Geo Factsheet

# The Population Structure of UK Towns and Cities

Population structure refers to any characteristic of the population, such as age, sex, ethnicity, language, occupational structure, religion even family structure. Population structure is important because it tells us about population growth and it helps planners find out how many services and facilities, such as schools and hospitals, they will need to provide in the future.

The age and sex structure of a population are usually shown on an age-sex pyramids (Fig 1 and Fig 2).
* a wide base suggests a high birth rate
* a narrow base tells us that the birth rate has fallen
* straight or near vertical sides tell us that the death rate is low
* sides that narrow inwards from the bottom show a high death rate
* large amounts of males age 20-34 suggest high rates of in-migration
* a small amount of young people indicates high rates of out-migration

Fig 1 shows the population pyramid for the UK. It is typical of a developed country, with a large percentage of elderly and a declining proportion of young. Britain's population age structure for 1991 shows the effect of the 1962-1966 baby boom (there was an above average representation of 25-29 year olds) and the 1970s baby burst - resulting in fewer than average 10-14 year olds.

Fig 1. Population pyramid for the UK, 1991

Age/Sex Structure
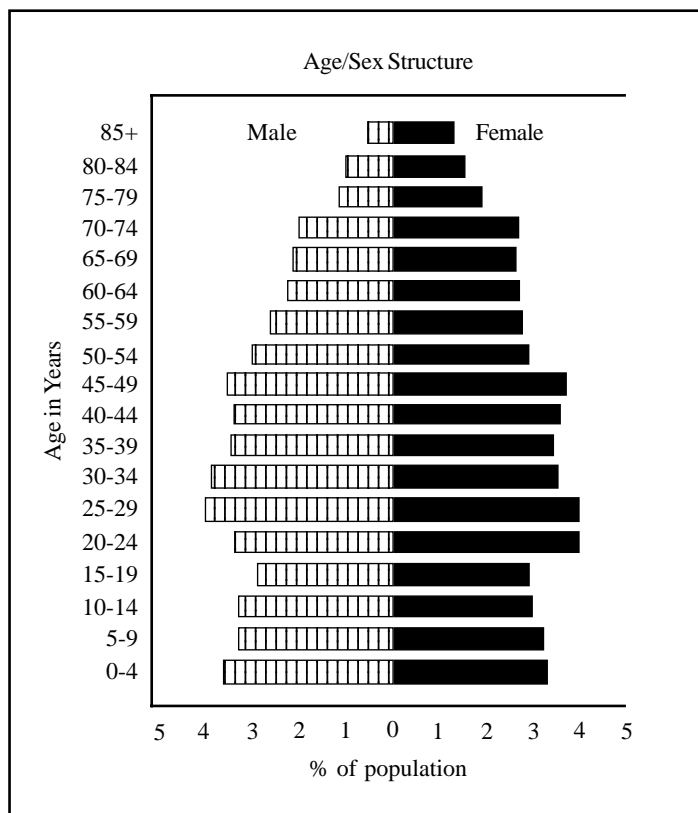
Migration and age-structure
Migration is dominated by young adults, especially in the 20-24 and 25-29 year groups. These account for almost 40% of all migrants and have a major impact on urban population pyramids. For example London's migrants are mostly aged 25-29, whereas rural areas and south coast counties have a much higher proportion of 45+ year olds. Large cities attract young people while rural areas are losing them. Areas which attract populations aged 30-44 (and their children) are the suburban areas, e.g. Oxfordshire and Cheshire, and areas with strong economic growth, such as Cambridge.

Thus, urban and regional variations in the age structure have more to do with migration than differences in birth rates and death rates:

* there are fewer under 45 year olds in rural areas
  (out-migration of school leavers to urban areas)
* movement of over 45 year olds away from connurbations (which are crowded and expensive) to small and medium sized towns
* suburban pull for people with young families

Population structure in large urban areas
Fig 2 (overleaf) shows the age-sex pyramids for Glasgow, Edinburgh and Manchester. These are typical of many cities. For example, there is a very large presence of young men and women aged 20-29. This is due to migration of young adults to centres of employment, as well as to university. The relatively similar proportions of males and females aged 20-29 is due to the nature of employment opportunities - these are mostly in services. If the job opportunities were mostly in heavy manufacturing industries there would be a gender imbalance and a disproportionate number of males.

In many respects Manchester is England's 'second' city. It has the regional headquarters of many newspapers and is the main service centre for much of the north of England. Likewise, Edinburgh is the financial, legal, and cultural centre of Scotland. By contrast, Glasgow has been characterised by large-scale deindustrialisation. However, there has been a great deal of government and foreign investment in the area, and it forms part of Scotland's 'Silicon Glen', the high-tech electronics corridor. As such it attracts many job seekers.

Large urban areas are more likely to be racially mixed whereas small towns and rural areas are less likely to be. Since 1945 immigrants have become an important element in the population of many cities. However, immigration into Britain in the 1950s was largely by Irish and East Europeans. This was quickly replaced by immigration from the New Commonwealth and Pakistan (NCWP). For example a large number of migrants from the Caribbean came over to work for London Transport in the 1950s. Others were forced to leave their country - the Asians expelled from Uganda in 1972 are a case in point.

Racial minorities now account for about 5% of the UK population. However, their distribution around the UK is not even. They are concentrated in the main urban and industrial areas. For example, the Asian population is concentrated in Greater London (200, 000), West Midlands (130, 000), West Yorkshire (70, 000) and Manchester (50, 000). These are the large conurbations which have much employment in services (low paid menial jobs such as in transport and in health services) as well as industrial towns such as Bradford, Leeds and Huddersfield. These are associated with the textile industry and engineering.

Fig 2. Age-sex pyradmids for Glasgow, Manchester and Edinburgh.
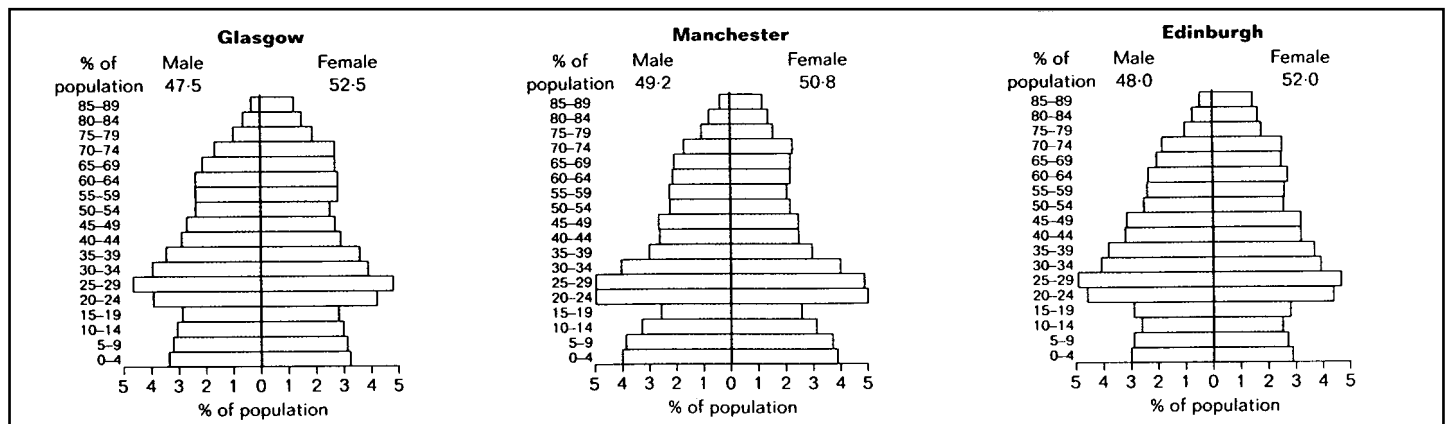
The segregation of Asians in Leicester has been well recorded. Out of a population of 300 000, there were 40 000 Asians, or about 14% of the population. These were largely concentrated in places such as Highfields, Evington and Belgrave. These are inner city areas (**Burgess' zone** in transition), mostly on the eastern side of the city (**Mann's model** of a typical British city) and also along radial transport routes (Hoyt's sectors). The housing is generally quite poor in these areas and is sub-standard in terms of density, central heating and modern amenities. Much of the industry that originally attracted the Asians, in the 1950s, 1960s and early 1970s notably textiles, light engineering and services were concentrated in and around the CBD/inner city. The pattern is much less clear cut now.

Racial minorities are geographically concentrated in the UK. Over half of Britain's non-whites are found in the South East. London accounts for nearly half of Britain's non-whites. It is home to over 60% of Afro-Caribbeans, 53% of Bangladeshis, over 40% of Indians but less than 20% of Pakistanis. In 1991 45% of the population of Brent belonged to an ethnic minority, 42% in Newham and 37% in Tower Hamlets. The highest proportion outside London were Slough and Leicester.

In most places a single minority dominates, for example Bangladeshis in Tower Hamlets, AfroCaribbeans in Hackney and Indians in Ealing. Brent by contrast has similar proportions of AfroCaribbeans and Indians. Outside of London there are important regional clusters. Leicester has the highest proportion of Indians, Bradford has the highest amount of Pakistanis and there are important clusters of Pakistanis in Slough and Pendle (Lancs).

There are also clear differences in age-structure (Table 1). The earlier migrants, the AfroCaribbeans and the Indians have a less youthful age structure, whereas the most recent migrants, the Bengali and the Bangladeshi have a more youthful age-structure.

**Table 1. Britains racial groups by age and population 1991**

Ethnic group	Population 000s	Age breakdown of ethnic groups (%)				
		0-15	16-29	30-44	45-59	60+
West Indian/ Guyanese	456	24	30	19	19	9
Indian	793	29	25	25	14	6
Pakistani	486	44	23	20	11	3
Bangladeshi	127	46	26	15	11	3
Chinese	137	25	28	29	13	5
All ethnic minority groups	2,682	34	26	22	13	5
White	51,805	19	21	21	17	21
Total	54,983	20	22	21	17	20

Population structure in Milton Keynes, a new town

A different pattern is shown by Milton Keynes, a new town (Fig 3). Although there is also a youthful population structure it is not as concentrated. In addition, the wider cohorts (age bands) are older, and

reflect the development of Milton Keynes as a New Town in the late 1960s and early 1970s. Milton Keynes has a young age-structure. Over 78% of the population are aged under 50 years compared with the national average of 68.75% and there is also a high proportion of children. Nationally the proportion is 25% but in Milton Keynes it is 30%. This means that there is already a large workforce and that there will be increasing numbers of people entering the workforce in the near future. This is attractive for investors.

Fig 3. Age/Sex pyramid for Milton Keynes
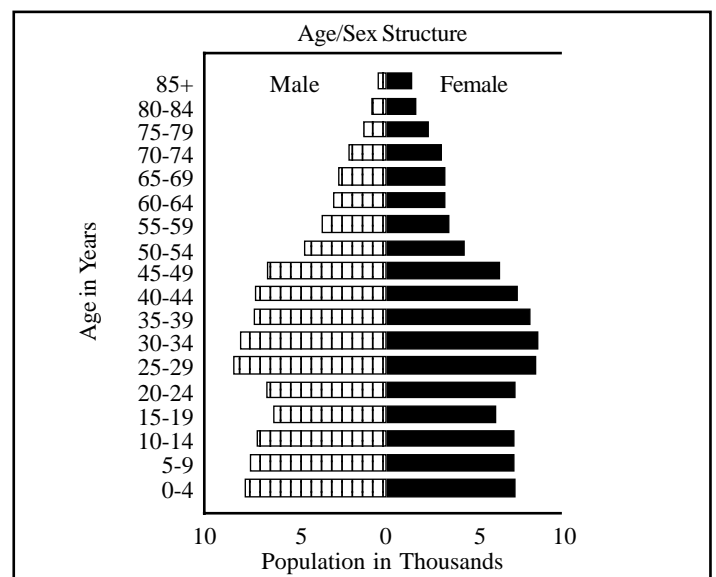
The increasing size of the cohorts under the age of 19 years mirrors the increasing size of cohorts that are twenty five years older. For example, the 25-29 year group is the largest group among the adults and the 0-4 year group are the largest among the children. It is likely that many of the 0-4 year old group are the children of those mostly from the 25-29 year groups. Table 2 shows the age-specific birth rate for British women by age group.

Table 2. Live births per thousand women by age (1994)

Age of women	Live births per thousand women
<20 years	29
20 - 24 years	78
25-9 years	112
30-4 years	88
35-9 years	35
>40 years	6

Population structure in Swanage

Population growth has been rapid in many small towns and rural areas. Often this has been at the expense of large urban areas, a process known as counterurbanisation. Counterurbanisation occurs because people perceive small towns to be more attractive than large cities. For example, housing is cheaper, there is more likelihood of owning a larger property, there is less congestion, pollution and crime.

Thus, migration has led to population growth in less heavily urbanised areas. In particular retirement resorts along the south coast have gained from the influx of elderly people. Many retirement areas have among the largest population increases in the UK. Similarly, remote, mainly rural districts, have also experienced strong growth and new towns have also shown rapid growth due to their age structure.

Table 3 shows population change in Swanage, a small town in the Isle of Purbeck. Swanage has grown for a number of reasons
- as a commuter settlement for workers in Bournemouth
- as a desirable location for retired and elderly population
- due to an increase in the number of second homes in the area, especially in the more scenic parts.

Table 3. Changing age-structures in Swanage, 1971-1991

Age group	1971	1991	Change
0-4	455	489	34
5-9	495	467	-28
10-14	495	438	-57
15-19	590	481	-109
20-24	500	464	-36
25-29	360	490	130
30-34	290	484	194
35-39	350	434	84
40-44	405	578	173
45-49	410	565	155
50-54	420	413	-7
55-59	545	507	-38
60-64	655	585	-70
65-69	735	681	54
70-74	600	646	46
75-79	430	573	143
80-84	270	461	191
85-89	105	242	137
>90	40	107	67

Conclusion

Population structure varies widely among UK towns and cities. Some cities, such as Manchester, London and Edinburgh have large proportions of young people. By contrast, others have large proportions of elderly. The needs of these two groups are very different and planners must plan accordingly. Other towns, such as the New Towns, have large numbers of young families, and so there is a greater need for schooling and certain types of facilities, such as recreation grounds. Moreover, the age-structure of a town varies over time. As the population ages (or if it is rejuvenated by immigration) its needs change too.

Practice Questions

1. Using Table 1 on page 2, compare the age-structure of Britain's white populations with that of the Pakistani and Bangladeshi populations.

2. Study Table 3, which shows data for population change in Swanage, 1971-91. Using the formula:

$$\frac{1971-91 \text{ value} - 1971 \text{ value}}{1971 \text{ value}} \times 100\%$$

to find the percentage change for each age group (NB. A negative value indicates a decrease in population size.) Which groups have:

(i) increased the most?
(ii) have decreased?

What evidence is there to suggest a change in the age structure of the Swanage population? Using an atlas, suggest which settlements commuters from Swanage work in. Give reasons for your answer.

Answer Outline

1. Among Whites 19% are in the under-15 group and 21% in the over 60- group. By contrast, among Pakistanis the proportions are 44% and 3% and in Bangladeshis they are 46% and 3%.

2. The elderly populations have increased the most. The number of over 90-year olds increased 167.5% and those aged 85-89 increased by 128%. There were also significant increases among all age groups between 25 and 49 years and above 65 years. By contrast, the greatest decline was among the 15-19 year olds, and most age groups under the age of 24 years, and between 50 and 64 years decreased in size.