of towns, as many local authorities include a number of different towns as well as encompassing rural areas and sometimes large urban conurbations.

Analysis of towns requires a geography more closely associated with the boundaries of towns themselves. The best approach to this in England and Wales is to use a version of the ONS 2011 Built-up areas – methodology and guidance (PDF, 682.8KB) subdivision geography. We have used it for this purpose previously, for example, in an analysis of Major Towns and Cities in 2016, and a census analysis of coastal communities in 2014.

Using built-up area subdivision boundaries (or built-up area boundaries where no subdivisions exist), 1,082 urban settlements in England, and 104 in Wales have been identified (from Census 2011) with populations ranging from 5,000 to 225,000. These boundaries do not follow administrative areas but instead define the urban extent of a “town” and not surrounding areas. These 1,186 places are being used as our list of towns for this analysis.

It needs to be recognised that this is a statistical approach to examining towns, and that not every place in the list will have ‘town’ status. Some of the smaller places included will be villages, and there will be quite a few of the larger places included that are small cities. However, the aim has been to make sure as many towns as possible are included within the analysis and for statistical analysis it makes sense to group these medium sized urban settlements together. We chose the upper population limit of 225,000 to include the largest towns in the country, namely Reading and Northampton.

Table 1 splits 1,186 towns into three size bands used in the analysis. It shows that there are 91 large towns with a population above 75,000, 347 medium-sized towns with a population between 20,000 and 75,000, and 748 small towns with a population between 5,000 and 20,000.

Table 1: Urban settlements used in the towns analysis, England and Wales

<table>
<thead>
<tr>
<th>Size (population Census 2011)</th>
<th>Counts</th>
<th>% of all towns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Small 5000 – 20 000</td>
<td>748</td>
<td>63</td>
</tr>
<tr>
<td>Medium 20 000 – 75 000</td>
<td>347</td>
<td>29</td>
</tr>
<tr>
<td>Large 75 000 – 225 000</td>
<td>91</td>
<td>8</td>
</tr>
</tbody>
</table>

Source: Census 2011

This analysis does not include any towns within Greater London because the built-up areas geography does not provide subdivisions within the London area. The built-up areas geography is also not defined for Scotland or Northern Ireland. Instead, Scotland has its own definitions of urban areas, known as settlements and localities. These could be used for a similar type of towns analysis for Scotland but, because the underlying definitions differ to those in England and Wales, it is not possible to make direct comparisons. Therefore, our towns analysis is focused on England and Wales only.
4. Results – towns overall

In 2017, there were approximately 32.6 million people living in towns, more than half (56%) of the population in England and Wales. The average employment rate of residents in these towns in 2017 was slightly higher (75.7%) than the average for England and Wales overall (74.9%), with the rate highest for small towns (77.3%) and lowest for large towns (74.3%).

Analysing the most recent Index of Multiple Deprivation (IMD) for England from 2015 shows that 9% of neighbourhoods (as defined by Census 2011 Lower layer Super Output Areas) in towns are in the most deprived decile in England compared with 11% for non-town areas. Similarly, 28% of neighbourhoods in towns are within the bottom three deciles of the IMD compared with 33% for non-town areas.

These initial data suggest that towns overall are not disadvantaged relative to non-town areas, with employment rates in towns slightly higher and deprivation slightly lower than in non-town areas. However, as discussed in the introduction, there is a lot of variability between towns, and the next section begins to examine these disparities.

5. Results – describing towns

When considering economic and social data about places it is often useful to consider them from both a workplace and residential viewpoint. Commuting effects and residential patterns of non-workers, for example retired and unemployed people, mean that the income of residents in a town and the state of its economy are not always directly correlated. Considering both aspects, rather than focusing on just one, can lead to a more useful description of a place.

For example, consider a town that is a significant location for jobs. It may be that this availability of local employment would be reflected in the town having high average incomes amongst its residents. However, it is also possible, that many of these jobs could be filled by commuters, and that average incomes amongst its residents could be low whilst incomes in a nearby town with fewer local jobs but many resident out-commuters could be much higher.

Our view, therefore, is that observing both the workplace and residential characteristics of towns is a good first step towards understanding the different types of towns and comparing the economic and social disparities between them.

In Figure 1, all 1,186 towns are plotted against a workplace measure (job density) on the y-axis and a residential-based measure (income deprivation) on the x-axis.

The job density measure shows the number of jobs in the town as a proportion of residents aged 16 to 64 years. For example, a value above one shows that there are more jobs in the town than there are residents of traditional working age, while a value below 0.5, would suggest that many residents may commute elsewhere for work or be economically inactive.

The income deprivation measure, meanwhile, is taken from the income deprivation domain of the English Index of Multiple Deprivation (IMD)\textsuperscript{1} and the Welsh Index of Multiple Deprivation (WIMD)\textsuperscript{2}. The measure is based on the proportion of the residential population in a town experiencing deprivation relating to low income\textsuperscript{3}. For each country\textsuperscript{4}, the towns have been ranked based on the income deprivation score and placed into deciles, with the towns with the highest average score of income deprivation in decile 1 and the towns with the lowest average score of income deprivation in decile 10.

A grid\textsuperscript{5} that splits Figure 1 into nine segments has been added to help sort and explain the data. We will focus on the four corner segments, as these describe four different types of towns.
Towns in the bottom left segment are towns where job density is low and the level of income deprivation is high. In subsequent charts and tables, the towns in this segment will be grouped as "higher deprivation residential". This group includes towns such as Deal, Maesteg and Stainforth.

The towns in the top left segment are also towns with relatively high levels of income deprivation among residents. However, they are also towns with a high job density. Therefore, this group will be described as "higher deprivation working" towns. This group includes towns such as Totnes, Walsall and Barrow-in-Furness.

In the top right segment are towns that have a high job density, reflecting a high level of local jobs relative to working-age population, and also a relatively low level of income deprivation among residents. We will term this group "lower deprivation working" towns. This group includes towns such as Solihull, Woking or Guildford.

The bottom right segment is a group of towns in which income deprivation among residents is low, while job density is also low. We term this group "lower deprivation residential" towns. This group includes towns such as Heswall, Bishop's Waltham or Ramsbottom.

To summarise, based on the vertical axis showing job density, we term towns to be either "working" or "residential". Using the horizontal axis we have separated towns with lower levels of income deprivation from towns with higher income deprivation based on the average income deprivation score in the Index of Multiple Deprivation. This has led to the four different groups described and will enable further analysis of disparities in the socio and economic character within those groups.

Data for towns not included in these four groups can be found in Figures 1 and 5, and in the spreadsheets accompanying the maps.

**Figure 1: Larger towns tend to have higher job density and deprivation**

Analysing towns by comparing workplace characteristics (job density) and residential characteristics (income deprivation), England and Wales, 2009 to 2017

Data download


**Notes:**

1. Percentiles of income deprivation are relative to each country, that is, Percentile 1 of England is not the same as percentile 1 of Wales.

2. Job density is taken as Employment (BRES) plus Self Employment (APS) over those aged 16 to 64 years (Mid Year Population Estimates).

3. English income deprivation is aggregated from Lower layer Super Output Area (LSOA) to BUA/BUASD using the methodology outlined in Appendix A of the English indices of deprivation 2015 Research Report.

4. Welsh income deprivation is published at BUA/BUASD level by StatWales.
In total, 65% of all towns are found within one of the four corner quadrants. Figure 2 shows how the towns are spread across the different groups both as number of towns, and population and employment.

**Figure 2: Working towns have a higher share of employment compared with population**

*Share of population and employment in towns, by town group, England and Wales, 2017*

The number of towns in each grouping are relatively similar. However, the share of population is not evenly split, with population share highest among the “higher deprivation working” group and lowest among the “lower deprivation residential” group. This reflects the fact that “higher deprivation working” towns are more likely to be large towns or medium-sized towns than the other groups, while the “lower deprivation residential” group includes a high share of small towns.

The employment share reflects both this population breakdown and the split between the “working” and “residential” towns based on job density. So, 59% of employment is within the two “working” groups compared with 49% of population, while 10% of employment is within the two “residential” towns groups compared with 18% of population.

An important use of the four groups highlighted is to allow for an examination of the disparities and differences between the towns grouped in the four categories. In our follow-up articles we will explore a range of examples of the differences in average economic and social characteristics between the four groupings of towns. For this initial article, we show one example to illustrate the approach.
Figure 3 shows the economic inactivity rate by reason for 16- to 64-year-olds for each of the four town groupings discussed. The data for inactivity because of long-term sickness illustrate the disparity between different towns. In the lower deprivation working group of towns, less than 3% are economically inactive long-term sickness, but this rises to over 7% in the higher deprivation residential group of towns. The data here illustrate that long-term sickness is more common in the higher deprivation towns compared with the lower deprivation towns, but it also shows slightly higher values in the residential compared with working towns (for given income groups).

Another interesting finding from Figure 3 is the share of retired people among 16- to 64-year-olds, which is highest in the lower deprivation residential grouping of towns.

Figure 3: Higher deprived areas have a higher proportion of inactivity due to long-term sickness and looking after the family

Reason for inactivity, ages 16 to 64 years, England and Wales, 2017


Figure 4 illustrates all 1,186 towns, showing their location and the segment they fall into based on the above analysis. Towns that do not fall into one of the four corner segments being analysed are labelled “other”. Analysis of the location of the towns in the different groups shows that northern regions of England have a relatively high proportion of higher deprivation towns, both working and residential. By contrast, the South East has a relatively high share of the lower deprivation working towns.

Elsewhere, the South West region has a relatively high share of higher deprivation working towns while both the East Midlands and the West Midlands have a relatively even spread of the different types of towns. In the East of England, there is a higher share of both working groups compared with the residential groups, while the opposite is true for Wales.
Figure 4: Towns grouped by workplace (job density) and residential (income deprivation) characteristics, England and Wales, 2017

Data download


Notes:

1. Percentiles of income deprivation are relative to each country, that is, Percentile 1 of England is not the same as percentile 1 of Wales.

2. Job density is taken as Employment (BRES) plus Self Employment (APS) over those aged 16 to 64 years (Mid Year Population Estimates).

3. English income deprivation is aggregated from Lower layer Super Output Area (LSOA) to BUA/BUASD using the methodology outlined in Appendix A of the English indices of deprivation 2015 Research Report.

4. Welsh income deprivation is published at BUA/BUASD level by StatWales.

5. The map includes urban settlements that had population, measured in the 2011 Census, between 5,000 and 225,000. In addition to towns, it therefore includes some large villages, small cities and other urban settlements with population within this range.

Notes for: Results – describing towns

1. The English Index of Multiple Deprivation is a measure of multiple deprivation based on combining seven distinct domains of deprivation. For more detailed information on the English Index of Multiple Deprivation 2015 please see The English Indices of Deprivation 2015 research report (PDF, 3.4MB).

2. WIMD is currently made up of eight separate domains (or types) of deprivation. Each domain is compiled from a range of different indicators. More detailed information on the Welsh Index of Multiple Deprivation 2014 (PDF, 18.2MB) is available.

3. The definition of income deprivation used includes both those people that are out-of-work, and those that are in work but who have low earnings (and who satisfy the respective means tests).

4. English towns are ranked relative to the English IMD and Welsh towns ranked relative to the Welsh IMD. They have been shown together on Figure 1 for ease of illustration in terms of highlighting both English and Welsh towns in the corner segments. However, it should be noted that these IMD rankings are calculated relative to the separate English and Welsh averages and the English and Welsh scores on the horizontal IMD axis are not directly comparable.

5. The full nine segments of the grid include a "mixed" group between "residential" and "working" and a "medium deprivation" group between "high deprivation" and "low deprivation".

6. The level of income deprivation in a town is calculated as the weighted average of the income deprivation scores in the LSOAs within the town.
6. Results – employment and population growth

This section examines recent population and workplace employment growth across the 1,186 towns. In doing so, it adds some analysis of change over time to the descriptive analysis from the previous section.

Figure 5 shows a scatter plot of population growth on the vertical axis against employment growth on the horizontal axis for the period 2009 to 2017. The figure illustrates that 64% of the towns in the analysis have experienced both population and employment growth over the period while 4% of towns have experienced a decline in both population and employment.

Figure 5: 64% of towns experienced both population and employment growth

Employment and population growth, England and Wales, 2009 to 2017

Data download


The towns in Figure 5 are also shown in Figure 6. They have been labelled depending on whether they have had growth in employment and population; growth in either population or employment only; or declines in both.

Figure 6: Employment and population growth in England and Wales, 2009 to 2017

Data download


Notes:

1. The map includes urban settlements that had population, measured in the 2011 Census, between 5,000 and 225,000. In addition to towns, it therefore includes some large villages, small cities and other urban settlements with population within this range.

To consider these results further, population and employment growth in each town can be compared with the average growth in England and Wales over the 2009 to 2017 period (6% for population and 10% for employment). Overall, 49% of towns had employment growth above the England and Wales average, but only 30% of towns had population growth above the England and Wales average during the period.

Figure 6 shows more detail on population growth by town using the groupings described in the previous section. It shows that most towns had population growth between 0% and 6% during the 2009 to 2017 period where 6% was the England and Wales average. Population declined over this period in 14% of towns; with declining population more common among the “residential” towns compared with “working” towns and most common among the lower deprivation residential towns, of which 26% experienced population decline.
Figure 6 shows that towns that had population growth above the England and Wales average were more common among “working” towns than the “residential” towns. The towns with lower income deprivation were the most likely to have the highest population growth, of more than 12%.

**Figure 7: More residential towns have experienced declining populations compared with working towns**

Population change, England and Wales, 2009 to 2017

Figure 7 provides more detail on employment growth by town. Compared with population, a greater proportion of towns experienced above average growth for employment; 49% of towns had growth above the 10% average seen in England and Wales in the 2009 to 2017 period. There was more variability in the employment change data, compared with population data, with a greater share of towns having over double the growth rate of England and Wales but also a greater share of towns experiencing an employment decline.

Source: Office for National Statistics - Mid Year Population Estimates
Figure 8: Lower deprived towns have the largest share of towns, growing at twice the England and Wales average for employment

Employment change in England and Wales, 2009 to 2017

Declining employment was highest among the higher deprivation residential towns with 39% experiencing a decline in employment. In general, declining employment growth was more common among the “residential” towns than the “working” towns and more common among the “higher deprivation” towns than the “lower deprivation” towns.

There were many towns with strong employment growth over the period. For example, 26% of the higher deprivation residential towns experienced employment growth over 20% (double the England and Wales average) over the 2009 to 2017 period. This share rose to 37% to 38% among the lower deprivation towns.

Overall, the results from Figures 7 and 8 show that in many cases the “residential” or “working” status of a town has been a larger indicator of whether it experienced strong population and employment growth over the 2009 to 2017 period than the relative level of income deprivation in the town. This was particularly the case for population growth where it was the lower deprivation residential towns which had the greatest share of towns with declining population. The levels of deprivation in a town had more effect on employment growth and on population growth, with growth higher in towns with lower deprivation.

Notes: Results – employment and population growth

1. Employment growth based on total number of working proprietors and employees and excluding farm agriculture. Source: Business Register and Employment Survey.