Demography Update

JSNA Insight Pack

September 2019
The Northamptonshire JSNA

From 2019 the Northamptonshire JSNA will consist of a collection of three types of presentation, an Insight Pack, a JSNA Briefing Document and an In-Depth Needs Assessment. Definitions of these products are below. In addition other work that compliments the JSNA, or is of interest or is similar to the three types of product mentioned will be published alongside the JSNA products if it is appropriate and helpful to do so.

This is a JSNA Insight Pack focused on the demography of Northamptonshire.

**Insight Pack**

An Insight Pack will highlight the key facts and local needs about a particular subject. This will be presented, where possible, in a very visual format with charts and infographics and will include relevant data produced with comparisons.

There will be a short narrative accompanying this which will provide an overview of the subject. This may result in recommendations for further, more detailed work in the JSNA programme.

**JSNA Briefing Document**

A JSNA Briefing Document is designed to provide an overview of a subject area, usually accompanied by an Insight Pack (though not all Insight Packs will be accompanied by a Briefing Document).

The Briefing Document will summarise the local needs, risk factors, current services in place, evidence to support commissioners and considerations and recommendations for local commissioning. This product may result in recommendations for more detailed analysis and/or an in-depth Needs Assessment.

**In-Depth Needs Assessment**

An In-Depth Needs Assessment will include a detailed analysis of the subject area. Typically this can take up to 6 months to deliver and will usually only be completed if it is either clear at the outset that one is required or a JSNA Briefing Document has been completed that recommended an In-Depth Needs Assessment be delivered.

Each full needs assessment will be delivered by a working group and truly delivered in partnership across all relevant organisations for the subject area.
Summary

Northamptonshire has undergone significant changes in population in the past 30 years with a nearly 30% increase in overall population. Like other areas of the country, the county has also seen increase in life expectancy resulting in a greater proportion of the population in the over 65 age range. The overall change has a profound impact on the delivery of services.

This JSNA Insight Pack provides headlines of population change and projections that provide an indication of the future size and age structure of the population based on mid-year population estimates and a set of assumptions of future fertility, mortality and migration. Throughout this document there are links to the source data tables to enable specific age groups, locations or characteristics to be modelled to support individual needs.

If you require support with specific population estimates or projections then please contact the JSNA team to see if we can assist.
Population Size

Latest estimates put Northamptonshire’s population at 747,622 people (all ages) in 2018 (ONS mid-year estimates), up from 741,209 in 2017 (or +0.86%) and 691,952 in 2011 (Census year) (or +7.72%).

The county has had above (national) average population growth in recent decades, to varying degrees across the county (see below table). In the past 10 years the population of Northamptonshire has grown by an estimated 9.4% versus a 7.2% England average. If we look back over the past 30 years the growth gap is even greater with an estimated increase of 29.9% between 1989 and 2018 in Northamptonshire compared with 17.7% across England.

Most recently the highest rates of population growth have been in Corby, with a growth of 20% in the past 10 years, this is also high nationally with Corby having the 5th highest estimated growth of all 383 district/unitary authority areas.

All districts in Northamptonshire have increased in growth at a greater rate than the England average over the past 30 years.

When looking at the proposed unitary council splits for Northamptonshire whilst the population is considerably larger in the west unitary area (+56,600) the north unitary area has seen a greater increase in recent years (+2.4% points higher in the past 10 years) and will continue to grow at a greater rate than the west unitary area.

The mid-year 2018 population estimates for Clinical Commissioning Group areas will be released in October 2019, once that has been released this profile will be updated to include that geography.
Population Size

As stated on the previous page the population of Northamptonshire has grown at a faster rate than the national average over the past 30 years and is predicted to continue to grow at a greater rate over the medium term from 2018 to 2041. The county as a whole is predicted to increase by 14% or 104,900 people over this period. The growth rate over the county differs considerably by area, viewing the change within the two proposed unitary areas the growth rate is predicted to be 12.8% or 51,500 people in the west unitary area and 15.5% or 53,400 in the north unitary area. The predicted change is more varied when looking at the existing district boundaries, with Corby predicted to see an increase of 26.8% over this period and Daventry much lower at 7.6% increase.

All population data, estimates and projections are sourced directly from the Office for National Statistics (ONS). There are breakdowns in the population by age, gender, ethnicity, rurality and more on further pages within this document.

If you require some bespoke population data you can either see the detailed ONS estimates and projections data (see links on the final page of this document) or contact the JSNA team to see how we can support you.
Population Size – GP Registered

Patients that are registered at GP practices in Northamptonshire aren’t always resident within the county. Given the geographic layout of the county with borders to eight other upper tier authorities it is not unusual for patients registered at Northamptonshire GPs to live outside of the county or for county residents to be registered with a GP in a different local authority area, especially in more rural locations at the extremities of the county border or smaller communities close to an urban centre in a different area.

Data published by NHS Digital on a monthly basis updates the GP registered population at a Clinical Commissioning Groups (CCG), GP practices, regions and Sustainability & Transformation Partnerships (STP) level allowing for more accurate population information relevant to those areas.

The latest data available at the point of writing is a snapshot of the GP registered population as of the August 2019, this data shows that there is a greater number of patients registered at GP practices than are estimated to live in Northamptonshire (ONS mid-year 2018 estimates) as a whole, however when comparing the 0-19 and 65+ population groups there are less registered than estimated to live within Northamptonshire. A contributory factor to the difference in the working age population could be due to higher levels of working age migrants, particular those here for short term employment within the county. Working age migrants are unlikely to have children or older relatives with them.
Population Size – GP Registered

The below charts provide an age breakdown of 5-year age groups of the current GP registered populations for Northamptonshire and the two major CCGs within the county boundary, alongside these are the proportions within each age group for that geographical area. Whilst the patterns are similar for both CCGs there are obvious differences in the 30’s age group, which Corby CCG has a greater proportion and also at the 65+ age groups where Nene CCG has greater proportions of its population.

Note: the ONS mid-year 2018 estimates for CCG area are not yet published therefore direct comparison in line with the previous page not yet possible.
Population Age & Gender

It is projected in the next 10 years that the population groups with the biggest increases in Northamptonshire will be the over 50’s population (due to post war spike in birth rate, increasing life expectancy and the 1960’s baby boom) and also in the 10-19 year olds (due to spike in fertility rate in early 2010s), the rate of the increase in each of these groups is greater in Northamptonshire than the national average.

It is important to note that in the 10 years to 2026 the 0-4 year population group is predicted to slow and at a greater rate in Northamptonshire (-5.26%) vs the national rate (-3.33%).

Charts with changes year on year between 2016 and 2026 for each 5 year age group can be found in the appendix.

Source: ONS 2016-based subnational population projections
Population Age & Gender

The population pyramid shows the age and population of Northamptonshire as estimated for mid-2018. Several events have affected the structure of the UK population in 2018. These are reflected in the Northamptonshire population;

- a larger number of 70 year olds due to the spike in births after the end of World War 2.
- the effects of the 1960s baby boom now seen in the larger number of people in their mid 40s to mid-50s and the children of the baby boomers now seen in the higher number of people in their 20s.
- low fertility in the 1970s and early 2000s now seen in lower populations of people in their early 40’s and early-mid teens.

In terms of broad dependant groups it is estimated that Northamptonshire will see the following trends to 2026;

- a higher than average increase in the 0-19 population (7.22% vs 6.00%), resulting in an increase in pressure on school places, particularly in the North Unitary area. There is further data available later in this document within the births & fertility section.
- a higher than average increase in the over 65 population (25.89% vs 19.38%), adding additional pressure into adult social care, particularly as the greater proportion of over 65’s are living in more rural areas.

Source: ONS Population Estimates Analysis Tool 2018
Population & Ethnicity

The Equality Duty Information Report for Northamptonshire 2019 details the latest data (2011 Census) with regards to the ethnic structure of Northamptonshire. It shows that within the county, the majority of the population in 2011 (91.5%) fell within the White ethnic group. The remaining 8.5% are residents who describe themselves as Asian (4%), Black (2.5%), of Mixed Ethnic origin (2%), and those of Other Ethnic group (0.4%). It shows that since the previous Census in 2001 there had been an increase in non-white ethnic groups of 3.5%.

It is also relevant to note a change within the population who describe themselves as ‘white’. This is where the biggest change has occurred. A more rapid change in the number and proportion of those who describe themselves as ‘White Other’ becomes evident between 2001 and 2011.

‘White Other’ means not White British, Irish or Gypsy or Irish Traveller and therefore captures change within the predominantly ‘White’ EU population.

Between 2001 and 2011 the proportion of the population who described themselves as ‘White Other’ (see pie-charts above) increased from a below (England) average position of 1.8% up to 4.7% (similar to the 2011 England average). This represented a 186% increase for Northamptonshire, versus a 86% England average increase. This varied significantly across the county, with a high of +456% in Corby and low of +18% in South Northamptonshire.

For more information on where non-white ethnic groups live in the county, ethnicity of carers, the number of people for whom English is not their main language and breakdown of religions in the county, and more, please see the Equity Duty Information Report for Northamptonshire County Council 2019.

Recent uplifts in population growth in the UK have generally coincided with an increase in the number of countries holding EU membership. The upcoming planned Brexit date will have an impact on this trend, but the extent wont be known until recorded data becomes available.
Population & Rurality

Northamptonshire has an estimated population of 747,622. Approximately 31% of the county’s population lives in the densely populated town of Northampton. In total, 68.8% of the county’s population live in ‘urban city and town’ areas, 20.1% in areas classified as ‘rural town and fringe’ and 11.1% in ‘rural villages and dispersed’ (source: ONS).

A higher proportion of children live in the more urban areas than in the more rural areas. In contrast, a higher proportion of people aged 65 and over live in the more rural areas compared to the more urban areas, which brings with it challenges in relation to access to services, delivery of services and dispersed populations.

For more information and resources covering rural issues then please visit:

- Rural Services Network Observatory
- State of Rural Public Services Report
Components of Population Change

Life Expectancy
The changes in life expectancy have either reached a plateau, or have reduced in the most recent data. Female life expectancy in particular has decreased or remained static in all areas of the county. Male life expectancy on the other hand has continued to increase in the majority of the county, but remains on average over 3 years behind female life expectancy.

Healthy Life Expectancy
Healthy life expectancy (HLE) represents the number of years a person would expect to live in good health based on current mortality rates and prevalence of self-reported good health. The latest data available shows that the HLE at birth for females is 62.7yrs which is below the national average of 63.8yrs. For males the HLE at birth is 65.2yrs, which is above the national average of 63.4yrs. When looking at life expectancy and HLE together there is a clear difference between male and females when looking at the number of years of life that are lived not in good health - male (14.3yrs) and females (20.1yrs).
Components of Population Change

As evidenced by the ONS, ‘there are 4 ways that the (UK) population changes: people are born, they die, they move in or they move out’.

The latest ONS population estimates for mid-2018 show the components that make up the growth of the population since the data was last updated for mid-2017 estimates. The proportions that affect change in population vary greatly across the country where different areas are impacted by fertility and migration impacts in differing ways. We see that the UK migration in the East Midlands as a whole is much greater than in Northamptonshire (see below chart), which see’s a far greater proportion of change coming from natural change (the difference between births and deaths).

<table>
<thead>
<tr>
<th>Component proportions in estimated population change</th>
<th>Mid-2017 to Mid-2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>Northamptonshire</td>
<td>33.8%</td>
</tr>
<tr>
<td>East Midlands</td>
<td>35.2%</td>
</tr>
<tr>
<td>England</td>
<td>35.5%</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td>70.5%</td>
</tr>
<tr>
<td><strong>Net International Migration</strong></td>
<td>14.1%</td>
</tr>
<tr>
<td><strong>Net UK Migration</strong></td>
<td>52.4%</td>
</tr>
<tr>
<td><strong>Natural Change (Births less Deaths)</strong></td>
<td>0.0%</td>
</tr>
</tbody>
</table>

Deaths

One of the reasons for the increase in the population is that people are living longer with rises in the older population and more people now living into their 90’s, this often results in longer and more complex care and support requirements.

For example, in the UK in 50 years’ time, there is projected to be an additional 8.2 million people aged 65 years and over in the UK – a population roughly the size of present-day London (Source: ONS Overview of the UK Population August 2019)

Mortality Rate

The age-standardised mortality rate across Northamptonshire as a whole has remained quite static over the past 6 years – the latest year showing a rate of 983.39 vs a rate of 983.44 in 2013. There are differing trends across the county when looking at a district level, Daventry has seen the mortality rate reduce from 973.84 in 2013 to 919.67 in 2018, the largest reduction in the county. However, Wellingborough has seen an increase from 965.62 in 2013 to 1033.32 in 2018.

[Age-standardised mortality rate chart]

Source: Nomis Mortality Statistics
Components of Population Change

Birth Rate
Since 1955 (except in 1976) the number of births in the UK has been higher than the number of deaths. This natural change has resulted in the growth of the population. In the UK, the number of live births each year has varied over the last 60 years. Most noteworthy is the 1960s baby boom, the “echo” of baby boomers having children and latterly, births peaking again in the UK in 2012.

In Northamptonshire the live birth rate in 2017 (latest data) was 12 per 1,000 population (all ages) and is slightly above the national average of 11.6, this has been particularly due to higher than average birth rates in both Corby and Northampton (13.8 and 14 per 1,000 population respectively).

Fertility Rate
In the past 6 years the General Fertility Rate in Northamptonshire has been consistently above the regional and national averages, with the highest rates being in the more urban districts of Corby, Kettering, Northampton and Wellingborough.

The latest available data for 2018 shows the General Fertility Rate was 64.7 in Northamptonshire, compared to 57.1 for the East Midlands Region and 59.2 for England as a whole. Northampton has the highest rate in the county (67.4), whilst the biggest drop in the past year has been seen in Corby (a drop of 6.1, to 64.2), in fact the majority of the North Unitary area (except Kettering) has seen a reduction in the General Fertility rate in the last year.
Components of Population Change

Births to non-UK born mothers
Across Northamptonshire, the proportion of live births to non-UK born mothers reached 30% for the first time in 2018, despite a slight decrease in actual numbers. This proportion (30.1%) ranks the county third out of 32 English and Met County Councils behind the West Midlands and Cambridgeshire. However, over the last 10 years (2008 to 2018) Northamptonshire shows the greatest % point growth in the proportion of live births to non-UK born mothers amongst the 32 English and Met Counties. This change is particularly evident amongst mothers living in Northampton, Wellingborough and Corby. Northampton is ranked highest amongst the 317 borough, district, unitary authorities for % point growth in the proportion of Births to non-UK born mothers over the last ten years (2008 to 2018). For further information please see the Northamptonshire County Council Migration Report.

House Building
A significant driver to new population within Northamptonshire, much like with other areas is also linked to new housing developments. The county has seen 22,280 houses completed in the county between 2011 and 2019, recently that has increased with the past 5 years averaging at 3,360 houses completed per year, peaking at 3,780 houses in the past year.

According to the West and North Northamptonshire Joint Core Strategies there was planned to be between 77,000 and 82,000 houses built across the county between 2011 and 2031. There are many reasons why this number will change over the course of the 20 year period, whatever the final house build numbers look like by 2031 any increasing number will contribute to a change in the demographics of the county and increased pressure on local services.
Components of Population Change

Long-Term International Migration Flows (LTIM)
Following a decrease of Long Term International Migration inflow to Northamptonshire in 2017, the numbers rose again to 7,504 in 2018, giving the county its highest ranking (4th) of the last eight years amongst the 32 English and Met Counties (10.0 LTIM Inflow per 1,000 population). However, 2018 also recorded by far the highest number of persons leaving the UK directly from the county (5,244) since our records began in 2004. This has resulted in a decrease in the net long term international migration to the county, which at 2,260 persons for 2018 is less than half the number of two years ago. As a result, Northamptonshire has dropped down the county rankings for net LTIM per 1,000 population from 2nd place for the years 2014 to 2017 to 9th place in 2018. Recent patterns of LTIM flows in both of the proposed unitary authorities are similar to Northamptonshire as a whole, albeit with lower numbers in the ‘north’ than in the ‘west’. For further information please refer to Northamptonshire County Council’s August 2019 migration report.

Short-Term International Migration (STIM)
STIM inflow covers persons arriving or returning from abroad to take up residence in a country for a period of between 1 month and 12 months but excludes visits for “purposes or recreation, holiday, visits to friends and relatives, business visits, medical treatment or religious pilgrimage”. Despite a drop in migrant numbers back to 2015 levels, the STIM rate of 3.81 per 1,000 population in 2017 still ranks Northamptonshire in third place behind Oxfordshire and Cambridgeshire when compared to the 32 English and Met County Councils. The county has been ranked 3rd for the last four years. The England average is 2.67/1,000 pop. Northampton has consistently been in the first decile amongst the Borough-District-Unitary (BDU) authorities.
Components of Population Change

The **Health Deprivation and Disability Domain** within the Index of Multiple Deprivation (ONS) measures the risk of premature death and the impairment of quality of life through poor physical or mental health. The domain measures morbidity, disability and premature mortality, using the following indicators: years of potential life lost; comparative illness and disability ratio; acute morbidity (emergency admission to hospital); mood and anxiety disorders (mood and anxiety disorders, hospital episodes data, suicide mortality data and health benefits data).

Amongst England’s upper-tier local authorities (152), Northamptonshire compares relatively well, ranking 94th (1 being the worst and 152 the best), putting Northamptonshire in the 2nd (best) quartile. However, when compared to other English counties only (arguably greater comparability), Northamptonshire sits 14th out of 26 (see below) putting the county towards the bottom of the 3rd quartile. Consistent with other related datasets there is significant variance within the county.

Within national rankings, Corby is the 46th most deprived Local Authority in England, and South Northamptonshire 309th (out of 326 Local Authorities) with regards to health deprivation and disability (morbidity, disability and premature mortality). The data also shows where within the county’s Districts and Boroughs (see map) are the pockets which are most cause for concern with regards to health deprivation and disability (morbidity, disability and premature mortality). Correspondingly, within the county, Northampton and Corby have the highest concentration of the most deprived Lower Super Output Areas with regards to health deprivation and disability.

Please note: The IMD data is due for refresh in October 2019 and we will produce updated data at that time in a separate document.
References and Acknowledgements

Data tools and additional reports that compliment the Demography JSNA

- Office for National Statistics - Mid-Year Population Estimates
- Office for National Statistics – 2016-based Population Projections
- Office for National Statistics – Birth Characteristics Workbook
- Nomis – 2011 Census data tables
- NHS Digital – Patients registered at a GP practice – Interactive Dashboard
- NHS Digital – Hospital catchment populations – Interactive Dashboard
- Northamptonshire County Council - Migration Report (published in the overview/ demography section)
- Northamptonshire county Council – Projections Tool (based on ONS data) – 2016 to 2026 (published in the overview/ demography section)

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Population Projections – 5 year age groups

**Population Projections - 2016 to 2026**

**Age: 0-4**

- Northamptonshire: 47300
- North Unitary Area: 45000
- West Unitary Area: 21300
- Corby: 5100
- EN: 5900
- Kettering: 6400
- W Boro: 6200
- Daventry: 4200
- Northampton: 16500
- South Northamptonshire: 12200

**Source**: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

Population Projections - 2016 to 2026
Age: 10-14

Population Projections - 2016 to 2026
Age: 15-19

Source: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

Source: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

**Population Projections - 2016 to 2026**

**Age: 40-44**

- Northamptonshire: 55,000
- North Unitary Area: 27,000
- West Unitary Area: 27,000

**Source:** ONS 2016-based subnational population projections

**Population Projections - 2016 to 2026**

**Age: 45-49**

- Northamptonshire: 54,000
- North Unitary Area: 25,000
- West Unitary Area: 22,000

Source: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

Population Projections - 2016 to 2026
Age: 50-54

Population Projections - 2016 to 2026
Age: 55-59

Source: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

Population Projections - 2016 to 2026
Age: 60-64
Northamptonshire: 40,330
North Unitary Area: 21,420
West Unitary Area: 20,210

Population Projections - 2016 to 2026
Age: 60-64
Corby: 7,750
EN: 6,600
Kettering: 7,450
W’Boro: 5,700

Population Projections - 2016 to 2026
Age: 60-64
Daventry: 8,000
Northampton: 10,700
South Northamptonshire: 5,500

Population Projections - 2016 to 2026
Age: 65-69
Northamptonshire: 25,200
North Unitary Area: 20,700
West Unitary Area: 4,500

Population Projections - 2016 to 2026
Age: 65-69
Corby: 6,200
EN: 6,000
Kettering: 5,700
W’Boro: 5,700

Population Projections - 2016 to 2026
Age: 65-69
Daventry: 6,100
Northampton: 7,200
South Northamptonshire: 6,100

Source: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

Population Projections - 2016 to 2026
Age: 70-74

- Northamptonshire: 32,000
- North Unitary Area: 15,000
- West Unitary Area: 17,000

Population Projections - 2016 to 2026
Age: 75-79

- Northamptonshire: 22,000
- North Unitary Area: 11,000
- West Unitary Area: 10,000

Source: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

Population Projections - 2016 to 2026
Age: 80-84

Source: ONS 2016-based subnational population projections
Population Projections – 5 year age groups

Source: ONS 2016-based subnational population projections