Summary Analysis 2018 Sub-national Population Projections to 2043 for Shropshire

Report produced by Information, Intelligence and Insight Team

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Headlines - Shropshire

- Projected population growth of 9% in the short-term to 2028 and projected growth of 19% in the long-term to 2043. By 2043, Shropshire's population is projected to reach 381,500, from 320,300 in 2018.

- England and the West Midlands regional population are projected to grow at a significantly lower rate than Shropshire, both in the short-term and long-term.

- Shropshire's male population is projected to grow by 18%, at a slightly lower level of growth than for females, at 20%.

- The average age in Shropshire is projected to change from 43 years in 2018 to 47 years in 2043. In comparison, nationally the average age will grow from 39 years to 42 years and regionally from 39 years to 41 years.

- The older population (65 years and over) in Shropshire is projected to grow by 63%, from 77,800 in 2018 to 126,500 by 2043. By 2043, this population group will represent a third of Shropshire's population.

- The younger age groups in Shropshire (0-4 years and 5-15 years) are projected to increase by 4% and 10%, respectively, by 2043. By 2043, the early year's population will represent only 4% of Shropshire's total population and the school age population only 10%.

- Shropshire's population growth is entirely fed by net in-migration from within the UK and overseas. Natural change alone (slight decline in births minus rising deaths) is projected to have an increasingly negative impact on population change in Shropshire.

- Changes to the ONS methodology to estimate migration data has resulted in Shropshire's Population Projections (2018 SNPP) being considerably higher than the 2016 SNPP. As a result, some caution should be applied when interpreting the 2018 SNPP.

Introduction

1.1. This Report provides summary analysis for Shropshire, of the Principle 2018 Based Sub-national Population Projections (2018 SNPP) and the four associated 2018 based Variant Projections. The 2018 based SNPP for England were released by the Office of National Statistics (ONS) on the 24th March 2020. The 2018 SNPP extend from 2018 to 2043, however in this population change is also considered from 2018 to 2038, as this is the end of the Shropshire Local Plan period. A follow-up report is available analysing the latest ONS Internal Migration Flows data released in July 2020.

1.2. The 2018 SNPP provide an indication of the possible future size and structure of the population, based on a continuation of recent demographic trends and are produced on a consistent basis across all local authorities in England. The 2018 SNPP use assumptions about future fertility, mortality and migration levels based on recent trends (normally for the last 5 years.) The projections are not forecasts and take no account of policy decisions or circumstances which may affect future demographic trends.

1.3. The projections are usually produced every two years, so the next projections would normally be 2020 based and released in the Spring of 2022. However, the decision has been made to delay the next release by one year, as the first results from the 2021 Census will be released in the spring of 2022. Therefore, ONS propose that the next round of projections should be based on the 2021 population, allowing them to be based upon the updated resident population estimate obtained from the 2021 Census.

1.4. The 2018 SNPP also feed into the production of the 2018 based Subnational Household Projections (2018 SNHP). Together these projections are used by central and local government, health and social care and other organisations to help the long-term planning of public services and planning policy.

1.5. The 2018 Mid-Year Population Estimates (2018 MYE), produced annually by ONS, provide the base year for preparing the 2018 SNPP. ONS are always seeking to improve the quality and robustness of the annual mid-year population estimates and the SNPP. Most recently ONS have sought to improve how they estimate migration by adapting their methodology to introduce a new data source. This has influenced the 2017-2019 mid-year population estimates and led to the 2018 SNPP contrasting significantly with previous SNPP.

1.6. Standard ONS best practice has been to use 5 years of trend data to project forward assumptions about future migration flows. However, for preparing the 2018 SNPP, ONS decided to base future migration assumptions on only two years of migration data (2016-17 and 2017-18) due to the methodology changes. As a result, some caution should be applied when interpreting the 2018 SNPP, as two years of data does not provide a robust trend.

1.7. To better understand the Principle 2018 SNPP, ONS has produced four Variant Projections based on alternative assumptions. These Variants Projections allow users to consider alternative best fit options for their local authority/organisation. Having studied the outcome of the 2018 SNPP, ONS have concluded that *"Looking at the areas with the biggest differences between the principal projection and the alternative internal migration variant, there is some geographic clustering (see Table 3). The areas with the biggest positive percentage differences – meaning those where the principal*

*projection is higher – **tend to be comparatively rural areas with low numbers of students, and are mostly in the Midlands.[1]***

Population Change

1.8. The 2018 SNPP estimate Shropshire's population will grow by 19%, from 320,300 in 2018 to 381,500 in 2043. This is significantly higher growth when compared with projected growth of 10% for England and 14% for the West Midlands region.

1.9. In the short-term, Shropshire's population is projected only to grow by 9% to 349,600 by 2028, again lower levels of growth are projected nationally (5%) and regionally (6%).

Table 1: Projected Population Growth

		Shropshire	West Midlands	England
2018		320,300	5,900,800	55,977,200
2023		335,900	6.098,000	57,557,500
2028		349,600	6,263,000	58,751,600
2033		361,400	6,415,800	59,792,000
2038		371,900	6,562,400	60,766,300
2043		381,500	6,708,200	61,744,100
Change 2018-2028	No.	29,300	362,200	2,774,400
	%	9%	6%	5%
Change 2018-2043	No.	61,200	807,400	5,766,900
	%	19%	14%	10%

NB: Figures have been rounded so may not sum

The 2018 Subnational Population Projections and Comparison to Previous Projections.

1.10. Table 2 shows the 2014, 2016 and 2018 based SNPP alongside the 2014, 2016 and 2018 subnational household (SNHP) between 2018 and 2038 (Shropshire Local Plan period). It can be seen that the 2014 population projections for Shropshire show a 7% increase in population by 2038, rising from 315,000 in 2018 to 338,100 in 2038, a rise of 23,100 people. There was also a corresponding rise of 12% in the 2014 household projections by 2038.

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[1] Section 3.The results: impact of the different migration trend lengths (ONS) https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/articles/impactofdifferentmigrationtrendlengths/march2020

1.11.   In comparison, the 2018 projections show Shropshire's population is projected to rise by 16% from 320,300 in 2018 to 371,900 by 2038. This is an increase of 51,600 people and more than double the increase projected in the 2014 based SNPP.

1.12.   The 2018 SNPP show nearly twice the level of population growth in Shropshire compared to national growth of only 9% (table 3). The 2018 based SNHP were published on the 29th June 2020, estimating household growth of 24% during 2018-2038, compared to only 13% nationally.

1.13.   It is worth noting that in developing local planning policy, National Planning Policy Guidance (NPPG) currently requires local planning authorities to apply a standard methodology for calculating housing need within their area. NPPG states *"the 2014-based household projections are used within the standard method to provide stability for planning authorities and communities, ensure that historic under-delivery and declining affordability are reflected, and to be consistent with the Government's objective of significantly boosting the supply of homes.[2]"* Following the current consultation on reforming the planning system[3] it is proposed that the most up-to-date SNHP should be used to inform the revised standard methodology i.e. the 2018 Principle SNHP.

1.14.   As already highlighted, the 2018 SNPP and SNHP show a significantly higher increase in population and households compared to the previous 2014 and 2016 Projections. If the reforms are implemented this could impact on future planning strategies and planning for housing in Shropshire. The 2018 SNPP estimate Shropshire's population will rise by 19% (61,200 people), reaching 381,500 people by 2043 (Table 1). In parallel, the 2018 SNHP estimate the number of households in Shropshire will grow by 28% (39,200 households), reaching 178,200 households by 2043 (Table 1).

Table 2: Shropshire Projected Growth 2018-2038

	2018	2038	Change	% Change
2014 SNPP	315,000	338,100	23,100	7%
2014 SNHP	137,800	154,700	16,900	12%
2016 SNPP	316,700	336,100	19,400	6%
2016 SNHP	137,600	155,500	17,900	13%
2018 SNPP	320,300	371,900	51,600	16%
2018 SNHP	139,000	171,900	32,900	24%

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[2] National Planning Policy Guidance (NPPG) Why are 2014-based household projections used as the baseline for the standard method? (Paragraph: 005 Reference ID: 2a-005-20190220, Revision date: 20 02 2019) Ministry of Housing Communities and Local Government (MHCLG) - https://www.gov.uk/guidance/housing-and-economic-development-needs-assessments
[3] Changes to the Current Planning System Consultation (MHCLG) (page 13, Paragraph 27) - https://www.gov.uk/government/consultations/changes-to-the-current-planning-system

Table 3: England Growth 2018-2038

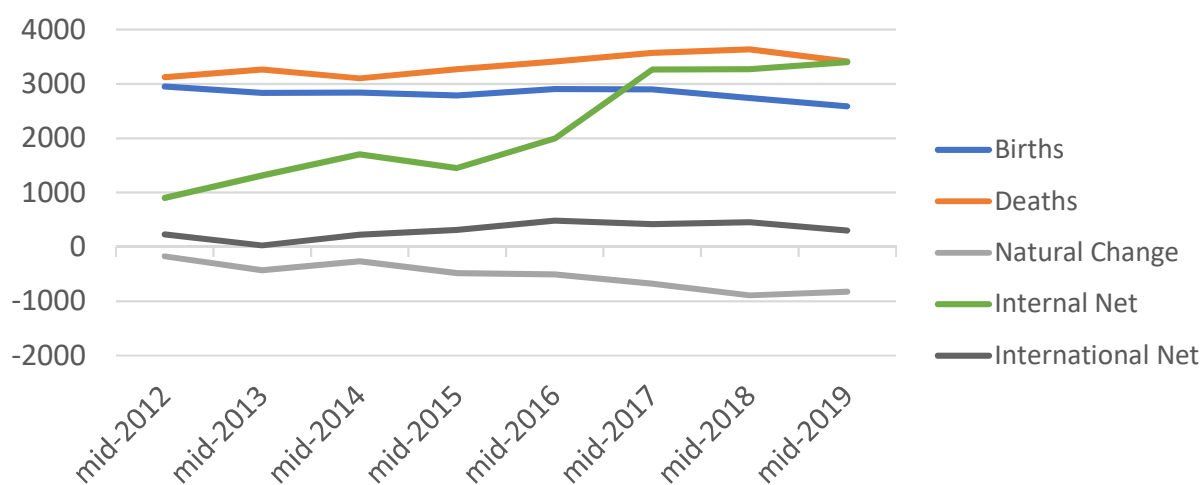|	2018	2038	Change	% Change
2014 SNPP	56,061,500	62,992,000	6,930,500	12%
2014 SNHP	23,696,800	27,830,100	4,133,300	17%
2016 SNPP	55,997,700	61,326,400	5,328,700	10%
2016 SNHP	23,222,500	26,428,100	3,205,600	14%
2018 SNPP	55,977,200	60,766,300	4,789,100	9%
2018 SNHP	23,204,200	26,313,000	3,108,800	13%

Source: Table 2 and 3, Office for National Statistics (ONS) Subnational Population Projections (SNPP) and Subnational Housing Projections (SNHP). Figures have been rounded

What is Driving the Projected Growth and Components of Change

1.15. Population estimates and projections are influenced by three main components of population change; births, deaths and migration. Figure 1 shows the components of change for the mid-year estimates 2012 to 2019. It shows how net internal migration has risen since 2014-2015 with a sharp rise in 2016-2017 and 2017-2018, whilst the other components of population change have remained more constant or reduced.

1.16. Figure 2 shows internal and external migration in Shropshire and projected migration to 2043. It is clear that internal and cross border migration is the main driver in increasing the population in Shropshire. Between 2008/9 and 2018/19 net internal migration has risen from 882 to 3,399 and total net migration has risen from 1,052 to 3,703 in the same period. Total net migration is projected to continue to increase to 4,242 by 2043. Net international migration is projected to slightly decrease from 304 in 2018 to 194 in 2043.
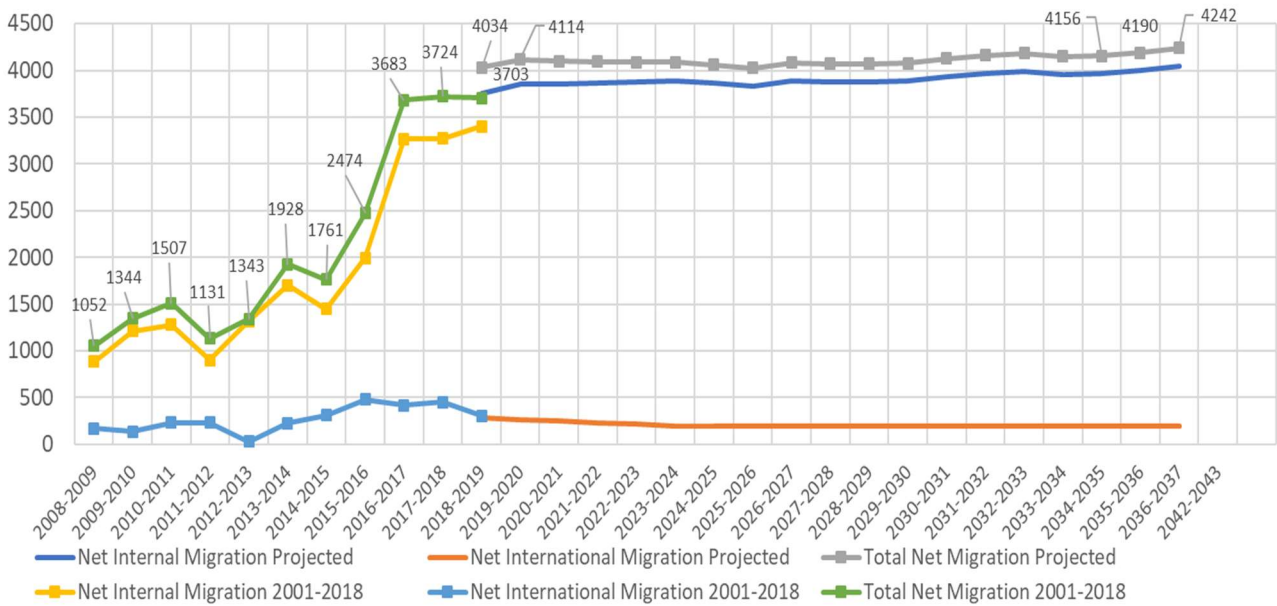
Figure 1: Mid-Year Estimates Components of Change

*Source: Mid-Year Estimates 2019 Analysis Tool, ONS*
https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/analysisofpopulationestimatestool

Figure 2: Migration and Projected Migration in Shropshire

1.17. Figure 3 shows natural change 2018/19 – 2042/43. Natural change is the difference between the number of live births and deaths during a given time period (usually one year), it can be positive or negative. The number of births is projected to rise slightly from 2,678 in 2019 to 3,016 in 2043. The number of deaths is projected to rise from 3,388 in 2019 to 5,426 in 2043. This is a greater increase than births, so by 2043 this means more people are dying in Shropshire than being born. The age of the birth is also expected to rise.

Figure 3: Components of Population Change Projected to 2043
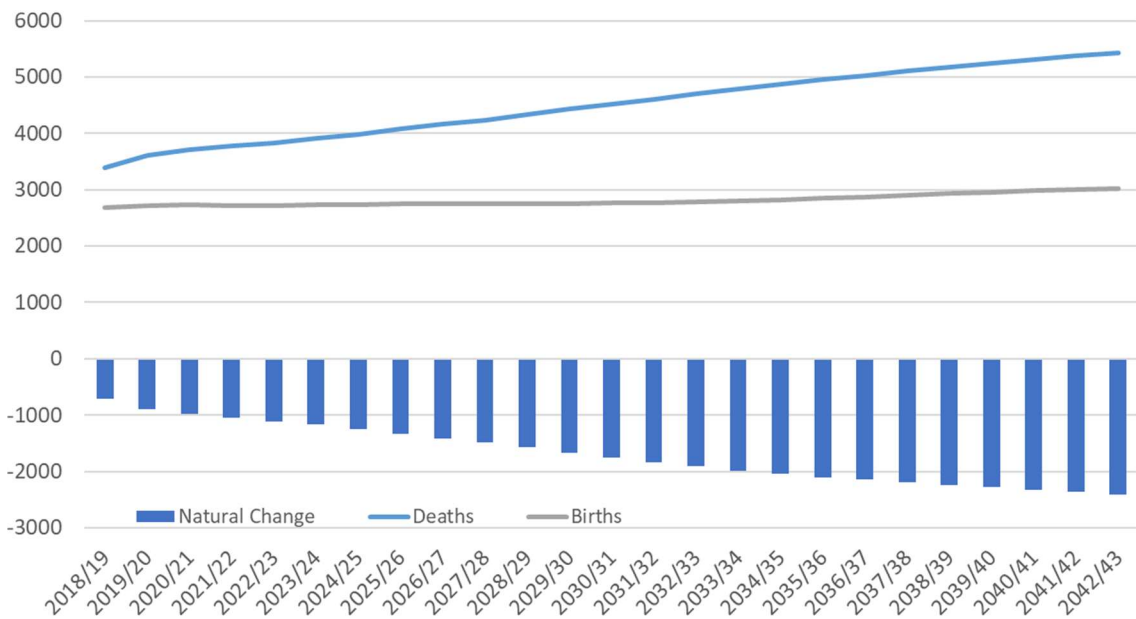
Projected Births

1.18.   Figure 4 compares the age of mother at birth in 2018/19 with 2042/2043. The pyramid shifts to the right as the age of the mother at birth becomes older. In 2019 the greatest number of births were to women of 31 years, in 2043 this was age 30. There is a projected increase in births to women between the ages of 37 and 44 and less births to women under the age of 21 years.

Figure 4: Births by Age of Birth Mother
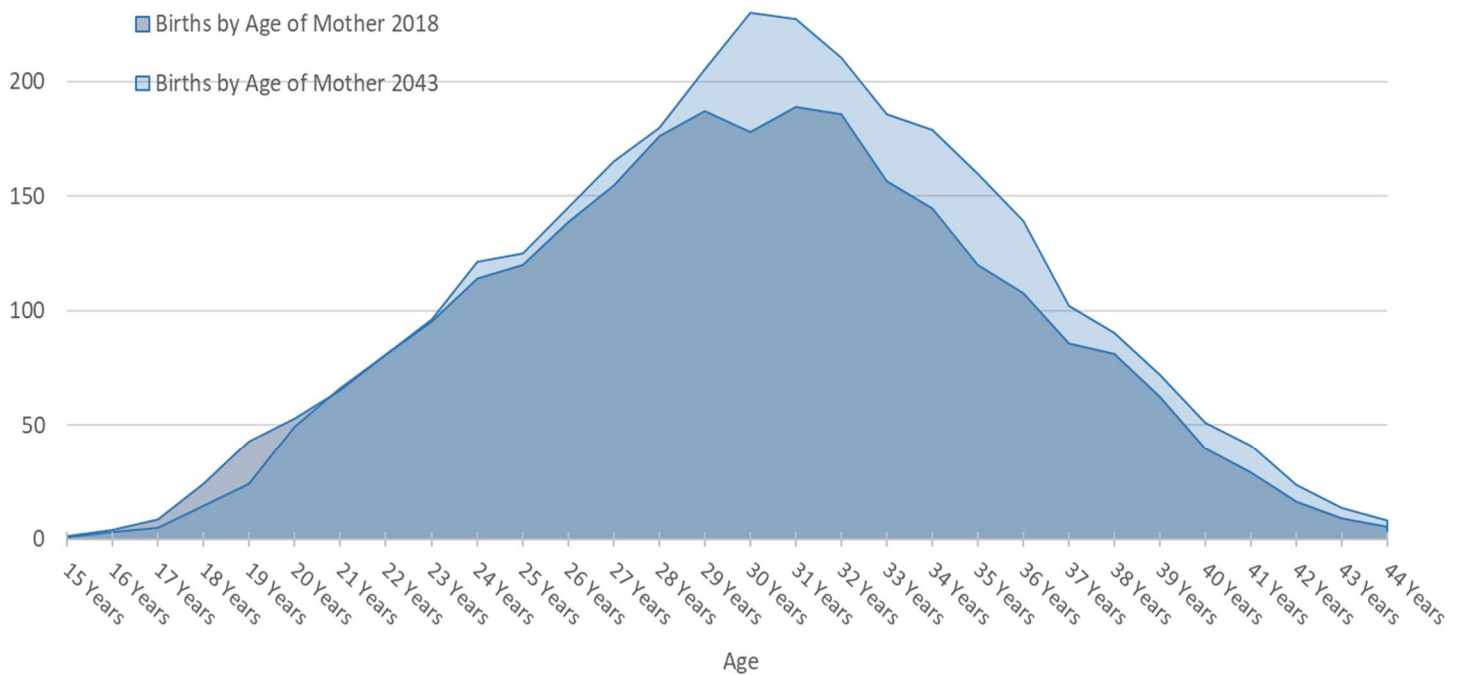
1.19   For context figure 5 illustrates the contrasts in the estimated female age structure (by single years of age for 15-44 year olds). This shows that the female population of childbearing age is projected to increase from the ages of 15 to 18, then to decline between the ages of 19 and 28, but increase again between the ages of 29 and 45. The greatest contrast in population is in the 42 year age population (286 more females in 2043) closely followed by 35 year olds (245 more females), 23 year olds (159 less females and 19 year olds (151 less females).

Figure 5: Age Structure of the Female Population of Child Bearing Age 2018 and 2043
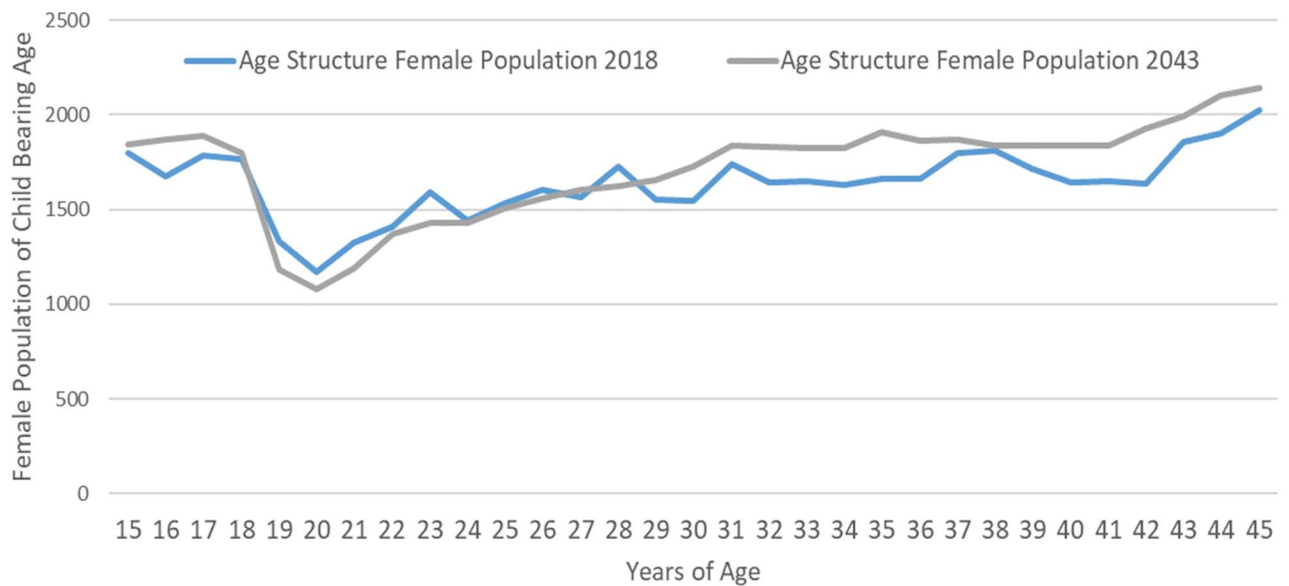
Projected Number of Deaths

1.20 Figure 6 uses data collected on the age at which people have died or are projected to die in 2018-19 and 2042-43. It compares the proportion of total deaths in Shropshire by five year age groups. As would be expected the largest proportion of total deaths is in the 90 years and over age group, 26.1% (883 deaths) in 2018-19 and 37.2% (estimated 2,017 deaths) in 2042-43. This continues to reflect the ageing of the 'baby boomers' generation and that people are living longer due to better lifestyle choices, standards of living and advancements in health and social care. The impact of this is that in all age groups below 75 years the number and proportion of deaths is projected to decline.

Figure 6: Percentage of Deaths by Five Year Age Group

Age Group	2018/19	2042/43
90 Plus	26.1	37.2
85-89 Years	19.5	20.3
80-84 Years	16.1	16.0
75-79 Years	12.3	11.1
70-74 Years	9.8	6.6
65-69 Years	5.5	3.2
60-64 Years	3.7	2.1
55-59 Years	2.6	1.3
50-54 Years	1.6	0.7
45-49 Years	1.0	0.5
40-44 Years	0.5	0.3
35-39 Years	0.4	0.2
30-34 Years	0.3	0.1
25-29 Years	0.2	0.1
20-24 Years	0.1	0.1
15-19 Years	0.1	0.0
10-14 Years	0.0	0.0
5-9 Years	0.2	0.1
0-4 Years	0.3	0.2

■ 2018/19 ■ 2042/43
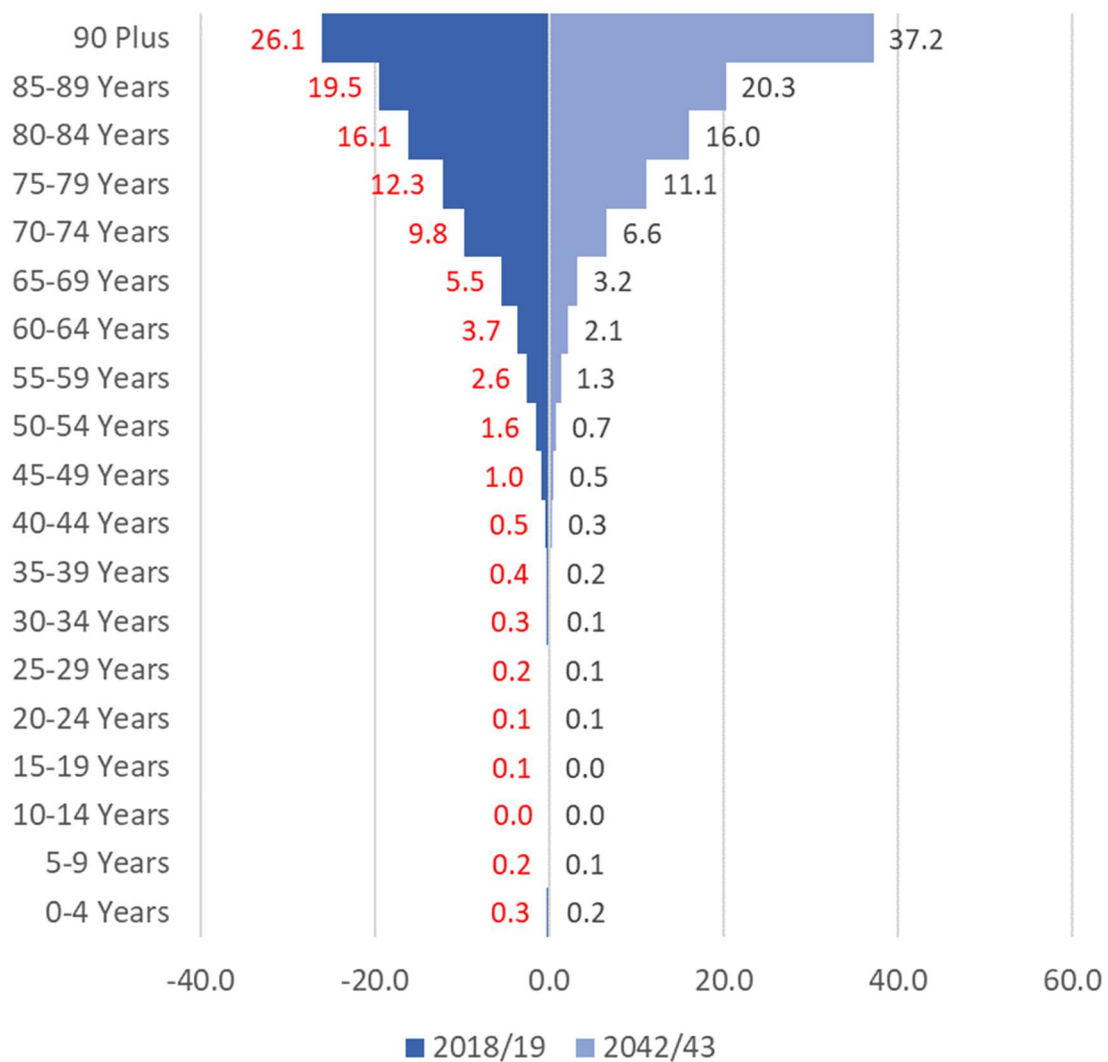
Migration

1.21   The Office for National Statistics (ONS) publish data on migration trends within England, across borders with other UK countries and migration from overseas. International migration is the most complex component of population change to estimate and is mainly estimated from the UK International Passenger Survey (IPS).

International Migration

1.21   Figure 7 shows that more people from overseas are projected to immigrate to Shropshire than are projected to emigrate overseas during the projection period. The gap between in and out migration is referred to as 'net migration' and in Shropshire's case this means the population will grow slightly every year from flows of international migrants.

1.22   Figure 7 also shows that both in and out flows of international migrants are projected to decline from 2018-19 to 2024-25. ONS have then assumed levels will remain stable from 2024-25 for the rest of the projection period. This is due to the complexities of estimating long-term international migration trends.

1.23   Flows of in-migrants from overseas are projected to decline by -16% (1,100 people in 2018-19 to 900 people in 2024-25). In comparison flows of out migrants are projected to decline by -13% (800 people in 2018-19 to 700 people in 2024-25). The result is that during 2018-19 and 2024-25 net migration is projected to fall by 42% (200 people in 2018-19 to 100 people in 2024-25).

Figure 7: Projected Trend in International Migration 2019 to 2043
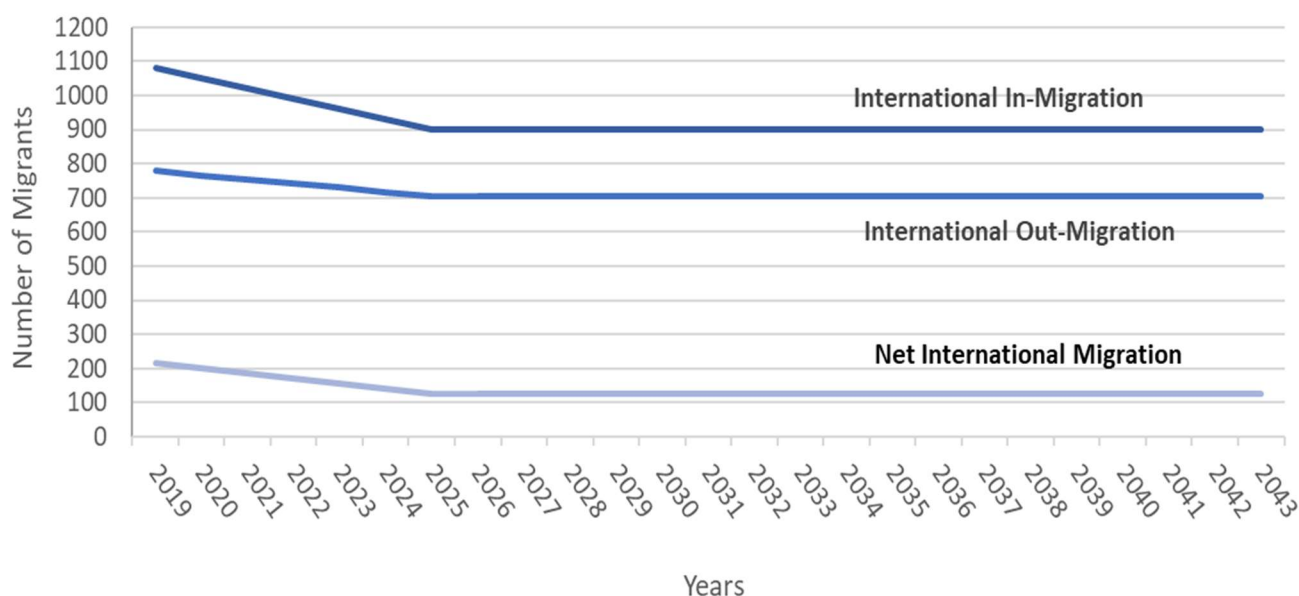

NB: Figures have been rounded so may not sum.

Age of International Migrants

1.24   Figures 8 shows a breakdown of net international migrant flows by broad age group, during 2018-43. The numbers of migrants are relatively small and so have been included in an unrounded form to illustrate the subtleties of the projected population change in all age groups. Please be reminded though that the projections are an estimate and not robust to a single digit.

1.25   ONS have assumed the same proportionate breakdown by broad age group for in-migration flows for 2018-2043 and the same proportionate breakdown by age for out-migration flows. Resulting in the same proportions for net flows. Shropshire gains the most population from the 50-64 year age group followed by the 0-4 year age group. The age group 16-49 shows the greatest negative net flows where more international migrants in that age group are leaving Shropshire than arriving.
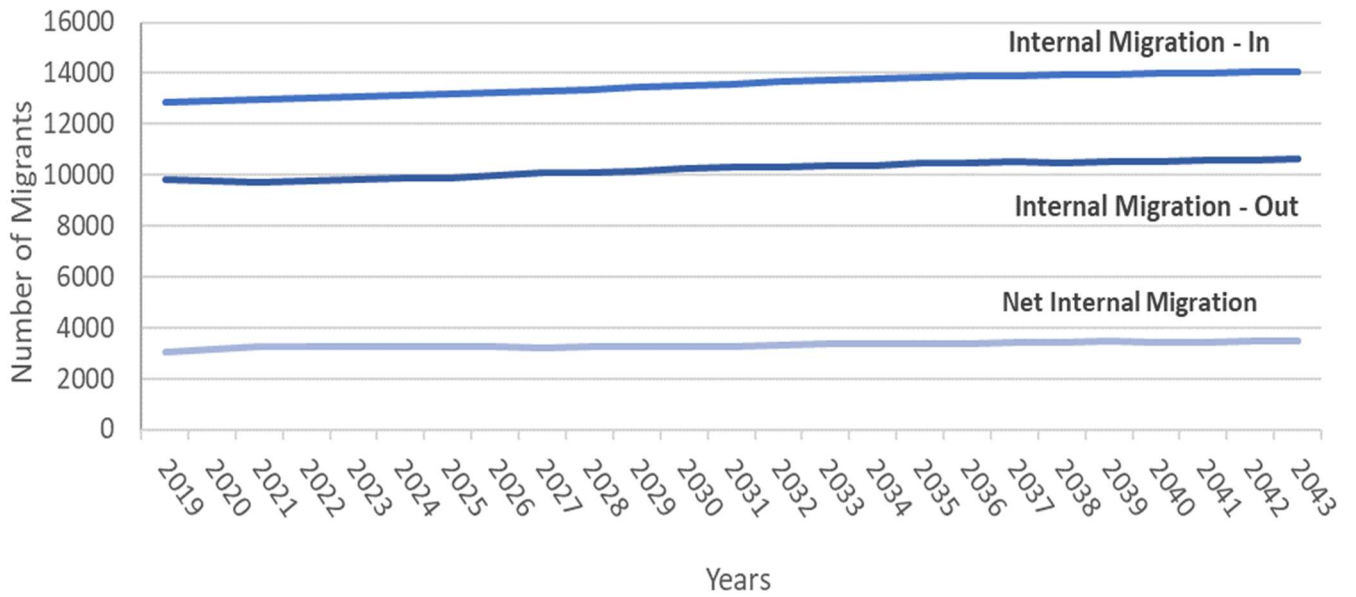
Figure 8: Projected Net International Migration by Broad Age Group
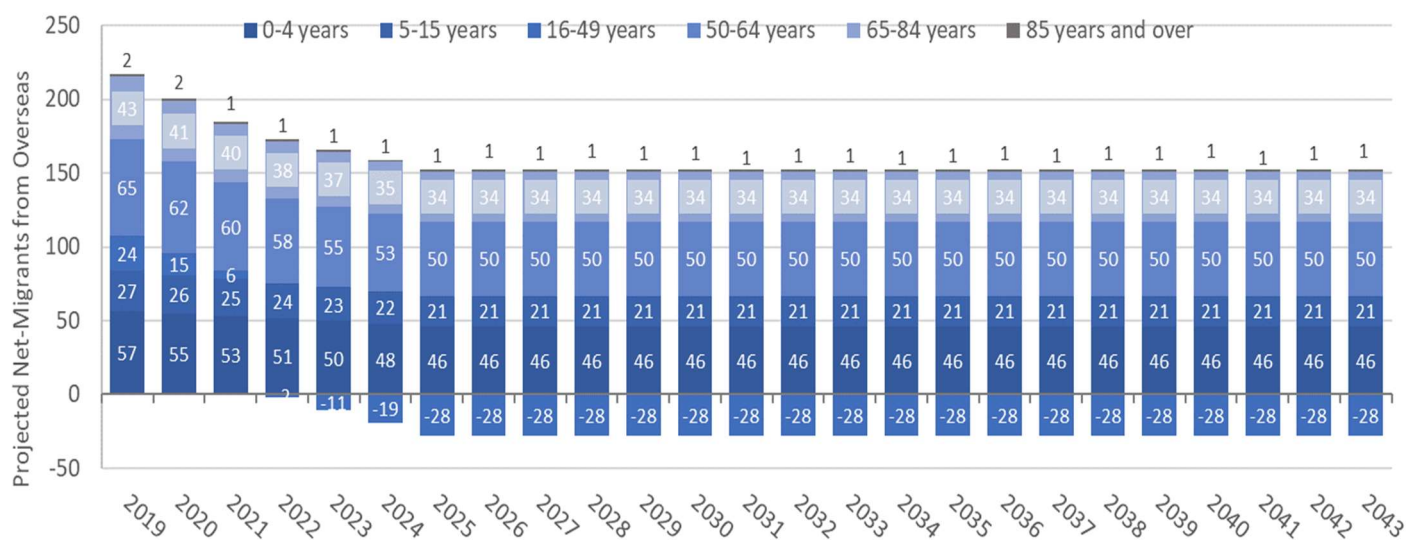

Internal Migration within the UK

1.26   Figure 9 shows that more people from within England are projected to move to Shropshire than are projected to leave during the projection period 2018/19-2042/43. The gap between in and out migration is referred to as 'net migration' and in Shropshire's case this means the population will grow steadily every year from inflows of migrants from the rest of the UK.

1.27   Flows of in-migrants from within England are projected to grow by 9%. Numbers are estimated to increase steadily from 12,800 people in 2018-19 to 14,100 in 2042-43. This means average in-migration per year of 13,500 people. The highest period of annual growth in migration is projected from 2024-25 to 2032-23 (annual growth of 0.5%).

1.28   The number of migrants to the rest of England are projected to increase by 8% (800 people) from 9,800 in 2018-19 to 10,600 people in 2042-43). This means average out-migration per year of 10,200 people.

1.29   The result is that during 2018-19 and 2042-43 net internal migration is projected to grow by 15% (3,000 people in 2018-19 to 3,500 people in 2042-43). Overall net migration is projected to grow steadily during the projection period. Cumulatively, Shropshire is projected to gain 83,000 people through net internal migration. This figure is much higher than in the 2016 SNPP which projected a gain in population of 47,000. This means overall population growth in Shropshire is mainly driven by people moving into Shropshire from elsewhere in England.

Figure 9: Projected Trends in Internal Migration Flows 2019 to 2043

NB: Figures have been rounded so may not sum.

Figure 10: Projected Net Internal Migration by Broad Age Group
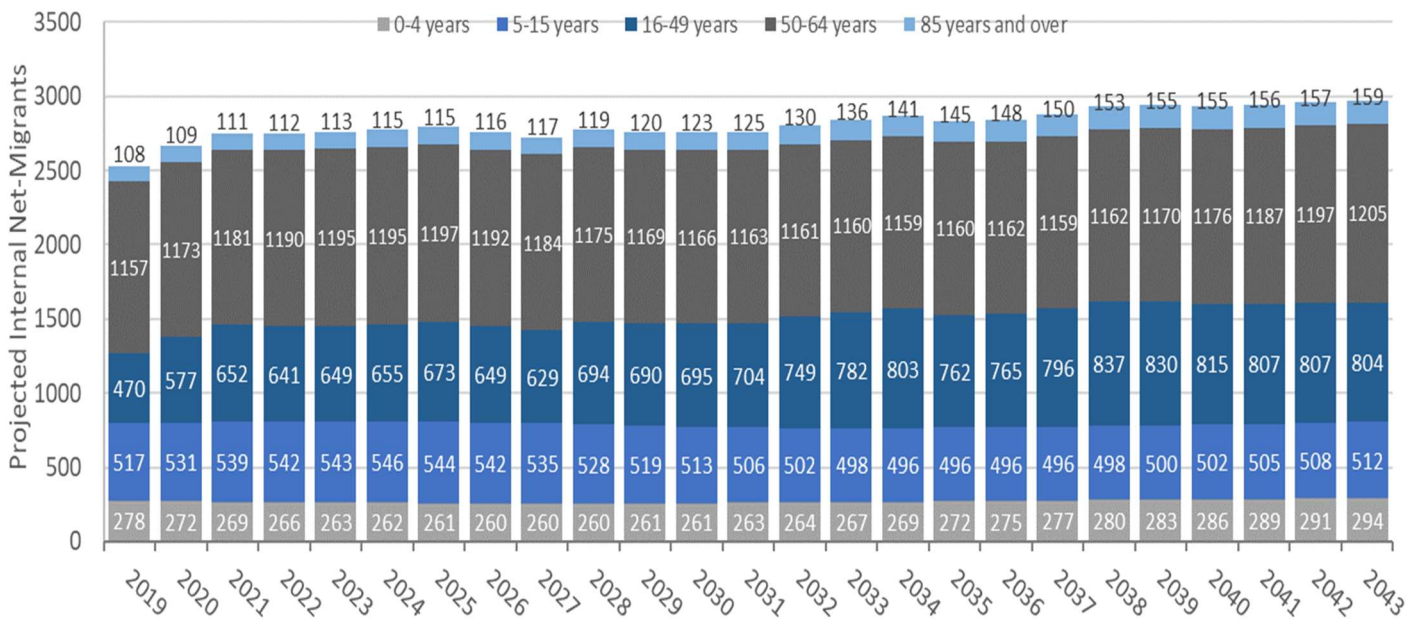
Age of Internal Migrants

1.30   Figures 10 shows a breakdown of net internal migrant flows by broad age group, during 2018-43. The numbers of migrants are relatively small and so have been included in an unrounded form to illustrate the subtleties of the projected population change in all age groups. Please be reminded though that the projections are an estimate and not robust to a single digit.

1.31   Shropshire gains the most population from the 50-64 year age group followed by the 16-59 year age group. The age group 0-4 and 85 years and over shows the lowest increases.

Population Growth by Gender

1.32   In Shropshire, the male population is projected to grow by 18%, at a slightly lower level of growth than for females, at 20%. In 2018 the ratio of females to males is 1 female to 0.98 males, changing to 1 female to 0.96 males by 2043. This reflects a larger increase in the female population compared to the male population in Shropshire. In other words, females represent 50.4% of the total Shropshire population and males 50% in 2018 and by 2043 females represent 51% of the total population and males 49%.

Projected Change in Average Age

1.33   The average (mean) age in Shropshire is projected to change from 43 years in 2018 to 47 years in 2043. In comparison, the median age is projected to grow from 47 years in 2018 to 52 years in 2043. Both the average and median ages continue to grow throughout the life of the projections. This is attributable to Shropshire's growing older population (born during and after the second world war to the mid 1960's when fertility rates peaked nationally).

1.34   In contrast, the average age nationally in 2018 is 39 years, rising to 42 years in 2043 and regionally 39 years rising to 41 years in 2043. Nationally, the median age in 2018 is 39 years rising to 42 years in 2043 and regionally 39 years in 2018 rising to 41 years in 2043.

Dependency Ratio

1.35   The dependency ratio is a measure showing the number of dependents, aged zero to 15 years and 65 years and over, relative to the total population, aged 16 to 64 (working age population). The higher the ratio, the greater level of dependency.

1.36   The dependency ratio is used by economists as a measure of the pressure on the productive working age population (particularly financially) in terms of supporting the up-bringing and care needs of the dependent population. This pressure on the working

age population can impact on local economic growth and shape local economic policies designed to nurture a healthy and productive labour force.

1.37   In 2018, Shropshire had a dependency ratio of 69 dependent people for every 100 non-dependent people, compared to 60:100 nationally and 62:100 regionally. Shropshire's higher dependency ratio reflects Shropshire's older age structure, where a greater proportion of the population have reached the traditional retirement age of 65 years.

1.38   Of note is the rise in Shropshire's dependency ratio by 2026 (75:100 people) and by 2043 (90:100 people). This compares with 63:100 people (2026) and 70:100 people (2043) nationally and 63:100 people (2026) and 69:100 people (2043) regionally. It is of concern that by 2043, Shropshire will be approaching 100 dependent people for every 100 independent people.

Projected Population Change by Age Group

1.39   Figure 11 shows population pyramids for 2018 and 2043 for Shropshire compared with England. In 2018 there are a greater number of older people, aged 50 years and over (especially female older people) compared to England. There are fewer younger people aged 0-19 years and fewer people in their twenties and thirties. In 2043 the pyramid shows the same pattern, but a greater number of older people compared to England than in 2018 and fewer younger people compared to England. In Shropshire this has created the "mushroom affect" where the population pyramid is top heavy to the older population.

1.40   Figure 12 expresses projected population change (2018-2043) by broad age group, as a proportion of the total population of Shropshire. Each of the broad population groups represents a key life stage; Early Years (0-4 years); School Age (5-15 years); Working Age (16-64 years); Retirement Age (65-84 years) and Elderly (85 years and over). Individually, each of these population groups has specific needs which impact directly on the demand for public services.

1.41   In summary, Figure 12 shows the shift in age structure in Shropshire with projected decline in the age groups below 65 years of age and growth in the older age groups above 65 years. Of concern for service providers is the more than doubling of the elderly population, as this age group places the greatest demand upon services.

Figure 11: Population Comparison Pyramids 2018 and 2043 Shropshire and England

2018

Females - Shropshire
Males - Shropshire
Females - England
Males - England

2043

Females - Shropshire
Males - Shropshire
Females - England
Males - England
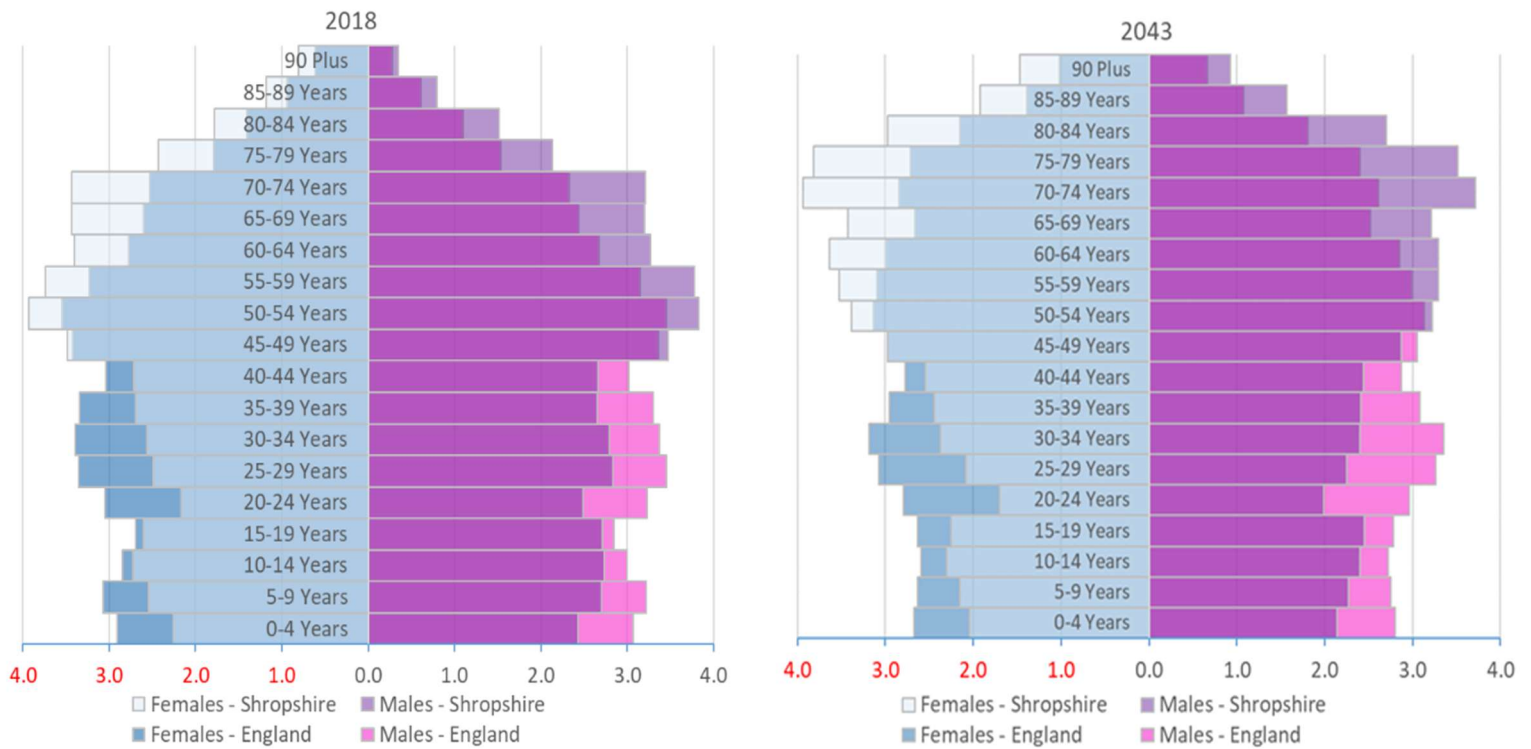
Figure 12: Population Change by Broad Age Group

Year	0-4 Years	5-15 Years	16-64 Years	65-84 Years	85+ Years
2018	5	12	59	21	3
2019	5	12	59	21	3
2020	5	12	59	22	3
2021	4	12	58	22	3
2022	4	12	58	22	3
2023	4	12	58	23	3
2024	4	12	58	23	4
2025	4	11	57	23	4
2026	4	11	57	24	4
2027	4	11	57	24	4
2028	4	11	56	24	4
2029	4	11	56	25	4
2030	4	11	56	25	4
2031	4	11	55	26	4
2032	4	11	55	26	5
2033	4	10	54	26	5
2034	4	10	54	26	5
2035	4	10	54	27	5
2036	4	10	53	27	5
2037	4	10	53	27	5
2038	4	10	53	27	5
2039	4	10	53	28	6
2040	4	10	53	28	6
2041	4	10	53	27	6
2042	4	10	53	27	6
2043	4	10	53	27	6

0-4 Years　5-15 Years　16-64 Years　65-84 Years　85+ Years

Early Years Population

1.42   The early year's population aged 0-4 years (sometimes referred to as the pre-school population) is projected to rise from 15,000 in 2018 to 15,900 in 2043 (Table 4). This represents an increase of 6%, relative to 1% nationally and 9% regionally. This increase suggests greater school places may be needed in the future in Shropshire, if present trends continue.

1.43   In Shropshire, the early year's population is projected to decline more sharply in the short-term to 2023 (-3%). Nationally the early year's population declines until 2028 by 7%. But then begins to increase.

1.44   The male early year's population increases by 5% during 2018 to 2043, compared to 8% in the female population. In 2018, males represented 52% of the early year's population, falling to 51% in 2043. The proportion of the female population increases from 48% to 49% in 2043.

1.45   Projected change in this age group is influenced by recent trends in fertility. This in turn is influenced by recent trends in the number of women in the population of childbearing age, trends in the age of mother at birth and the proportion of women choosing to not have children.

Table 4: Projected Change in the Early Years Population

Early Years Population (0-4 Years)							
	Shropshire		England		West Midlands	
	Number	%	Number	%	Number	%
2018	15,000	5	3,346,700	6	359,400	6
2023	14,500	4	3,129,200	5	343,800	6
2028	14,700	4	3,101,500	5	349,300	6
2033	14,800	4	3,126,400	5	357,800	6
2038	15,300	4	3,235,100	5	373,300	6
2043	15,900	4	3,382,100	6	390,300	6
Population Change						
Change 2018-2043	Number	900		35,400		30,900	
	%	6		1		9	
Change 2018-2028	Number	-300		-245,200		10,000	
	%	-3		-7		-3	

School Age Population

1.46   The school age population in Shropshire (5-15 years) is projected to rise by 800 people from 37,800 in 2018 to 38,600 in 2043 (Table 5). This represents an increase of 2%, relative to a decline of -2% nationally and a rise of 5% regionally. This suggests that more school places will be needed in the future if present trends continue.

1.47   In Shropshire the school age population is projected to increase the most sharply in the short-term to 2028 (2% or 600). Nationally the school age population is projected to increase by 1% in the short-term and then decline by -2% during 2028 to 2043.

1.48   In 2018, males represented 51% of the school age population, this is also similar in 2043 at 51%. The proportion of the female population is projected to remain similar at 49% in 2018 and in 2043.

Table 5: Projected Change in the School Age Population

School Age Population (5-15 Years)						
	Shropshire		England		West Midlands	
	Number	%	Number	%	Number	%
2018	37,800	12	7,401,700	13	800,900	14
2023	39,300	12	7,763,200	14	842,000	14
2028	38,400	11	7,471,700	13	823,900	13
2033	37,700	10	7,167,000	12	805,700	13
2038	37,800	10	7,135,100	12	816,200	12
2043	38,600	10	7,268,300	12	840,900	13
Population Change						
Change 2018-2043	Number	800	-133,400		40,000	
	%	2	-2		5	
Change 2018-2028	Number	600	70,000		23,000	
	%	2	1		3	

Working Age Population

1.49   The working age population in Shropshire (16-64 years) is projected to rise by 10,900 people from 189,600 in 2018 to 200,500 in 2043 (Table 6). This represents an increase of 6%, relative to an increase of 4% nationally and a rise of 9% regionally.

1.50   In Shropshire the working age population is projected to increase the most sharply in the short-term to 2028 (4%) or 7,600. Nationally the working age population is projected to increase by 3% in the short-term.

1.51   The proportion of working age people amongst the total population of Shropshire will decline from 59% in 2018 to 53% in 2043. This will mean there are fewer people of

working age in the county to support those not working which can cause increased financial pressure on the local economy.

Table 6: Projected Change in the Working Age Population

Working Age Population (16-64 Years)						
	Shropshire		England		West Midlands	
	Number	%	Number	%	Number	%
2018	189,600	59	35,049,500	62	3,651,200	62
2023	194,700	58	35,623,600	62	3,747,100	61
2028	197,200	56	36,002,800	61	3,821,100	61
2033	196,500	55	36,090,100	61	3,865,400	60
2038	196,300	53	36,066,100	59	3,894,400	59
2043	200,500	53	36,366,800	59	3,968,300	59
Population Change						
Change 2018-2043	**Number**	10,900		1,317,300		317,100
	%	6		4		9
Change 2018-2028	**Number**	7,600		953,300		169,900
	%	4		3		5

Older People Population Aged 65 and Over

1.52 The older population aged 65 years and over is projected to increase by 2043 (Table 7) by 48,700 people, from 77,800 in 2018 to 126,500 in 2043. This represents an increase of 63%, relative to an increase of 45% nationally and a rise of 39% regionally.

1.53 In Shropshire the older population increases at the greatest rate between 2028 and 2043. During this period the older population increases by 27,100 from 99,400 in 2028 to 126,500 in 2043. This period accounts for 55% of all growth between 2018 and 2043. Nationally and regionally this pattern is similar.

1.54 In 2018 people aged over 65 accounted for 24% of Shropshire's total population, by 2043 this is projected to be 33%, a rise of nearly 10%. Nationally the proportion of older people is much less and rises from 18% to 24% a 6% rise, nearly half that of Shropshire's rise.

Table 7: Projected Change in the Older Age Population

Older Population (65 Years and Over)						
	Shropshire		England		West Midlands	
	Number	%	Number	%	Number	%
2018	77,800	24	10,179,300	18	1,089,200	19
2023	87,300	26	11,041,500	19	1,165,100	19
2028	99,400	28	12,175,700	21	1,268,800	20
2033	112,400	31	13,408,400	22	1,387,100	22
2038	122,500	33	14,330,000	24	1,478,500	23
2043	126,500	33	14,727,000	24	1,508,700	23
Population Change						
Change 2018-2043	**Number**	48,700		4,547,700		419,500
	%	63		45		39
Change 2018-2028	**Number**	21,600		1,996,400		179,600
	%	28		19		17

Elderly Population – 85 Years and Over

1.55   The elderly population in Shropshire (85 years and over) is projected to rise by 12,400 people from 10,100 in 2018 to 22,500 in 2043 (Table 8). This represents a large increase of 123%, relative to an increase of 87% nationally and a rise of 80% regionally.

1.56   In the short term the elderly population is projected to increase between 2018 and 2028. During this period the elderly population increases by 3,700 from 10,100 in 2018 to 13,800 in 2028, an increase of 36%. Nationally and regionally this pattern is similar, although the percentage increases are much lower compared to Shropshire.

1.57   In 2018 people aged over 85 accounted for 3% of Shropshire's total population by 2043, this is projected to be 6% (a difference of 3%). Nationally the proportion of elderly people is much less and rises from 2% to 4% a 2% rise, a third less than Shropshire's rise. Shropshire has an elderly population which is larger compared to national levels. This will have an impact on service providers in terms of providing the right services and increased cost of service provision compared to national averages.

Table 8: Projected Change in the Elderly Population

Elderly Population (85 Years and Over)						
	Shropshire		England		West Midlands	
	Number	%	Number	%	Number	%
2018	10,100	3	1,365,000	2	143,700	2
2023	11,700	4	1,511,100	3	159,100	3
2028	13,800	4	1,675,800	3	178,100	4
2033	18,000	5	2,122,500	4	219,800	5
2038	20,400	6	2,348,600	4	240,400	6
2043	22,500	6	2,557,500	4	258,000	4
Population Change						
Change 2018-2043	**Number**	12,400		1,192,500		114,300
	%	123		87		80
Change2018-2028	**Number**	3,700		310,800		34,400
	%	36		23		24

Life Expectancy

1.58   Figure 13 illustrates that in Shropshire the life expectancy of males and females at birth has risen between 1991-93 and 2016-2018 (males: 74.6 to 80.5 years, females: 79.9 to 83.5 years.) During this period the gap in life expectancy at birth between males and females has narrowed from 5.3 years in 1991-93 to 3.0 years in 2018-19. This is a positive demographic trend as people in older cohabiting / married couple households can support each other and remain independent for longer.

1.59   In both the male and female population, life expectancy at birth continues to remain higher in Shropshire than when compared with England and the West Midlands. As mentioned previously greater life expectancy and historic higher fertility rates have served to increase the size of Shropshire's elderly population.

Figure 13: Comparison of Long-term Trends in Life Expectancy, 1991/93-2016/18
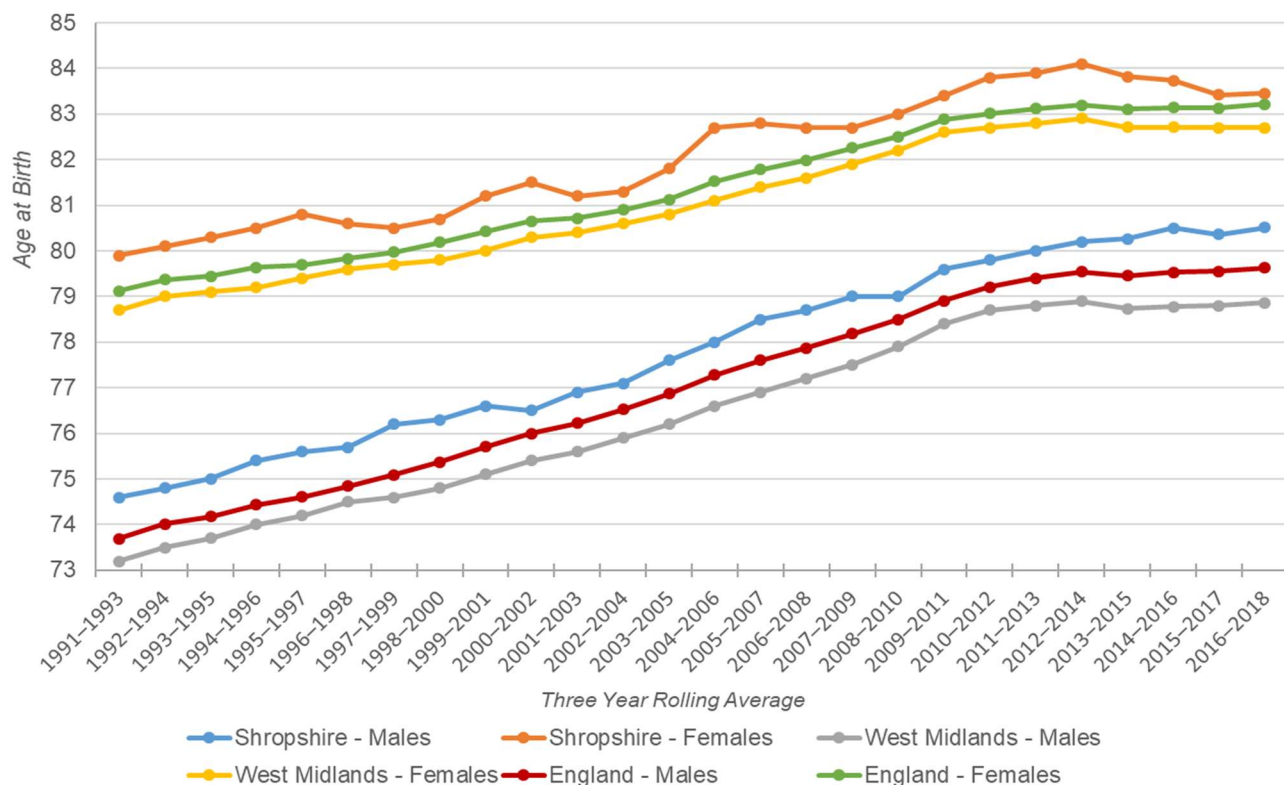
Comparison between the 2016 SNPP and 2018 by Age Group

1.60　　Figure 14 shows the 2018 projections by five-year age group. The number of people aged over 60 is projected to significantly rise in Shropshire by 2038.   The 2018 projections show that the Shropshire population will rise by 51,600 people from 320,300 in 2018 to 371,900 in 2038. The number of people over 60 is projected to rise by 47,400 people accounting for 90% of the overall rise. The largest rise is in the 75-79 year age group, a rise of 10,300 people. There is also a significant rise on the number of people aged 40-44 years, this is projected to rise by 3,400 people by 2038.

1.61　　Figure 15 compares the 2016 SNPP with the 2018 SNPP by percentage change by age group to 2038. This helps to compare which age groups have changed, in terms of growth or decline between the two sets of projections and helps to explain the differences between the two. The 2018 Projections show less of a decline in the 0-4 and 5-9 age groups and they show an increase in the 10-14 year group when the 2016 projections showed a decline. There is a larger rise in the 15 – 19 year groups. The 2018 projections show less of a decline in people aged 20 to 39 years. There is projected to be significantly more people aged 40-44 and 45 to 49 years. The 2016 projections showed a 7% rise in people aged 40 – 44 and the 2018 projections a 20% rise. The 2018 projections show less of a decline in people aged 50 – 54. In the age groups of 55 to 84 years the 2018 estimates show a greater level of growth than 2016

projections. The 2016 projections show a rise of 20,500 people compared to the 2018 projections which show a rise of 37,500 people.

1.62   Interestingly the 2018 projections show less of an increase in the number of people over 85 compared to the 2016 projections. For example, the number of people over 90 was projected to rise by 5,700 (152%) in 2016 compared to 4,500 (120%) in 2018.

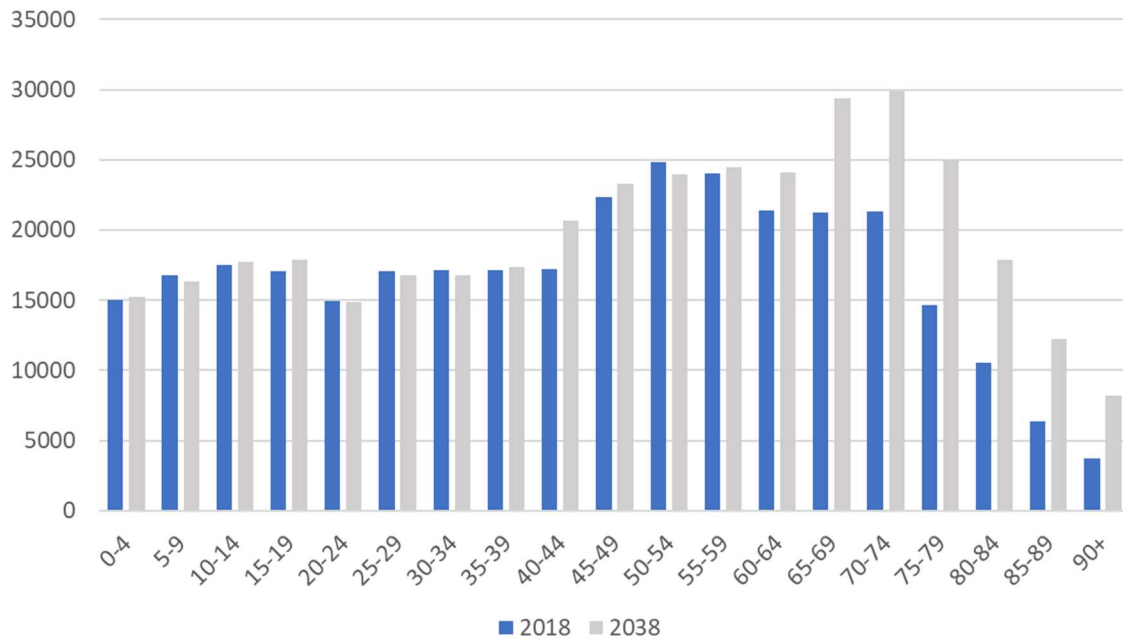**Figure 14: Population Projection by Age 2018 Compared with 2038**

Table 9 - Change by Age Group comparison between the 2016 and 2018 Projections

	2016 SNPP Change 2018-2038	% Change	2018 SNPP Change 2018-2038	% Change
0-4	-900	-6%	200	2%
5-9	-1700	-10%	-500	-3%
10-14	-700	-4%	300	2%
15-19	100	1%	800	5%
20-24	-1000	-7%	-100	-1%
25-29	-1000	-6%	-300	-2%
30-34	-1400	-8%	-400	-2%
35-39	-1400	-8%	258	2%
40-44	1100	7%	3400	20%
45-49	-2200	-9%	1000	5%
50-54	-4200	-17%	-900	-4%
55-59	-3000	-13%	400	2%
60-64	-600	-3%	2700	13%
65-69	4300	21%	8100	38%
70-74	5200	24%	8600	40%
75-79	8200	55%	10300	71%
80-84	6500	61%	7300	70%
85-89	6100	96%	5900	92%

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90+	5700	152%	4500	120%
All Ages	19400	6.3%	51600	16%

Figure 15: Population Projections Percentage Change 2016 to 2038
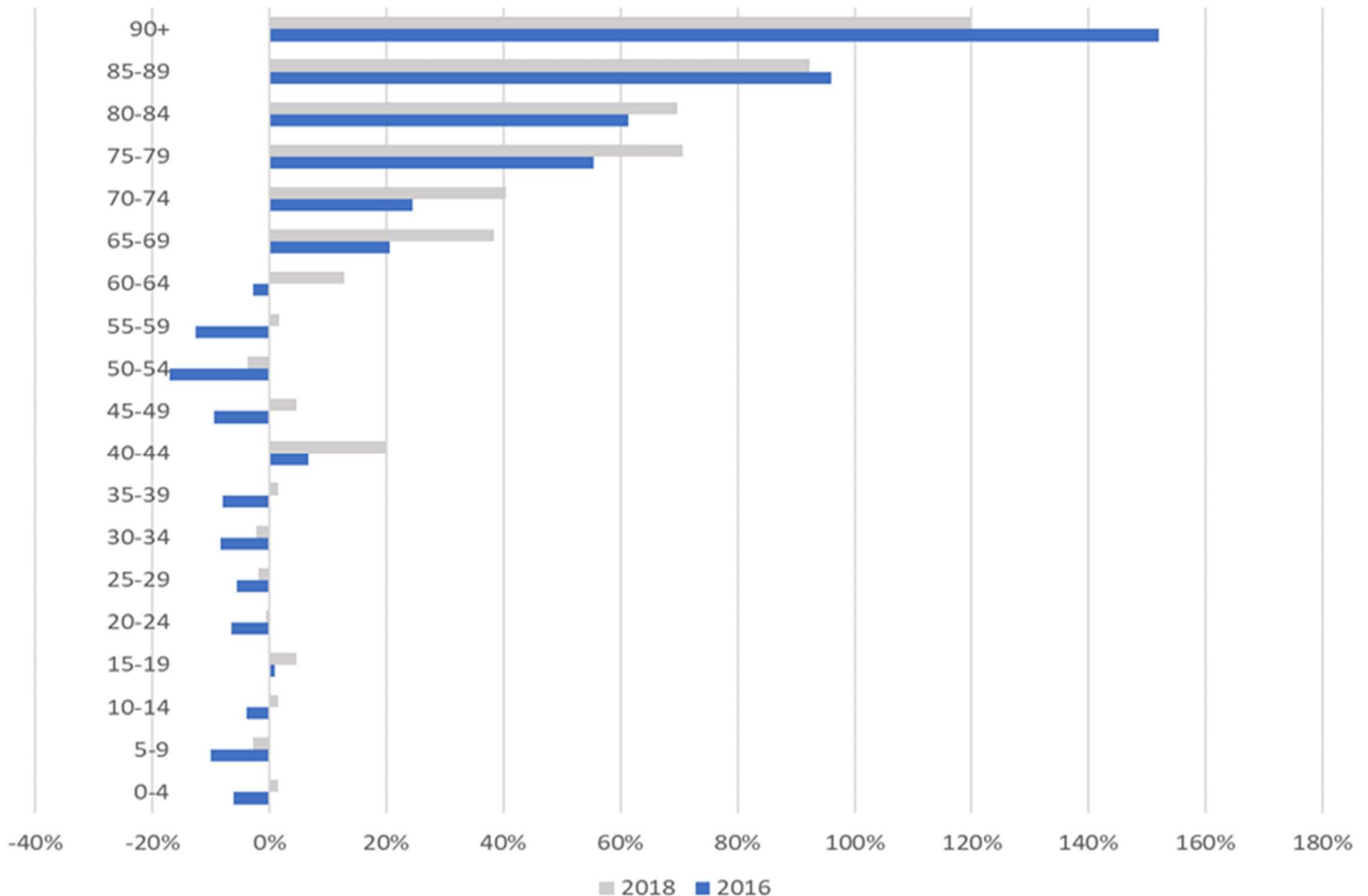
Explanation of Changes to Methodology and Implications

1.63   ONS has made three changes to the methodology for estimating internal migration. The first relates to how to account for higher education students leaving education each year, the second change responds to the discontinuation of a key dataset, the NHSCR (National Health Service Central Register) which was heavily used to estimate internal migration. The third change relates to an improved method for georeferencing record level data (the process of identifying geographical location of data).

Higher Education Leavers Methodology (HELM)

1.64   The HELM has been introduced to make improvements to better estimate the movements of people leaving higher education each year. This builds on the method

introduced in 2012, by moving people who leave higher education but do not update their NHS Patient Register information, to local authority destinations. These estimates are based on the movements of past cohorts of similar higher education leavers.

1.65 In the methodology adopted by ONS for estimating internal migration during mid-2011 and mid-2016, data from the Higher Education Statistics Agency (HESA) was used. This identifies those students leaving higher education, but often failed to pick up students who had relocated and not registered at a GP practice for a number of years since leaving education.

1.66 HELM is designed to address two failings of the previous method. Firstly, the previous method only moved people back to their location on the patient register, often their place of residence before attending higher education. In practice, the end of study is often accompanied by a move to seek work, or for additional education. Secondly, the previous method used a conservative approach whereby individuals were moved out of their place of study at too slow a rate in the first year and too quick a rate in the second year.

1.67 One of the most obvious impacts of using HELM is that ONS estimate a higher number of internal moves; using HELM results in around 160,000 more moves in the mid-2017 internal migration estimates compared to the old method of accounting for higher education leavers (HESA).

1.68 The explicit aim of introducing HELM was to increase the outflow of graduates from local authorities with higher education institutions at ages 22 and 23 years, and to increase the inflow of graduates to local authorities which are popular graduate destinations (such as London and other major urban centres).

1.69 In the 2018 mid-year estimates Shropshire is within the top 20 Local Authorities with the largest increase in net internal migration (170) flows, using the HELM methodology compared to the previous method.

Table 10 – Difference in Internal Migration Estimates Old and New Method

	HELM	Old Method	Difference
Wandsworth	-1,580	-2,280	710
Lambeth	-2,190	-2,880	690
Bristol, City	210	-320	530
Southwark	-2,710	-30,80	370
Oadby and Wigston	870	540	330
Croydon	-3,410	-37,10	300
Brent	-6,800	-7,070	270
Islington	-2,250	-2,510	260
East Hertfordshire	20	-220	240
Wiltshire	2,700	2,470	230
Broxtowe	360	140	220
Milton Keynes	-1,470	-1,690	210
Hammersmith and Fulham	-1,380	-15,70	190
Merton	-3,580	-3,770	190
Lewisham	-2,400	-2,580	190
Windsor and Maidenhead	-390	-560	180
Hackney	-2,050	-22,30	170
Bromley	-390	-560	170
Shropshire	**3,260**	**3,100**	**170**
Thurrock	250	100	150

Discontinuation of the National Health Service Central Register (NHSCR)

1.70   The second change in methodology in the mid-year estimates for 2017 and 2018 may also have a small impact on the 2018 Population Projections.

1.71   For mid-2012 to mid-2016 the National Health Service Central Register (NHSCR) was used to account for non-transition moves (multiple moves and by those not present at either the beginning of the year). However, in 2016 the NHSCR was discontinued. For mid-2016 internal migration ONS reused the NHSCR based data originally produced for mid-2015.

1.72   For mid-2017, ONS have largely moved to the Personal Demographic Service (PDS) to account for these moves, however it is important to note that the NHSCR is still a key part of the method.

1.73   The PDS picks up a far greater number of moves than the NHSCR; using the PDS to account for these moves would result in a much larger number of extra moves in the internal migration estimates. There is inconsistency between the number of moves picked up in the PDS and the NHSCR changing purely to the PDS for mid-2017, would

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have introduced a substantial discontinuity in the time series of internal migration data. Therefore, a combination of data was used; using the pattern of geographical variation picked up by the PDS, adjusted for the differences between the PDS and NHSCR.

The Four Variants Projections

1.74   As a result, ONS have released four 2018-based variant subnational population projections alongside the 2018-based subnational principal projection. The four variants are produced using broadly the same method as the 2018-based subnational population projections main release, with a few differences.

1.75   **A high international migration variant** – produced in the same way as the principle subnational population projections. The high international migration variant assumes higher levels of net international migration to England as a whole (higher immigration, lower emigration), but the proportional distributions of immigration and emigration at local authority level remain the same. The result is that all areas see correspondingly higher population totals.

1.76   **A low international migration variant** – same as the high variant but assumes lower levels of net international migration to England as a whole (lower immigration, higher emigration), but the proportional distributions of immigration and emigration at local authority level remain the same. The result is that all areas see correspondingly lower population totals.

1.77   **An alternative internal migration variant-** the alternative internal migration variant uses five years of internal migration trend data: two years on the new method and three years on the old method.

1.78   **A 10-year migration variant -** the 10-year migration variant uses 10 years of data for all aspects of migration (internal, cross-border and international). The logic of using a 10-year trend is that it may even out a potentially atypical five-year period. However, it also risks dampening the effect of more systemic changes that occurred over the 10 years. Moreover, the data over this period have multiple methodological changes. For example, internal migration estimates have had three different methods over that time period, which will necessarily impact on the quality of the figures.

Figure 16: Principle Subnational Population Projection (SNPP) and Four Variant Projections 2018 – 2038
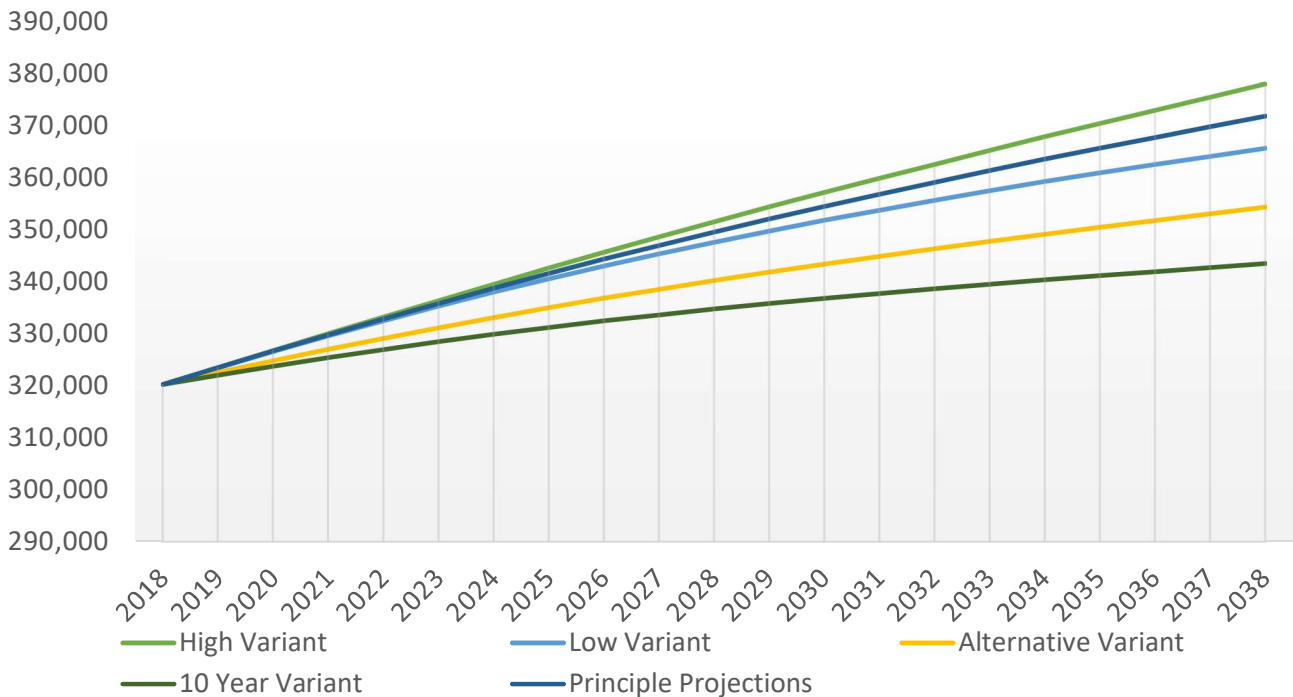

Table 11 – Projected Total Population

Variant	Shropshire Total Population 2038	Shropshire Total Population 2043
High Variant	378,100	390,300
Low Variant	365,700	372,700
Alternative Variant	354,400	360,600
10 Year Variant	343,500	347,300
Principle Projections	371,900	381,500
2016 Projections	336,000	-
2014 Projections	337,800	-

1.79   Figure 16 shows the 2018 principle SNPP and the four variant projections. Table 11 compares the population projections up to 2038 and to 2043. Table 11 also compares the 2018 SNPP with the 2014 and 2016 SNPP for 2038. This shows the significant difference between the 2014 and 2016 SNPP and 2018. The 2018 SNPP shows a population 35,900 greater than the 2016 SNPP by 2038. Compared with the higher variant this figure is 42,000.

Figure 17: Total Net Migration in Shropshire Historic Trend
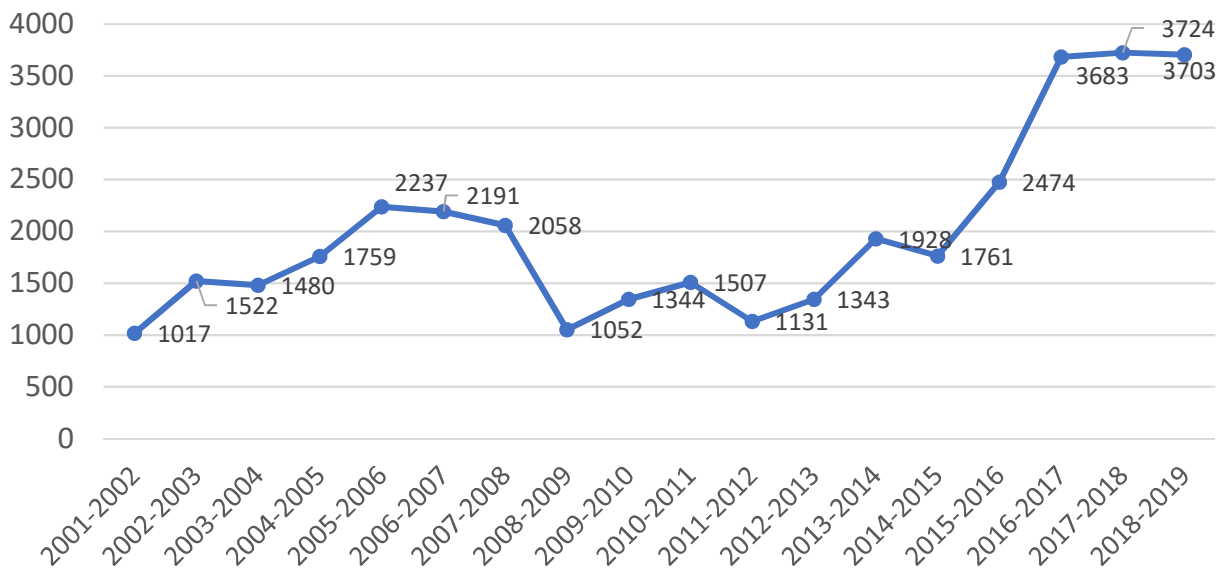
1.80 Figure 17 shows historic migration trends in Shropshire. The last three years of data from the mid-year estimates show a considerable increase in net migration in Shropshire, this has mainly been driven by internal migration (figure 2). This demonstrates how a changed methodology by ONS in estimating population and basing the 2018 SNPP on the previous two years of trend data (2016/17 and 2017/18) can result in an inflated SNPP 2018 driven by migration estimates.

1.81 Based on a robust trend of migration data and comparisons with previous published sets of SNPP, the projections for Shropshire are most likely to be in between the 10 year variant and the alternative variant around 347,300 to 360,600 in 2043. This would be the more realistic reflection of Shropshire's projected population growth as this figure best reflects historic levels of migration in Shropshire.