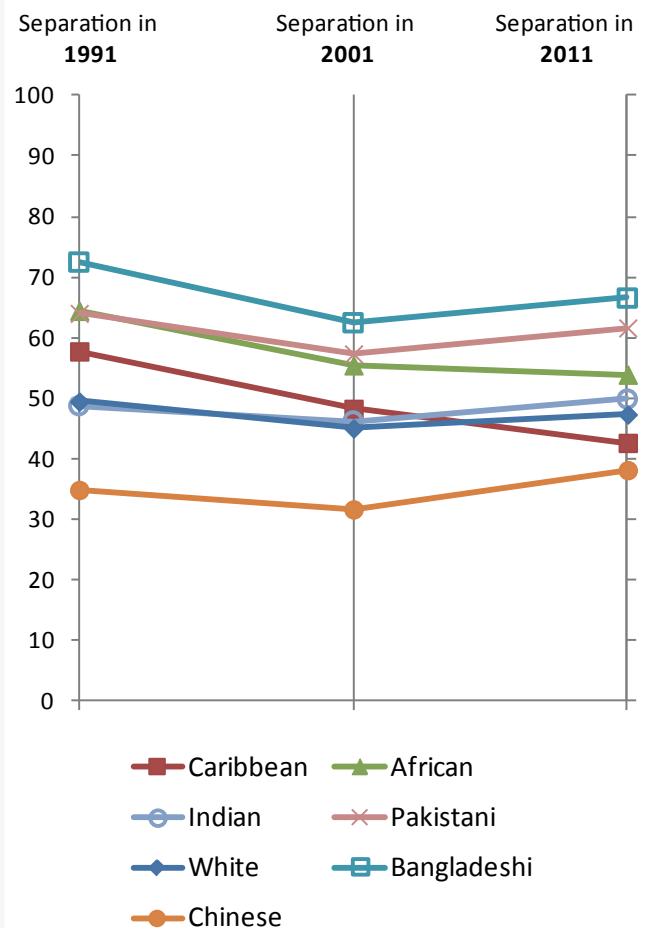


Ethnic mixing in Cardiff

Summary

- **Ethnic minority groups in Cardiff (other than White British) have grown and live in more mixed areas in 2011 than before.**
- Every ethnic group measured in the census, except Chinese and Indian is more evenly spread in 2011 than 1991 across Greater Cardiff wards.
- The decreased separation of the White, Caribbean, African, Pakistani and Bangladeshi groups is a result of dispersal away from the areas where they have been traditionally clustered.
- Nine out of 10 of the most diverse wards in Greater Cardiff are in Cardiff.
- **Grangetown is the most diverse ward in Cardiff**
- The population in Cardiff is not only becoming more ethnically mixed residentially, but also within households.
- **The proportion of people living in multiple ethnic group households has increased in all districts in Greater Cardiff.** Excluding one person households, 14% of households have more than one ethnic group in Cardiff.
- **The Mixed ethnic group has increased by 63% and accounts for 3% of the population (or 10,000) in Cardiff.**

Figure 1. Change in ethnic group segregation in Greater Cardiff, 1991-2011



Notes: Separation (Index of Dissimilarity) across 137 wards in Caerphilly, Cardiff, Rhondda Cynon Taf, Vale of Glamorgan. 100% indicates complete separation. 0% indicates completely even spread of a group.

Measuring segregation

The most commonly used measure of segregation is the Index of Dissimilarity, which calculates a summary measure of the spread of a group across space compared with the spread of the rest of the population. It is often referred to as the Segregation Index.

The Segregation Index is calculated by comparing the percentage of a group's total population in Caerphilly, Cardiff, Rhondda Cynon Taf and The Vale of Glamorgan that lives in a ward with the percentage of the rest of the population that lives in the same ward. The absolute difference is added up across the 137 wards, and then halved so that the index is between 0 and 100, with 0% indicating a completely even spread of the population and 100% meaning complete separation. Values of the Segregation Index tend to be higher when they are based on smaller areas because they magnify the differences between places.

Residential mixing

Measuring residential ethnic segregation is a challenge because its meaning and measurement have become politically loaded. Figure 1 shows the Segregation Index (see box) for Greater Cardiff¹ by ethnic groups that can be measured in each of the last three censuses. The Segregation Index shows that the Bangladeshi group (72%) was most separated and the Chinese group (35%) was the least separated in 1991.

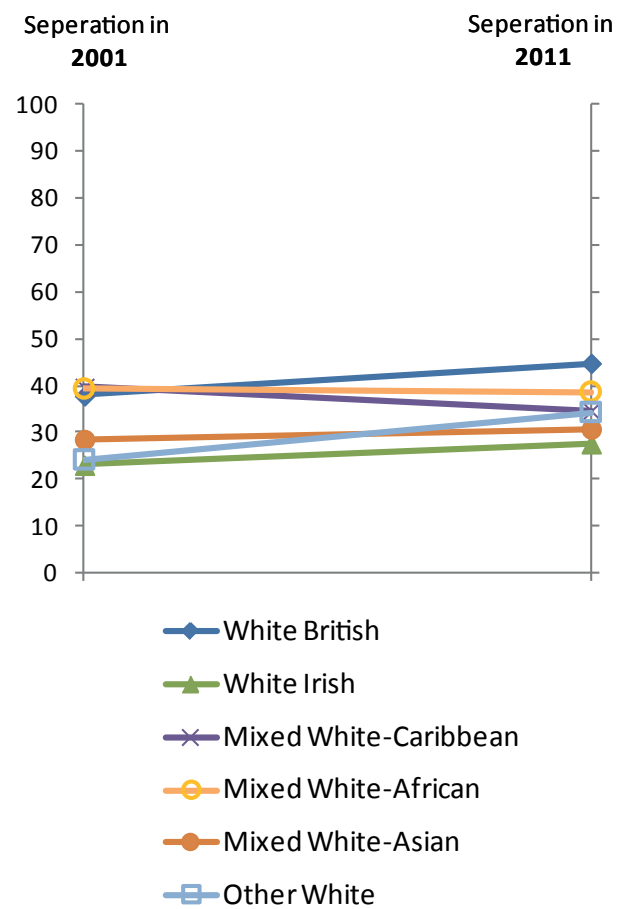
¹ includes Caerphilly, Cardiff, Rhondda Cynon Taf, Vale of Glamorgan.

During the 1990s the separation of each ethnic group decreased. There has been continued spreading out during the 2000s for the Caribbean and African groups. However, there has been increased separation of the White, Indian, Pakistani, Bangladeshi and Chinese groups during this period. This could be due, in part, to an in-situ growth through natural change (more births than deaths) as well as new immigration to historic settlement areas. Natural growth is most likely for the South Asian groups whereas new immigration, most notably students, is more likely for the Chinese group. The considerable decreased separation of the Caribbean and African groups represents a residential dispersal across Greater Cardiff and beyond.

The groups that have only been identified by the census since 2001 are shown in Figure 2. The White Irish, White Other and Mixed groups are more evenly spread through Greater Cardiff than other ethnic groups. The Mixed White-Caribbean and White-African groups have become more evenly spread whereas the Mixed White-Asian group has become slightly more separated. The White Irish and White Other groups have become more separated. The White Irish group has reduced in size during the 2000s whereas the White Other group has more than doubled.

The increased separation of White Irish may reflect selective out-migration of people from this category; physically to other places or internally to other ethnic categories. The increased separation of White Other may be a result of new immigration to historic gateway areas.

Figure 2. Change in ethnic group segregation in Greater Cardiff, 2001-2011

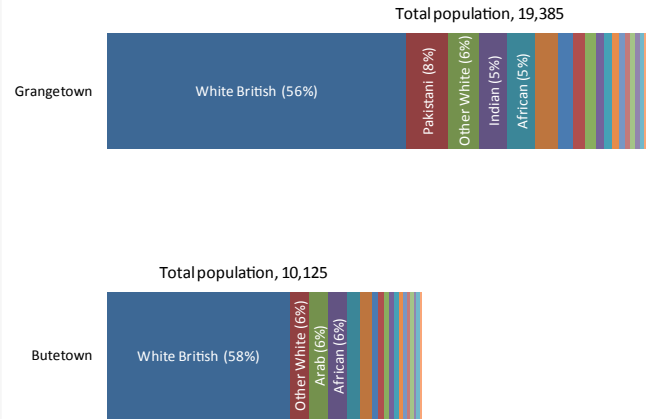


Notes: Separation (Index of Dissimilarity) across 137 wards in Caerphilly, Cardiff, Rhondda Cynon Taf, Vale of Glamorgan. 100% indicates complete separation. 0% indicates completely even spread of a group.

Ethnically diverse wards in Cardiff

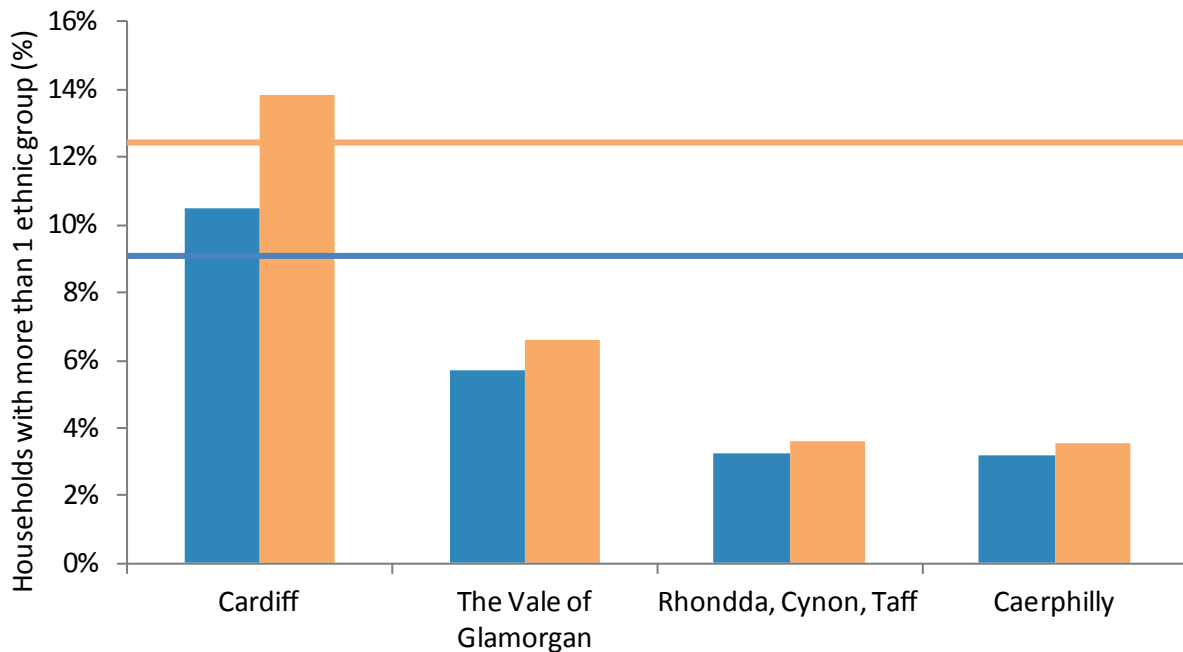
Diversity can be measured by calculating how close a ward is to having an equal number of residents in each ethnic group (see box). The most diverse ward in Cardiff is Grangetown with a standardised value (0 to 100) of 12. The average for England and Wales is 3.6, with the most diverse wards in parts of inner London where the value is as high as 55. Figure 3 shows that White British (56%) is the largest ethnic group in Grangetown, followed by nine other ethnic groups accounting for more than 2% of the population. Butetown is the second most diverse ward in Cardiff (see Figure 3). The White British group (58%) accounts for the majority of the population with nine other ethnic groups accounting for 2-6% of the population. Nine of the 10 most diverse wards in Greater Cardiff are in Cardiff. The most diverse ward outside the capital is Treforest in Rhondda Cynon Taf.

Figure 3. Ethnically diverse wards in Cardiff, 2011



Notes: labels shown ethnic groups which account more than 5% of population.

Figure 4. Growth in households with more than one ethnic group in Greater Cardiff districts, 2001-2011



Notes: horizontal line indicates national average. Measured as a proportion of households with two or more people.

Measuring diversity

Ecologists have a very useful notion of diversity which is applied to calculate how closely each ward in Caerphilly, Cardiff, Rhondda Cynon Taf, Vale of Glamorgan is to having an equal number of each ethnic group measured in the census. Called the 'Reciprocal Diversity Index' the ecologists sum each of the eighteen ethnic group proportions, first squaring them, and divide into 1. The Index is greatest when there are equal numbers in each group, when it is equal to 18, and lowest when there is only one group in an area, when it is equal to 1. The index is standardised by stretching it to be always within the range 0 to 100. The average across Cardiff is 3.6 and England & Wales is 3.6.

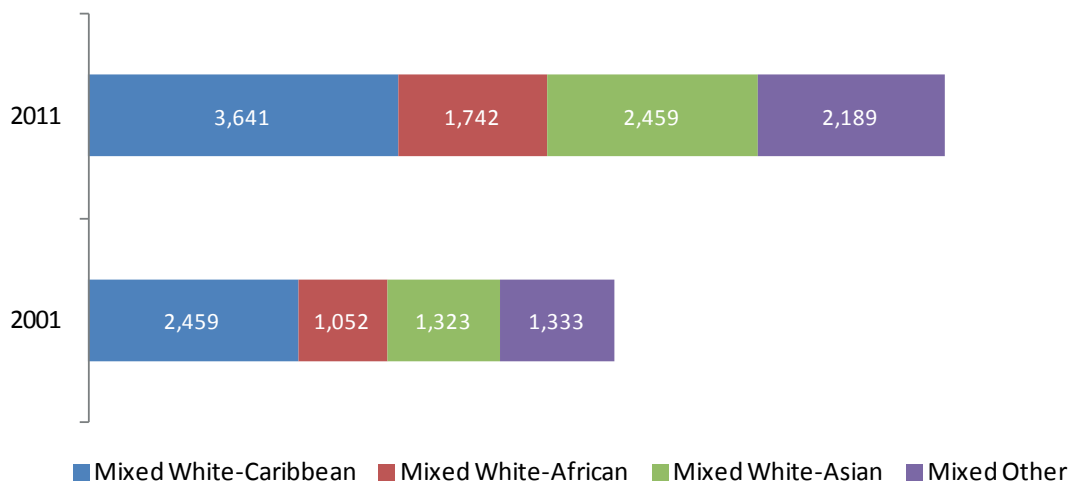
Mixing within households and families

The population in Cardiff and the rest of England and Wales is not only becoming more mixed residentially, but also in terms of the ethnic diversity within households and families.

Figure 4 shows that the proportion of households with two or more people that contain more than one ethnic group (i.e. multiple ethnic group households) grew during the 2000s in each Greater Cardiff district. Multiple ethnic group households account for 14% of households in Cardiff, slightly above the national average of 12%. The proportion is considerably higher than any other district in Greater Cardiff where the proportion is lowest in Caerphilly (4%).

The number of people with a Mixed ethnic identity provides an indication of the most intimate form of integration of peoples. Nationally, the proportion of people with a Mixed ethnic identity is 1.2 million or 2.2% of the population. It has increased by more than three quarters from 672,000 in 2001. There has been a similar level of increase in Cardiff (see Figure 5). The Mixed population accounts for 2% of the population in Cardiff. The largest Mixed ethnic group in Cardiff is the White-Caribbean group (3,641). Each of the Mixed ethnic groups has grown by half since 2001.

Figure 5. Growth of Mixed ethnic group population in Cardiff, 2001-2011



This briefing is one in a series, *Local dynamics of diversity: evidence from the 2011 Census*.

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