THE FUTURE OF THE WORKFORCE IN LEICESTERSHIRE

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Introduction

In this report we make projections on the likely shape of Leicester and Leicestershire's workforce for the next 10-20 years. We do so based on an analysis of a range of existing data including the Office for National Statistics (ONS) population projections, Annual Population Survey, Annual Survey of Hours, and Earnings and the 2011 Census.

Framework

The future workforce in Leicestershire will be shaped by a range of factors. We focus, in particular, on:

- Projected changes in the population and working age population within Leicester and Leicestershire.
- Changes in the age distribution of people in Leicester and Leicestershire and how this may impact on economic activity.
- The role of international migration and migration within the UK in population growth in Leicester and Leicestershire.
- The extent to which working age people are active in the labour market and how this may change over time.
- Changing patterns of work, such as remote working, and the role of the informal economy.

Context

The UK economy is currently in a period of high uncertainty due to, amongst other things, the UK leaving the EU and the EU single market, revised immigration rules, the fundamental shift in working and home working practices because of the COVID-19 pandemic, the potential long run impact of COVID-19, and shifting patterns in work because of digitalisation. Any projections of the future workforce are, therefore, subject to potential prediction error. For this reason we consider a range of future pathways and highlight areas of particular uncertainty. For instance, we will see that population projects for Leicester are particularly sensitive to assumptions around future immigration policy.

Table 1: Key terms and definition used in the report.

Term	Explanation
Economic activity	A person is economically inactive if they are neither in employment nor actively seeking work. This includes students, retired, long-term sick and people not seeking employment.
East Midlands	The East Midlands region includes Northamptonshire, Lincolnshire, Derbyshire, Nottinghamshire and Rutland as well as Leicestershire.
Informal economy	Economic activity that is 'undocumented' including legal and illegal activities. It constitutes a significant portion of all major economies.
Internal migration	Change of residence from one local authority district to another. For instance, someone moving from Leicester to Blaby migrates from Leicester and into Blaby.
International migration	Some moving from outside the UK to live in the UK or vice-versa.
Leicester	The data we used is based on the Local Authority District of Leicester. This is smaller than the wider Leicester urban area.
Leicestershire	For the purposes of this report Leicestershire refers to areas of Leicestershire excluding Leicester.
Older workers	We follow the ONS approach of referring to workers between 50-64 years old as older workers.
Population projection	The ONS produces projections of population growth based on past trends. These are not predictions, as such, because future trends may differ from past trends,
Working age	We follow the ONS approach in proxying the size of the working age population with people aged 16-64 years old.

Figure 1: Map of local authority areas in Leicestershire.

Key findings

1. Leicestershire is projected to see a relatively high population growth rate over the next 20 years with growth of 7-10% per decade. This is well above the projected national average of around 3-5%. Leicester is projected to see slower growth of around 3-4% per decade. This is very slightly below the national average.
2. Leicestershire is projected to see a relatively high growth in working age population over the next 20 years of around 4-7% per decade. Leicester is projected to see slower growth of around 2-4%.
3. There is a stark difference between the age profile of workers in Leicester (younger age) and Leicestershire (older age). This difference is projected to widen over the next 20 years due to an ageing of the working age population in Leicestershire.
4. Older workers are less likely to be economically active but the net effect of an ageing workforce in Leicestershire is likely to be relatively small. We project that it will lower the growth of the working age population by less than 1%.
5. Population change in Leicester is largely driven by birth, international migration into the city and internal migration our of the city. By contrast, population change in Leicestershire is primarily driven by internal migration into the area.
6. Internal migration in Leicester and Leicestershire is largely local in nature with people moving within the county and surrounding areas. Migration into the wider area is, therefore, primarily due to international migration.
7. International migration into Leicester and Leicestershire has been relatively stable over the last decade. The overall effect of Brexit and changes to immigration policy is uncertain, particularly for Leicester. Under a low immigration scenario the projected growth in the working age population halves in Leicester, while being relatively unaffected in Leicestershire. This, however, should be seen as a 'worst case scenario'.
8. The three universities in Leicester and Leicestershire are a source of inward skilled migration. A new immigration policy may increase the proportion of international students that choose to remain and work in the area.
9. The vast majority of people living in Leicester and Leicestershire work in the area and the vast majority of people working in Leicester and Leicestershire live in the area. While there is an increasing national trend towards cross-region commuting this is unlikely to significantly impact on the workforce in Leicester and Leicestershire.
10. Leicester has a relatively low level of economic activity amongst the working age population, when compared with the national average and nearby cities such as Nottingham and Coventry. This is likely to persist and could reflect a relatively larger informal economy. Leicestershire has a higher level of economic activity. However, a rise in economic inactivity amongst older workers, post COVID-19, may have a long run net downward effect on economic activity.

Population projections

The ONS produces subnational population projections on a rolling 2 year basis. At the time of writing, the latest available projections are from March 2020 which use 2018 as the baseline. The population projections are 'based on the continuation of recent demographic trends'. That is, they assume that past trends in fertility, mortality and migration (over a five year reference period) will continue. The projections are not forecasts and do not take account of any possible changes in policy or household preferences. This is particularly important to recognise give that the combined impact of Brexit and COVID-19 could be expected to influence migration, and potentially fertility and mortality.

In the following we look in turn at projections for the total population and working age population.

Total population

In Table 1 we detail the estimated total population in 2011 and 2020 together with the projected populations in 2030 and 2040 by local authority area.[1] We also detail the 10 year projected population growth rate. You can see that the population of Leicester and Leicestershire grew by around 7.4% in Leicester and 9.5% in Leicestershire over the period 2011 to 2020. This is notably higher than the 6.5% growth seen across England as a whole.[2] That relatively high growth is projected to continue in Leicestershire with a growth rate of 7-10% per decade. By contrast, the growth in Leicester is projected to slow to around 3-4% per.

Table 1: Estimated/projected population (in 1,000s) and population growth (% per decade) for local authority districts in Leicestershire. Source ONS.

	Blaby	Charnwood	Harborough	Hinckley and Bosworth	Melton	North West Leicestershire	Oadby and Wigston	Leicester	Leicestershire
Population									
2011	94	166	86	105	51	94	56	330	651
2020	102	188	96	114	51	105	57	354	713
2030	117	208	104	127	52	121	60	376	789
2040	127	221	112	137	54	134	61	389	845
Population growth									
2011-2020	8.4	13.6	11.4	8.0	1.8	11.8	2.3	7.4	9.5
2020-2030	12.6	10.7	9.9	10.3	2.1	14.8	4.3	4.3	10.3
2030-2040	8.4	6.5	7.3	7.9	2.2	10.4	2.9	3.3	7.2

[1] We use 2011 as a base year because this was a Census year and so allows an accurate population estimate.
[2] The East Midlands as a whole is projected to see strong population https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationprojections/bulletins/subnationalpopulationprojectionsforengland/2018based.

For context we note that the projected population growth rate for England as a whole is 4-5% (between 2018-2028) and so Leicestershire is projected to see above average growth and Leicester below average growth. One possible reason for constrained growth within Leicester is lack of additional housing and space for growth in an already densely population area. This can, for instance, also explain the low projected population growth in Oadby and Wigston. It is important, therefore, to recognise the role of migration within Leicestershire, an issue we return to shortly.

Working age population

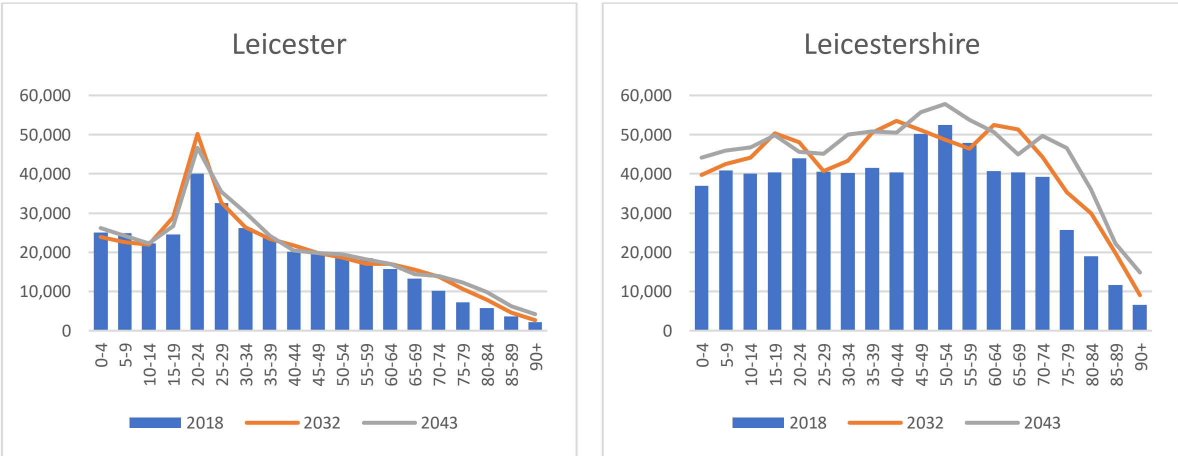
For statistical purposes working age in the UK is typically interpreted as 16-64 years old. Clearly this includes a large number of young people who are likely to be in education and further training while also omitting older workers who remain in the workforce (particularly given rises in state pension age). It provides, however, a useful proxy for the working population. In Table 2 we summarise the principal ONS projections for the total working age population in Leicester and Leicestershire. Again, you can see that Leicestershire is expected to see continuing strong growth over the next 20 years while that of Leicester is expected to grow but at a slower rate. Across Leicester and Leicestershire the working age population is projected to grow at 7% between 2020 and 2030.

Table 2: Estimated/projected working age (16-64) population (in 1,000s) and population growth (% per decade) for local authority areas in Leicestershire.

	Blaby	Charnwood	Harborough	Hinckley and Bosworth	Melton	North West Leicestershire	Oadby and Wigston	Leicester	Leicestershire
Population									
2011	60	110	54	67	32	60	35	223	417
2020	62	122	57	68	30	65	34	235	439
2030	67	132	59	74	29	73	34	249	471
2040	75	137	61	78	28	78	35	253	491
Population growth									
2011-2020	3.9	11.1	6.7	1.5	-5.3	8.7	-2.5	5.3	5.2
2020-2030	10.8	8.9	5.6	7.1	-4.9	11.5	1.1	3.8	7.3
2030-2040	6.8	3.7	3.5	5.3	-3.7	6.8	0.7	1.7	4.2

Comparison of Tables 1 and 2 show that growth of the working age population is projected to be slightly slower across all local authority areas than total population growth. This is primarily explained by an overall ageing of the population and, thus, an increase in people above working age. To illustrate, in Figure 2 we detail the projected age distribution for Leicester and Leicestershire. There is stark contrast between Leicester, where the population is relatively young, and Leicestershire, with an older population. In Leicester the age distribution is projected to be relative static over the next 20 years. This, as we will discuss shortly, is consistent with a continual flow of migration into Leicester of younger adults and migration out of Leicester by older adults. The working age population in Leicester is, therefore, projected to grow while maintaining a relatively similar age distribution. In Leicestershire, by contrast, we see a slightly more pronounced shift to an older age distribution. In particular, most adults are, and will continue to be, in the 45-65 age category. Moreover, there is projected to be a growing number of adults 65 years or older.

Figure 2: Projected population age structure in 2032 and 2043 compared to a 2018 baseline.



Older age economic inactivity

Given that the Leicestershire is projected to have an increasing number of adults in the 45-64 age bracket we briefly comment on the potential implications on the working population. Over recent decades there has been a dramatic drop in the proportion of older people (aged 50-64) in the UK who are economically active. Dropping from above 40% in 1986 to around 26% now.[3] There are distinct factors that drive this inactivity with variation over the wealth distribution. At the top of the wealth distribution early retirement is the dominant factor while at the bottom of the age distribution people are less likely to consider themselves unemployed but are supported by family and/or benefits, particularly disability benefits.[4]

Figure 3 illustrates the breakdown into employed, unemployed and economically inactive for adults in the East Midlands between 40 and 64 years old.[5] We can see a notable increase in economic activity amongst older workers, increasing from 50 to 64. For the aggregate 50-64

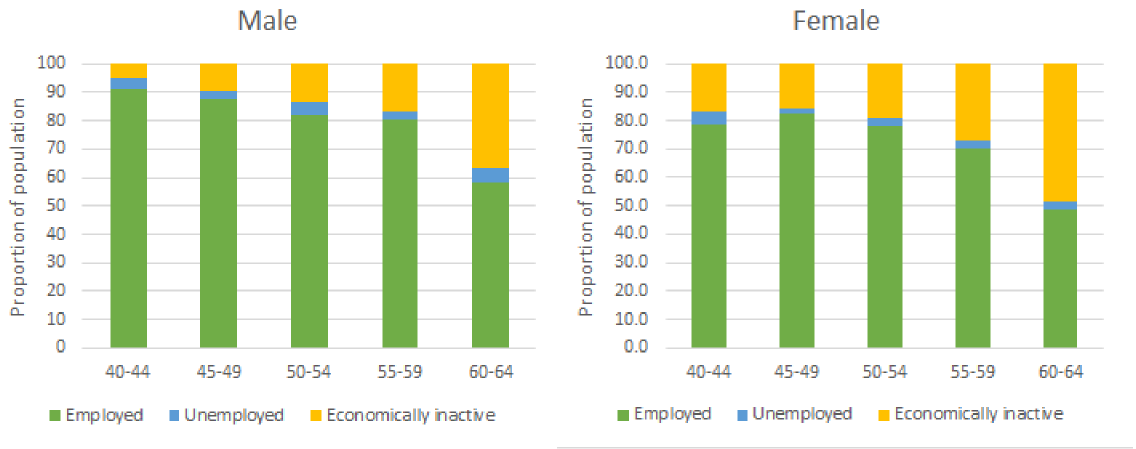
[3] https://www.gov.uk/government/statistics/economic-labour-market-status-of-individuals-aged-50-and-over-trends-over-time-september-2020/economic-labour-market-status-of-individuals-aged-50-and-over-trends-over-time-september-2020.

[4] See, for example, Banks, J., & Smith, S. (2006). Retirement in the UK. *Oxford Review of Economic Policy*, *22*(1), 40-56.

[5] Data from Annual Population Survey (2020-2021)

age bracket we can break down economic inactivity into retirement of 38%, long-term sick of 29% and looking after family or home of 14%.[6]

Figure 3: Proportion of population by economic activity and age (2020-2021) in the East Midlands.



An ageing population means that while the working age population of Leicestershire is projected to grow we can expect that the economically active population will grow proportionately less. This effect will, though, only slightly lower the projected growth of the population. To illustrate we projected the number of adults, 40-64 years old in employment in Leicestershire, on the assumption that economic activity rates will be consistent with current levels. The number of adults (40-64 years old) is projected to grow by 5.7% by 2030 while the number of adults (40-64) in employment is projected to grow by 4.8% by 2030. By 2040 the growth in the number of adults (40-64) is projected to be 11.6% which is actually less than projected growth in adults (40-64) in employment at 12.2%. An ageing population is, thus, likely to have only a small moderating effect on overall employment.

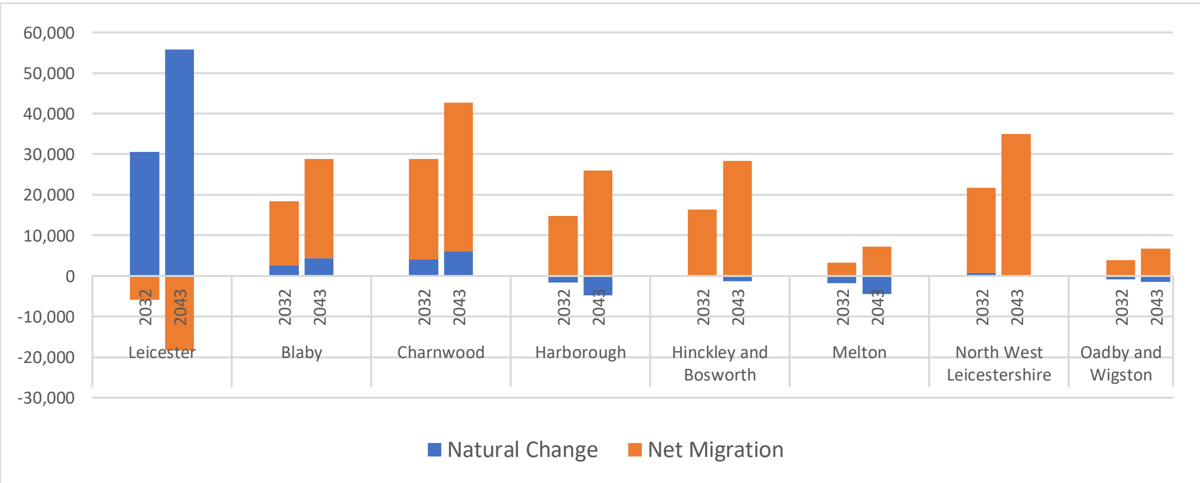
[6] There are only small gender differences. Retirement is 37.9% of males and 36.4 of females, long term sick is 29.4% of males and 26.5% of females and looking after family 14.6% and 18.8%.

Migration

A crucial aspect of population change in Leicester and Leicestershire is migration. Broadly speaking the ONS distinguish four factors that influence projected populations: fertility and deaths (natural change) together with international and internal migration (net migration). International migration, as one would expect, implies people from outside the UK coming to live in Leicestershire, or people from Leicestershire moving abroad. Internal migration is people moving from one local authority area to another. For example, an adult moving from Leicester to Blaby is counted as internal migration from Leicester in to Blaby. Similarly, someone moving from London to Leicester is internal migration into Leicester.

Figure 4 breaks down projected population change between 2018 and, respectively, 2032 and 2043 by component of change, comparing natural change (birth and death) with migration (internal and international). You can see a stark difference between Leicester, where population change is primarily driven by natural change, and Leicestershire, where it is driven by migration. The positive natural change in Leicester is caused by births exceeding deaths and consistent with the younger age profile in the city (see Figure 2). Children being born now will clearly not enter the labour market for some time. The projected high natural change is, though, an indication that Leicester will maintain a younger working age profile. In Leicestershire, births and deaths essentially cancel out and so migration is the key driver of population growth.

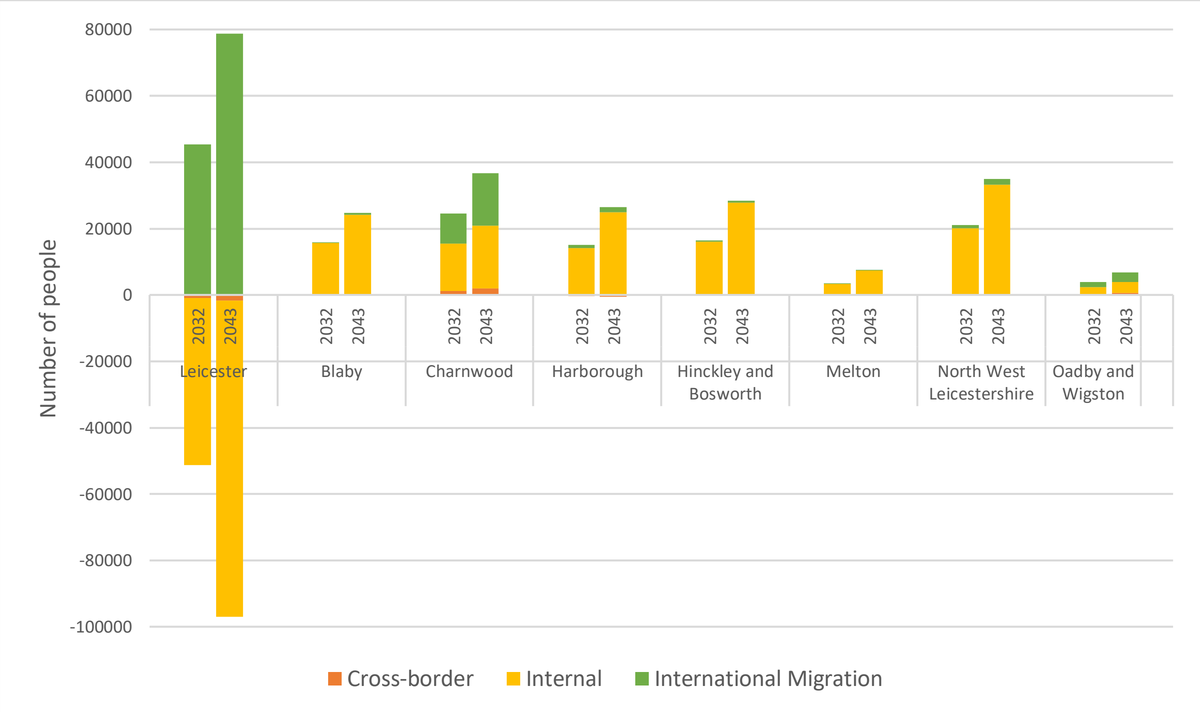
Figure 4: Projected population change by component of change (2018 – based)



Internal migration

In Figure 5 we breakdown migration into international migration and internal migration (as well as cross-border migration to Norther Ireland, Scotland or Wales). Again, we see a stark contrast between Leicester and Leicestershire. In Leicester there is large international migration into the city accompanied by larger internal migration out of the city. Leicestershire, by contrast, is characterised by internal migration into the county. The ONS do not breakdown internal migration by destination and origin, but a reasonable conjecture, based on the migration and age distribution data, is that people within Leicester tend to migrate to live within Leicestershire. In other words, Leicester is characterised by higher births and higher international migration with residents subsequently migrating out of the city to live in surrounding areas.

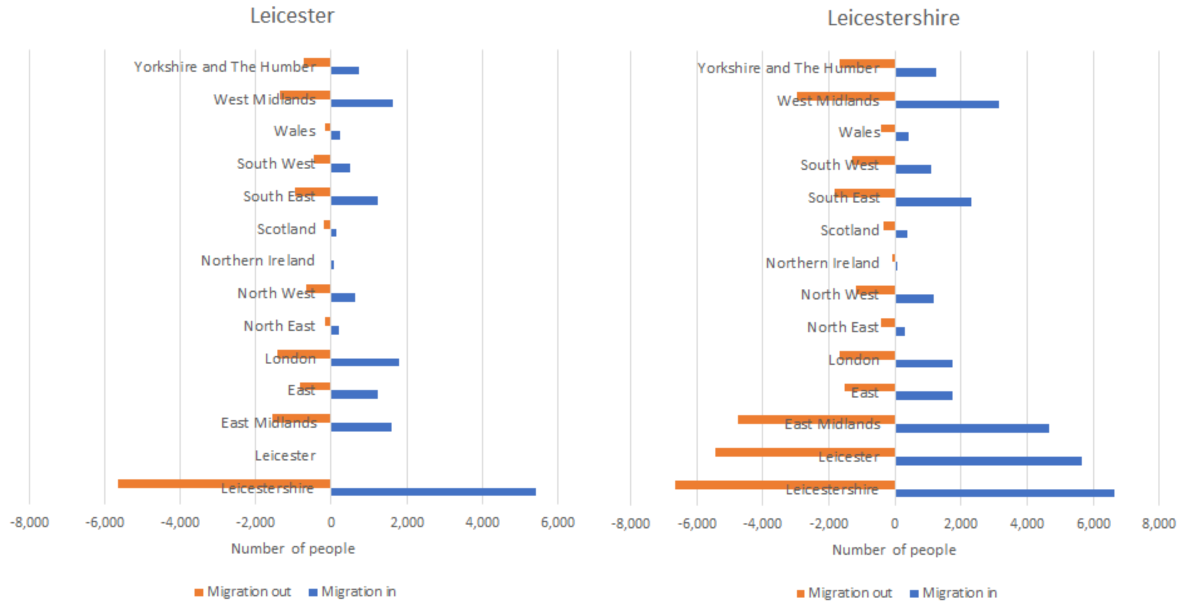
Figure 5: Projected net migration change by component of change (2018 – based)



To help inform this view we looked at data from the 2011 Census. This allowed us to analyse internal migration over a one-year period from 2010 to 2011.[7] The data for internal migration is summarized in Figure 6. You can see that most of the internal migration in the area is relatively local, with movement between Leicester and Leicestershire, and the wider East Midlands and West Midlands regions. Migration flows with London and the South East are of secondary magnitude. The picture (see the Appendix) is very similar if we consider people of working age (16-64 years old). Given that internal migration is predominantly local it would seem unlikely to have significant implications for the future labour force in the area. For instance, there is no indication of a 'brain drain' from the area or vice-versa.

[7] See, for instance, https://www.nomisweb.co.uk/census/2011/MM01CUK_ALL/chart/1132462096 to access a visual for Leicester.

Figure 6: Internal migration into and out of Leicester and Leicestershire (2011 Census). East Midlands is the East Midlands region excluding Leicester and Leicestershire.



International migration

The biggest net impact in the area from migration comes from international migration into Leicester. Figure 7 documents trends in international migration over the last 10 years. You can see that international migration both into and out of the region has been relatively steady over this time.[8] Various factors, not least the UKs exit from the EU, mean that past migration may not be a good proxy for future migration.[9] To put into context the role of EU migration in Table 3 we provide estimates of migration inflows to the East Midlands between 2011-2020 by country of origin. You can see that net inflows from Europe are substantial but so are inflows from Southern Asia and Africa. Overall, EU migration accounted for 28% of net population growth (16 and over) over this period.

Relative speaking, a significant drop in EU migration would lower the projected growth of the working age population in Leicester and Leicestershire. To evaluate the potential impact, in Figure 7 we compare the principle ONS population projections with those based on lower levels of immigration. The effect is to approximately halve the projected population growth in Leicester and have little effect on projected growth in Leicestershire. The future working

[8] Data from local area migration indicators https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/migrationwithintheuk/datasets/localareamigrationindicatorsunitedkingdom

[9] See https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/bulletins/longterminternationalmigrationprovisional/yearendingdecember2020

population of Leicester is, therefore, sensitive to immigration but strong growth in the population can be expected even if levels of migration are substantially lower than in recent decades. A more pressing concern may be shortages of labour in specific markets that have benefited from EU migration, particularly in low-skilled sectors.[10]

Figure 7: Long term international migration into and out of Leicester and Leicestershire since 2011 (all people over 16).

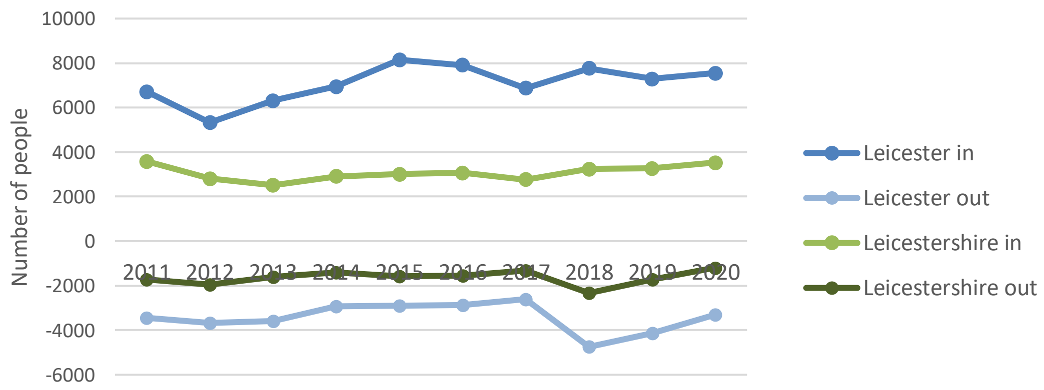


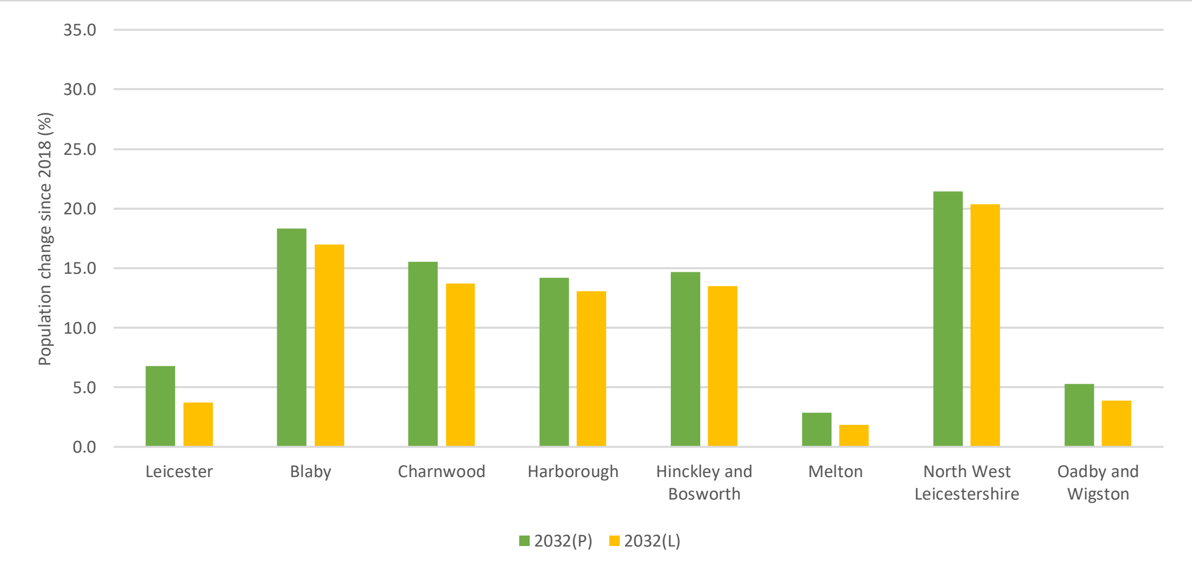
Table 3: Estimated change in non UK born population (over 16) in the East Midlands between 2011 and 2020 (from Annual Population Survey).

Country of origin	Net inflow
EU14 (France, Germany etc)	42400
Southern Asia	35600
EU2 (Romania and Bulgaria)	22900
Western Africa	14600
Southern Africa	13400
Other Non-EU Europe	9200
Eastern Africa	6600
North Africa	2400
North America	2100
EU8 (Poland, Lithuania etc.)	1200
Caribbean	1200
Central America	900
South America	-300
Central Africa	-900
Australasia	-1200
Eastern Asia	-3100
South-East Asia	-5200
Middle East	-5600

[10] https://www.resolutionfoundation.org/app/uploads/2020/12/Home-and-away.pdf.

International migration is multi-faceted. One factor is international students attending the regions universities.[11] Upon graduation, statistics for year 2018/19 shows that 35% (118,000) of non-EU students (or those that just graduated) extended their visas to stay in the UK, with 77% (90,860) of that number receiving long term stay visas. Over the period 2015-2020 around 36% of students in the East Midlands obtained a second visa (which could be for further study or work). The new Graduate Immigration Route will likely increase the proportion of international students who choose to work in the UK.[12] We estimate that around 7-8,000 non EU students a year come to study at the three Universities in the region (Leicester, Loughborough and De Montfort).

Figure 7: Projected population change by 2032 under the ONS principal model (P) and low immigration model (L)



[11] See https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/internationalmigration/articles/visajourneysandstudentoutcomes/2021-11-29.

[12] https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1006443/Graduate_Immigration_Route_guide__July_2021_.pdf.

Labour market participation and the changing nature of work

In this final section of the report we briefly touch on two factors that could potentially influence the future labour force in Leicester and Leicestershire. These are home working post COVID-19 and the informal economy.

Home working and commuting

In assessing the future workforce in Leicester and Leicestershire it is important to take account of potential cross region commuting. In short, people living in Leicester and Leicestershire may work outside the region and people working in Leicester and Leicestershire may commute from outside the region. Table 4 summarises cross-region working at the time of the 2011 Census. You can see that the vast majority of people working in Leicester and Leicestershire come from the region (see Working columns). Similarly, the vast majority of people resident in Leicester and Leicestershire work in the region (see Resident columns). The only significant cross-region commuting is within the East Midlands and West Midlands.

Table 4: Workplace and resident location (2011 Census). For example, 38.4% of those working in Leicester live in Leicestershire and 25.8% of those resident in Leicester work in Leicestershire. East Midlands excludes Leicester and Leicestershire.

	Working		Resident	
	Leicester	Leicestershire	Leicester	Leicestershire
Leicestershire	38.4	65.8	25.8	60.3
Leicester	53.9	12.6	65.6	20.9
East Midlands	3.9	12.2	3.1	8.4
West Midlands	1.9	6.8	2.5	7.2
East	0.4	0.4	0.7	0.7
London	0.3	0.2	0.9	0.8
South East	0.3	0.4	0.5	0.7
South West	0.1	0.3	0.1	0.2
Wales	0.1	0.2	0.0	0.1
Scotland	0.0	0.0	0.1	0.1
Northern Ireland	0.0	0.0	0.0	0.0

Commuting distances in the UK have increased over recent decades with workers travelling less often to the workplace.[13] This trend predates the COVID-19 pandemic but the pandemic is clearly likely to accelerate change. A shift to hybrid working increases flexibility in the

[13] See https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/877039/commuting-in-england-1988-2015.pdf.

labour market. This can enable participation from groups that are under-represented in the labour market, e.g. disabled people.[14] It may also increase cross-region employment. There is little evidence to date, however, that home working will have a fundamental impact on the supply and demand of labour in Leicester and Leicestershire.

Economic inactivity and the informal economy

Leicester is characterised by relatively high rates of economic inactivity. For instance, the ONS Annual Population survey (2020-2021) estimates that only 72% of adults are economically active compared to 78% in the East Midlands. This is primarily driven by inactivity in females with 64% active compared to 75% in the East Midlands, and only 60% in employment compared to 71% in the East Midlands. Economic inactivity can be due to preference and/or constraint, e.g. ill-health or caring responsibilities. Labour market participation is also shaped by informal labour markets and the informal economy.

The informal economy is a wide category that includes various legal and illegal activities, e.g. street sellers, undocumented work in family firms, and cash-in-hand jobs (that may all be 'quasi-legitimate' because no tax would have been due) as well as trafficking in human beings, prostitution, and smuggling. The informal economy is often viewed as 'undesirable' but it represents a significant component of all major economies. Indeed, it is estimated to be about 10% of the UK economy.[15] Moreover, the informal economy is associated with areas of relative deprivation.[16] There is every reason, therefore, to expect that the informal economy is relatively large in Leicester, just as in other cities in the UK. Using a method of estimating the size of in the informal economy based on electricity consumption we estimate the informal economy could be as much as 20% of the Leicester economy and has grown over the last 10 years. With an active informal economy it is unlikely that rates of documented economic activity will change.

Leicestershire has higher levels of economic activity (at 83.7%). A consequence of the COVID-19 pandemic, however, has been to increase economic inactivity in the UK, particularly amongst older workers.[17] It is unclear whether this trend will apply in Leicestershire and/or be reversed post COVID-19. There is, though, the potential for a net decline in economic activity amongst older workers. If there is a net decline then this could decrease the labour pool below that which would have been projected based on past trends. This is a particular issue in Leicestershire given the relatively older working age population.

[14] https://www.bankofengland.co.uk/bank-overground/2021/how-could-the-recent-increase-in-homeworking-affect-the-economy.
[15] https://www.sheffield.ac.uk/polopoly_fs/1.358671!/file/JRF-informal-economy-and-poverty.pdf.
[16] E.g. Shahid, M. S., Rodgers, P., & Williams, C. C. (2017). Evaluating the participation of an ethnic minority group in informal employment: a product of exit or exclusion?. *Review of Social economy*, *75*(4), 468-488.
[17] https://researchbriefings.files.parliament.uk/documents/CBP-8898/CBP-8898.pdf.

Appendix

Figure A1: Estimated population (2011-2020) and projected population (2018-2043) for Leicester and Leicestershire (excluding Leicester). Overlap of estimated and projected data for 2018-2020.

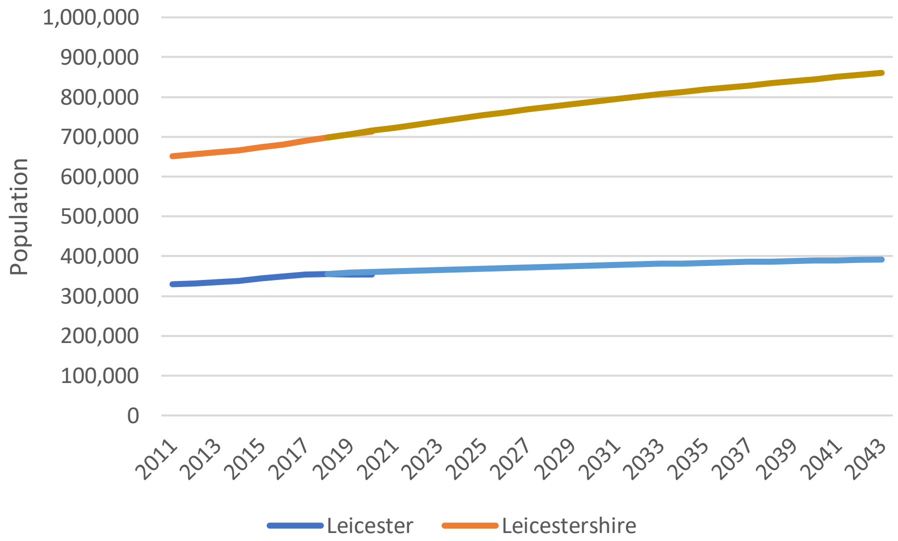


Figure A2: Estimated population change relative to a 2018 baseline by local authority.

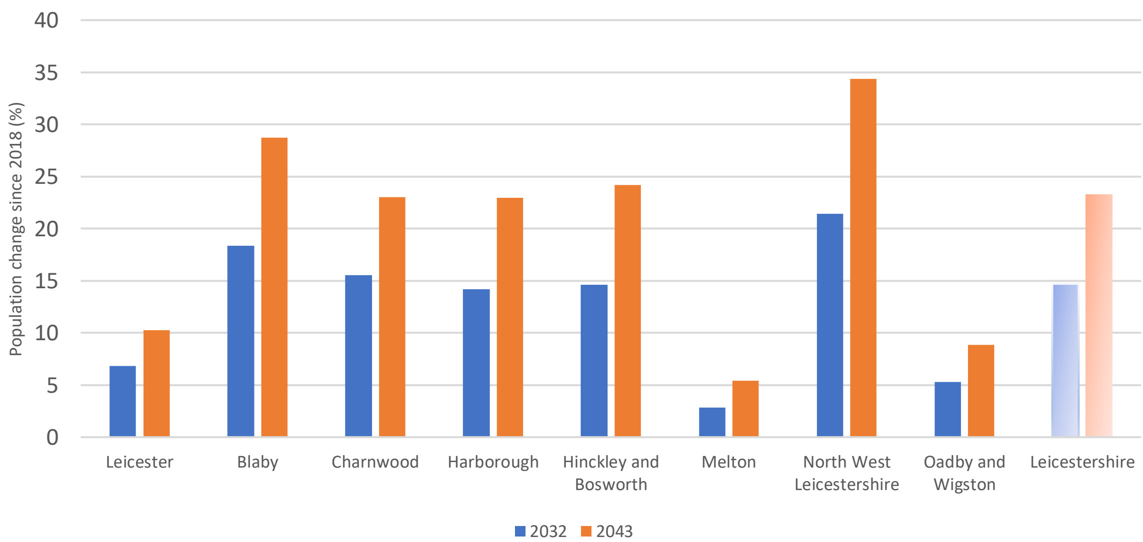


Figure A3: Estimated population aged 16-64 (2011-2020) and projected population (2018-2043) for Leicester and Leicestershire (excluding Leicester). Overlap of estimated and projected data for 2018-2020.

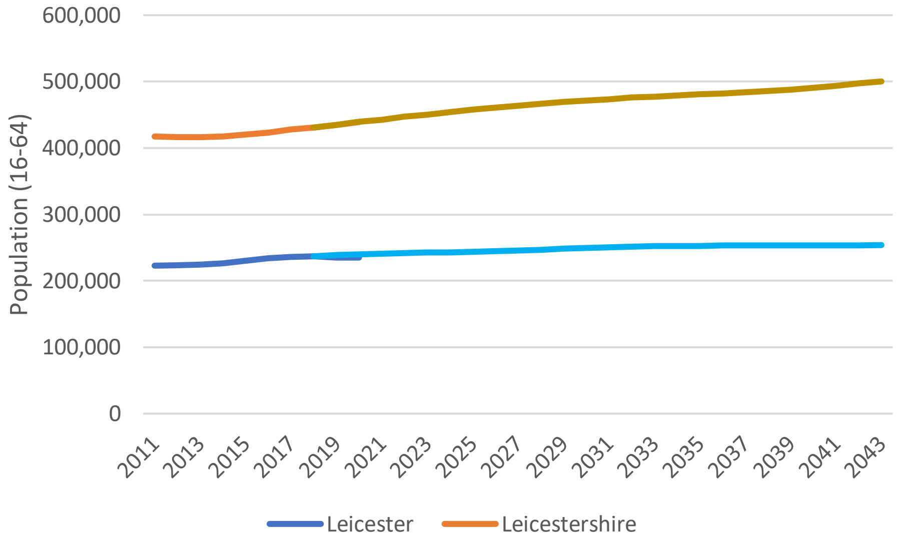


Figure A4: Projected population by life stage (2018 – based) distinguishing children (0-15), working age, and pensionable age. Under current legislation, the state pension age in mid 2032 and mid 2043 will be 67 years old for both sexes

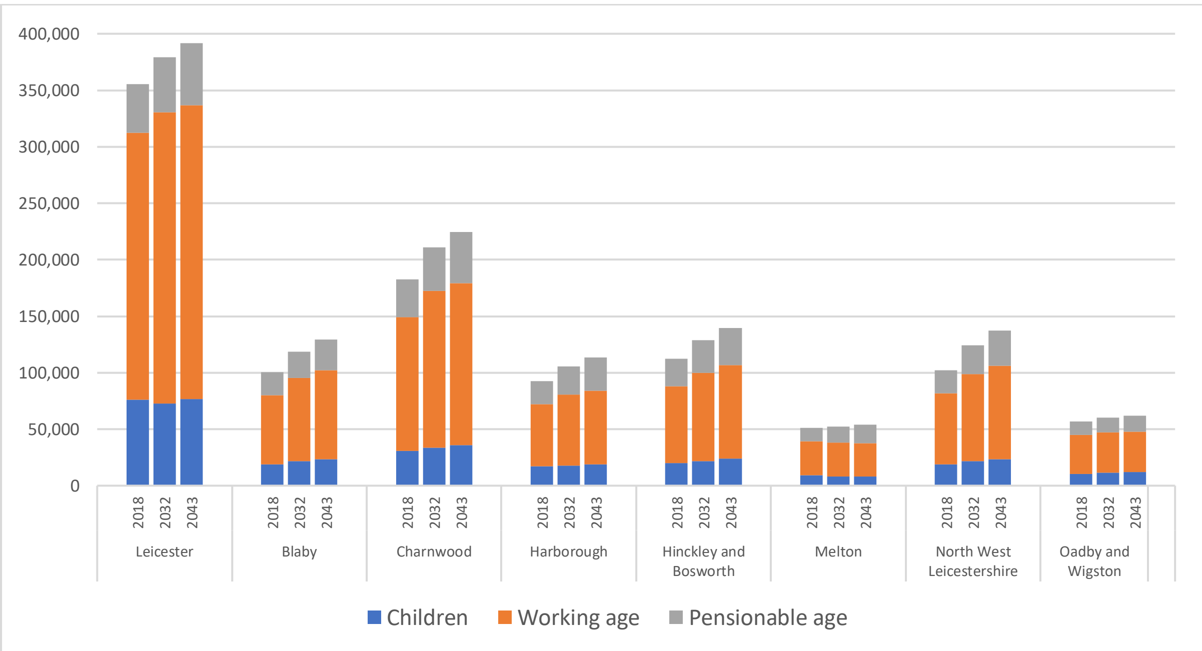


Figure A5: Old age dependency ratio (OADR) is the number of people of State Pension age per 1,000 people of working age.

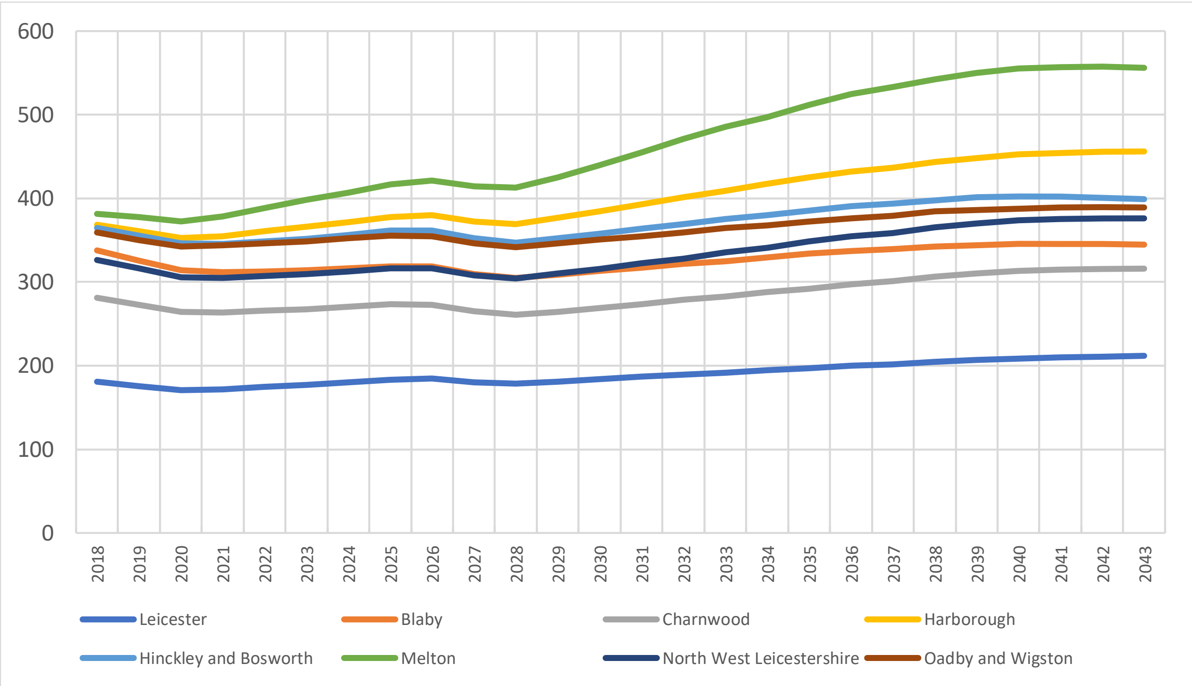
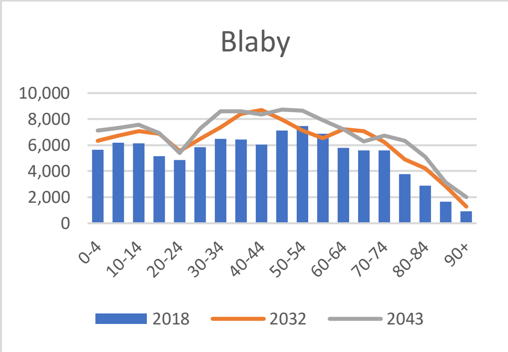
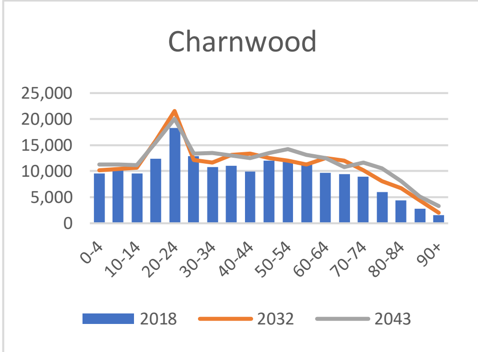
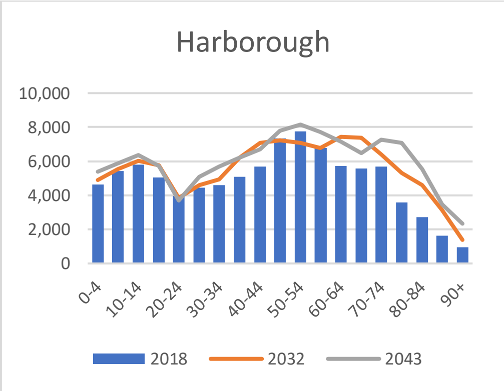
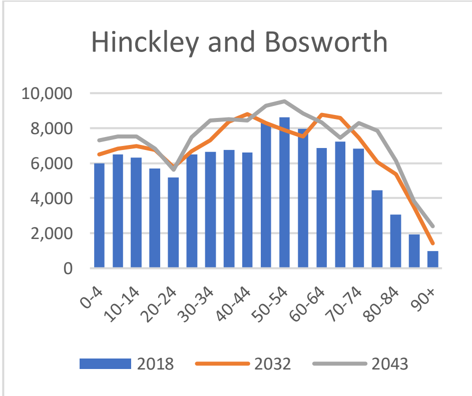


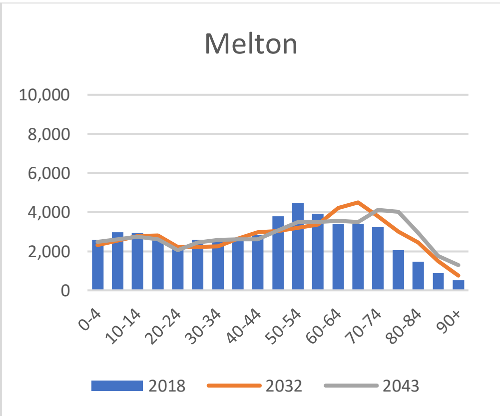
Figure A6: Projected population age structure (2018 – based)

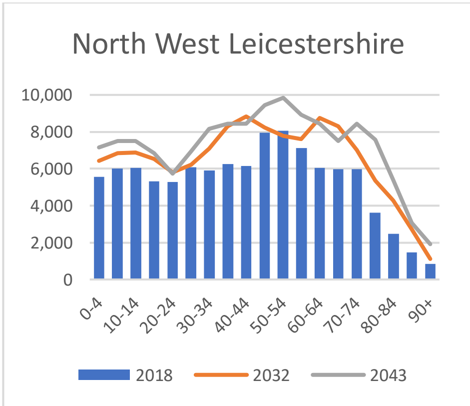












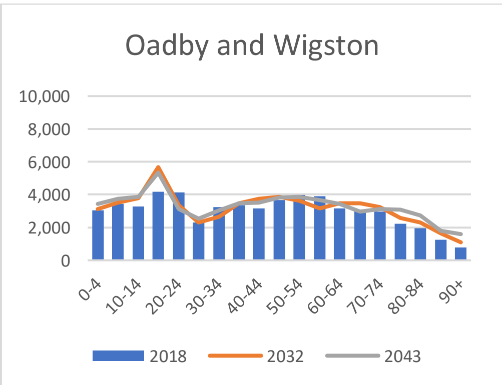


Figure A7: Internal migration of working age population (16-64 years old)

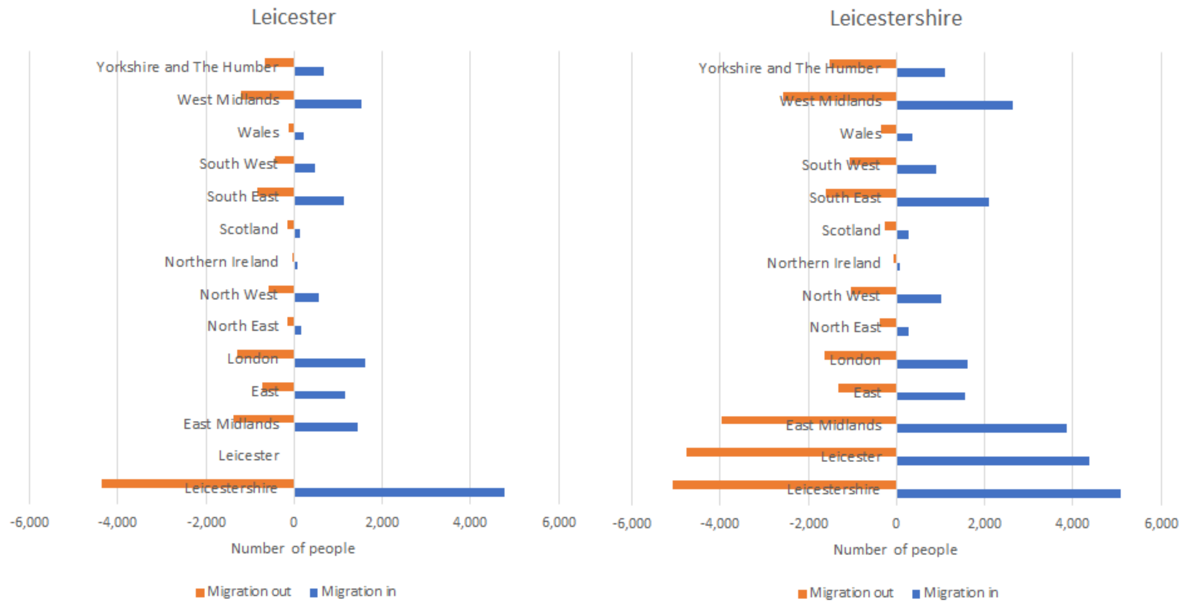


Figure A8: Economic activity of working age population in Leicester by UK versus non-UK born (Annual Population Survey)

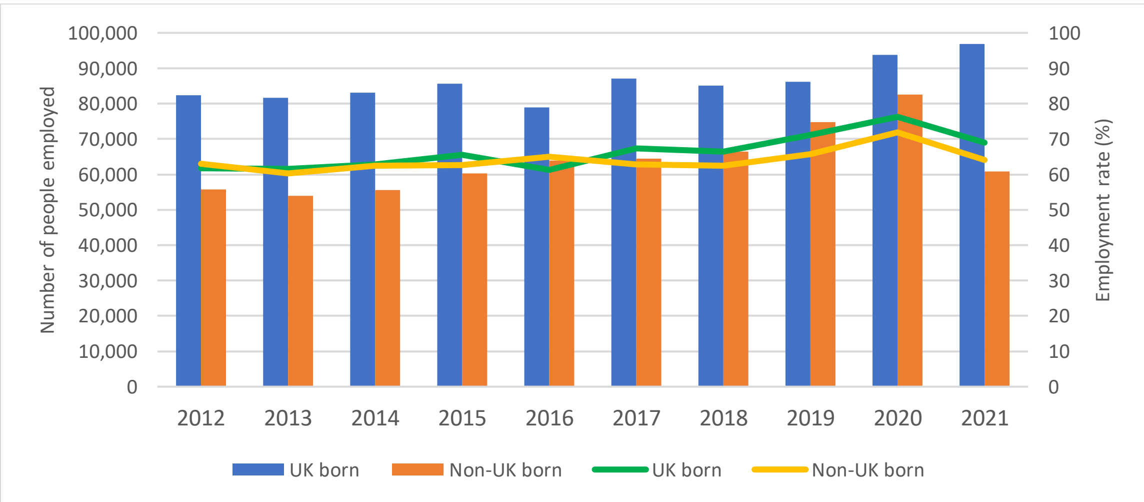


Figure A9: Number of asylum seekers receiving Section 95 support and resettled refugees (per 1000 population) (30 September 2021), from Migration Observatory

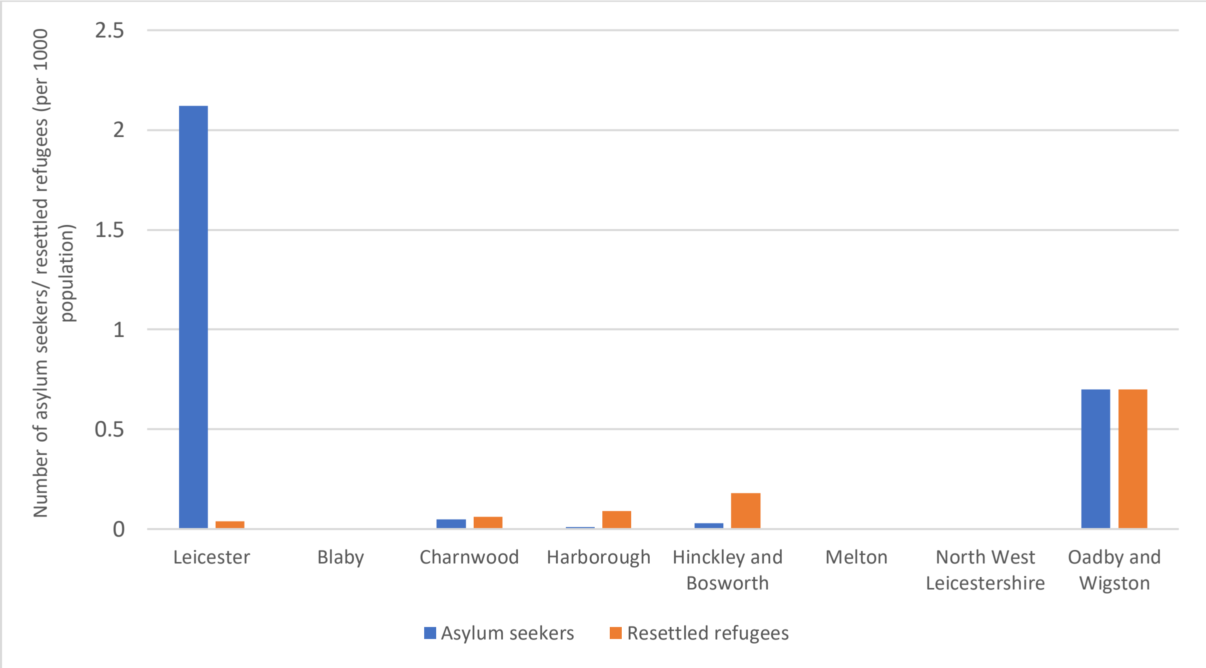


Figure A10: Population by UK or non-UK born in 2021