

Data Management and Analysis Group

Ethnic Migration Structures: Technical Note



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Ethnic Migration Structures

For more information please contact:

Baljit Bains/Ed Klodawski

Data Management and Analysis Group
Greater London Authority
City Hall (2 East PP24a)
More London
The Queen's Walk
London SE1 2AA

Tel: 020 7983 4613

Baljit.Bains@london.gov.uk

Edmund.Klodawski@london.gov.uk

GLA Ethnic Group Population Projections

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Executive Summary

This, essentially, technical *Briefing* describes the 2001 Census data on migration flows that are being used in the preparation of GLA ethnic group population projections and the methods used to manipulate the commissioned tables so that the required model inputs could be produced. It, specifically, discusses some of the problems with the original data at borough level caused by ONS disclosure control procedures and the way these were overcome by grouping data. All data and analysis in this *Briefing* are based on the 2001 Census data collected in England and Wales. This did not capture out-migration to destinations beyond England and Wales. All ethnic groups referred to are GLA Aggregated Ethnic Groups as defined in Table 1 of the main report.

Overall movement of all people

- The 2001 Census commissioned tables showed that there were a total of 1.2 million moves of people relating to Greater London, of which 700 thousand (59 per cent) were moves within Greater London, 300 thousand (25 per cent) were total in-migration flows from other parts of England and Wales and 200 thousand (16 per cent) were out-migration flows to England and Wales.
- The structure of moves varies according to geographical level. For instance when analysing Central Boroughs there were a total of 160 thousand moves of people, of which nearly 41 thousand (25 per cent) were moves within the Central Boroughs area; 74 thousand (46 per cent) were total in-migration flows and 46 thousand (29 per cent) were out-migration flows to England and Wales.
- Hence there is a noticeable difference between Greater London and the Central Boroughs area in the overall structure of movement of people and there are also differences relating to the other three sub-London areas considered in this *Briefing* (Outer London, Inner London and Rest of Inner Boroughs).

Probabilities of movement of people within London areas

- There is noticeable variation between ethnic groups for all areas, though Inner London and Rest of Inner Boroughs show the least ethnic variation.
- In Greater London, Black African, Other Asian and Other ethnic groups have higher probabilities than average and this also tends to be the case in Outer London.
- In Greater London, Black Caribbean, Indian and Bangladeshi ethnic groups have lower probabilities than average. This also tends to be the case in the subdivisions of London, with the exception of Indian in Central Boroughs where the probabilities for this ethnic group are higher than average for the area.
- The Black Other and Pakistani ethnic groups have higher probabilities than average in Outer London and also to a reduced extent at the Greater London level.

- The Chinese ethnic group has higher than average probabilities in Central Boroughs (the highest for that area) and also, to a lesser extent, in Greater London as a whole.
- The male to female ratios of migrant flows were slightly below 1.00 (a ratio below 1.00 means more women than men) for all areas, ranging from 0.96 to 0.99. However, there is noticeable ethnic variation in the ratios both within each London area and between London areas. The highest ratio was 1.35 (for the Other Asian ethnic group in Outer London) and the lowest ratio was 0.72 (for the Other ethnic group in Central Boroughs).

Probabilities of out-migration to anywhere in England and Wales

- Probabilities of out-migration for the White ethnic group are close to but always above those for the whole population for each London area. This is a reflection of the dominance of the White ethnic group with respect to out-migration flows.
- The Bangladeshi ethnic group experiences the lowest probabilities of out-migration from Greater London. Bangladeshi probabilities from Central Boroughs, Rest of Inner Boroughs and from Inner London are also much lower than the average probabilities for the area. For Outer London the probability for the Bangladeshi ethnic group is close to the average.
- The Black Caribbean ethnic group also experiences low probability of out-migration from Greater London, Rest of Inner Boroughs and Central Boroughs. From Inner London the out-migration probability of the Black Caribbean ethnic group is the second lowest (after Bangladeshis) and from Outer London their probability is among the lowest (along with the Indian and Pakistani ethnic groups).
- The Indian and Pakistani ethnic groups both experience low probabilities of out-migration from Outer London and from Greater London. For Central Boroughs and the Rest of Inner Boroughs the Indian and Pakistani ethnic groups experience probabilities of out-migration that are similar to the average for each of these areas with one exception. Pakistani males in Central Boroughs experience a higher than average out-migration probability which is also the highest of any ethnic group and gender in any area.
- For overall London area populations the male to female ratios of flows were slightly below 1.00 for all areas, ranging from 0.98 to 0.99. However, there is noticeable ethnic variation in the ratios, both within each London area and between London areas. The highest ratio was 1.68 (for the Bangladeshi ethnic group at Greater London level) and the lowest ratio was 0.66 (for the Black Caribbean ethnic group in Central Boroughs).

In-migration from anywhere else in the United Kingdom

- Rates for all London areas are dominated by the White ethnic group. This group accounts for the greatest proportions of inflows typically between 74 per cent and 84 per cent. The rates for individual BAME¹ groups are much lower than for the White ethnic group.

¹ BAME refers to all ethnic group other than White. For example it is an aggregation of Black Caribbean, Black African, Black Other, India, Pakistani, Bangladeshi, Asian Other, all Mixed groups, Chinese and Other.

- For Greater London the Indian ethnic group has the highest BAME rates and the Bangladeshi ethnic group the lowest.
- For Outer London and Inner London the Black African and Indian ethnic groups have the highest BAME rates and the Bangladeshi ethnic group the lowest.
- For the Rest of Inner Boroughs the Black African ethnic group has the highest BAME rates and the Bangladeshi ethnic group the lowest.
- For Central Boroughs the Black African, Indian, Chinese, Other Asian and Other ethnic groups have noticeably higher rates than the Black Caribbean, Black Other, Pakistani and Bangladeshi ethnic groups (Bangladeshis having the lowest rates).
- Hence the Bangladeshi ethnic group has the lowest inflow rates from the United Kingdom for all areas.
- For overall London area populations the male to female ratios of flows were slightly above 1.00 (a ratio above 1.00 means more men than women) for all areas, ranging from 1.02 to 1.05. However, there is noticeable ethnic variation in the ratios both within each London area and between London areas. The highest ratio was 1.30 (for the Pakistani ethnic group in Central Boroughs) and the lowest ratio was 0.67 (for the Other ethnic group in Central Boroughs).

In-migration from Overseas (anywhere outside the United Kingdom)

- Rates for all London areas are dominated by the White ethnic group. This group accounts for the greatest proportions of inflows typically between 56 per cent and 76 per cent. The rates for individual BAME groups are much lower than for the White ethnic group.
- For Greater London the Black African, Indian and Other ethnic groups have noticeably higher rates than the remaining BAME groups. The Bangladeshi ethnic group has the lowest rates, followed by Black Other and Black Caribbean ethnic groups. This ethnic pattern tends to be repeated for Outer London, Inner London and Rest of Inner Boroughs.
- For Central Boroughs only the Other ethnic group has noticeably higher rates than the remaining BAME groups and the Bangladeshi and Black Caribbean ethnic groups have the lowest rates.
- Hence the Bangladeshi ethnic group has the lowest inflow rates from overseas for all areas and the Black Other and Black Caribbean ethnic groups also have very low rates for all areas.
- For overall London area populations the male to female ratios of flows were noticeably below 1.00 (a ratio below 1.00 means more women than men) for all areas, ranging from 0.91 to 0.92. There is also noticeable ethnic variation both within each London area and between London areas. The highest ratio was 1.45 (for the Pakistani ethnic group in Rest of Inner Boroughs) and the lowest ratio was 0.65 (for the Chinese ethnic group in Central Boroughs).

Comparison of in-migration flows from Overseas and from the UK

- For Greater London overall, the ratio of number of migrants from overseas to number of migrants from the UK was 0.78, meaning that a noticeably smaller proportion of migrants were from overseas.
- For the White ethnic group this ratio was 0.60, indicating a smaller proportion than for Greater London as a whole migrated in from overseas.
- For the Black Other ethnic group the ratio was 0.99, indicating an even balance of in-migration from overseas and from the UK.

For all other BAME groups the ratio ranged from 1.21 to 3.35, indicating that the majority of each group migrated in from overseas.

Introduction

This *Briefing* presents analysis undertaken to investigate ethnic migration structures relating to London, specifically in terms of male to female ratios, probabilities, rates and age-structures. This type of information is required to model migration inflows and outflows in the production of the GLA's ethnic group population projections. Age-specific ethnic migration probabilities and rates are required for males and females and these are applied to ethnic populations from the preceding projection year to project male and female age-specific ethnic migration outflows and inflows for the next year. The migration components and processes of the ethnic projection methodology are more fully described in *DMAG Briefing 2006/22 GLA 2005 Round: Interim Ethnic Group Population Projections*.

To facilitate this work it was necessary for GLA to specially commission from the Office for National Statistics (ONS) two migration tables for London relating to the 2001 Census. The 2001 Census remains the only sufficiently detailed and robust data source of ethnic population information for England and Wales to use as a base for ethnic projections. The migration data in these two tables has previously been analysed and described in terms of ethnic flows and overall patterns in *DMAG Briefing 2005/30, 2001 Census: The migration patterns of London's ethnic groups*, but not in terms required for ethnic projection modelling.

The two specially commissioned tables were *Table C0198 - Migrant Inflows by Sex and Age by Ethnic Group* and *Table C0199 - Migrant Outflows by Sex and Age by Ethnic Group*. The flows were broken down by borough, sex, age-band and ethnic group. Inspection of this detail of breakdown reveals that at borough level many of the flows for most of the ethnic groups, particularly at older age-bands, are very low and therefore borough-level age-specific migration probabilities and rates using this data would be volatile and unsuitable for use in the projections. It was therefore necessary to consider aggregate data. The most important feature to retain for ethnic projection modelling is the sex-age-ethnicity-structure, hence it was decided to analyse migration on the basis of five London areas, Greater London, Outer London, Inner London, Central Boroughs and Rest of Inner Boroughs. Central London, Rest of Inner Boroughs and Outer London are areas, which have shown significant differences in migration and other population characteristics in the past, and demographic parameters based on these three areas are used in the main GLA demographic model, which produces the borough population projections to which the ethnic group projections are constrained.

As all figures and analysis in this *Briefing* are based on the 2001 Census in England and Wales, which did not capture out-migration to destinations beyond England and Wales, international out-migration is not covered.

Terminology and Abbreviations

London area:	any of the five areas: Central Boroughs, Rest of Inner Boroughs, Inner London, Outer London and Greater London.
Central Boroughs (CB):	The part of Inner London which covers the City of London and the London boroughs of Camden, Kensington and Chelsea and the City of Westminster
Rest of Inner Boroughs (ROIB):	The London boroughs of Hackney, Hammersmith and Fulham, Haringey, Islington, Lambeth, Lewisham, Newham, Southwark, Tower Hamlets and Wandsworth.
Inner London (IL):	The combination of Central Boroughs and Rest of Inner Boroughs.
Outer London (OL):	The boroughs of Barking and Dagenham, Barnet, Bexley, Brent, Bromley, Croydon, Ealing, Enfield, Greenwich, Harrow, Havering, Hillingdon, Hounslow, Kingston upon Thames, Merton, Redbridge, Richmond upon Thames, Sutton and Waltham Forest.
Greater London (GL):	The combination of all boroughs in Inner and Outer London.
Rest of England and Wales (RoEW):	an origin of flows in Table C0198, excluding IL, OL and the six Metropolitan Counties in England.
England and Wales (E&W):	anywhere in England and Wales outside London area being considered, but including other London areas (destination for migration out from any London area; same as REW if area considered is Greater London).
Rest of England and Wales (REW):	anywhere in England and Wales outside Greater London (destination for flows out from any London area).
United Kingdom (UK):	England, Wales, Scotland and Northern Ireland.
Rest of United Kingdom (ROUK):	anywhere in the UK outside Greater London (origin for flows in to any London area).
Great Britain:	England, Wales and Scotland.
British Isles:	England, Wales, Scotland, Northern Ireland, Republic of Ireland, Isle of Man and the Channel Islands.
Rest of the World (RoW):	countries beyond the UK, (specifically, a flow origin in Table C0198).

No Usual Address (NUA):	inflows from unknown origins, in Table C0198.
Overseas (OV):	countries beyond the UK (specifically, an origin of flows in Table C0198 derived by adding RoW and NUAs attributed to RoW).
Within:	moves within any London area (or borough).
To E&W:	grouped destination of total outflows (see E&W above).
From ROUK:	grouped destination of inflows (see ROUK above).
From UK:	grouped origin of inflows (see United Kingdom above), excluding the London area being considered.
From OV:	grouped origin of inflows (see Overseas above).
Male to female ratio: (sex ratio)	comparison of number of males to number of females; a ratio below 1.00 means more women than men.
Probability	the likelihood of migrating in or out, derived by dividing a migration flow by the underlying population at risk of migrating.
Rate	the migration rate: is derived by dividing a sub-division of a migration flow by the total migration flow (effectively a proportion in this analysis).
BAME	Black, Asian and Minority Ethnic groups. Includes all aggregated ethnic groups except White (which comprises the 2001 census categories: White British, White Irish and White Other). See AEG definition and Table 1 below.
GLA Aggregated Ethnic Groups (AEG's):	The ten ethnic groups aggregated from the sixteen 2001 Census Ethnic Categories, used in GLA ethnic population projections (defined in Table 1 below).

Table 1: GLA Aggregated Ethnic Groups

GLA Aggregated Ethnic Group (AEG) *	ONS 2001 Census Ethnic Category
White	White: British White: Irish White: Other White
Black Caribbean	Black or Black British: Caribbean
Black African	Black or Black British: African
Black Other	Black or Black British: Other Black Mixed: White & Black Caribbean Mixed: White & Black African
Indian	Asian or Asian British: Indian
Pakistani	Asian or Asian British: Pakistani
Bangladeshi	Asian or Asian British: Bangladeshi
Chinese	Chinese or Other: Chinese
Other Asian	Mixed: White & Asian Asian or Asian British: Other Asian
Other	Mixed: Other Mixed Chinese or Other: Other

* approximate to the ten Ethnic Groups used in the 1991 Census, using best fit comparison described in *DMAG Briefing 2003/9, 2001 Census Key Statistics: Ethnicity, religion and country of birth*.

Migration: Probabilities and Rates

For both in-migration and out-migration it is possible to perform analyses of migration probabilities and migration rates. To calculate probabilities denominator populations (the populations at risk) are required, whereas rates are calculated using the total migration flow in the denominator.

Out-migration probabilities from London areas are straightforward to calculate because the denominator populations are those of the origin areas, which are easily available. Out-migration rates from London areas can also be easily derived from the out-migration flows and their subdivisions. However, the approach used in GLA demographic modelling for out-migration is to use probabilities, applied to populations to produce new outflows, as this produces more accurate out-migration structures.

In-migration to London areas is considered as having two origins, the UK and overseas. To calculate probabilities for in-migration from UK and from overseas it would be necessary to use denominator UK and overseas populations. In practice such populations are more difficult to obtain, as access to data other than the England and Wales Census is required, this being particularly problematic for overseas populations. Hence for in-migration the approach used in GLA demographic modelling is to use rates (derived solely from flows) to generate in-migration structures by applying to overall in-migration flow constraints (numbers of persons).

Therefore, the analysis of London's ethnic migration in this *Briefing* is in terms of probabilities when considering out-migration and in terms of rates when considering in-migration. For in-migration, the rates are proportions of total flows and hence all component rates in a structure must sum to one. In GLA demographic modelling the in-migration constraints for persons need to be transformed to males and females, hence male and female rates are derived in relation to total male and female flows:

For overall ethnic rates:

$$\text{Male Rate}_{\text{Ethnicity}} = \frac{\text{Male Flow}_{\text{Ethnicity}}}{\text{Male Flow}_{\text{All Ethnicities}} + \text{Female Flow}_{\text{All Ethnicities}}}.$$

For age-specific ethnic rates:

$$\text{Male Rate}_{\text{Ethnicity, Age Band X}} = \frac{\text{Male Flow}_{\text{Ethnicity, Age Band X}}}{\text{Male Flow}_{\text{Ethnicity, All Ages}} + \text{Female Flow}_{\text{Ethnicity, All Ages}}}.$$

As for out-migration, structures of within moves for London areas can easily be derived in terms of probabilities or rates, since populations as well as flows are easily available. In this *Briefing* within migration is analysed in terms of probabilities as this produces more accurate structures.

Data and Issues

The following describes the data available in the two 2001 Census tables on migration relating to London which were commissioned by GLA and received in May 2005. They are based on Question 14 in the Census, "What was your usual address one year ago?" that is one year before Census day 29th April 2001 and any moves within the intervening period are not counted.

Both tables were commissioned in terms of the ten GLA Aggregated Ethnic Groups defined in Table 1. If the original 16 Census ethnic categories had been commissioned, when broken down by sex and age at borough level this would have resulted in too many low and suppressed migration figures, particularly in the mixed ethnic categories. As it was paramount to obtain borough-level sex and age structures for the key ethnic groups that were of sufficient detail and robustness, the individual mixed ethnic categories were aggregated with the most suitable main ethnic categories. Consequently GLA ethnic projections are restricted to ten aggregated ethnic groups. Even after these considerations, both tables still contain a considerable number of cells with low counts. Many of these are "3s" and blanks ("0s"), most of which would be the result of ONS disclosure control requirements to avoid cells containing '1' or '2'. These are most prevalent in some of the smaller aggregated ethnic groups and at older ages.

Table C0198: Migrant Inflows by Sex and Age by Ethnic Group

Destinations (areas of residence within London on Census day):

- Greater London
- Inner London
- Outer London
- Each London borough, noting that due to small numbers data for City of London is not presented separately and is instead aggregated with Westminster as "City of London and Westminster"

For each destination area data are presented in terms of persons, males and females. These are further broken down into the ten GLA Aggregated Ethnic Groups. Each ethnic group is broken down into 19 ages or age bands: 0, 1-4, 5-9 through to 85-89 in five-year age bands and 90+.

Origins (area of usual address one year before Census day, anywhere in the world):

- | | |
|--|---|
| • Inner London | • West Midlands (Metropolitan County) |
| • Outer London | • West Yorkshire (Metropolitan County) |
| • Each London borough (noting "City of London and Westminster" as for destination areas) | • South Yorkshire (Metropolitan County) |
| • Greater Manchester (Metropolitan County) | • Rest of England and Wales |
| • Merseyside (Metropolitan County) | • Northern Ireland |
| • Tyne and Wear (Metropolitan County) | • Scotland |
| | • Rest of the World |
| | • No Usual Address |

It should be noted that an origin area for an inflow to a London area can be anywhere in the world because this information was captured in the England and Wales 2001 Census. Therefore origin areas include Northern Ireland, Scotland and Rest of the World. A “No Usual Address” origin relates to those persons who stated that they had a different, but not fixed, usual address a year earlier.

Table C0199: Migrant Outflows by Sex and Age by Ethnic Group

Destinations (areas of residence outside London on Census day):

- Greater Manchester (Metropolitan County)
- Merseyside (Metropolitan County)
- Tyne and Wear (Metropolitan County)
- West Midlands (Metropolitan County)
- West Yorkshire (Metropolitan County)
- South Yorkshire (Metropolitan County)
- Rest of England and Wales

It should also be noted that a destination area for an outflow from a London area could only be an area outside London or outside a given London borough but only within England and Wales as defined by the England and Wales 2001 Census. Flows to Northern Ireland and Scotland were also not included due to the differences in the ethnic classifications of these areas. Hence Table C0199 is based on the England and Wales census and thus other destination countries in the UK are excluded. Further, there is no “No Usual Address” destination area for an outflow from a London area since the London areas must be specifically stated on the census forms collected in the rest of the country.

For each destination in Table C0199 data is presented in terms of persons, males and females. These are further broken down into ten GLA Aggregated Ethnic Groups. Each ethnic group is broken down into 19 ages or age bands: 0, 1-4, 5-9 through to 85-89 in five-year age bands and 90+. The sex-ethnic group-age band breakdowns of destinations for outflows from London areas correspond to the gender-ethnic group-age band breakdowns of London area destinations for inflows in Table C0198.

Origins (areas of usual address one year before Census day, anywhere in London):

- Greater London
- Inner London
- Outer London
- Each London borough (noting “City of London and Westminster” as for inflow destination areas in Table C0198)

Data Grouping

The following briefly describes how the data in the two commissioned tables was processed in order to derive the two in-migration origin groupings “From UK” and “From OV” and the out-migration destination grouping “To E&W” used in GLA ethnic demographic modelling. The data was processed for the age structures available in the commissioned tables. However, even with these groupings most of the resultant flows for the oldest age groups in non-White ethnic groups were very low or “3’s” or “0’s” and this produced volatile ethnic-age-specific probabilities and rates. It was therefore necessary to aggregate the four age bands 75-79, 80-84, 85-89 and 90+ into one 75+ band.

Migrant Inflows to London areas

For each sex-ethnic group-age band element it was necessary to represent migrant inflows to London areas in the form of two categories, inflows from anywhere in the UK (“From UK”) and inflows from anywhere outside the UK (“From OV”, that is from overseas, in this case the rest of the world). To derive these from Table C0198 it was necessary to account for the fact that lower-level area moves are included in higher-level area moves and also for the “No Usual Address” category.

Firstly, initial “From UK” inflows to a given London area were derived by summing the inflows from the applicable origins as indicated in the Table 2 below:

Table 2: Inflows from Origin areas applicable to each London area

Table C0198 Origin Area	London Destination Area				
	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
Individual London boroughs					
Inner London	X	X		X	
Outer London	X	X	X		
Greater Manchester MC	X	X	X	X	X
Merseyside MC	X	X	X	X	X
Tyne and Wear MC	X	X	X	X	X
West Midlands MC	X	X	X	X	X
West Yorkshire MC	X	X	X	X	X
South Yorkshire MC	X	X	X	X	X
Rest of England and Wales	X	X	X	X	X
Scotland	X	X	X	X	X
Northern Ireland	X	X	X	X	X
Rest of World					
No Usual Address					
Initial From UK inflows	Sum Xs - Central Boroughs	Sum Xs - Rest of Inner Boroughs	Sum Xs	Sum Xs	Sum Xs

Secondly, “No Usual Address” (NUA) inflows were distributed proportionally to known within-London area, initial “From UK” and “Rest of World” (RoW, that is overseas) inflows:

$$\text{NUA Within-London area} = \text{NUA} \times \frac{\text{Within-London area}}{\text{Within-London area} + \text{Initial From UK} + \text{RoW}}.$$

$$\text{NUA Initial From UK} = \text{NUA} \times \frac{\text{Initial From UK}}{\text{Within-London area} + \text{Initial From UK} + \text{RoW}}.$$

$$\text{NUA RoW} = \text{NUA} \times \frac{\text{RoW}}{\text{Within-London area} + \text{Initial From UK} + \text{RoW}}.$$

Where inflows in the three categories within-London area, initial “From UK” and “Rest of World” were all zero and NUA was not zero, the NUA was distributed evenly into the three categories.

Final inflows for the three categories were then derived by addition of the distributed NUA inflows:

$$\text{Final Within-London area} = \text{Within-London area} + \text{NUA Within-London area}$$

$$\text{Final From UK} = \text{Initial From UK} + \text{NUA Initial From UK}$$

$$\text{Final From OV} = \text{RoW} + \text{NUA RoW}$$

Migrant Outflows from London areas

For each sex-ethnic group-age band element, to be consistent with migrant inflows, it would theoretically follow to represent migrant outflows from London areas in the form of two categories, outflows “To UK” (effectively to the rest of England and Wales, including the rest of London where applicable, Scotland and Northern Ireland) and outflows “To OV” (to overseas, that is the rest of the world). However, as mentioned above, the England and Wales Census cannot capture “to Overseas” information and it is instead planned to obtain information on these flows from other data sources at a future stage. Therefore, out-migration was analysed in terms of one destination category, England and Wales, termed “To E&W”.

Table C0199 gives total moves to anywhere in England and Wales, meaning that within-London area moves are included. Hence, to obtain actual outflows from a London area to England and Wales it was necessary to subtract the within-London area moves-in given in or derived from Table C0198 from the London area moves-out given in or derived from Table C0199. Because of disclosure control applied separately to low figures in both tables, this meant that numerically low resultant outflows were subject to considerable uncertainty and some were calculated to be negative. In analysis the negative outflows were treated as zero.

Persons, males and females

Throughout the remainder of this *Briefing* migration flows may be tabulated for persons as well as for males and females. Due to the relatively complicated processes of deriving grouped flows described above and disclosure control issues, the flows for males and females may not sum to persons.

London area populations

Populations used in this analysis were from the ethnic category populations in the England and Wales 2001 Census, Table ST101 (borough-level figures). The 16 ethnic categories were aggregated into the ten GLA Aggregated Ethnic Groups (defined in Table 1) used in GLA ethnic projections. The age bands used in Table ST101 were aggregated into the age bands 5-9 85-89 and 90+. In addition the 0-4 age band was disaggregated into 0 and 1-4 years using single-year-of-age data from *Commissioned Table C0195 – Ethnic groups of residents by sex and by age* (for London boroughs, by the ten GLA Aggregated Ethnic Groups). The separate 0-year olds data was required to complement the commissioned migration data for 0-year olds. Demographic parameters for 0-year olds are required to complement births in the demographic modelling process.

The resulting populations were then consistent in time and format with commissioned tables for migration data. A summary is given in Table 3. In subsequent analysis it was necessary to aggregate the four age bands 75-79, 80-84, 85-89 and 90+ into one 75+ band to be consistent with the aggregation of migration flows at these ages described in the section describing data grouping.

Table 3: London area 2001 Census ethnic populations

Sex/ GLA Aggregated Ethnic Group	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
	Number	%	Number	%	Number	%	Number	%	Number	%
Persons										
White	408,600	74.9	1,408,000	63.4	1,816,600	65.7	3,286,600	74.6	5,103,200	71.2
Black Caribbean	13,400	2.5	176,600	8.0	190,000	6.9	153,600	3.5	343,600	4.8
Black African	24,600	4.5	204,100	9.2	228,700	8.3	150,200	3.4	378,900	5.3
Black Other	11,000	2.0	79,000	3.6	89,900	3.3	75,500	1.7	165,400	2.3
Indian	13,600	2.5	71,900	3.2	85,500	3.1	351,500	8.0	437,000	6.1
Pakistani	4,300	0.8	39,300	1.8	43,600	1.6	99,200	2.3	142,800	2.0
Bangladeshi	19,000	3.5	109,300	4.9	128,300	4.6	25,600	0.6	153,900	2.1
Chinese	10,300	1.9	28,600	1.3	38,900	1.4	41,300	0.9	80,200	1.1
Other Asian	14,300	2.6	46,400	2.1	60,700	2.2	132,300	3.0	193,000	2.7
Other	26,300	4.8	57,600	2.6	83,900	3.0	90,200	2.0	174,100	2.4
All Ethnicities	545,400	100.0	2,220,700	100.0	2,766,200	100.0	4,406,000	100.0	7,172,200	100.0
Male										
White	199,900	75.7	689,900	64.1	889,800	66.4	1,584,500	74.5	2,474,300	71.3
Black Caribbean	5,900	2.2	77,700	7.2	83,600	6.2	68,500	3.2	152,100	4.4
Black African	11,300	4.3	96,800	9.0	108,100	8.1	70,600	3.3	178,700	5.2
Black Other	5,200	2.0	36,900	3.4	42,100	3.1	36,000	1.7	78,100	2.3
Indian	6,900	2.6	35,700	3.3	42,700	3.2	173,100	8.1	215,800	6.2
Pakistani	2,300	0.9	20,500	1.9	22,800	1.7	50,700	2.4	73,600	2.1
Bangladeshi	9,400	3.5	54,500	5.1	63,900	4.8	12,900	0.6	76,800	2.2
Chinese	4,700	1.8	13,700	1.3	18,400	1.4	19,300	0.9	37,700	1.1
Other Asian	7,200	2.7	24,500	2.3	31,700	2.4	70,100	3.3	101,800	2.9
Other	11,200	4.2	26,400	2.5	37,600	2.8	42,500	2.0	80,100	2.3
All Ethnicities	264,000	100.0	1,076,700	100.0	1,340,700	100.0	2,128,200	100.0	3,468,900	100.0
Female										
White	208,700	74.2	718,100	62.8	926,800	65.0	1,702,100	74.7	2,628,900	71.0
Black Caribbean	7,500	2.7	98,900	8.6	106,400	7.5	85,100	3.7	191,500	5.2
Black African	13,300	4.7	107,300	9.4	120,600	8.5	79,700	3.5	200,200	5.4
Black Other	5,800	2.1	42,000	3.7	47,900	3.4	39,500	1.7	87,400	2.4
Indian	6,700	2.4	36,100	3.2	42,800	3.0	178,400	7.8	221,200	6.0
Pakistani	2,000	0.7	18,700	1.6	20,700	1.5	48,500	2.1	69,200	1.9
Bangladeshi	9,600	3.4	54,800	4.8	64,400	4.5	12,700	0.6	77,100	2.1
Chinese	5,600	2.0	15,000	1.3	20,500	1.4	22,000	1.0	42,500	1.1
Other Asian	7,100	2.5	21,900	1.9	29,000	2.0	62,200	2.7	91,200	2.5
Other	15,100	5.4	31,200	2.7	46,300	3.3	47,600	2.1	94,000	2.5
All Ethnicities	281,400	100.0	1,144,100	100.0	1,425,500	100.0	2,277,800	100.0	3,703,300	100.0

Source: ONS 2001 Census Table ST101.
Figures may not add due to rounding.

Summary of London area Migration

Greater London Migration Flows

There were a total of 1.2 million moves of people relating to Greater London. The breakdown is shown in Figure 1. People moving within Greater London accounted for 59 per cent (713 thousand moves). Migrants into Greater London from the UK accounted for 14 per cent (171 thousand) and migrants from overseas accounted for 11 per cent (134 thousand moves), a total in-migration of 305 thousand moves (25 per cent). Migrants out to England and Wales accounted for 16 per cent (200 thousand moves).

Figure 1: Migration Flows for Greater London (persons)
(based on "usual address" one year before day of 2001 Census)



Greater London		
	Moves	%
Within	713,000	59
From UK	171,100	14
From OV	133,900	11
To E&W	200,500	16
Total	1,218,500	100
In Total	305,100	25

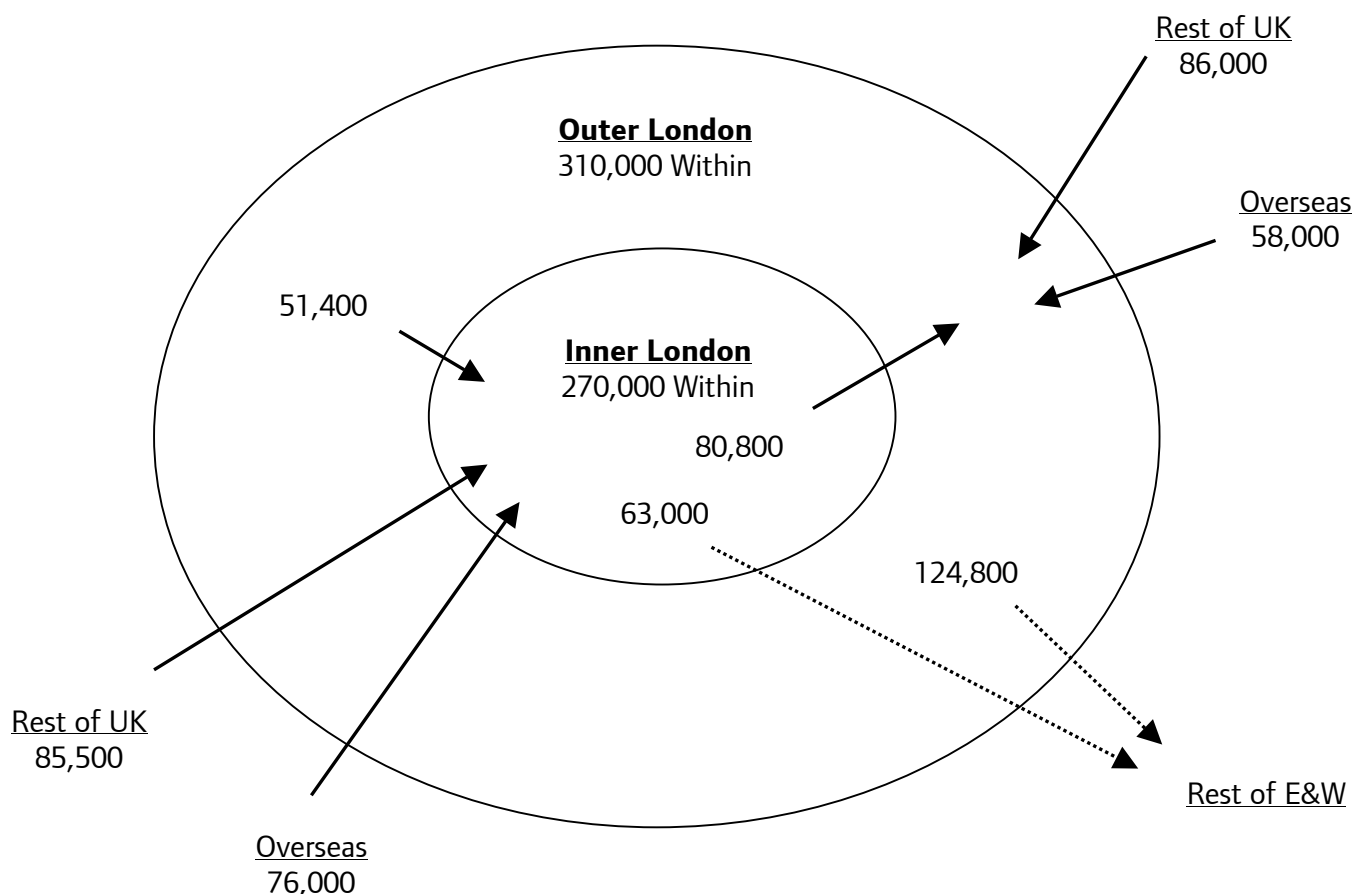
Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Inner London and Outer London Migration Flows

There were a total of 711 thousand moves of people relating to Outer London. The breakdown is shown in Figure 2. People moving within Outer London accounted for 44 per cent (311 thousand moves). Migrants into Outer London from the UK accounted for 23 per cent (166 thousand moves). This comprises 81 thousand people from Inner London and 86 thousand people from the rest of the UK outside London. Migrants from overseas accounted for 8 per cent (58 thousand moves). Total in-migration accounted for 32 per cent (225 thousand moves). Migrants out to England and Wales accounted for 25 per cent (176 thousand moves). This comprises 51 thousand people to Inner London and 125 thousand people to the Rest of England and Wales outside London.

There were a total of 627 thousand moves of people relating to Inner London. The breakdown is shown in Figure 2. People moving within Inner London accounted for 43 per cent (270 thousand moves). Migrants into Inner London from the UK accounted for 22 per cent (137 thousand moves). This comprises 51 thousand people from Outer London and 86 thousand people from the rest of the UK outside London. Migrants from overseas accounted for 12 per cent (76 thousand moves). Total in-migration accounted for 34 per cent (213 thousand moves). Migrants out to England and Wales accounted for 23 per cent (144 thousand moves). This comprises 81 thousand people to Outer London and 63 thousand people to the Rest of England and Wales outside London.

Figure 2: Migration Flows for Inner London and Outer London (persons)
(based on "usual address" one year before day of 2001 Census)



Inner London			Outer London		
	Moves	%		Moves	%
Within	270,100	43	Within	310,500	44
From OL	51,400	8	From IL	80,800	11
From ROUK	85,600	14	From ROUK	85,500	12
From OV	76,000	12	From OV	58,100	8
To OL	80,800	13	To IL	51,400	7
To REW	63,000	10	To REW	124,800	18
Total	626,900	100	Total	711,200	100
From UK	137,000	22	From UK	166,400	23
From OV	76,000	12	From OV	58,100	8
In Total	213,000	34	In Total	224,500	32
To E&W	143,800	23	To E&W	176,200	25

Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Central Boroughs, Rest of Inner Boroughs and Outer London Migration Flows

The migration flows for these three London areas are shown in Figure 3, which shows a further breakdown of migration relating to Outer London, that between it and Central Boroughs and Rest of Inner Boroughs. The overall information for Outer London is the same as that in Figure 2, although some of the corresponding figures are not exactly the same. This is due to derivation effects from splitting Inner London into two areas.

There were a total of 499 thousand moves relating to Rest of Inner Boroughs. People moving within Rest of Inner Boroughs accounted for 39 per cent (194 thousand moves). Migrants into Rest of Inner Boroughs from the UK accounted for 26 per cent (129 thousand moves). This comprises 21 thousand people from Central Boroughs, 42 thousand people from Outer London and 66 thousand people from the rest of the UK outside London. Migrants from overseas accounted for 9 per cent (4 thousand moves). Total in-migration accounted for 35 per cent (175 thousand moves). Migrants out to England and Wales accounted for 26 per cent (131 thousand moves). This comprises 15 thousand people to Central Boroughs, 67 thousand people to Outer London and nearly 50 thousand people to the Rest of England and Wales outside London.

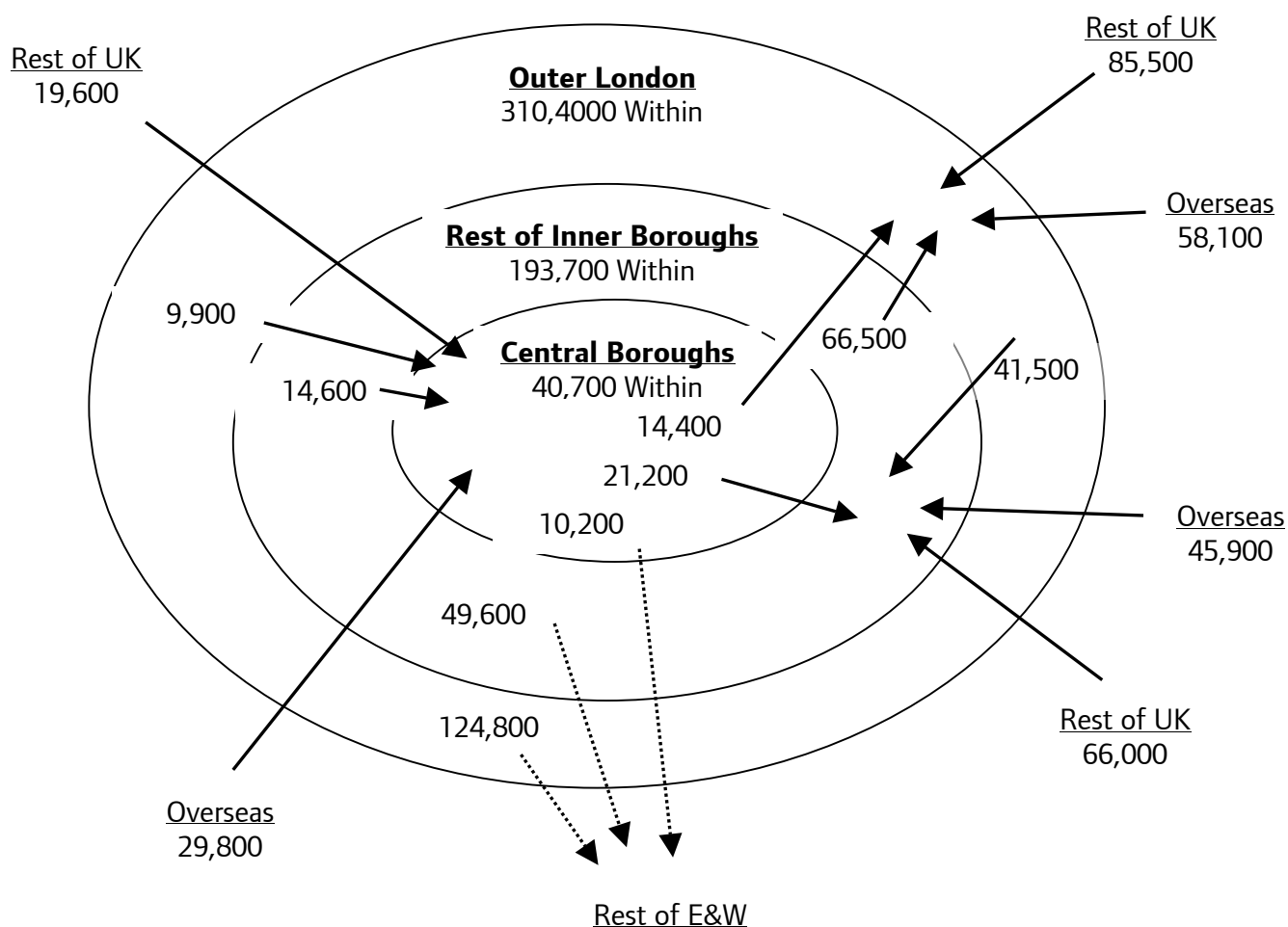
There were a total of 160 thousand moves of people relating to Central Boroughs. People moving within Central Boroughs accounted for 25 per cent (41 thousand moves). Migrants into Central Boroughs from the UK accounted for 27 per cent (44 thousand moves). This comprises nearly 15 thousand people from Rest of Inner Boroughs, nearly 10 thousand people from Outer London and nearly 20 thousand people from the rest of the UK outside London. Migrants from overseas accounted for 19 per cent (nearly 30 thousand moves). Total in-migration accounted for 46 per cent (74 thousand moves). Migrants out to England and Wales accounted for 29 per cent (46 thousand moves, of which 21 thousand people moved to Rest of Inner Boroughs, 14 thousand to Outer London and 10 thousand to the Rest of England and Wales outside London.

The additional breakdown for Outer London shows that 14 thousand people migrated in to Outer London from Central Boroughs and nearly 67 thousand people migrated in from Rest of Inner Boroughs. Also, nearly 10 thousand people migrated from Outer London to Central Boroughs and 42 thousand people migrated out to Rest of Inner Boroughs.

From the tabulations in Figures 1 to 3 it can be seen that within moves in Central Boroughs constitute a noticeably smaller proportion of all moves (25 per cent) than in any of the other London areas, particularly compared with the 59 per cent at Greater London level. Central Boroughs also has migration in from overseas ("From OV") as a noticeably higher proportion of all moves (19 per cent) than any other London area. Central Boroughs also has migration out to the Rest of England and Wales excluding London ("To REW") as a noticeably lower proportion of all moves (6 per cent) than any other London area.

Figure 3: Migration Flows for Central Boroughs, Rest of Inner Boroughs, and Outer London (persons)

(based on "usual address" one year before day of 2001 Census)



Central Boroughs		
	Moves	%
Within	40,700	25
From ROIB	14,600	9
From OL	9,900	6
From ROUK	19,600	12
From OV	29,800	19
To ROIB	21,200	13
To OL	14,400	9
To REW	10,200	6
Total	160,400	100
From UK	44,100	27
From OV	29,800	19
In Total	73,900	46
To E&W	45,800	29

Rest of Inner Boroughs		
	Moves	%
Within	193,700	39
From CB	21,200	4
From OL	41,500	8
From ROUK	66,000	13
From OV	45,900	9
To CB	14,600	3
To OL	66,500	13
To REW	49,600	10
Total	499,100	100
From UK	128,800	26
From OV	45,900	9
In Total	174,700	35
To E&W	130,600	26

Outer London		
	Moves	%
Within	310,500	44
From CB	14,400	2
From ROIB	66,500	9
From ROUK	85,500	12
From OV	58,100	8
To CB	9,900	1
To ROIB	41,500	6
To REW	124,800	18
Total	711,200	100
From UK	166,400	23
From OV	58,100	8
In Total	224,500	32
To E&W	176,200	25

Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Analysis

Moves within London areas by ethnicity (all ages)

Moves of people within a given area do not contribute to change in the population of the area, but within-area moves were used in determining inflows and outflows to and from areas, therefore a brief summary of within-moves is useful for complete understanding of migration and is also of general interest.

Table 4 summarises overall within moves for each of the five London areas, for persons, males and females and by ethnicity. In each London area the White ethnic group accounts for the greatest proportion of within moves, ranging from 64.4 per cent in Rest of Inner Boroughs to 71.7 per cent in Central Boroughs. The BAME groups accounting for the highest proportion of moves within each area were Black African (7.9 per cent) in Greater London, Indian (7.0 per cent) in Outer London, Black African (9.0 per cent) in Inner London, Black African (10.9 per cent) in Rest of Inner Boroughs and Other (6.0 per cent) in Central Boroughs. The BAME groups accounting for the lowest proportion of moves within each area were Chinese (1.4 per cent) in Greater London, Bangladeshi (0.6 per cent) in Outer London, Pakistani (1.4 per cent) in Inner London, Chinese (1.2 per cent) in Rest of Inner Boroughs and Pakistani (0.8 per cent) in Central Boroughs.

Table 5 shows ethnic male to female ratios of within moves in Table 4 for each area. It is seen that within each area as a whole the ratio is very near to 1.00. This is due to the dominant effect of the White ethnic group (which comprises 64-72 per cent of all within moves) for which the ratio is also close to 1.00 within each area. However, within each area the ratios for the BAME groups vary considerably from 1.00. The highest ratio for a BAME group is for Other Asians in Outer London (1.35) and the lowest is for Other in Central Boroughs (0.72).

Table 6 shows ethnic probabilities of moving within each London area, for persons, males and females. Overall male and female probabilities within a given area are very similar. Regarding the five separate areas, overall probabilities are highest (around 0.100, or 1-in-10) in Greater London and Inner London, slightly lower in Rest of Inner Boroughs (around 0.87, or 1-in-11), somewhat lower in Central Boroughs (around 0.75, or 1-in-13) and lowest in Outer London (around 0.70, or 1-in-14).

A further breakdown of male and female total within-moves by ethnicity (all ages) for each area is shown in Figures 4.1 to 4.5 (in which the horizontal lines are the overall probabilities referred to above). There is noticeable variation between ethnic groups at all five area levels, though Inner London and Rest of Inner Boroughs show the least ethnic variation. For Greater London Black African, Other Asian and Other ethnic groups have higher probabilities than average, both for males and females and this tends to be the case in Outer London. In Greater London Black Caribbean, Indian and Bangladeshi ethnic groups have lower probabilities than average, both for males and females and this tends to be the case in the other four areas, with the exception of Indian in Central Boroughs where the probabilities for this ethnic group are higher than average for the area. The Black Other and Pakistani ethnic groups have higher probabilities than average in Outer London and also to a reduced extent at the Greater London level. The Chinese ethnic group has higher than average probabilities in Central Boroughs (the highest for that area) and also to a reduced extent at the Greater London level.

Table 4: Moves within London areas, by ethnicity (all ages)

Sex/ GLA Aggregated Ethnic Group	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
	Number	%	Number	%	Number	%	Number	%	Number	%
Persons										
White	29,200	71.7	124,700	64.4	183,000	67.7	213,000	68.6	485,000	68.0
Black Caribbean	900	2.1	12,400	6.4	13,600	5.0	11,000	3.5	31,200	4.4
Black African	1,900	4.8	21,100	10.9	24,400	9.0	20,000	6.4	56,000	7.9
Black Other	800	2.0	6,800	3.5	8,300	3.1	7,200	2.3	18,800	2.6
Indian	1,400	3.3	4,400	2.3	6,400	2.4	21,800	7.0	34,000	4.8
Pakistani	300	0.8	3,100	1.6	3,700	1.4	8,900	2.9	15,200	2.1
Bangladeshi	1,300	3.2	8,800	4.6	10,500	3.9	1,700	0.6	14,000	2.0
Chinese	1,200	2.9	2,400	1.2	4,400	1.6	3,100	1.0	9,900	1.4
Other Asian	1,300	3.1	4,300	2.2	6,400	2.4	14,100	4.5	25,300	3.5
Other	2,400	6.0	5,600	2.9	9,400	3.5	9,600	3.1	23,700	3.3
All Ethnicities	40,700	100.0	193,700	100.0	270,100	100.0	310,500	100.0	713,000	100.0
Male										
White	14,700	73.1	62,300	64.9	91,800	68.4	104,500	68.6	241,200	68.4
Black Caribbean	400	1.9	5,400	5.6	5,900	4.4	4,900	3.2	13,800	3.9
Black African	900	4.3	10,500	10.9	12,000	8.9	9,300	6.1	26,800	7.6
Black Other	400	2.0	3,200	3.3	3,900	2.9	3,300	2.2	8,900	2.5
Indian	700	3.4	2,300	2.4	3,300	2.5	10,600	7.0	16,900	4.8
Pakistani	200	0.9	1,800	1.9	2,100	1.6	4,700	3.1	8,200	2.3
Bangladeshi	600	3.2	4,300	4.5	5,100	3.8	900	0.6	6,900	1.9
Chinese	600	2.9	1,200	1.2	2,100	1.6	1,400	0.9	4,600	1.3
Other Asian	700	3.3	2,400	2.5	3,500	2.6	8,100	5.3	14,300	4.1
Other	1,000	5.1	2,700	2.8	4,300	3.2	4,700	3.1	11,200	3.2
All Ethnicities	20,100	100.0	96,000	100.0	134,100	100.0	152,300	100.0	352,800	100.0
Female										
White	14,500	70.3	62,400	63.9	91,200	67.1	108,500	68.6	243,700	67.7
Black Caribbean	500	2.2	7,000	7.2	7,700	5.7	6,100	3.9	17,400	4.8
Black African	1,100	5.1	10,700	10.9	12,400	9.2	10,800	6.8	29,200	8.1
Black Other	400	2.0	3,600	3.7	4,400	3.2	3,900	2.4	9,900	2.8
Indian	700	3.3	2,100	2.2	3,000	2.2	11,200	7.1	17,100	4.7
Pakistani	200	0.8	1,400	1.4	1,600	1.2	4,300	2.7	7,000	1.9
Bangladeshi	700	3.3	4,500	4.6	5,300	3.9	900	0.6	7,100	2.0
Chinese	600	3.0	1,200	1.2	2,300	1.7	1,700	1.1	5,200	1.5
Other Asian	600	3.0	1,900	1.9	2,900	2.1	6,000	3.8	11,000	3.1
Other	1,400	6.9	2,900	3.0	5,100	3.8	4,900	3.1	12,500	3.5
All Ethnicities	20,600	100.0	97,700	100.0	135,900	100.0	158,100	100.0	360,100	100.0

Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Table 5: Male to Female Ratios of Moves within London areas, by ethnicity (all ages)

GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
White	1.01	1.00	1.01	0.96	0.99
Black Caribbean	0.85	0.76	0.77	0.80	0.79
Black African	0.82	0.98	0.96	0.86	0.92
Black Other	0.93	0.89	0.89	0.85	0.89
Indian	1.01	1.07	1.10	0.95	0.99
Pakistani	1.12	1.31	1.34	1.10	1.18
Bangladeshi	0.94	0.97	0.96	0.96	0.96
Chinese	0.94	0.99	0.95	0.80	0.89
Other Asian	1.05	1.28	1.22	1.35	1.30
Other	0.72	0.93	0.84	0.97	0.90
max	1.12	1.31	1.34	1.35	1.30
min	0.72	0.76	0.77	0.80	0.79
All Ethnicities	0.97	0.98	0.99	0.96	0.98

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Table 6: Probabilities of Moving within London areas, by ethnicity (all ages)

Sex/ GLA Aggregated Ethnic Group	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
	Prob	1inX	Prob	1inX	Prob	1inX	Prob	1inX	Prob	1inX
Persons										
White	0.072	14	0.089	11	0.101	10	0.065	15	0.095	11
Black Caribbean	0.063	16	0.070	14	0.072	14	0.072	14	0.091	11
Black African	0.079	13	0.104	10	0.107	9	0.133	8	0.148	7
Black Other	0.074	14	0.087	12	0.092	11	0.095	11	0.114	9
Indian	0.099	10	0.061	16	0.075	13	0.062	16	0.078	13
Pakistani	0.079	13	0.080	13	0.085	12	0.090	11	0.107	9
Bangladeshi	0.070	14	0.081	12	0.082	12	0.068	15	0.091	11
Chinese	0.116	9	0.084	12	0.113	9	0.076	13	0.123	8
Other Asian	0.089	11	0.093	11	0.106	9	0.106	9	0.131	8
Other	0.093	11	0.097	10	0.112	9	0.107	9	0.136	7
All Ethnicities	0.075	13	0.087	11	0.098	10	0.070	14	0.099	10
Male										
White	0.073	14	0.090	11	0.103	10	0.066	15	0.097	10
Black Caribbean	0.066	15	0.069	14	0.071	14	0.072	14	0.090	11
Black African	0.077	13	0.108	9	0.111	9	0.131	8	0.150	7
Black Other	0.076	13	0.087	11	0.092	11	0.091	11	0.114	9
Indian	0.098	10	0.063	16	0.078	13	0.061	16	0.078	13
Pakistani	0.079	13	0.087	12	0.093	11	0.092	11	0.112	9
Bangladeshi	0.068	15	0.080	13	0.080	12	0.066	15	0.089	11
Chinese	0.122	8	0.087	12	0.116	9	0.072	14	0.123	8
Other Asian	0.091	11	0.099	10	0.112	9	0.116	9	0.141	7
Other	0.092	11	0.102	10	0.114	9	0.111	9	0.140	7
All Ethnicities	0.076	13	0.089	11	0.100	10	0.072	14	0.102	10
Female										
White	0.070	14	0.087	12	0.098	10	0.064	16	0.093	11
Black Caribbean	0.062	16	0.071	14	0.072	14	0.072	14	0.091	11
Black African	0.080	13	0.099	10	0.103	10	0.135	7	0.146	7
Black Other	0.072	14	0.086	12	0.092	11	0.098	10	0.114	9
Indian	0.101	10	0.058	17	0.071	14	0.063	16	0.077	13
Pakistani	0.081	12	0.072	14	0.076	13	0.088	11	0.101	10
Bangladeshi	0.070	14	0.082	12	0.083	12	0.070	14	0.093	11
Chinese	0.110	9	0.080	12	0.110	9	0.079	13	0.123	8
Other Asian	0.088	11	0.087	12	0.100	10	0.096	10	0.120	8
Other	0.094	11	0.093	11	0.111	9	0.103	10	0.133	8
All Ethnicities	0.073	14	0.085	12	0.095	10	0.069	14	0.097	10

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figure 4.1: Probabilities of moving within Greater London, by Ethnicity (all ages)

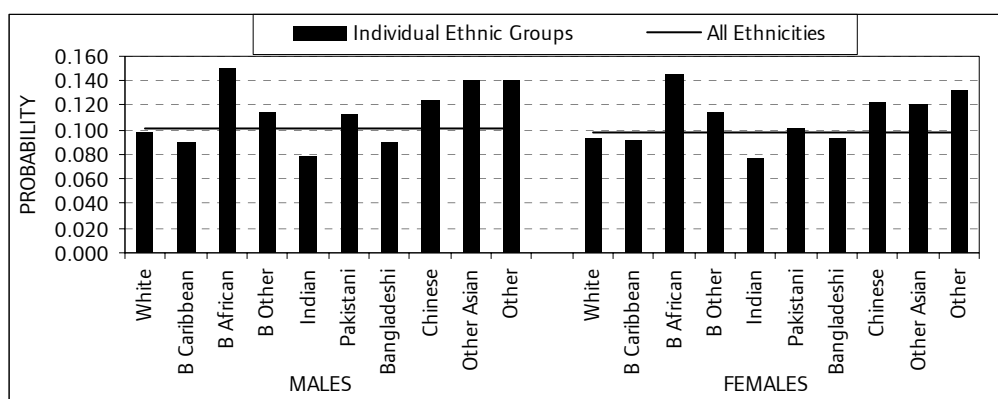


Figure 4.2: Probabilities of moving within Outer London, by Ethnicity (all ages)

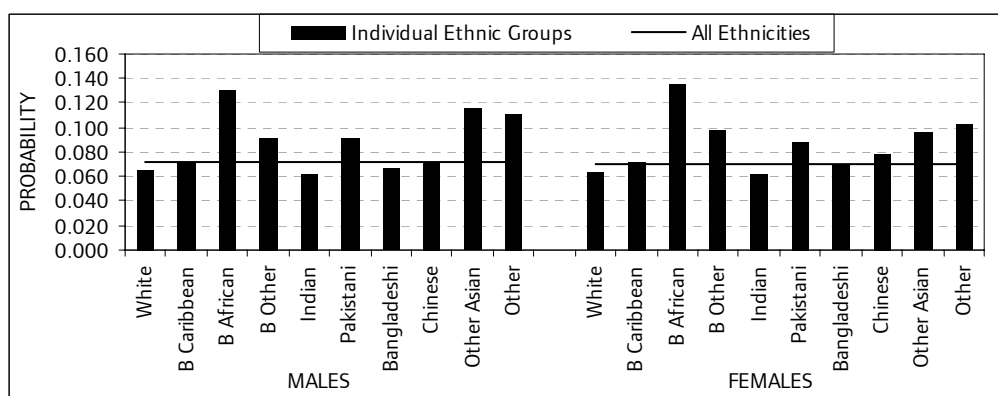


Figure 4.3: Probabilities of moving within Inner London, by Ethnicity (all ages)

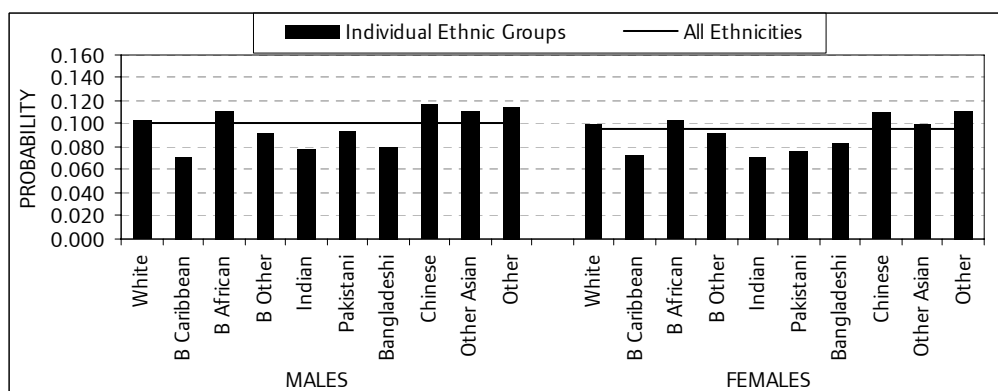


Figure 4.4: Probabilities of moving within Rest of Inner Boroughs, by Ethnicity (all ages)

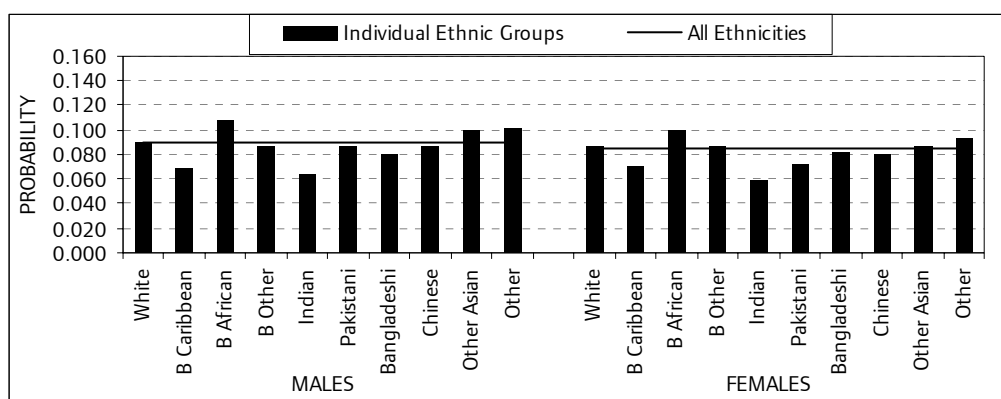
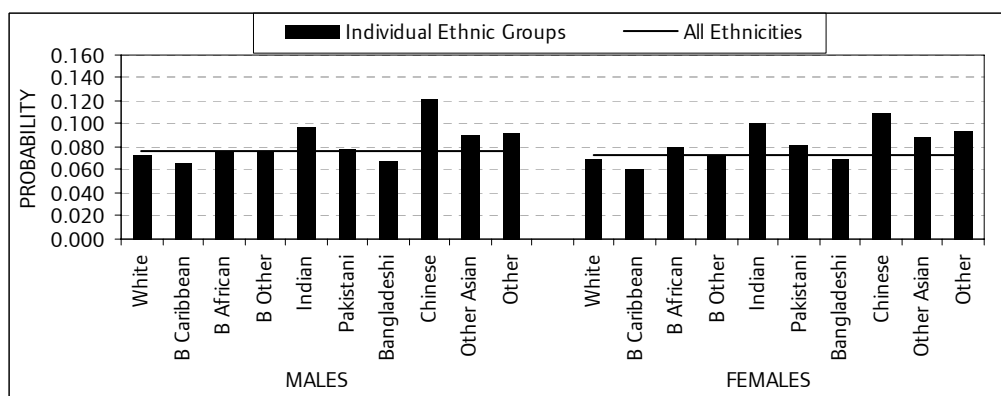


Figure 4.5: Probabilities of moving within Central Boroughs, by Ethnicity (all ages)



Total Out-Migration by ethnicity: to England and Wales (all ages)

Total out-migration flows by ethnicity (for all ages) from each of the five London areas are tabulated in Table 7. These flows are the sums of flows from a given London area to the remaining London areas plus the flows to the Rest of England and Wales ("To E&W"). In the case of Greater London the outflows are just to the Rest of England and Wales. The figures for Central Boroughs, Rest of Inner Boroughs, Inner London and Outer London do not sum to the figures for corresponding higher-level areas. This is because outflows from one London area to another are flows within the corresponding higher-level area.

The number of people migrating out was 201 thousand from Greater London, 176 thousand from Outer London, 144 thousand from Inner London, 131 thousand from Rest of Inner Boroughs and 46 thousand from Central Boroughs. The White ethnic group was by far the most predominant in terms of outflows from each area, comprising 169 thousand people (84 per cent) from Greater London, nearly 144 thousand people (82 per cent) from Outer London, 107 thousand people (75 per cent) from Inner London, 97 thousand people (74 per cent) from Rest of Inner Boroughs and 37 thousand people (80 per cent) from Central Boroughs.

In terms of BAME groups experiencing highest out-migration flows from Greater London these were Indian (accounting for 3.5 per cent) and Black African (3.0 per cent). From Outer London the groups were Indian (4.3 per cent) and Black African (3.5 per cent). From Inner London the groups were Black African (6.8 per cent) and Indian (3.3 per cent). From the Rest of Inner Boroughs the groups were Black African (7.1 per cent), Black Caribbean (3.8 per cent) and Indian (3.4 per cent). From Central Boroughs the groups were Other (4.3 per cent) and Black African (3.6 per cent).

Male to female ratios of the outflows in Table 7 are shown in Table 8. It is seen that for each area as a whole the male to female ratio of total outflows is very near to 1.00. This is due to the dominant effect of the White ethnic group (which comprises between 74 and 84 per cent of each area total outflows) for which the male to female ratio is also close to 1.00 within each area. However, within each area the ratios for the BAME groups vary considerably from 1.00. The highest ratio for a BAME group is that for Bangladeshi at Greater London level (1.68) and the minimum ratio for a BAME group is that for Black Caribbeans in Central Boroughs (0.66). For the Other ethnic group male to female ratios are consistently noticeably low (0.83-0.86) across all five areas. For the Chinese ethnic group male to female ratios are also consistently low (0.88-0.90) across all five areas. However, for the Other Asian and Pakistani ethnic groups male to female outflow ratios are consistently high (1.20-1.28 and 1.13-1.51 respectively) across all five areas.

Using the ethnic outflows in Table 7 and corresponding populations (Table 3) probabilities of out-migration by ethnicity (all ages) were derived. These are tabulated in Table 9 and male and female ethnic out-migration probabilities are also shown as bar charts for each London area in Figures 5.1 to 5.5. The overall probability of moving from a London area varies widely according to the area being considered. The highest probabilities of overall out-migration and generally of individual ethnic groups are those from Central Boroughs. The overall probability of moving from Central Boroughs (0.084, or 1-in-12, for persons and similar for males and females) is three times higher than the probability of moving from Greater London (0.028, or 1-in-36, for persons and similar for males and females). The overall probability of moving from the Rest of Inner Boroughs (0.059, or 1-in-17, for

persons and similar for males and females) is somewhat less than for moving from Central Boroughs but about twice as high as moving from Greater London. The overall probability of moving from Inner London (0.052, or 1-in-19, for persons and similar for males and females) is slightly less than for moving from Central Boroughs but almost twice as high as moving from Greater London. The overall probability of moving from Outer London (0.040, or 1-in-25, for persons and similar for males and females) is somewhat higher than for moving from Greater London but only about half as high as moving from Central Boroughs.

Regarding individual ethnic groups, there are five groups that have noteworthy features. The probabilities of out-migration of the White ethnic group are close to but always above the overall probability for each respective London area and are consistent between males and females within each London area. This is a reflection of the dominance of out-migration flows by the White ethnic group described above and given in Table 7.

The lowest probabilities of out-migration from Greater London are experienced by the Bangladeshi ethnic group, only 1-in-138 for persons, there also being a noticeable difference between males (1-in-108) and females (1-in-182). Bangladeshi out-migration probabilities from Central Boroughs (1-in-45), from Rest of Inner Boroughs (1-in-69) and from Inner London (1-in-74) are also much lower than the respective overall probabilities (1-in-12, 1-in-17 and 1-in-19), although there is reduced variation between males and females for the Rest of Inner Boroughs and for Inner London and no variation for Central Boroughs. For Outer London the probability of out-migration of the Bangladeshi ethnic group is close to the overall probability for this area and there is no difference between males and females.

The Black Caribbean ethnic group also experiences very low probability of out-migration from Greater London (1-in-124), where there is noticeable variation between males and females (1-in-104 and 1-in-146 respectively). For Central Boroughs and Rest of Inner Boroughs the Black Caribbean group also experience much lower probabilities of out-migration (1-in-21 and 1-in-36 for persons respectively) than the overall probabilities for these areas (1-in-12 and 1-in-17 for persons respectively), though not quite as low as the Bangladeshi group, but there are no big differences between males and females. From Inner London the out-migration probability of the Black Caribbean group (1-in-37 for persons, or half of the average for this area) is the second lowest (after Bangladeshis) for that area and there is no big difference between males and females. From Outer London the out-migration probability of the Black Caribbean group (1-in-46 for persons, or just over half of the average for this area) is among the lowest (along with the Indian and Pakistani ethnic groups) for that area and there is no big difference between males and females.

The low probabilities of out-migration experienced by the Indian and Pakistani ethnic groups for Outer London (1-in-47 and 1-in-42 for persons respectively) are not greatly different between males and females. The Indian and Pakistani groups also experience noticeably lower than overall probabilities of out-migration from Greater London (1-in-62 each for persons, or just over half the average for this area), there again being no appreciable difference between males and females. For Central Boroughs and the Rest of Inner Boroughs the Indian and Pakistani groups experience probabilities of out-migration that are similar to the overall probability for each of these areas, there being no appreciable difference between males and females, with the exception that the Pakistani

males in Central Boroughs experience a much higher than average out-migration probability of 1-in-8, which is also the highest of any ethnic group and sex in any area.

Other than the cases described above, the remaining ethnic groups and sexes experience probabilities of out-migration that show some but not excessive variation from the overall probability within their area and for their sex.

Table 7: Total Out-Migration Flows from London areas, by ethnicity (all ages)

Sex/ GLA Aggregated	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
Ethnic Group	Number	%	Number	%	Number	%	Number	%	Number	%
Persons										
White	36,600	79.9	97,000	74.3	107,100	74.5	143,500	81.5	169,200	84.4
Black Caribbean	600	1.4	4,900	3.8	5,200	3.6	3,400	1.9	2,800	1.4
Black African	1,700	3.6	9,300	7.1	9,800	6.8	6,200	3.5	5,900	3.0
Black Other	800	1.7	3,100	2.4	3,300	2.3	2,500	1.4	2,900	1.4
Indian	1,000	2.3	4,400	3.4	4,800	3.3	7,500	4.3	7,100	3.5
Pakistani	400	1.0	2,000	1.6	2,200	1.6	2,300	1.3	2,300	1.2
Bangladeshi	400	0.9	1,600	1.2	1,700	1.2	900	0.5	1,100	0.6
Chinese	1,000	2.2	1,800	1.4	2,100	1.4	2,000	1.1	2,000	1.0
Other Asian	1,300	2.8	3,200	2.4	3,600	2.5	4,400	2.5	3,800	1.9
Other	2,000	4.3	3,300	2.6	4,100	2.8	3,500	2.0	3,400	1.7
All Ethnicities	45,800	100.0	130,600	100.0	143,800	100.0	176,200	100.0	200,500	100.0
Male										
White	18,300	80.0	47,800	73.9	52,800	74.1	70,900	81.3	83,200	83.8
Black Caribbean	300	1.1	2,300	3.6	2,400	3.4	1,600	1.8	1,500	1.5
Black African	800	3.4	4,600	7.0	4,800	6.7	3,100	3.5	3,100	3.1
Black Other	400	1.7	1,500	2.4	1,700	2.3	1,300	1.5	1,500	1.5
Indian	600	2.6	2,300	3.6	2,500	3.5	3,700	4.2	3,500	3.6
Pakistani	300	1.2	1,100	1.8	1,200	1.7	1,300	1.4	1,200	1.2
Bangladeshi	200	1.0	900	1.4	1,000	1.4	500	0.5	700	0.7
Chinese	500	2.1	900	1.3	1,000	1.4	900	1.1	900	1.0
Other Asian	700	3.1	1,800	2.8	2,000	2.8	2,400	2.8	2,100	2.1
Other	900	3.9	1,500	2.3	1,900	2.6	1,600	1.9	1,600	1.6
All Ethnicities	22,900	100.0	64,700	100.0	71,300	100.0	87,200	100.0	99,300	100.0
Female										
White	18,300	79.3	49,200	74.5	54,300	74.6	72,600	81.5	86,000	84.9
Black Caribbean	400	1.7	2,600	4.0	2,800	3.8	1,800	2.0	1,300	1.3
Black African	900	3.9	4,800	7.2	5,000	6.9	3,100	3.5	2,900	2.8
Black Other	400	1.7	1,600	2.4	1,700	2.3	1,300	1.4	1,400	1.4
Indian	500	2.0	2,100	3.2	2,300	3.1	3,900	4.3	3,600	3.5
Pakistani	200	0.8	900	1.4	1,000	1.4	1,100	1.2	1,100	1.1
Bangladeshi	200	1.0	700	1.1	800	1.1	500	0.5	400	0.4
Chinese	500	2.3	1,000	1.5	1,100	1.5	1,100	1.2	1,100	1.1
Other Asian	600	2.6	1,400	2.1	1,600	2.2	1,900	2.2	1,700	1.7
Other	1,100	4.7	1,800	2.8	2,200	3.0	1,900	2.1	1,800	1.8
All Ethnicities	23,100	100.0	66,000	100.0	72,700	100.0	89,100	100.0	101,200	100.0

Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Table 8: Male to Female Ratios of Total Out-Migration Flows from London areas, by ethnicity (all ages)

GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
White	1.00	0.97	0.97	0.98	0.97
Black Caribbean	0.66	0.88	0.87	0.86	1.12
Black African	0.87	0.96	0.96	0.99	1.08
Black Other	0.96	0.99	1.01	1.01	1.03
Indian	1.24	1.11	1.10	0.95	0.99
Pakistani	1.51	1.25	1.22	1.15	1.13
Bangladeshi	0.96	1.26	1.26	1.01	1.68
Chinese	0.90	0.88	0.90	0.88	0.89
Other Asian	1.20	1.28	1.24	1.25	1.27
Other	0.83	0.83	0.86	0.86	0.85
max	1.51	1.28	1.26	1.25	1.68
min	0.66	0.83	0.86	0.86	0.85
All Ethnicities	0.99	0.98	0.98	0.98	0.98

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Table 9: Total Out-Migration Probabilities from London areas, by ethnicity (all ages)

Sex/ GLA Aggregated Ethnic Group	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
	Prob	1inX	Prob	1inX	Prob	1inX	Prob	1inX	Prob	1inX
Persons										
White	0.090	11	0.069	15	0.059	17	0.044	23	0.033	30
Black Caribbean	0.047	21	0.028	36	0.027	37	0.022	46	0.008	124
Black African	0.067	15	0.046	22	0.043	23	0.041	24	0.016	64
Black Other	0.070	14	0.039	26	0.037	27	0.033	30	0.017	57
Indian	0.077	13	0.061	16	0.056	18	0.021	47	0.016	62
Pakistani	0.104	10	0.052	19	0.051	20	0.024	42	0.016	62
Bangladeshi	0.022	45	0.015	69	0.013	74	0.036	28	0.007	138
Chinese	0.097	10	0.063	16	0.053	19	0.048	21	0.025	40
Other Asian	0.089	11	0.068	15	0.060	17	0.033	30	0.020	51
Other	0.075	13	0.058	17	0.048	21	0.039	26	0.019	52
All Ethnicities	0.084	12	0.059	17	0.052	19	0.040	25	0.028	36
Male										
White	0.092	11	0.069	14	0.059	17	0.045	22	0.034	30
Black Caribbean	0.043	23	0.030	33	0.029	34	0.023	44	0.010	104
Black African	0.069	15	0.047	21	0.044	23	0.044	23	0.017	58
Black Other	0.074	13	0.042	24	0.040	25	0.035	28	0.019	53
Indian	0.084	12	0.065	15	0.059	17	0.021	47	0.016	61
Pakistani	0.121	8	0.055	18	0.054	18	0.025	40	0.017	60
Bangladeshi	0.024	42	0.016	61	0.015	65	0.037	27	0.009	108
Chinese	0.101	10	0.062	16	0.054	19	0.048	21	0.025	40
Other Asian	0.098	10	0.073	14	0.064	16	0.035	29	0.021	48
Other	0.081	12	0.057	17	0.050	20	0.038	26	0.019	52
All Ethnicities	0.087	12	0.060	17	0.053	19	0.041	24	0.029	35
Female										
White	0.088	11	0.068	15	0.059	17	0.043	23	0.033	31
Black Caribbean	0.052	19	0.027	38	0.026	38	0.021	47	0.007	146
Black African	0.067	15	0.044	23	0.042	24	0.039	26	0.014	70
Black Other	0.069	14	0.037	27	0.034	29	0.032	31	0.016	61
Indian	0.071	14	0.058	17	0.053	19	0.022	46	0.016	62
Pakistani	0.092	11	0.048	21	0.049	20	0.022	44	0.016	64
Bangladeshi	0.024	42	0.013	77	0.012	83	0.037	27	0.005	182
Chinese	0.095	11	0.065	15	0.053	19	0.048	21	0.025	40
Other Asian	0.083	12	0.064	16	0.056	18	0.031	32	0.018	54
Other	0.072	14	0.059	17	0.048	21	0.039	25	0.020	51
All Ethnicities	0.082	12	0.058	17	0.051	20	0.039	26	0.027	37

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figure 5.1: Total Out-Migration Probabilities from Greater London, by Ethnicity (all ages)

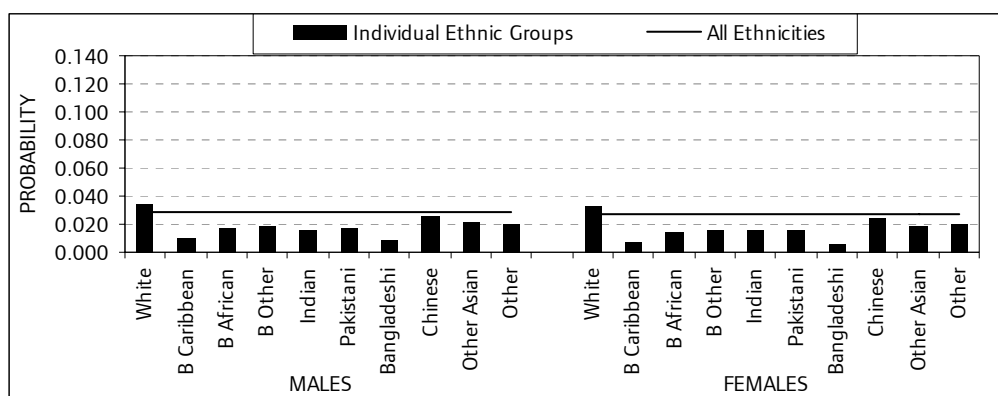


Figure 5.2: Total Out-Migration Probabilities from Outer London, by Ethnicity (all ages)

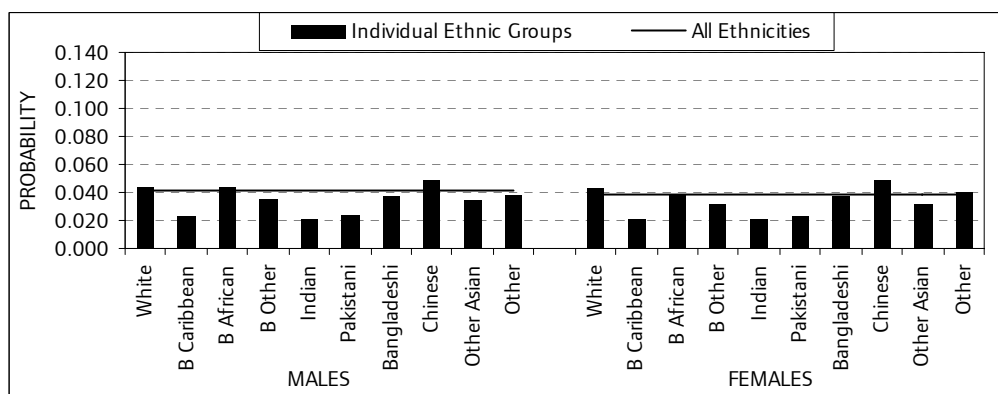


Figure 5.3: Total Out-Migration Probabilities from Inner London, by Ethnicity (all ages)

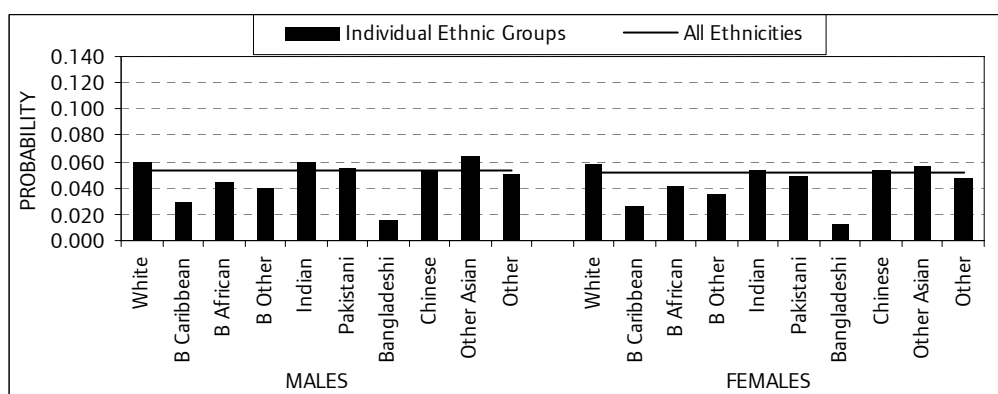


Figure 5.4: Total Out-Migration Probabilities from Rest of Inner Boroughs, by Ethnicity (all ages)

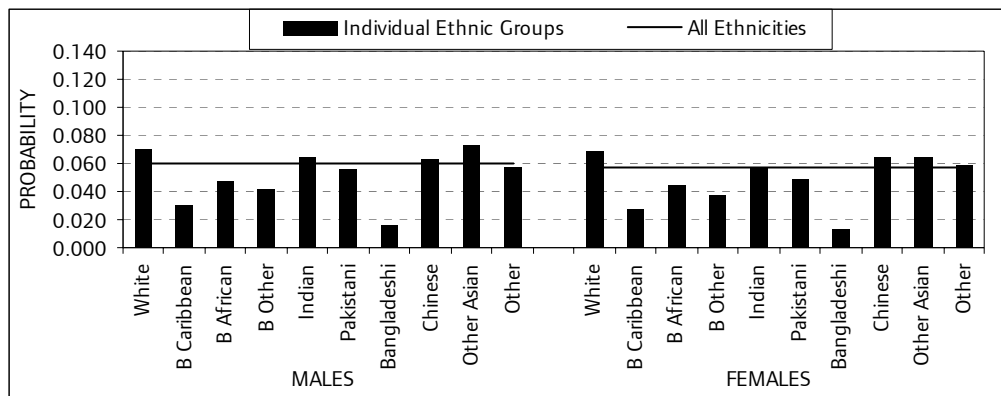
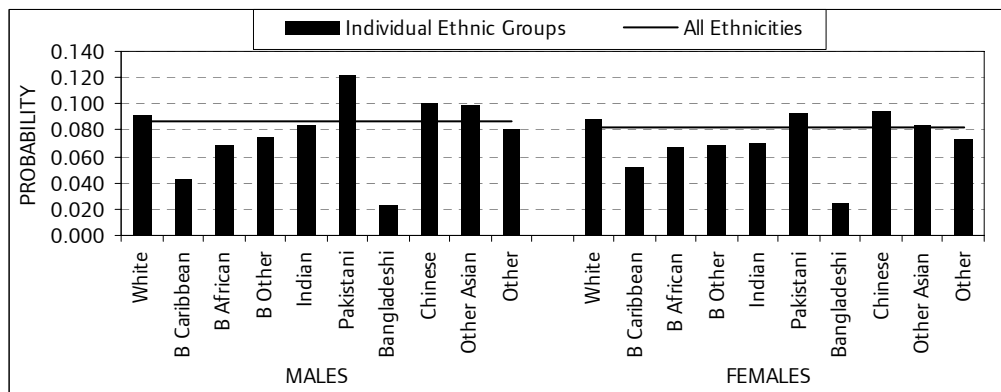


Figure 5.5: Total Out-Migration Probabilities from Central Boroughs, by Ethnicity (all ages)



Total Out-Migration by ethnicity: to England and Wales (age-specific)

The previous section described the variations in probability of out-migration from each London area between whole ethnic groups. In this section ethnic variations of age-structures of probabilities of out-migration are covered with particular focus on impact on ethnic projection modelling.

Table 10 tabulates ethnic age-specific total out-migration flows from Central Boroughs, for males and for females. For the oldest ages the data has been aggregated to a 75+ age band because of small flows. It can be seen that except for the White ethnic group and for the age bands roughly from 15 to 34 or 39 years for the remaining ethnic groups, the flows when broken down by sex and age are quite small, especially for older age bands. Using corresponding Census populations, age-specific ethnic probabilities of total out-migration from Central Boroughs were derived; these are tabulated in Table 11 and shown graphically in Figure 6.1. Age-specific ethnic total out-migration flows and probabilities from the Rest of Inner London, Inner London, Outer London and Greater London involve increasingly copious amounts of information and are not tabulated in this report, but are shown graphically in Figures 6.2, 6.3, 6.4 and 6.5.

In these Figures, the total out-migration age structures have been presented for all ten ethnic groups in one graph per London area. Although details of individual ethnic groups may be difficult to discern, especially if viewed in black-and-white, the purpose of this presentation format is to highlight the main area-level considerations affecting ethnic projection modelling.

One consideration that is apparent is that for each London area there are noticeable ethnic variations in the age-structures. The magnitude of the structures also differs between areas (reflecting the ethnic probabilities for all ages described in the previous section). Central Boroughs has the highest structures and Greater London the lowest, with Rest of Inner Boroughs, Inner London and Outer London having structures of intermediate magnitude (in general, though different patterns between areas may apply to different ethnic groups). In general, the highest age-specific probabilities in all five areas are those for the White ethnic group (with the exception that for Outer London in the age bands 15-24 years the highest probabilities are those for the Chinese ethnic group, more so for females) and probabilities for the White group also tend to be among the highest throughout the age structure.

Another consideration is the smoothness of the ethnic age-specific probability structures. It is sufficiently clear from the graphs that for larger areas of population and migration (Rest of Inner London, Inner London, Outer London and Greater London) the structures are much smoother than for Central Boroughs. For Central Boroughs the structures are particularly volatile at the younger and older ages. This is a result not only of small ethnic age-specific flows in the numerator, but also in some instances of small ethnic age-specific populations in the denominator as well, sometimes exacerbated by suppressed data. Some of these effects can also result in volatile ethnic probabilities in the larger areas as well, for example, the spike in Figure 6.3 for females aged 75+ for Outer London is that for the Bangladeshi group and resulted from a flow of 6 in relation to a population of 74 (probability = 0.081, much higher than for all the other ethnic groups of that criteria). There is also the possibility that suppressed data is contributing to the probability spikes in the female 70-74 and 75+ age bands for Inner London (Pakistani and Other ethnic groups).

It should also now become evident that if data for individual boroughs was being considered, clearly the out-migration flows for most age bands for all ethnic groups except White would be very low or zero and this would result in even more volatile borough-level ethnic out-migration age structures, which is why structures at the five aggregated London areas were investigated.

Table 10: Total Out-Migration Flows from Central Boroughs, by ethnicity and age

Sex / Age Band	White	Black Caribbean	Black African	Black Other	Indian	Pakistani	Bangla- deshi	Chinese	Other Asian	Other	All Ethnicities
Male											
0	400	*	*	*	*	*	*	*	*	*	500
1-4	600	*	*	*	*	*	*	*	*	*	800
5-9	300	*	50	*	*	*	*	*	*	*	500
10-14	300	*	*	*	*	*	*	*	*	*	500
15-19	700	*	50	*	*	*	*	*	50	*	1,000
20-24	3,500	*	100	50	200	50	*	200	100	200	4,500
25-29	4,400	*	100	*	100	50	*	100	100	200	5,200
30-34	3,300	*	100	*	100	*	*	50	50	200	3,900
35-39	1,700	*	50	*	*	*	*	*	50	100	2,100
40-44	900	*	50	*	*	*	*	*	*	50	1,200
45-49	600	*	*	*	*	*	*	*	*	*	700
50-54	500	*	*	*	*	*	*	*	*	*	600
55-59	400	*	*	*	*	*	*	*	*	*	400
60-64	300	*	*	*	*	*	*	*	*	*	300
65-69	200	*	*	*	*	*	*	*	*	*	200
70-74	100	*	*	*	*	*	*	*	*	*	200
75+	300	*	*	*	*	*	*	*	*	*	300
All Ages	18,300	300	800	400	600	300	200	500	700	900	22,900
Female											
0	300	*	*	*	*	*	*	*	*	*	500
1-4	600	*	*	*	*	*	*	*	*	*	800
5-9	300	*	50	*	*	*	*	*	*	*	500
10-14	300	*	*	*	*	*	*	*	*	*	500
15-19	800	*	50	*	*	*	*	*	*	50	1,100
20-24	4,000	50	200	100	100	50	50	200	100	200	5,100
25-29	4,800	50	200	50	100	*	*	100	100	200	5,800
30-34	2,800	50	100	*	50	*	*	50	50	200	3,500
35-39	1,300	50	50	*	*	*	*	*	*	100	1,700
40-44	700	*	*	*	*	*	*	*	*	50	900
45-49	400	*	*	*	*	*	*	*	*	*	500
50-54	500	*	*	*	*	*	*	*	*	*	600
55-59	300	*	*	*	*	*	*	*	*	*	400
60-64	300	*	*	*	*	*	*	*	*	*	300
65-69	200	*	*	*	*	*	*	*	*	*	200
70-74	100	*	*	*	*	*	*	*	*	*	100
75+	500	*	*	*	*	*	*	*	*	*	600
All Ages	18,300	400	900	400	500	200	200	500	600	1,100	23,100

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figures may not add due to rounding and suppression.

* denotes suppressed data (values below 50).

Values between 50 and 100 have been rounded to the nearest 50.

Values over 100 have been rounded to the nearest 100.

Table 11: Total Out-Migration Probabilities from Central Boroughs, by ethnicity and age

Sex / Age Band	White	Black Caribbean	Black African	Black Other	Indian	Pakistani	Bangla- deshi	Chinese	Other Asian	Other	All Ethnicities
Male											
0	0.147	0.129	0.055	0.130	0.224	0.088	0.017	0.357	0.166	0.082	0.130
1-4	0.078	0.012	0.036	0.066	0.106	0.217	0.028	0.063	0.088	0.048	0.068
5-9	0.040	0.024	0.042	0.042	0.047	0.132	0.005	0.037	0.083	0.043	0.040
10-14	0.052	0.021	0.043	0.041	0.024	0.066	0.014	0.068	0.064	0.032	0.045
15-19	0.096	0.035	0.065	0.068	0.089	0.057	0.010	0.100	0.087	0.060	0.080
20-24	0.236	0.060	0.116	0.143	0.199	0.202	0.032	0.150	0.179	0.154	0.205
25-29	0.171	0.113	0.124	0.122	0.107	0.191	0.045	0.107	0.183	0.131	0.160
30-34	0.134	0.088	0.100	0.107	0.112	0.142	0.039	0.124	0.087	0.119	0.127
35-39	0.087	0.056	0.061	0.077	0.049	0.101	0.034	0.081	0.123	0.076	0.084
40-44	0.061	0.055	0.087	0.049	0.026	0.067	0.010	0.084	0.067	0.087	0.061
45-49	0.048	0.014	0.063	0.062	0.042	0.060	0.024	0.052	0.053	0.043	0.048
50-54	0.034	0.022	0.054	0.031	0.033	0.044	0.031	0.025	0.048	0.037	0.035
55-59	0.035	0.004	0.012	0.040	0.009	0.123	0.024	0.035	0.026	0.072	0.035
60-64	0.031	0.046	0.047	0.083	0.026	0.053	0.016	0.029	0.033	0.021	0.031
65-69	0.028	0.014	0.028	0.101	0.013	0.063	0.042	0.040	0.015	0.036	0.029
70-74	0.019	0.017	0.029	0.020	0.028	0.000	0.035	0.036	0.058	0.064	0.021
75+	0.024	0.000	0.036	0.072	0.019	0.091	0.000	0.000	0.023	0.093	0.024
All Ages	0.092	0.043	0.069	0.074	0.084	0.121	0.024	0.101	0.098	0.081	0.087
Female											
0	0.136	0.020	0.106	0.210	0.222	0.430	0.052	0.079	0.125	0.126	0.132
1-4	0.080	0.042	0.046	0.052	0.080	0.011	0.032	0.140	0.072	0.058	0.069
5-9	0.044	0.042	0.047	0.028	0.115	0.047	0.015	0.045	0.053	0.043	0.042
10-14	0.056	0.055	0.036	0.041	0.047	0.036	0.013	0.040	0.061	0.043	0.048
15-19	0.104	0.056	0.062	0.059	0.041	0.079	0.011	0.100	0.086	0.090	0.084
20-24	0.220	0.113	0.138	0.164	0.119	0.189	0.041	0.169	0.190	0.136	0.193
25-29	0.179	0.114	0.131	0.099	0.116	0.105	0.040	0.115	0.141	0.119	0.162
30-34	0.124	0.074	0.072	0.073	0.080	0.113	0.018	0.096	0.087	0.087	0.112
35-39	0.076	0.052	0.045	0.041	0.071	0.049	0.008	0.049	0.058	0.060	0.069
40-44	0.051	0.055	0.038	0.049	0.035	0.075	0.041	0.066	0.051	0.047	0.050
45-49	0.034	0.011	0.041	0.069	0.018	0.029	0.010	0.041	0.046	0.034	0.033
50-54	0.034	0.020	0.040	0.035	0.017	0.054	0.004	0.027	0.017	0.034	0.032
55-59	0.029	0.030	0.045	0.038	0.011	0.000	0.000	0.000	0.039	0.017	0.028
60-64	0.029	0.024	0.056	0.082	0.000	0.111	0.078	0.055	0.033	0.002	0.030
65-69	0.021	0.022	0.000	0.145	0.021	0.068	0.000	0.000	0.029	0.044	0.022
70-74	0.016	0.004	0.030	0.094	0.007	0.000	0.000	0.000	0.025	0.036	0.016
75+	0.030	0.036	0.049	0.107	0.027	0.298	0.000	0.071	0.051	0.128	0.032
All Ages	0.088	0.052	0.067	0.069	0.071	0.092	0.024	0.095	0.083	0.072	0.082

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figure 6.1: Total Out-Migration Probabilities from Greater London, by ethnicity and age

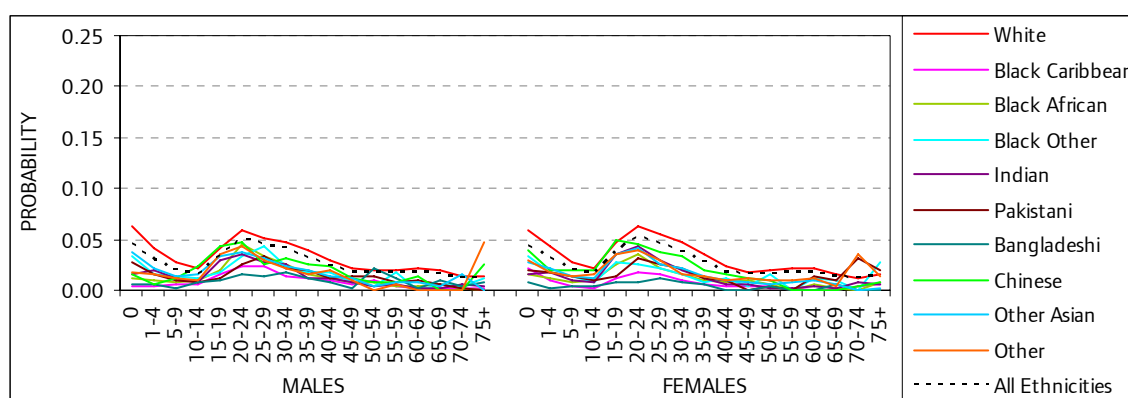


Figure 6.2: Total Out-Migration Probabilities from Outer London, by ethnicity and age

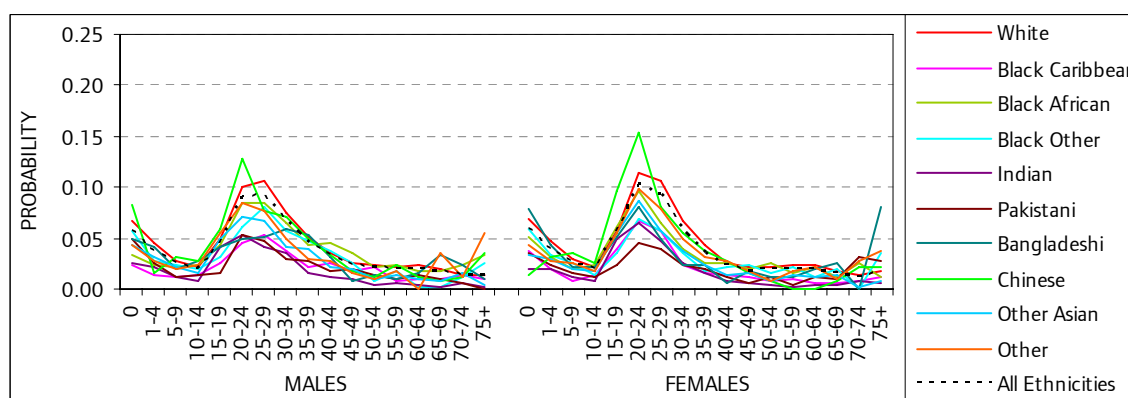


Figure 6.3: Total Out-Migration Probabilities from Inner London, by ethnicity and age

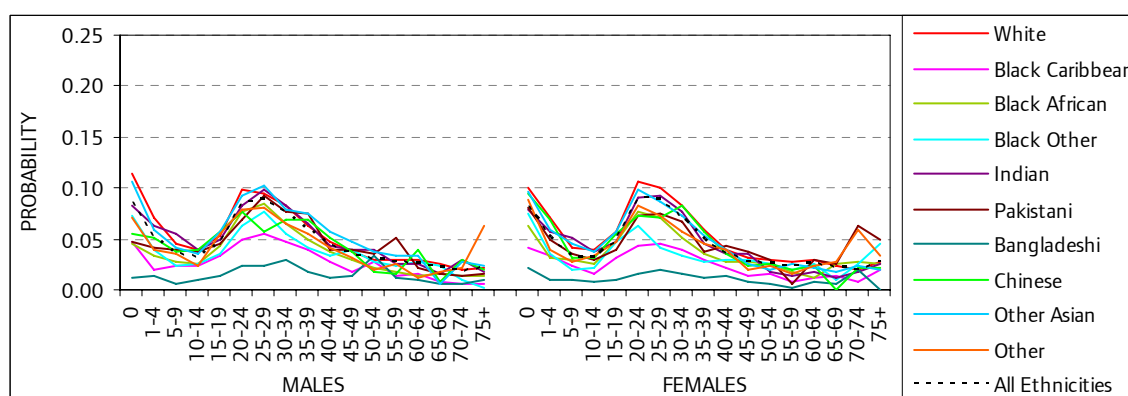


Figure 6.4: Total Out-Migration Probabilities from Rest of Inner Boroughs, by ethnicity and age

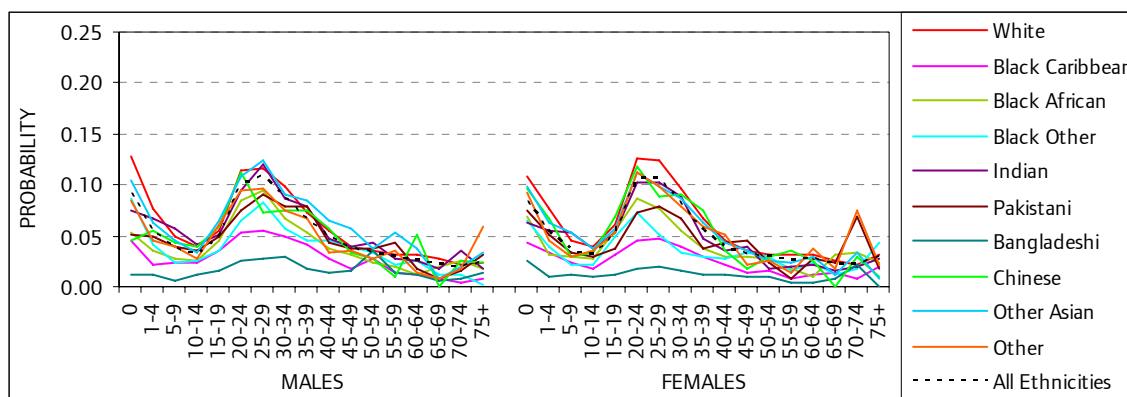
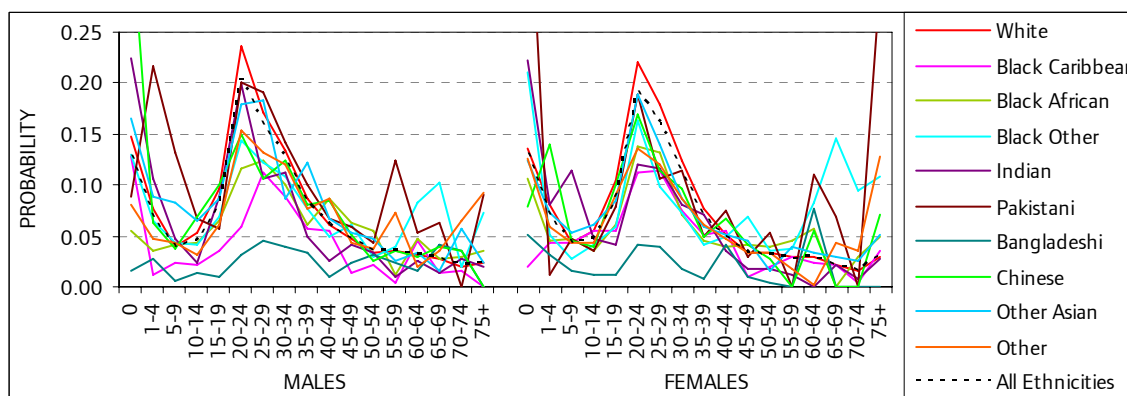


Figure 6.5: Total Out-Migration Probabilities from Central Boroughs, by ethnicity and age



Total In-Migration by ethnicity: from United Kingdom and from Overseas (all ages)

In GLA ethnic demographic analysis in-migration from the United Kingdom ("From UK") and from overseas ("From OV") are modelled separately. This section gives a brief overview of total in-migration (that is from all origins in the world) by ethnicity to the five London areas and is followed by more detailed separate sections on ethnic in-migration from the United Kingdom and from overseas.

Total in-migration flows by ethnicity (for all ages) to each of the five London areas are tabulated in Table 12. These flows are the sums of flows to a given London area from the remaining London areas plus the flows from the rest of the UK plus the flows from overseas. In the case of Greater London the inflows are the flows from the rest of the UK plus the flows from overseas. The figures for Central Boroughs, Rest of Inner Boroughs, Inner London and Outer London do not sum to the figures for corresponding higher-level areas. As with out-migration, this is because inflows to one London area from another are flows within the corresponding higher-level area and need to be excluded when deriving the corresponding higher-level area inflows.

The total number of people migrating in was 305 thousand into Greater London, 225 thousand into Outer London, 213 thousand into Inner London, 175 thousand into Rest of Inner Boroughs and 74 thousand into Central Boroughs. The White ethnic group was by far the most predominant in terms of total in-migration flows into each area, comprising 230 thousand people (76 per cent) into Greater London, 156 thousand people (69 per cent) into Outer London, 163 thousand people (77 per cent) into Inner London, 134 thousand people (77 per cent) into Rest of Inner Boroughs and 58 thousand people (79 per cent) into Central Boroughs.

In terms of BAME groups experiencing highest proportional total in-migration flows, into Greater London these were Indian (5.5 per cent), Other (4.9 per cent) and Black African (4.2 per cent). Into Outer London the groups were Indian (6.7 per cent), Black African (6.2 per cent) and Other (4.8 per cent). Into Inner London the groups were Black African (4.9 per cent) and Other (4.2 per cent) and Indian (3.5 per cent). Into the Rest of Inner Boroughs the groups were Black African (5.5 per cent), Other (3.5 per cent) and Indian (3.2 per cent). Into Central Boroughs the groups were Other (5.6 per cent), Indian (3.5 per cent) and Chinese (3.3 per cent).

Male to female ratios of the total inflows in Table 12 are shown in Table 13. It is seen that within each area as a whole the ratio is very near to 1.00. This is due to the dominant effect of the White ethnic group (which comprises 69-79 per cent of all area total inflows) for which the ratio is also close to 1.00 within each area. However, as for outflows, within each area the ratios for BAME groups vary considerably from 1.00. Hence, the highest ratio is that for the Pakistani ethnic group in the Rest of Inner Boroughs (1.33) and the lowest ratio is that for the Chinese ethnic group in Central Boroughs (0.73). The highest ratio is not as extreme as in the case of total outflows (1.68). For the Other ethnic group male to female inflow ratios are consistently noticeably low (0.76-0.85) across all five areas. Similarly, for the Chinese ethnic group the ratios are consistently low (0.73-0.87) across all five areas. For the Black Caribbean, Black African and Black Other ethnic groups the ratios are lower than 1.00 for all five areas. For the Pakistani and Indian ethnic groups the ratios are above 1.00 for all five areas.

Table 12: Total In-Migration Flows to London areas, by ethnicity (all ages)

Sex/ GLA Aggregated	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
Ethnic Group	Number	%	Number	%	Number	%	Number	%	Number	%
Persons										
White	58,200	78.9	134,100	76.8	163,400	76.7	155,900	69.4	230,200	75.5
Black Caribbean	600	0.8	4,500	2.5	4,700	2.2	6,500	2.9	4,600	1.5
Black African	2,000	2.8	9,700	5.5	10,300	4.9	14,000	6.2	12,800	4.2
Black Other	1,000	1.3	2,800	1.6	3,200	1.5	3,900	1.7	3,700	1.2
Indian	2,600	3.5	5,600	3.2	7,500	3.5	15,000	6.7	16,700	5.5
Pakistani	600	0.8	2,400	1.4	2,700	1.3	5,000	2.2	5,200	1.7
Bangladeshi	400	0.6	2,100	1.2	2,200	1.0	1,700	0.8	2,200	0.7
Chinese	2,400	3.3	3,500	2.0	5,100	2.4	3,800	1.7	6,500	2.1
Other Asian	1,800	2.4	4,000	2.3	5,000	2.3	7,900	3.5	8,100	2.7
Other	4,100	5.6	6,200	3.5	8,900	4.2	10,800	4.8	15,100	4.9
All Ethnicities	73,900	100.0	174,700	100.0	213,000	100.0	224,500	100.0	305,100	100.0
Male										
White	29,200	80.0	67,500	77.4	82,000	77.5	78,600	70.0	115,600	76.2
Black Caribbean	300	0.8	2,000	2.3	2,100	2.0	2,900	2.6	2,100	1.4
Black African	900	2.6	4,700	5.4	5,100	4.8	6,800	6.0	6,300	4.2
Black Other	400	1.2	1,400	1.6	1,500	1.4	1,900	1.7	1,700	1.1
Indian	1,300	3.7	2,800	3.2	3,800	3.6	7,700	6.8	8,500	5.6
Pakistani	300	0.9	1,400	1.6	1,500	1.4	2,600	2.3	2,700	1.8
Bangladeshi	200	0.5	1,000	1.2	1,100	1.0	800	0.7	1,100	0.7
Chinese	1,000	2.8	1,600	1.9	2,300	2.1	1,700	1.5	2,900	1.9
Other Asian	900	2.5	2,100	2.4	2,600	2.4	4,200	3.8	4,100	2.7
Other	1,800	4.9	2,700	3.1	3,900	3.7	5,000	4.4	6,700	4.4
All Ethnicities	36,500	100.0	87,300	100.0	105,800	100.0	112,300	100.0	151,700	100.0
Female										
White	29,000	77.7	66,600	76.2	81,500	76.0	77,300	68.8	114,700	74.7
Black Caribbean	300	0.9	2,500	2.8	2,600	2.4	3,600	3.2	2,500	1.6
Black African	1,100	2.9	4,900	5.6	5,300	4.9	7,200	6.4	6,500	4.2
Black Other	500	1.5	1,500	1.7	1,700	1.5	2,000	1.8	2,000	1.3
Indian	1,200	3.3	2,700	3.1	3,700	3.4	7,400	6.6	8,200	5.4
Pakistani	300	0.7	1,000	1.2	1,200	1.1	2,300	2.1	2,400	1.6
Bangladeshi	200	0.6	1,000	1.2	1,100	1.0	900	0.8	1,100	0.7
Chinese	1,400	3.7	1,900	2.1	2,800	2.6	2,100	1.8	3,700	2.4
Other Asian	900	2.3	1,900	2.2	2,400	2.2	3,700	3.3	4,000	2.6
Other	2,400	6.3	3,500	4.0	5,000	4.7	5,800	5.2	8,400	5.5
All Ethnicities	37,300	100.0	87,500	100.0	107,200	100.0	112,300	100.0	153,500	100.0

Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Table 13: Male to Female Ratios of Total In-Migration Flows to London areas by ethnicity (all ages)

GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
White	1.01	1.01	1.01	1.02	1.01
Black Caribbean	0.94	0.81	0.83	0.83	0.85
Black African	0.87	0.96	0.96	0.94	0.97
Black Other	0.80	0.93	0.92	0.93	0.85
Indian	1.09	1.04	1.02	1.04	1.04
Pakistani	1.22	1.33	1.25	1.13	1.11
Bangladeshi	0.84	1.01	1.00	0.93	0.97
Chinese	0.73	0.87	0.80	0.83	0.78
Other Asian	1.06	1.11	1.07	1.15	1.04
Other	0.76	0.77	0.77	0.85	0.79
max	1.22	1.33	1.25	1.15	1.11
min	0.73	0.77	0.77	0.83	0.78
All Ethnicities	0.98	1.00	0.99	1.00	0.99

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

In-Migration by ethnicity: from United Kingdom (all ages)

Flows of in-migration from the United Kingdom ("From UK") by ethnicity (for all ages) to each of the five London areas are tabulated in Table 14. These flows are the sums of flows to a given London area from the remaining London areas plus the flows from the rest of the UK. In the case of Greater London the inflows are the flows from the rest of the UK. The figures for Central Boroughs, Rest of Inner Boroughs, Inner London and Outer London do not sum to the figures for corresponding higher-level areas. As with out-migration, this is because inflows to one London area from another are flows within the corresponding higher-level area and need to be excluded when deriving the corresponding higher-level area inflows.

The number of people migrating in from the United Kingdom was 171 thousand into Greater London, 166 thousand into Outer London, 137 thousand into Inner London, 129 thousand into Rest of Inner Boroughs and 44 thousand into Central Boroughs. The White ethnic group was by far the most predominant in terms of in-migration flows from the United Kingdom into each area, comprising 144 thousand people (84 per cent) into Greater London, 123 thousand people (74 per cent) into Outer London, 110 thousand people (80 per cent) into Inner London, 104, thousand people (80 per cent) into Rest of Inner Boroughs and 36 thousand people (81 per cent) into Central Boroughs.

In terms of BAME groups experiencing highest in-migration flows from the United Kingdom, into Greater London these were Indian (4.1 per cent), Black African (2.1 per cent), Other (2.0 per cent) and Other Asian (1.8 per cent). Into Outer London the groups were Black African (5.8 per cent), Indian (5.0 per cent), Black Caribbean (3.3 per cent), Other Asian (2.9 per cent) and Other (2.9 per cent). Into Inner London the groups were Black African (3.9 per cent) and Indian (3.3 per cent). Into the Rest of Inner Boroughs the groups were Black African (4.1 per cent), Indian (2.8 per cent), Other (2.5 per cent) and Black Caribbean (2.4 per cent). Into Central Boroughs the groups were Other (3.5 per cent), Indian (3.4 per cent), Black African (3.3 per cent) and Chinese (2.9 per cent).

Male to female ratios of the in-migration flows from the United Kingdom in Table 14 are shown in Table 15. It is seen that within each area as a whole the ratio of inflows from the United Kingdom is very near to 1.00 (but is above 1.00 in each area). As in the case of previous flows, this is due to the dominant effect of the White ethnic group (which comprises 74-84 per cent of all area inflows from the United Kingdom) for which the ratio is also close to (but above) 1.00 within each area. Again, as for previous flows, within each area the ratios for BAME groups vary considerably from 1.00. Hence, the highest ratio is that for the Pakistani ethnic group in Central Boroughs (1.30) and the lowest ratio is that for the Other ethnic group in Central Boroughs (0.67). The highest ratio is not as extreme as in the case of total outflows (1.68). For the Other ethnic group the ratios are consistently noticeably low (0.67-0.90) across all five areas. Similarly for the Chinese ethnic group the ratios are consistently low (0.82-0.93) across all five areas. For the Black Caribbean, Black African and Black Other ethnic groups the ratios are lower than 1.00 for all five areas. The ratios for the Pakistani ethnic group are higher than 1.00 for all five areas. Most of these ethnic patterns were seen in the ratios for Total In-migration flows.

Using the ethnic "From UK" inflows in Table 14 rates (proportions) of in-migration from the United Kingdom by ethnicity (all ages) were derived. These are tabulated in Table 16 and male and female

ethnic in-migration rates are also shown as bar charts for each London area in Figures 7.1 to 7.5. These Figures show that for each area the inflow rates from the United Kingdom are dominated by the White ethnic group and that overall the male and female rates are in close balance. The rates for the BAME groups are very much lower than for the White ethnic group and are shown re-scaled without the White group in Figures 8.1 to 8.5. For Greater London the Indian ethnic group has the highest of rates for BAME groups, with gradual variation in the remaining groups, the Bangladeshis having the lowest rates. For Outer London the Black African and Indian ethnic groups have the highest rates, with gradual variation in the remaining groups, the Bangladeshis having the lowest rates. For Inner London the Black African and Indian ethnic groups have the highest rates, with gradual variation in the remaining groups, the Bangladeshis having the lowest rates. For Rest of Inner Boroughs there is a gradual variation, with the Black African ethnic group having the highest rates and the Bangladeshi ethnic group the lowest. For Central Boroughs the Black African, Indian, Chinese, Other Asian and Other ethnic groups have noticeably higher rates (both male and female) than the Black Caribbean, Black Other, Pakistani and Bangladeshi ethnic groups (Bangladeshis having the lowest rates). Hence the Bangladeshi group has the lowest inflow rates of in-migration from the United Kingdom for all areas.

Table 14: In-Migration Flows from UK to London areas, by ethnicity (all ages)

Sex/ GLA Aggregated	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
Ethnic Group	Number	%	Number	%	Number	%	Number	%	Number	%
Persons										
White	35,500	80.5	103,500	80.4	109,800	80.1	123,100	74.0	144,000	84.2
Black Caribbean	500	1.0	3,100	2.4	3,200	2.4	5,400	3.3	2,100	1.2
Black African	1,400	3.3	5,300	4.1	5,400	3.9	9,700	5.8	3,500	2.1
Black Other	600	1.4	2,200	1.7	2,200	1.6	3,100	1.8	1,800	1.1
Indian	1,500	3.4	3,600	2.8	4,500	3.3	8,400	5.0	7,100	4.1
Pakistani	300	0.7	1,500	1.2	1,600	1.2	3,300	2.0	2,300	1.4
Bangladeshi	300	0.6	1,300	1.0	1,300	0.9	1,400	0.9	900	0.5
Chinese	1,300	2.9	2,200	1.7	2,600	1.9	2,400	1.5	2,700	1.6
Other Asian	1,200	2.7	2,800	2.2	3,100	2.3	4,800	2.9	3,100	1.8
Other	1,600	3.5	3,200	2.5	3,400	2.5	4,700	2.9	3,500	2.0
All Ethnicities	44,100	100.0	128,800	100.0	137,000	100.0	166,400	100.0	171,100	100.0
Male										
White	18,100	81.6	53,100	81.2	56,300	81.1	63,200	74.8	74,600	85.2
Black Caribbean	200	1.0	1,400	2.1	1,400	2.1	2,400	2.9	900	1.0
Black African	700	3.1	2,500	3.9	2,600	3.7	4,700	5.6	1,800	2.0
Black Other	300	1.2	1,100	1.6	1,100	1.5	1,500	1.8	800	1.0
Indian	800	3.6	1,800	2.7	2,100	3.1	4,200	5.0	3,400	3.9
Pakistani	200	0.8	800	1.3	900	1.2	1,800	2.1	1,200	1.4
Bangladeshi	100	0.6	700	1.0	700	0.9	700	0.8	500	0.5
Chinese	600	2.6	1,100	1.6	1,200	1.8	1,100	1.3	1,200	1.4
Other Asian	600	2.8	1,500	2.3	1,600	2.3	2,700	3.1	1,600	1.8
Other	600	2.8	1,500	2.3	1,500	2.1	2,200	2.7	1,600	1.8
All Ethnicities	22,200	100.0	65,400	100.0	69,500	100.0	84,400	100.0	87,600	100.0
Female										
White	17,300	79.4	50,400	79.5	53,500	79.2	60,000	73.2	69,600	83.1
Black Caribbean	200	1.1	1,800	2.8	1,800	2.6	3,000	3.7	1,200	1.4
Black African	700	3.4	2,800	4.3	2,800	4.1	5,000	6.1	1,800	2.1
Black Other	300	1.6	1,100	1.8	1,100	1.6	1,600	1.9	1,000	1.2
Indian	700	3.2	1,900	3.0	2,300	3.4	4,200	5.1	3,700	4.4
Pakistani	100	0.6	700	1.1	700	1.1	1,500	1.8	1,100	1.3
Bangladeshi	100	0.6	700	1.0	600	0.9	700	0.9	400	0.5
Chinese	700	3.2	1,100	1.8	1,400	2.0	1,300	1.6	1,500	1.8
Other Asian	600	2.6	1,300	2.0	1,500	2.2	2,100	2.6	1,500	1.8
Other	900	4.3	1,800	2.8	1,900	2.8	2,500	3.0	1,900	2.3
All Ethnicities	21,800	100.0	63,500	100.0	67,600	100.0	82,000	100.0	83,700	100.0

Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Table 15: Male to Female Ratios of In-Migration Flows from UK to London areas by ethnicity (all ages)

GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
White	1.05	1.05	1.05	1.05	1.07
Black Caribbean	0.93	0.78	0.81	0.80	0.78
Black African	0.93	0.92	0.94	0.94	0.99
Black Other	0.81	0.95	0.96	0.95	0.85
Indian	1.12	0.94	0.93	1.00	0.93
Pakistani	1.30	1.27	1.17	1.18	1.07
Bangladeshi	0.92	1.03	1.06	0.94	1.07
Chinese	0.82	0.93	0.90	0.83	0.83
Other Asian	1.08	1.14	1.09	1.25	1.06
Other	0.67	0.83	0.79	0.90	0.81
max	1.30	1.27	1.17	1.25	1.07
min	0.67	0.78	0.79	0.80	0.78
All Ethnicities	1.02	1.03	1.03	1.03	1.05

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Table 16: In-Migration Rates from UK to London areas, by ethnicity (all ages)

Sex/ GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
Persons					
White	0.805	0.804	0.801	0.740	0.842
Black Caribbean	0.010	0.024	0.024	0.033	0.012
Black African	0.033	0.041	0.039	0.058	0.021
Black Other	0.014	0.017	0.016	0.018	0.011
Indian	0.034	0.028	0.033	0.050	0.041
Pakistani	0.007	0.012	0.012	0.020	0.014
Bangladeshi	0.006	0.010	0.009	0.009	0.005
Chinese	0.029	0.017	0.019	0.015	0.016
Other Asian	0.027	0.022	0.023	0.029	0.018
Other	0.035	0.025	0.025	0.029	0.020
All Ethnicities	1.000	1.000	1.000	1.000	1.000
Male					
White	0.412	0.412	0.411	0.379	0.436
Black Caribbean	0.005	0.011	0.010	0.015	0.005
Black African	0.016	0.020	0.019	0.028	0.010
Black Other	0.006	0.008	0.008	0.009	0.005
Indian	0.018	0.014	0.016	0.025	0.020
Pakistani	0.004	0.007	0.006	0.011	0.007
Bangladeshi	0.003	0.005	0.005	0.004	0.003
Chinese	0.013	0.008	0.009	0.007	0.007
Other Asian	0.014	0.011	0.012	0.016	0.009
Other	0.014	0.011	0.011	0.013	0.009
All Ethnicities	0.505	0.507	0.507	0.507	0.512
Female					
White	0.393	0.391	0.390	0.361	0.406
Black Caribbean	0.005	0.014	0.013	0.018	0.007
Black African	0.017	0.021	0.020	0.030	0.010
Black Other	0.008	0.009	0.008	0.009	0.006
Indian	0.016	0.015	0.017	0.025	0.021
Pakistani	0.003	0.005	0.005	0.009	0.007
Bangladeshi	0.003	0.005	0.005	0.004	0.003
Chinese	0.016	0.009	0.010	0.008	0.009
Other Asian	0.013	0.010	0.011	0.013	0.009
Other	0.021	0.014	0.014	0.015	0.011
All Ethnicities	0.495	0.493	0.493	0.493	0.488

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figure 7.1: In-Migration Rates from UK to Greater London, by ethnicity (all ages)

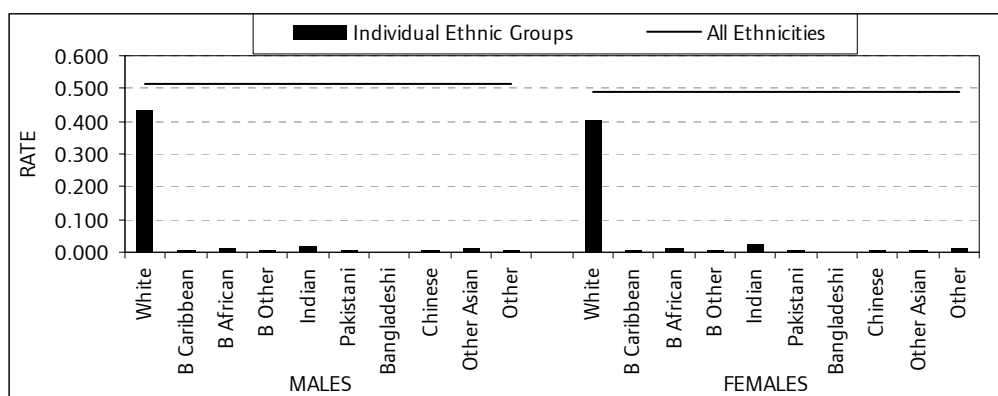


Figure 7.2: In-Migration Rates from UK to Outer London, by ethnicity (all ages)

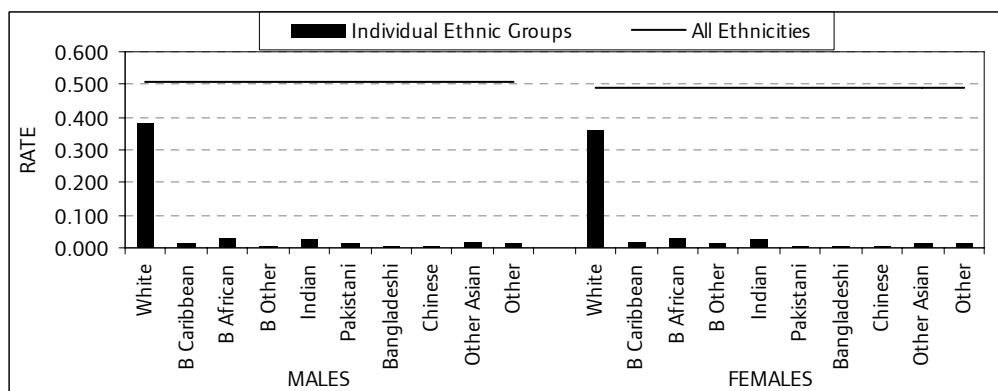


Figure 7.3: In-Migration Rates from UK to Inner London, by ethnicity (all ages)

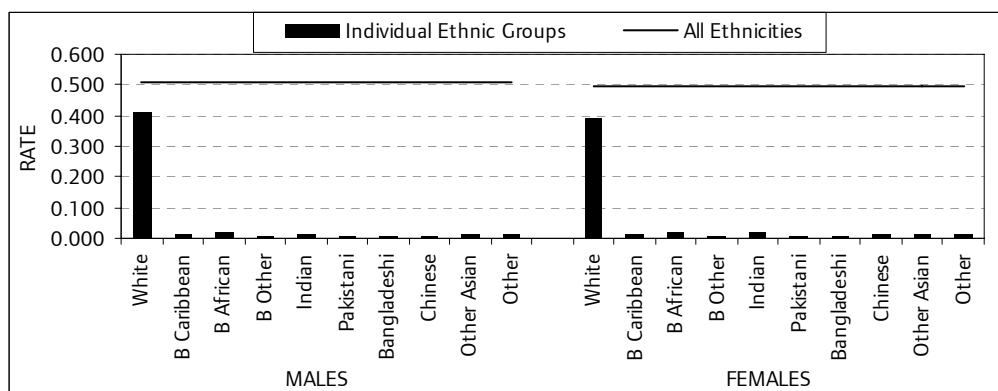


Figure 7.4: In-Migration Rates from UK to Rest of Inner Boroughs, by ethnicity (all ages)

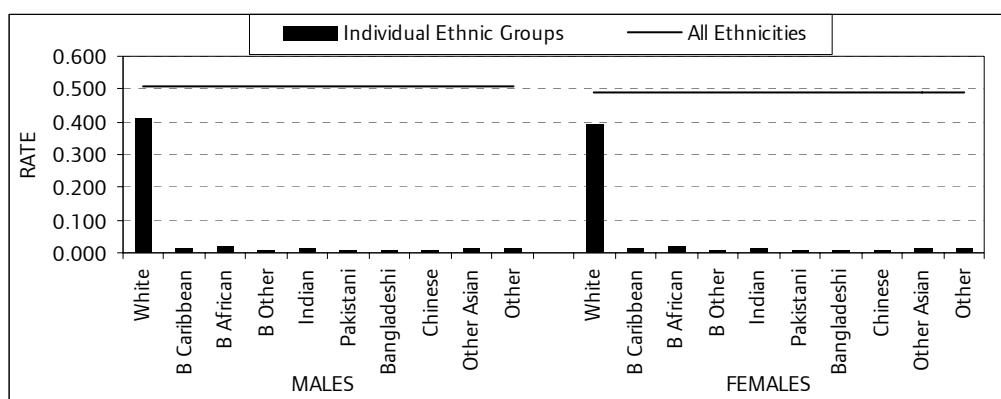


Figure 7.5: In-Migration Rates from UK to Central Boroughs, by ethnicity (all ages)

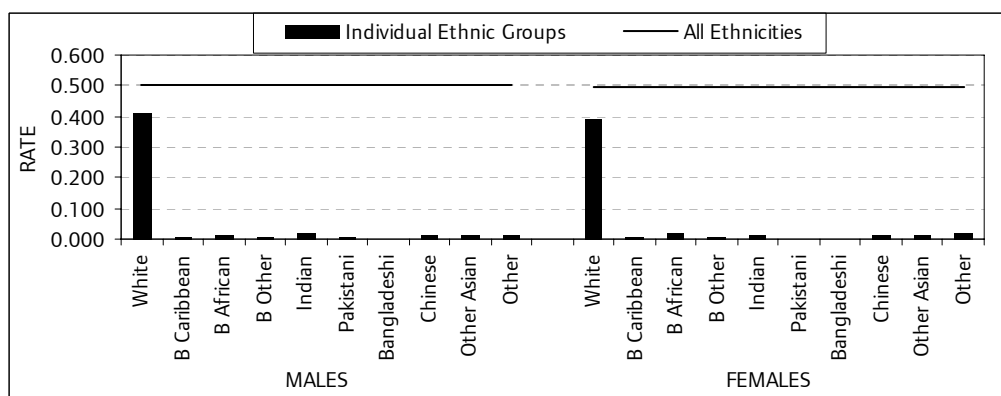


Figure 8.1: In-Migration Rates from UK to Greater London, by ethnicity exc. White (all ages)

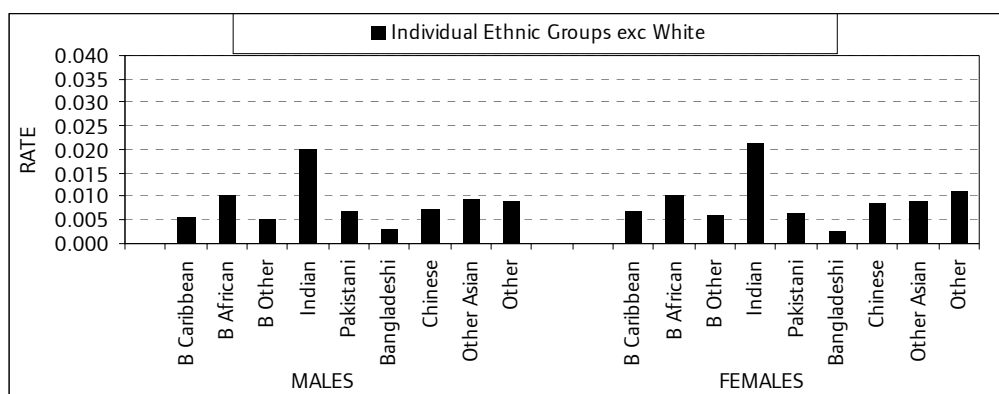


Figure 8.2: In-Migration Rates from UK to Outer London, by ethnicity exc. White (all ages)

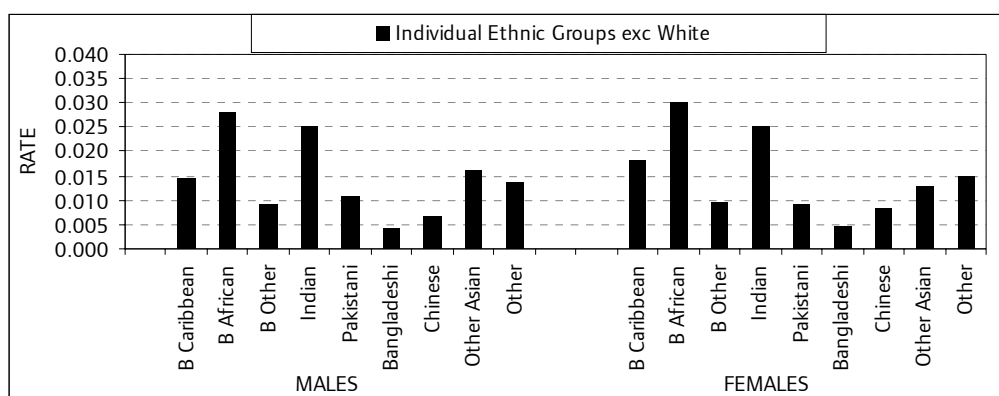


Figure 8.3: In-Migration Rates from UK to Inner London, by ethnicity exc. White (all ages)

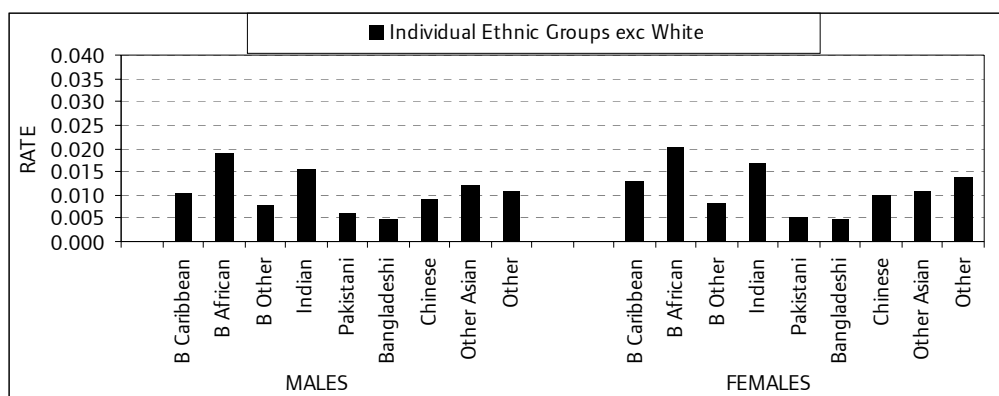


Figure 8.4: In-Migration Rates from UK to Rest of Inner Boroughs, by ethnicity exc. White (all ages)

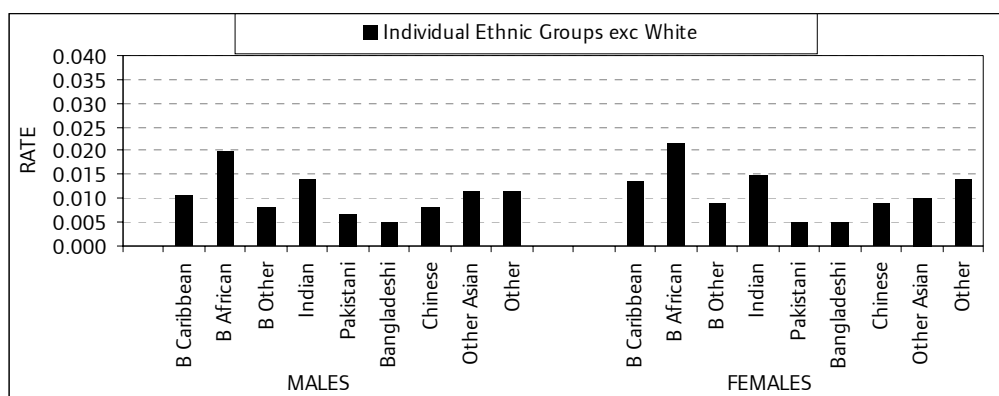
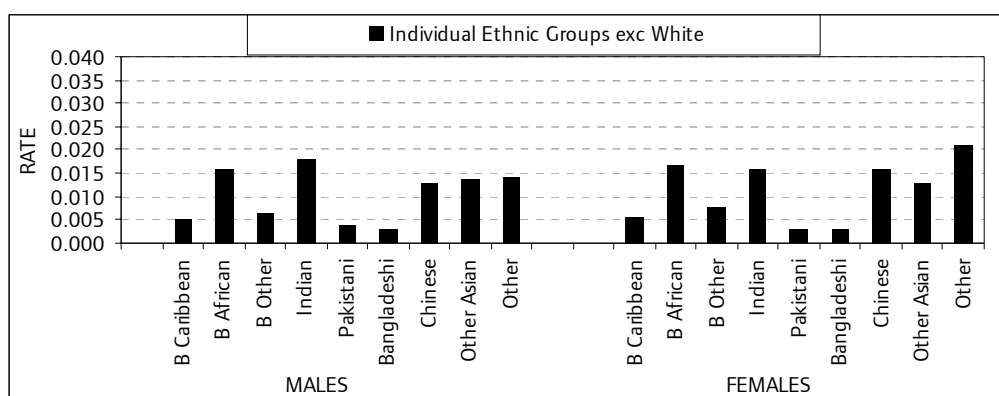


Figure 8.5: In-Migration Rates from UK to Central Boroughs, by ethnicity exc. White (all ages)



In-Migration by ethnicity: from United Kingdom (age-specific)

The previous section described the variations in rates of in-migration from the United Kingdom ("From UK") to each London area between whole ethnic groups. In this section ethnic variations of age-structures of rates of in-migration from the United Kingdom are covered with particular focus on impact on ethnic projection modelling.

Table 17 tabulates ethnic age-specific in-migration flows from the United Kingdom to Central Boroughs, for males and for females. For the oldest ages the data has been aggregated to a 75+ age band because of small flows. It can be seen that except for the White ethnic group and for the age bands roughly from 15 to 29 or 34 years for the remaining ethnic groups, the flows when broken down by sex and age are quite small, especially for older age bands.

Using these flows, age-specific ethnic rates of in-migration from the United Kingdom to Central Boroughs were derived; these are tabulated in Table 18 and shown graphically in Figure 9.1. Age-specific ethnic in-migration flows and rates from the United Kingdom to the Rest of Inner London, Inner London, Outer London and Greater London involve increasingly copious amounts of information and are not presented in this report, but are shown graphically in Figures 9.2, 9.3, 9.4 and 9.5.

In these Figures, the in-migration from the United Kingdom age structures have been presented for all ten ethnic groups in one graph per London area. Although details of individual ethnic groups may be difficult to discern, especially if viewed in black-and-white, the purpose of this presentation format is to highlight the main considerations affecting ethnic projection modelling.

One consideration that is apparent is that for each London area there are noticeable ethnic variations in the age-structures, particularly for Central Boroughs and the Rest of Inner Boroughs. With rates, the height of any peak indicates the proportion of total flows (male + female) in that age-band, the higher the peak the greater the proportion, also meaning there are less remaining flows to occur in remaining age-bands. For example, for Central Boroughs the highest peak (0.28) is that for males aged 20-24 in the Pakistani ethnic group, meaning that this single age-band accounts for 28 per cent of all flows from the United Kingdom to Central Boroughs in the Pakistani group (the Pakistani females of this age account for 15 per cent); hence the remainder of the Pakistani age structures are quite shallow, especially for males. In comparison, the Black Caribbean ethnic group has low peak rates for Central Boroughs (0.082 for males aged 40-44 and 0.096 for females aged 20-24) and hence this group in this area has age structures that are more spread out, over the ages 15 to 44.

Another consideration is the smoothness of the ethnic age-specific rate structures; it is sufficiently clear from the graphs that for larger areas of population and migration (Rest of Inner London, Inner London, Outer London and Greater London) the structures are much smoother than for Central Boroughs. For Central Boroughs the structures for some ethnic groups are particularly volatile at the very young and middle ages, this being a result of small ethnic age-specific flows. The smoothest rate age structures are obtained at Greater London, Outer London and Inner London levels, however, noticeable ethnic variations are still apparent.

As with total out-migration flows, it should also now become evident that if data for individual boroughs was being considered, clearly the in-migration flows from the United Kingdom for most age bands for all ethnic groups except White would be very low or zero and this would result in even more volatile borough-level ethnic from the United Kingdom in-migration age structures, which is why structures at the five aggregated London areas were investigated.

Table 17: In-Migration Flows from UK to Central Boroughs, by ethnicity and age

Sex / Age Band	White	Black Caribbean	Black African	Black Other	Indian	Pakistani	Bangla- deshi	Chinese	Other Asian	Other	All Ethnicities
Male											
0	100	*	*	*	*	*	*	*	*	*	200
1-4	300	*	*	*	*	*	*	*	*	*	400
5-9	200	*	*	*	*	*	*	*	*	*	300
10-14	100	*	*	*	*	*	*	*	*	*	200
15-19	1,300	*	50	*	200	*	*	100	100	50	1,900
20-24	4,500	*	100	*	200	100	*	300	100	200	5,600
25-29	5,100	*	200	*	200	*	*	100	100	100	6,000
30-34	2,600	*	50	*	100	*	*	*	50	50	3,100
35-39	1,300	*	*	*	*	*	*	*	*	50	1,500
40-44	800	*	*	*	*	*	*	*	*	*	1,000
45-49	500	*	50	*	*	*	*	*	*	*	600
50-54	500	*	*	*	*	*	*	*	*	*	600
55-59	300	*	*	*	*	*	*	*	*	*	400
60-64	200	*	*	*	*	*	*	*	*	*	200
65-69	100	*	*	*	*	*	*	*	*	*	100
70-74	100	*	*	*	*	*	*	*	*	*	100
75+	200	*	*	*	*	*	*	*	*	*	200
All Ages	18,100	200	700	300	800	200	100	600	600	600	22,200
Female											
0	100	*	*	*	*	*	*	*	*	*	200
1-4	300	*	*	*	*	*	*	*	*	*	400
5-9	200	*	*	*	*	*	*	*	*	*	300
10-14	100	*	*	*	*	*	*	*	*	*	200
15-19	1,300	*	100	*	100	*	*	100	50	100	2,000
20-24	5,400	*	200	100	300	*	50	300	200	200	6,800
25-29	5,000	*	100	50	200	*	*	100	100	200	5,900
30-34	2,000	*	100	*	50	*	*	*	*	200	2,500
35-39	900	*	50	*	*	*	*	*	*	50	1,200
40-44	500	*	*	*	*	*	*	*	*	*	600
45-49	400	*	*	*	*	*	*	*	*	*	500
50-54	400	*	*	*	*	*	*	*	*	*	500
55-59	200	*	*	*	*	*	*	*	*	*	300
60-64	200	*	*	*	*	*	*	*	*	*	200
65-69	100	*	*	*	*	*	*	*	*	*	100
70-74	50	*	*	*	*	*	*	*	*	*	100
75+	200	*	*	*	*	*	*	*	*	*	200
All Ages	17,300	200	700	300	700	100	100	700	600	900	21,800

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figures may not add due to rounding and suppression.

* denotes suppressed data (values below 50).

Values between 50 and 100 have been rounded to the nearest 50.

Values over 100 have been rounded to the nearest 100.

Table 18: In-Migration Rates from UK to Central Boroughs, by ethnicity and age

Sex / Age Band	White	Black Caribbean	Black African	Black Other	Indian	Pakistani	Bangla- deshi	Chinese	Other Asian	Other	All Ethnicities
Male											
0	0.004	0.006	0.017	0.030	0.002	0.000	0.013	0.000	0.009	0.011	0.005
1-4	0.007	0.006	0.028	0.050	0.002	0.011	0.027	0.003	0.017	0.019	0.009
5-9	0.005	0.000	0.019	0.026	0.005	0.000	0.027	0.003	0.011	0.015	0.006
10-14	0.003	0.026	0.016	0.037	0.002	0.000	0.013	0.005	0.006	0.004	0.004
15-19	0.036	0.030	0.050	0.060	0.104	0.077	0.048	0.090	0.105	0.045	0.043
20-24	0.126	0.073	0.070	0.065	0.154	0.275	0.097	0.213	0.117	0.105	0.126
25-29	0.145	0.079	0.108	0.060	0.136	0.044	0.155	0.090	0.114	0.082	0.136
30-34	0.074	0.051	0.052	0.053	0.059	0.022	0.037	0.031	0.059	0.048	0.069
35-39	0.036	0.068	0.027	0.027	0.029	0.029	0.016	0.002	0.035	0.035	0.034
40-44	0.023	0.082	0.034	0.015	0.007	0.053	0.012	0.002	0.019	0.007	0.022
45-49	0.015	0.012	0.039	0.006	0.007	0.000	0.000	0.003	0.009	0.010	0.014
50-54	0.014	0.006	0.002	0.006	0.010	0.035	0.000	0.002	0.009	0.007	0.013
55-59	0.009	0.000	0.008	0.000	0.005	0.010	0.022	0.002	0.008	0.011	0.008
60-64	0.005	0.017	0.004	0.010	0.002	0.000	0.000	0.002	0.005	0.000	0.005
65-69	0.003	0.015	0.003	0.002	0.004	0.000	0.004	0.000	0.000	0.000	0.002
70-74	0.002	0.000	0.003	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.002
75+	0.004	0.009	0.003	0.002	0.000	0.010	0.007	0.000	0.000	0.003	0.004
All Ages	0.412	0.005	0.016	0.006	0.018	0.004	0.003	0.013	0.014	0.014	0.505
Female											
0	0.003	0.011	0.017	0.000	0.000	0.019	0.028	0.000	0.003	0.002	0.004
1-4	0.007	0.014	0.024	0.063	0.008	0.000	0.077	0.002	0.020	0.011	0.009
5-9	0.005	0.022	0.016	0.037	0.006	0.000	0.000	0.002	0.017	0.002	0.006
10-14	0.003	0.014	0.031	0.017	0.004	0.013	0.013	0.005	0.015	0.010	0.005
15-19	0.038	0.060	0.073	0.064	0.092	0.061	0.054	0.102	0.063	0.070	0.045
20-24	0.153	0.096	0.117	0.153	0.167	0.150	0.224	0.264	0.150	0.148	0.155
25-29	0.141	0.084	0.093	0.093	0.103	0.099	0.057	0.078	0.093	0.147	0.133
30-34	0.058	0.068	0.062	0.054	0.042	0.035	0.011	0.024	0.039	0.106	0.057
35-39	0.025	0.067	0.036	0.034	0.018	0.025	0.000	0.031	0.025	0.048	0.026
40-44	0.014	0.035	0.019	0.000	0.008	0.010	0.000	0.015	0.016	0.024	0.014
45-49	0.010	0.012	0.005	0.016	0.004	0.010	0.041	0.005	0.016	0.013	0.010
50-54	0.011	0.006	0.010	0.000	0.008	0.014	0.016	0.011	0.011	0.008	0.010
55-59	0.006	0.013	0.007	0.010	0.007	0.000	0.000	0.002	0.003	0.006	0.006
60-64	0.005	0.000	0.004	0.011	0.000	0.000	0.000	0.000	0.008	0.002	0.005
65-69	0.002	0.000	0.000	0.002	0.004	0.000	0.000	0.002	0.000	0.000	0.002
70-74	0.002	0.006	0.002	0.000	0.000	0.000	0.000	0.001	0.000	0.000	0.002
75+	0.007	0.010	0.001	0.000	0.000	0.000	0.000	0.002	0.000	0.000	0.006
All Ages	0.393	0.005	0.017	0.008	0.016	0.003	0.003	0.016	0.013	0.021	0.495

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figure 9.1: In-Migration Rates from UK to Greater London, by ethnicity and age

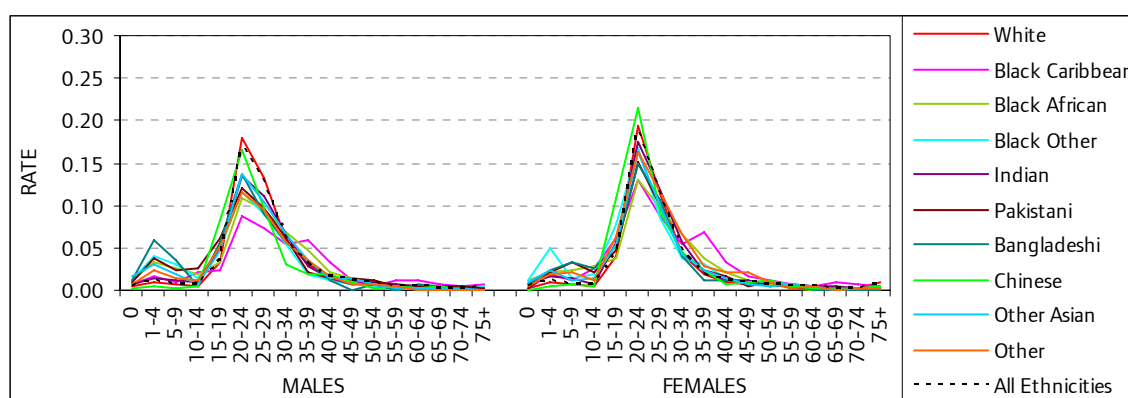


Figure 9.2: In-Migration Rates from UK to Outer London, by ethnicity and age

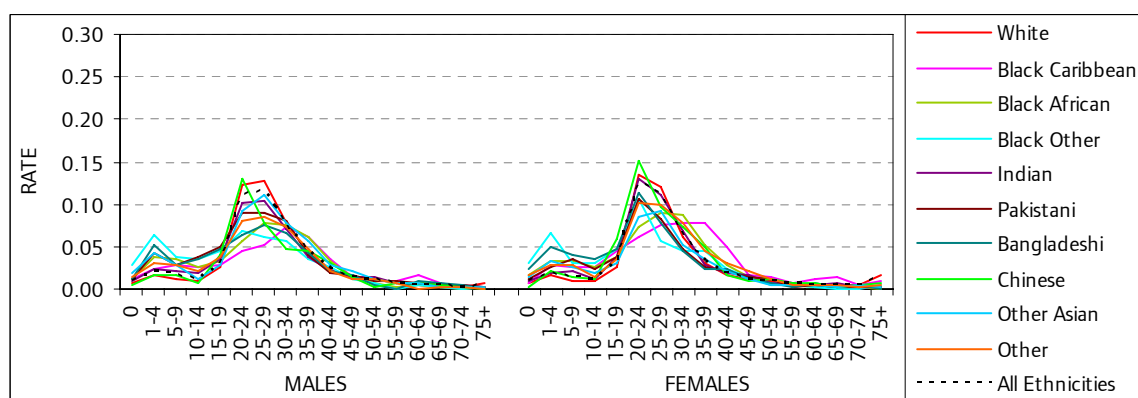


Figure 9.3: In-Migration Rates from UK to Inner London, by ethnicity and age

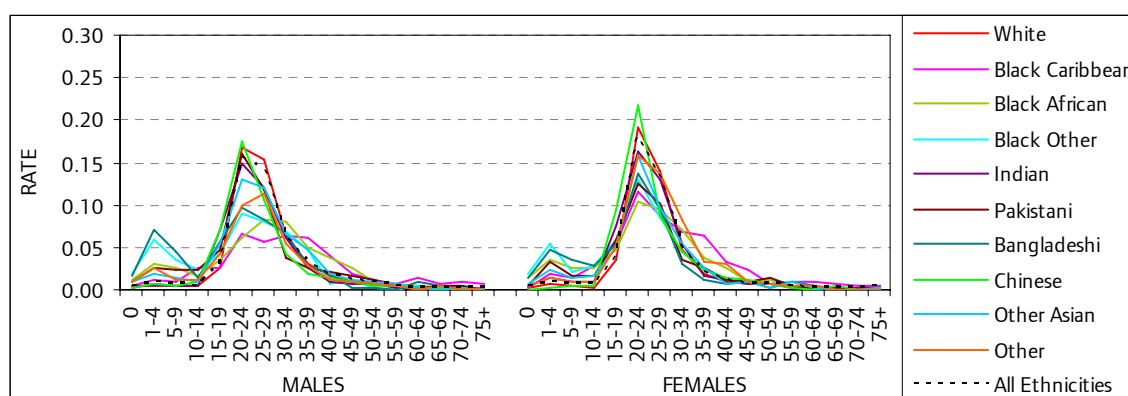


Figure 9.4: In-Migration Rates from UK to Rest of Inner Boroughs, by ethnicity and age

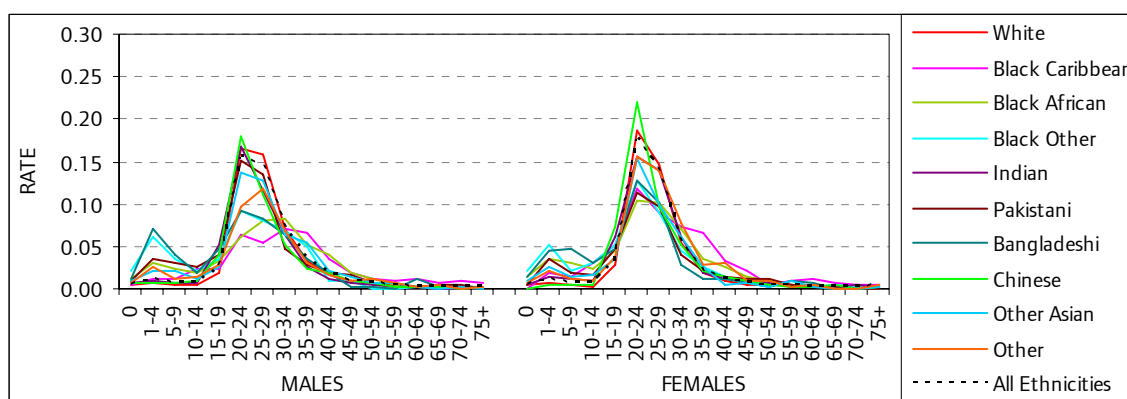
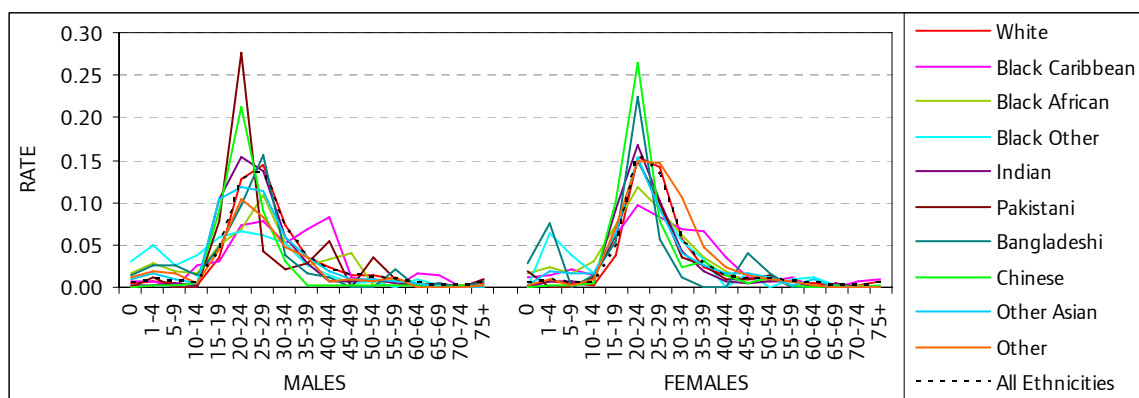


Figure 9.5: In-Migration Rates from UK to Central Boroughs, by ethnicity and age



In-Migration by ethnicity: from Overseas (all ages)

Flows of in-migration from overseas ("From OV") by ethnicity (for all ages) to each of the five London areas are tabulated in Table 19. These flows are mutually exclusive and hence in principle the figures for Central Boroughs, Rest of Inner Boroughs, Inner London and Outer London should sum to the figures for corresponding higher-level areas. In practice there are small discrepancies arising from the attribution of No Usual Address (NUA) figures at the different area levels.

The number of people migrating in from overseas was 134 thousand into Greater London, 58 thousand into Outer London, 76 thousand into Inner London, 46 thousand into Rest of Inner Boroughs and nearly 30 thousand into Central Boroughs. The White ethnic group was the most predominant in terms of in-migration flows from overseas into each area (though to a lesser extent than for in-migration flows from the United Kingdom, Table 14), comprising 86 thousand people (64 per cent, compared with 84 per cent "From UK") into Greater London, 33 thousand people (56 per cent, compared with 74 per cent "From UK") into Outer London, 54 thousand people (71 per cent, compared with 80 per cent "From UK") into Inner London, 31 thousand people (67 per cent, compared with 80 per cent for "From UK") into Rest of Inner Boroughs and 23 thousand people (77 per cent, compared with 80 per cent "From UK") into Central Boroughs.

In terms of BAME groups experiencing highest in-migration flows from overseas, into Greater London these were Other (8.7 per cent), Indian (7.2 per cent), Black African (6.9 per cent) and Other Asian (3.7 per cent). Into Outer London the groups were Indian (11.4 per cent), Other 10.4 per cent, Black African (7.5 per cent) and Other Asian (5.4 per cent). Into Inner London the groups were Other (7.3 per cent), Black African (6.5 per cent) and Indian (4.0 per cent). Into the Rest of Inner Boroughs the groups were Black African (9.5 per cent), Other (6.4 per cent) and Indian (4.2 per cent). Into Central Boroughs the groups were Other (8.7 per cent), Chinese (3.8 per cent) and Indian (3.7 per cent).

Male to female ratios of the inflows from overseas in Table 19 are shown in Table 20. Within each area as a whole the ratio of inflows from overseas is about 0.91-0.92, which is consistently below 1.00 for each area. This is in contrast to overall ratios of inflows from the United Kingdom, which were consistently above 1.00 in each area. As in the case of previous flows, this tends to be due to the dominant effect of the White ethnic group (which comprises 56-77 per cent of all inflows from overseas) for which the ratio ranges from 0.89 to 0.95 by area, consistently below 1.00. Again, as for previous flows, within each area the ratios for BAME groups vary considerably from 1.00. Hence, the highest ratio is that for the Pakistani ethnic group in Rest of Boroughs (1.45) and the lowest ratio is that for the Chinese ethnic group in Central Boroughs (0.65). The highest ratio is not as extreme as in the case of total outflows (1.68). For the Other ethnic group ratios are consistently noticeably low (0.70-0.82) across all five areas. Similarly for the Chinese ethnic group the ratios are consistently low (0.65-0.81) across all five areas. For the Bangladeshi ethnic group the ratios are below 1.00 for all five areas. For the Black Caribbean, Black African and Black Other ethnic groups the ratios are mostly lower than 1.00 for the five areas. The ratios for the Pakistani and Indian ethnic groups are higher than 1.00 for all five areas. Most of these ethnic patterns were seen in the ratios for Total In-migration flows and for inflows from the United Kingdom.

Using the ethnic inflows from overseas in Table 19 rates (proportions) of in-migration from overseas by ethnicity (all ages) were derived. These are tabulated in Table 21 and male and female ethnic in-migration rates are also shown as bar charts for each London area in Figures 10.1 to 10.5. These Figures show that for each area the inflow rates from overseas are dominated by the White ethnic group and that overall the male and female rates are in reasonably close balance. The rates for the BAME groups are very much lower than for the White group and are shown re-scaled without the White group in Figures 11.1 to 11.5. For Greater London the Black African, Indian and Other ethnic groups have noticeably higher rates than the remaining BAME groups, the Bangladeshis having the lowest rates and Black Caribbeans also having low rates. This ethnic pattern tends to be repeated for Outer London, Inner London and Rest of Inner Boroughs. For Central Boroughs only the Other ethnic group has noticeably higher rates than the remaining BAME groups and the Bangladeshi and Black Caribbean ethnic groups have the lowest rates. Hence the Bangladeshi and Black Caribbean ethnic groups have the lowest inflow rates from overseas for all areas.

Table 19: In-Migration Flows from Overseas to London areas, by ethnicity (all ages)

Sex/ GLA Aggregated	Central Boroughs		Rest of Inner Boroughs		Inner London		Outer London		Greater London	
Ethnic Group	Number	%	Number	%	Number	%	Number	%	Number	%
Persons										
White	22,800	76.5	30,600	66.7	53,600	70.5	32,700	56.3	86,200	64.3
Black Caribbean	200	0.5	1,300	2.9	1,500	1.9	1,100	1.9	2,600	1.9
Black African	600	2.0	4,400	9.5	5,000	6.5	4,300	7.5	9,300	6.9
Black Other	400	1.2	600	1.4	1,000	1.3	800	1.4	1,800	1.4
Indian	1,100	3.7	1,900	4.2	3,000	4.0	6,600	11.4	9,600	7.2
Pakistani	300	1.0	900	1.9	1,200	1.5	1,700	2.9	2,800	2.1
Bangladeshi	200	0.6	800	1.7	900	1.2	300	0.5	1,200	0.9
Chinese	1,100	3.8	1,300	2.8	2,500	3.2	1,300	2.3	3,800	2.8
Other Asian	600	2.1	1,200	2.6	1,800	2.4	3,200	5.4	5,000	3.7
Other	2,600	8.7	2,900	6.4	5,500	7.3	6,100	10.4	11,600	8.7
All Ethnicities	29,800	100.0	45,900	100.0	76,000	100.0	58,100	100.0	133,900	100.0
Male										
White	11,100	77.6	14,400	65.9	25,600	70.5	15,500	55.5	41,000	64.0
Black Caribbean	100	0.5	600	2.8	700	1.9	500	1.9	1,200	1.9
Black African	300	1.8	2,200	10.0	2,500	6.8	2,100	7.5	4,600	7.1
Black Other	200	1.1	300	1.4	500	1.3	400	1.4	800	1.3
Indian	600	3.9	1,100	4.9	1,600	4.5	3,500	12.5	5,100	8.0
Pakistani	200	1.1	500	2.3	700	1.8	800	3.0	1,500	2.4
Bangladeshi	100	0.5	400	1.7	400	1.2	100	0.5	600	0.9
Chinese	400	3.1	600	2.6	1,000	2.8	600	2.1	1,600	2.5
Other Asian	300	2.2	600	2.8	900	2.6	1,600	5.7	2,500	3.9
Other	1,200	8.1	1,200	5.5	2,400	6.6	2,700	9.7	5,100	8.0
All Ethnicities	14,300	100.0	21,900	100.0	36,300	100.0	27,800	100.0	64,000	100.0
Female										
White	11,700	75.5	16,200	67.4	28,000	70.5	17,300	57.0	45,100	64.6
Black Caribbean	100	0.5	700	2.9	800	2.0	600	1.9	1,300	1.9
Black African	300	2.2	2,200	9.0	2,500	6.3	2,200	7.4	4,700	6.8
Black Other	200	1.3	300	1.4	600	1.4	400	1.4	1,000	1.4
Indian	500	3.4	800	3.5	1,400	3.5	3,200	10.5	4,500	6.5
Pakistani	100	0.9	300	1.5	500	1.2	800	2.7	1,300	1.9
Bangladeshi	100	0.6	400	1.6	500	1.2	200	0.6	600	0.9
Chinese	700	4.5	700	3.1	1,400	3.6	700	2.4	2,200	3.1
Other Asian	300	2.0	600	2.5	900	2.3	1,600	5.2	2,500	3.5
Other	1,400	9.2	1,700	7.2	3,200	7.9	3,300	11.1	6,500	9.3
All Ethnicities	15,500	100.0	24,000	100.0	39,600	100.0	30,300	100.0	69,800	100.0

Source: GLA calculations of ethnic migration statistics using 2001 Census data.
Figures may not add due to rounding.

Table 20: Male to Female Ratios of In-Migration Flows from Overseas to London areas by ethnicity (all ages)

GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
White	0.95	0.89	0.92	0.90	0.91
Black Caribbean	0.97	0.87	0.88	0.94	0.91
Black African	0.74	1.01	0.98	0.94	0.96
Black Other	0.78	0.90	0.83	0.86	0.85
Indian	1.06	1.25	1.17	1.10	1.12
Pakistani	1.15	1.45	1.37	1.02	1.15
Bangladeshi	0.72	0.97	0.92	0.86	0.90
Chinese	0.65	0.78	0.71	0.81	0.75
Other Asian	1.02	1.04	1.03	1.02	1.03
Other	0.82	0.70	0.76	0.81	0.79
max	1.15	1.45	1.37	1.10	1.15
min	0.65	0.70	0.71	0.81	0.75
All Ethnicities	0.92	0.91	0.92	0.92	0.92

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Table 21: In-Migration Rates from Overseas to London areas, by ethnicity (all ages)

Sex/ GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
Persons					
White	0.765	0.667	0.705	0.563	0.643
Black Caribbean	0.005	0.029	0.019	0.019	0.019
Black African	0.020	0.095	0.065	0.075	0.069
Black Other	0.012	0.014	0.013	0.014	0.014
Indian	0.037	0.042	0.040	0.114	0.072
Pakistani	0.010	0.019	0.015	0.029	0.021
Bangladeshi	0.006	0.017	0.012	0.005	0.009
Chinese	0.038	0.028	0.032	0.023	0.028
Other Asian	0.021	0.026	0.024	0.054	0.037
Other	0.087	0.064	0.073	0.104	0.087
All Ethnicities	1.000	1.000	1.000	1.000	1.000
Male					
White	0.372	0.314	0.337	0.266	0.306
Black Caribbean	0.003	0.013	0.009	0.009	0.009
Black African	0.009	0.048	0.032	0.036	0.034
Black Other	0.005	0.007	0.006	0.006	0.006
Indian	0.019	0.023	0.021	0.060	0.038
Pakistani	0.005	0.011	0.009	0.015	0.011
Bangladeshi	0.002	0.008	0.006	0.002	0.004
Chinese	0.015	0.012	0.013	0.010	0.012
Other Asian	0.011	0.013	0.012	0.027	0.019
Other	0.039	0.026	0.032	0.047	0.038
All Ethnicities	0.479	0.477	0.478	0.479	0.478
Female					
White	0.393	0.353	0.368	0.297	0.337
Black Caribbean	0.003	0.015	0.010	0.010	0.010
Black African	0.011	0.047	0.033	0.038	0.035
Black Other	0.007	0.007	0.007	0.007	0.007
Indian	0.018	0.018	0.018	0.054	0.034
Pakistani	0.005	0.008	0.006	0.014	0.010
Bangladeshi	0.003	0.008	0.006	0.003	0.005
Chinese	0.023	0.016	0.019	0.013	0.016
Other Asian	0.010	0.013	0.012	0.027	0.018
Other	0.048	0.037	0.041	0.058	0.049
All Ethnicities	0.521	0.523	0.522	0.521	0.522

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figure 10.1: In-Migration Rates from Overseas to Greater London, by Ethnicity (all ages)

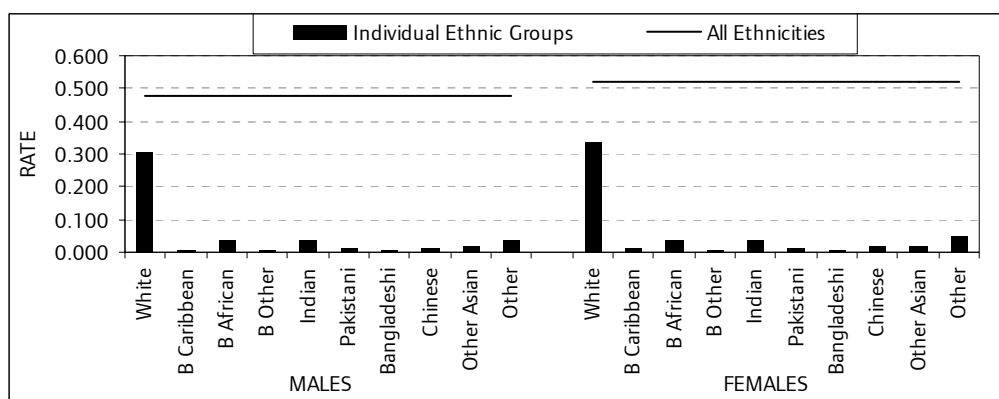


Figure 10.2: In-Migration Rates from Overseas to Outer London, by Ethnicity (all ages)

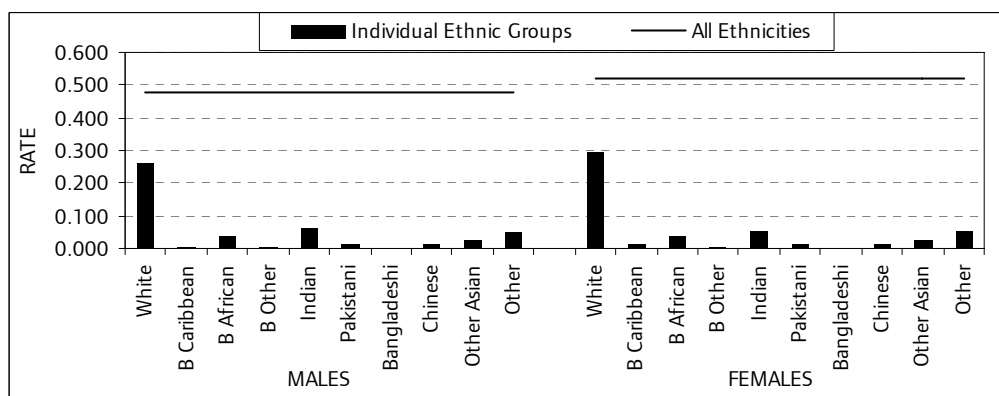


Figure 10.3: In-Migration Rates from Overseas to Inner London, by Ethnicity (all ages)

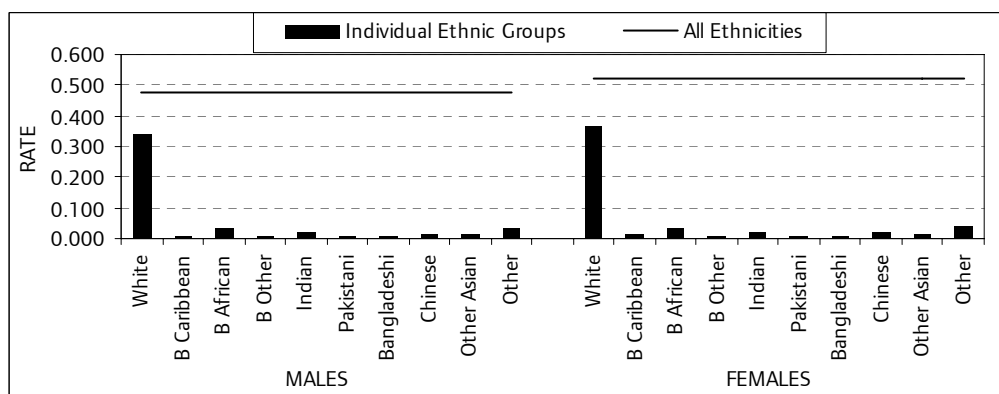


Figure 10.4: In-Migration Rates from Overseas to Rest of Inner Boroughs, by Ethnicity (all ages)

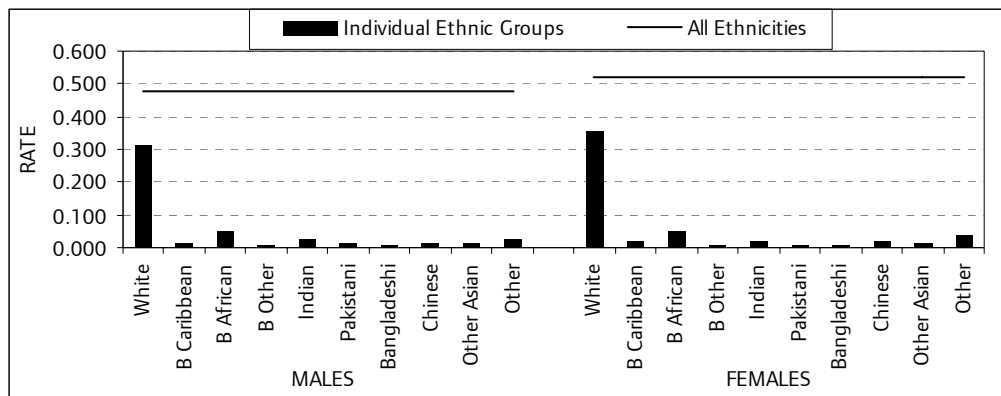


Figure 10.5: In-Migration Rates from Overseas to Central Boroughs, by Ethnicity (all ages)

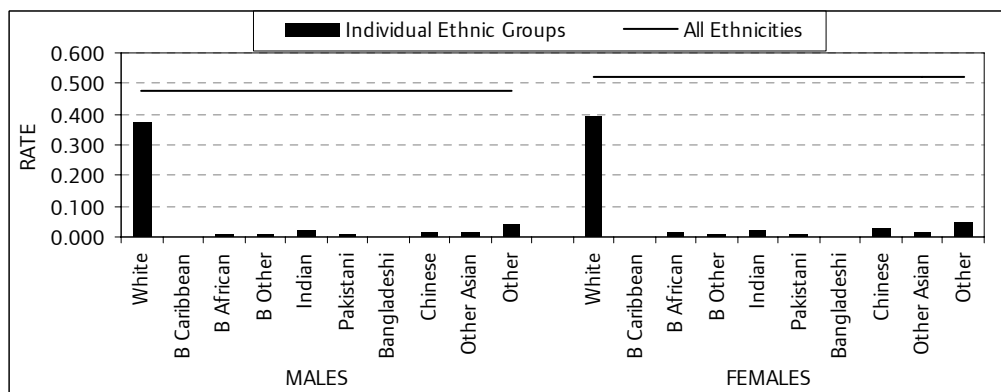


Figure 11.1: In-Migration Rates from Overseas to Greater London, by Ethnicity exc. White (all ages)

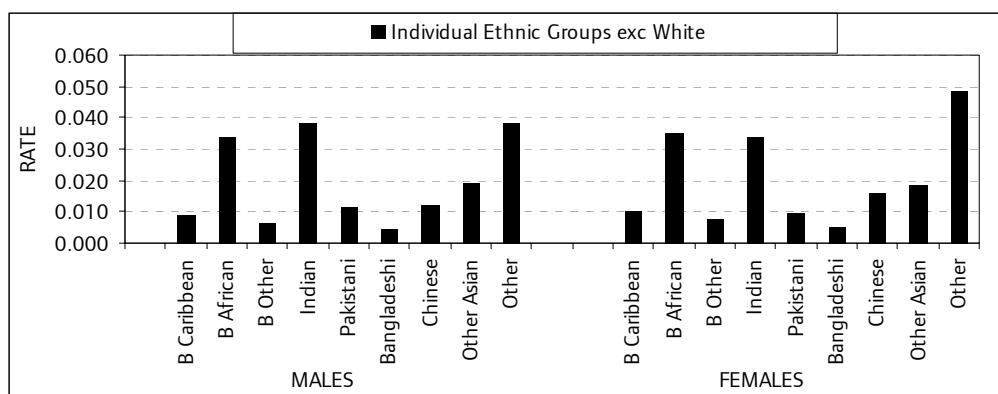


Figure 11.2: In-Migration Rates from Overseas to Outer London, by Ethnicity exc. White (all ages)

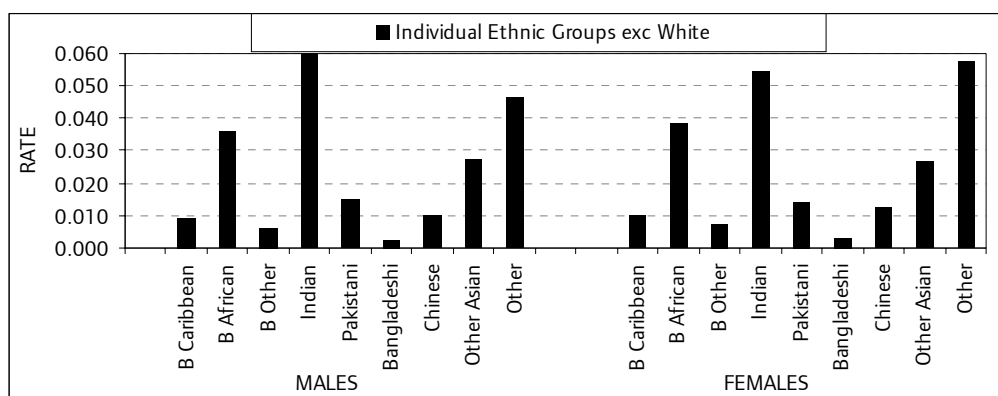


Figure 11.3: In-Migration Rates from Overseas to Inner London, by Ethnicity exc. White (all ages)

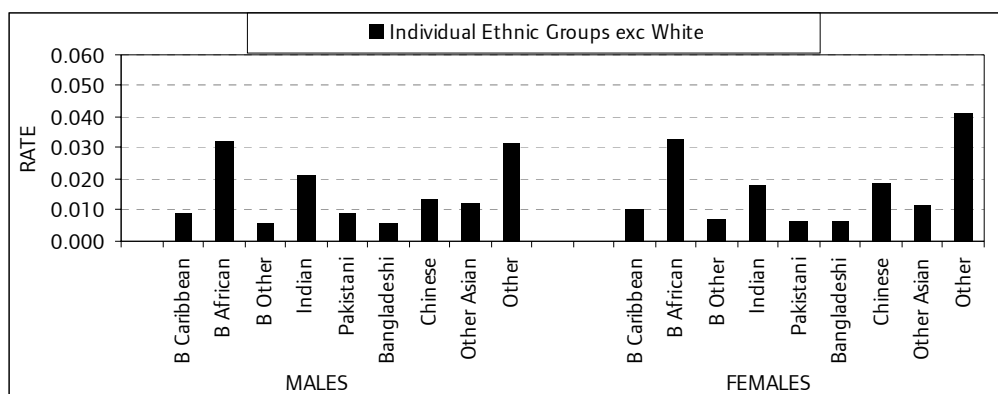


Figure 11.4: In-Migration Rates from Overseas to Rest of Inner Boroughs, by Ethnicity exc. White (all ages)

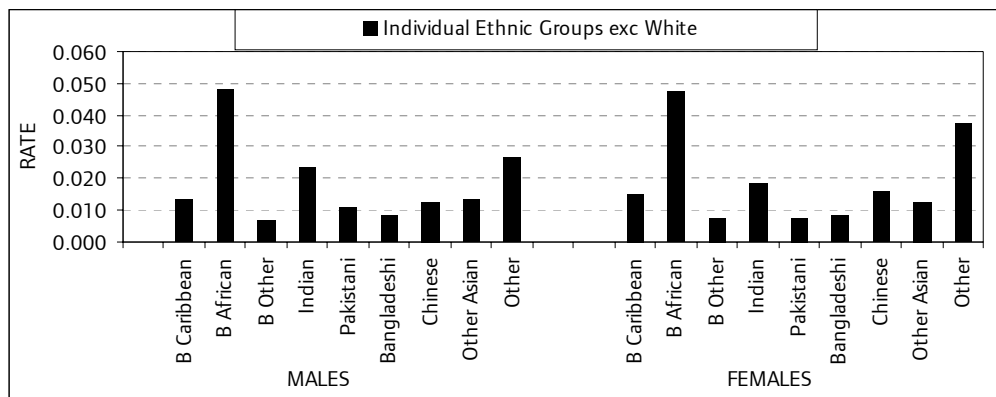
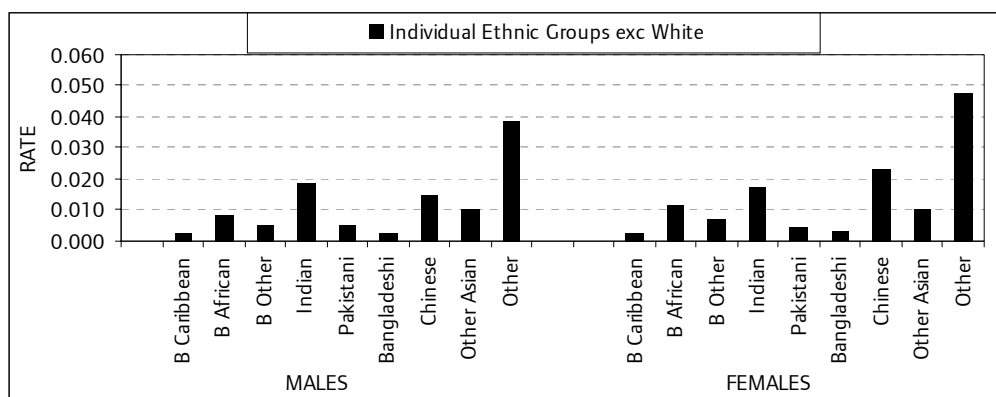


Figure 11.5: In-Migration Rates from Overseas to Central Boroughs, by Ethnicity exc. White (all ages)



In-Migration by ethnicity: from Overseas (age-specific)

The previous section described the variations in rates of in-migration from overseas to each London area between whole ethnic groups. In this section ethnic variations of age-structures of rates of in-migration from overseas are covered with particular focus on impact on ethnic projection modelling.

Table 22 tabulates ethnic age-specific in-migration flows from overseas to Central Boroughs, for males and for females. For the oldest ages the data has been aggregated to a 75+ age band because of small flows. It can be seen that except for the White ethnic group and for the age bands roughly from 15 to 29 or 34 years for the remaining ethnic groups, the flows when broken down by sex and age are quite small, especially for older age bands.

Using these flows, age-specific ethnic rates of in-migration from overseas to Central Boroughs were derived; these are tabulated in Table 23 and shown graphically in Figure 12.1. Age-specific ethnic in-migration flows and rates from overseas to the Rest of Inner London, Inner London, Outer London and Greater London involve increasingly copious amounts of information and are not presented in this report, but are shown graphically in Figures 12.2, 12.3, 12.4 and 12.5.

In these Figures, the in-migration from overseas age structures have been presented for all ten ethnic groups in one graph per London area. Although details of individual ethnic groups may be difficult to discern, especially if viewed in black-and-white, the purpose of this presentation format is to highlight the main considerations affecting ethnic projection modelling.

One consideration that is apparent is that for each London area there are noticeable ethnic variations in the age-structures, particularly for Central Boroughs and the Rest of Inner Boroughs, but also being evident at Outer London level for males, where the peak rate (0.24) is that for Bangladeshis aged 25-29 and is the highest rate of any sex or group in any area.

Another consideration is the smoothness of the ethnic age-specific rate structures; it is sufficiently clear from the graphs that for larger areas of population and migration (Rest of Inner London, Outer London and Greater London) the structures are much smoother than for Central Boroughs. For Central Boroughs the structures for some ethnic groups are particularly volatile at the very young, middle and older ages, this being a result of small ethnic age-specific flows. The smoothest rate age structures are obtained at Greater London, Outer London and Inner London levels and there is less volatility at the oldest ages than in the case of in-migration from the United Kingdom.

As with total out-migration flows and in-migration flows from the United Kingdom, it should also now become evident that if data for individual boroughs was being considered, clearly the in-migration flows from overseas for most age bands for all ethnic groups except White would be very low or zero and this would result in even more volatile borough-level ethnic in-migration from overseas age structures, which is why structures at the five aggregated London areas were investigated.

Table 22: In-Migration Flows from Overseas to Central Boroughs, by ethnicity and age

Sex / Age Band	White	Black Caribbean	Black African	Black Other	Indian	Pakistani	Bangla- deshi	Chinese	Other Asian	Other	All Ethnicities
Male											
0	200	*	*	*	*	*	*	*	*	*	200
1-4	400	*	*	*	*	*	*	*	*	*	600
5-9	300	*	*	*	*	*	*	*	*	*	400
10-14	200	*	*	*	*	*	*	*	*	*	200
15-19	300	*	*	*	*	*	*	*	*	*	500
20-24	1,700	*	*	*	100	*	*	100	50	100	2,100
25-29	3,000	*	50	*	200	*	*	100	50	300	3,700
30-34	2,100	*	*	*	100	*	*	50	*	200	2,600
35-39	1,100	*	*	*	50	*	*	*	*	100	1,400
40-44	600	*	*	*	*	*	*	*	*	50	800
45-49	400	*	*	*	*	*	*	*	*	50	500
50-54	400	*	*	*	*	*	*	*	*	100	500
55-59	300	*	*	*	*	*	*	*	*	*	400
60-64	200	*	*	*	*	*	*	*	*	*	200
65-69	100	*	*	*	*	*	*	*	*	*	100
70-74	50	*	*	*	*	*	*	*	*	*	50
75+	50	*	*	*	*	*	*	*	*	*	50
All Ages	11,100	100	300	200	600	200	50	400	300	1,200	14,300
Female											
0	100	*	*	*	*	*	*	*	*	*	200
1-4	400	*	*	*	*	*	*	*	*	*	600
5-9	300	*	*	*	*	*	*	*	*	*	400
10-14	200	*	*	*	*	*	*	*	*	*	200
15-19	500	*	*	*	*	*	*	50	*	50	800
20-24	2,800	*	50	*	100	*	*	100	50	300	3,500
25-29	3,200	*	50	*	100	*	*	200	50	400	4,100
30-34	1,800	*	*	*	100	*	*	100	*	300	2,400
35-39	800	*	*	*	*	*	*	*	*	100	1,100
40-44	400	*	*	*	*	*	*	*	*	100	700
45-49	300	*	*	*	*	*	*	*	*	50	400
50-54	300	*	*	*	*	*	*	*	*	*	400
55-59	200	*	*	*	*	*	*	*	*	*	300
60-64	100	*	*	*	*	*	*	*	*	*	100
65-69	50	*	*	*	*	*	*	*	*	*	100
70-74	*	*	*	*	*	*	*	*	*	*	*
75+	*	*	*	*	*	*	*	*	*	*	50
All Ages	11,700	100	300	200	500	100	100	700	300	1,400	15,500

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figures may not add due to rounding and suppression.

* denotes suppressed data (values below 50).

Values between 50 and 100 have been rounded to the nearest 50.

Values over 100 have been rounded to the nearest 100.

Table 23: In-Migration Rates from Overseas to Central Boroughs, by ethnicity and age

Sex / Age Band	White	Black Caribbean	Black African	Black Other	Indian	Pakistani	Bangla- deshi	Chinese	Other Asian	Other	All Ethnicities
Male											
0	0.007	0.000	0.010	0.000	0.012	0.015	0.022	0.000	0.011	0.011	0.007
1-4	0.019	0.032	0.020	0.037	0.031	0.053	0.022	0.012	0.053	0.018	0.020
5-9	0.012	0.019	0.009	0.026	0.017	0.024	0.000	0.011	0.017	0.015	0.013
10-14	0.007	0.026	0.039	0.009	0.007	0.024	0.000	0.004	0.005	0.007	0.008
15-19	0.013	0.026	0.042	0.010	0.028	0.047	0.019	0.028	0.043	0.016	0.016
20-24	0.073	0.024	0.039	0.078	0.081	0.064	0.094	0.109	0.088	0.046	0.072
25-29	0.130	0.197	0.087	0.110	0.141	0.095	0.139	0.100	0.090	0.099	0.125
30-34	0.090	0.051	0.061	0.030	0.078	0.091	0.066	0.053	0.063	0.087	0.086
35-39	0.047	0.029	0.053	0.043	0.052	0.050	0.000	0.032	0.053	0.052	0.047
40-44	0.027	0.000	0.012	0.043	0.030	0.030	0.019	0.016	0.018	0.025	0.026
45-49	0.017	0.000	0.020	0.020	0.017	0.000	0.000	0.014	0.017	0.021	0.017
50-54	0.017	0.039	0.012	0.010	0.007	0.000	0.000	0.004	0.021	0.030	0.017
55-59	0.012	0.019	0.000	0.008	0.006	0.024	0.000	0.003	0.010	0.017	0.012
60-64	0.007	0.000	0.013	0.000	0.008	0.000	0.018	0.003	0.010	0.003	0.006
65-69	0.003	0.022	0.009	0.003	0.000	0.000	0.006	0.003	0.000	0.000	0.003
70-74	0.002	0.000	0.000	0.000	0.000	0.010	0.000	0.000	0.005	0.000	0.002
75+	0.002	0.006	0.002	0.011	0.000	0.010	0.012	0.003	0.000	0.002	0.002
All Ages	0.372	0.003	0.009	0.005	0.019	0.005	0.002	0.015	0.011	0.039	0.479
Female											
0	0.006	0.000	0.006	0.008	0.006	0.000	0.022	0.005	0.009	0.010	0.006
1-4	0.018	0.000	0.022	0.039	0.038	0.032	0.047	0.014	0.028	0.018	0.020
5-9	0.013	0.029	0.040	0.009	0.017	0.000	0.000	0.011	0.011	0.010	0.013
10-14	0.007	0.000	0.034	0.035	0.013	0.000	0.000	0.005	0.024	0.007	0.008
15-19	0.022	0.052	0.072	0.014	0.033	0.054	0.110	0.061	0.051	0.026	0.027
20-24	0.123	0.049	0.086	0.124	0.092	0.035	0.202	0.129	0.089	0.110	0.119
25-29	0.139	0.179	0.092	0.105	0.123	0.157	0.100	0.178	0.093	0.140	0.138
30-34	0.081	0.066	0.073	0.068	0.081	0.057	0.024	0.089	0.071	0.105	0.082
35-39	0.036	0.073	0.035	0.048	0.034	0.030	0.018	0.038	0.042	0.043	0.037
40-44	0.020	0.042	0.041	0.060	0.038	0.000	0.000	0.028	0.038	0.034	0.023
45-49	0.013	0.000	0.022	0.013	0.000	0.024	0.000	0.026	0.010	0.021	0.014
50-54	0.014	0.000	0.010	0.017	0.005	0.015	0.000	0.008	0.014	0.013	0.013
55-59	0.011	0.019	0.017	0.008	0.004	0.020	0.000	0.008	0.005	0.008	0.010
60-64	0.005	0.000	0.011	0.011	0.000	0.010	0.042	0.000	0.000	0.003	0.005
65-69	0.002	0.000	0.010	0.003	0.003	0.020	0.018	0.000	0.005	0.002	0.003
70-74	0.002	0.000	0.000	0.000	0.000	0.010	0.000	0.001	0.000	0.000	0.001
75+	0.002	0.000	0.002	0.000	0.000	0.000	0.000	0.005	0.005	0.001	0.002
All Ages	0.393	0.003	0.011	0.007	0.018	0.005	0.003	0.023	0.010	0.048	0.521

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Figure 12.1: In-Migration Rates from Overseas to Greater London, by ethnicity and age

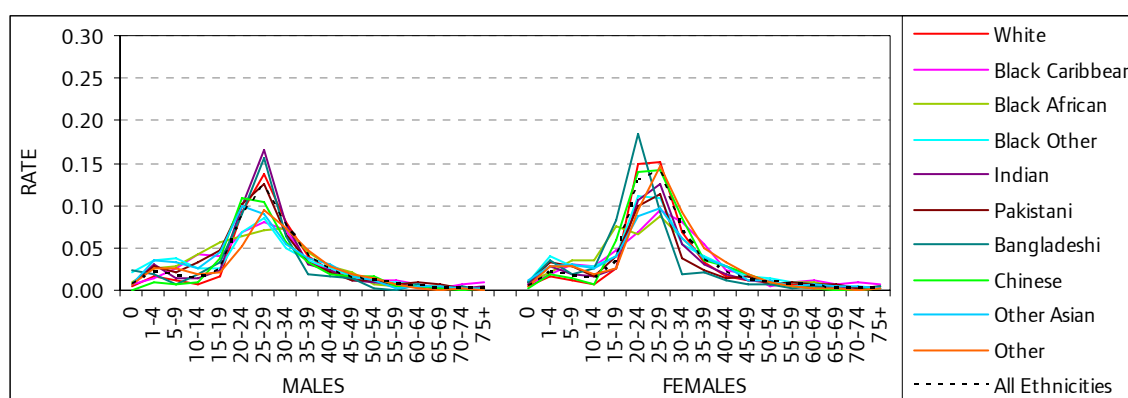


Figure 12.2: In-Migration Rates from Overseas to Outer London, by ethnicity and age

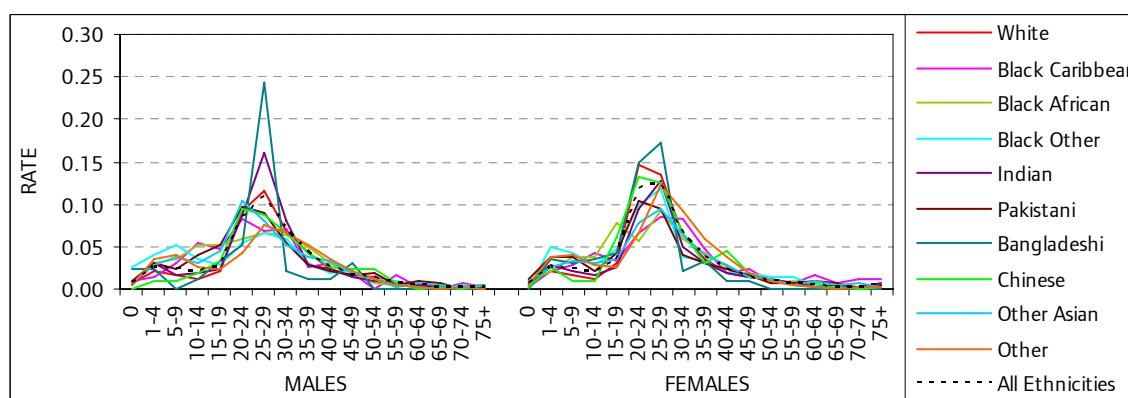


Figure 12.3: In-Migration Rates from Overseas to Inner London, by ethnicity and age

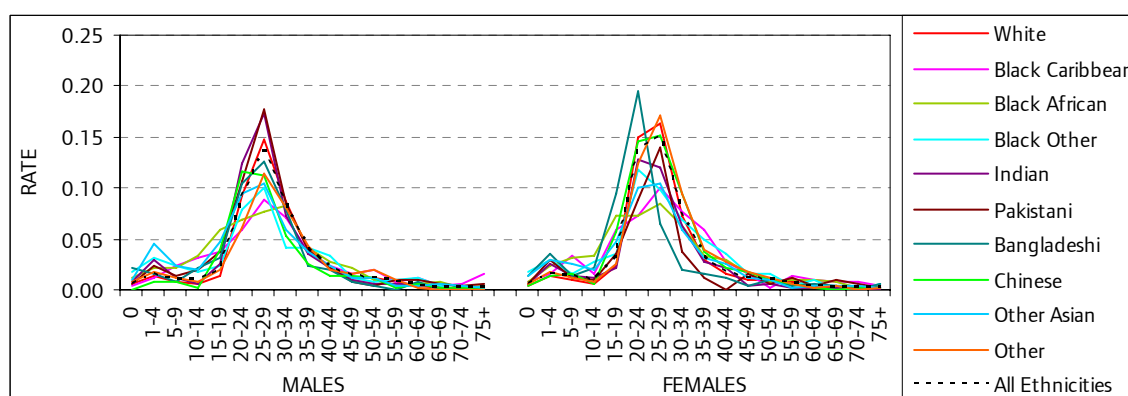


Figure 12.4: In-Migration Rates from Overseas to Rest of Inner Boroughs, by ethnicity and age

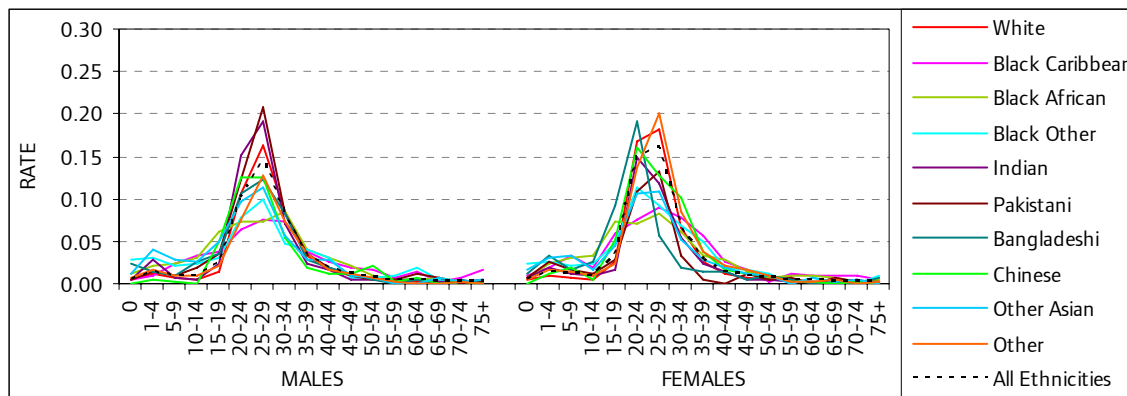
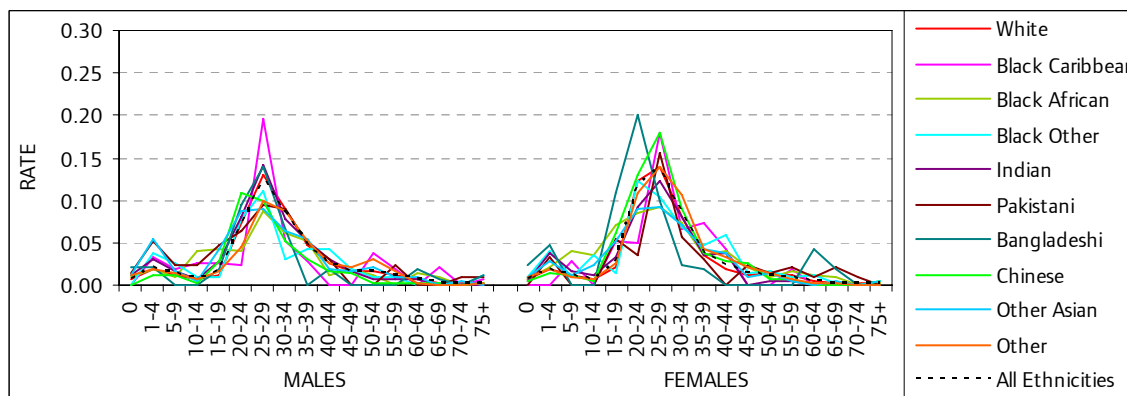


Figure 12.5: In-Migration Rates from Overseas to Central Boroughs, by ethnicity and age



Comparison of In-Migration from Overseas and from United Kingdom by ethnicity (all ages)

Inflow ratios of the overseas and United Kingdom inflows to London areas in Tables 14 and 19 are tabulated in Table 24. For people overall the ratio is well below 1.00 for each area, meaning that the majority of in-migration to London areas was from the United Kingdom. This is also true for overall males and overall females separately, although the ratios for females are slightly higher than for males. However, the ratios for Greater London and Central Boroughs are about twice as high as for Outer London and Rest of Inner Boroughs, meaning that proportionally many more people migrated from overseas into Greater London and Central Boroughs than into the other two areas. For Inner London the ratio was roughly mid-way between those for Greater London and Central Boroughs and Outer London and Rest of Inner Boroughs.

There is much more variation in the ratios for ethnic groups for a given area, ranging from 0.20 for people in the Black Caribbean ethnic group in Outer London to 3.35 for people in the Other ethnic group in Greater London. An interesting observation is that for Central Boroughs, the Rest of Inner Boroughs, Inner London and Outer London the ethnic ratios are generally well below 1.00 (with the main exception being the Other ethnic group in Central Boroughs, Rest of Inner Boroughs and Outer London where the ratio is above 1.00) meaning that in these cases the flows from overseas were greater than from the United Kingdom. For Greater London although the overall ratio is well below 1.00 most ratios for BAME groups are noticeably greater than 1.00. This indicates that the overall balance between inflows to Greater London from the United Kingdom and from overseas was dominated by the White ethnic group with the majority of in-migration of this group being from the United Kingdom. For all other ethnic groups (except Black Other) migrating into Greater London the flows from overseas were noticeably higher than those from the United Kingdom; in particular, for the Other ethnic group the flows from overseas were over three times higher than the flows from the United Kingdom.

The reverse pattern of ethnic ratios of in-migration for Greater London is due to the fact that for the four sub-London areas the migration inflows include between-area flows, which are dominated by the White ethnic group. For the sub-London areas this has the effect of increasing the flows from the United Kingdom in the denominator of the ratios for the White group to a much greater extent than in the ratios for the BAME groups.

The ethnic group patterns for persons described above (ratios generally well below 1.00 for all four sub-London areas and generally well above 1.00 for Greater London) were generally maintained for males and females separately.

Table 24: In-Migration Flow Ratios: from Overseas/from UK, by ethnicity (all ages)

Sex/ GLA Aggregated Ethnic Group	Central Boroughs	Rest of Inner Boroughs	Inner London	Outer London	Greater London
Persons					
White	0.64	0.30	0.49	0.27	0.60
Black Caribbean	0.34	0.42	0.46	0.20	1.24
Black African	0.41	0.82	0.92	0.45	2.63
Black Other	0.59	0.30	0.47	0.27	0.99
Indian	0.73	0.52	0.68	0.79	1.36
Pakistani	0.95	0.56	0.73	0.51	1.21
Bangladeshi	0.62	0.57	0.72	0.22	1.33
Chinese	0.90	0.60	0.94	0.54	1.39
Other Asian	0.53	0.43	0.59	0.66	1.60
Other	1.66	0.90	1.64	1.28	3.35
max	1.66	0.90	1.64	1.28	3.35
min	0.34	0.30	0.46	0.20	0.60
All Ethnicities	0.68	0.36	0.55	0.35	0.78
Male					
White	0.61	0.27	0.45	0.24	0.55
Black Caribbean	0.34	0.45	0.48	0.22	1.34
Black African	0.36	0.87	0.94	0.45	2.59
Black Other	0.58	0.29	0.43	0.25	0.99
Indian	0.70	0.60	0.76	0.83	1.49
Pakistani	0.91	0.60	0.78	0.47	1.26
Bangladeshi	0.54	0.55	0.67	0.21	1.22
Chinese	0.78	0.55	0.82	0.53	1.31
Other Asian	0.51	0.42	0.57	0.60	1.58
Other	1.86	0.82	1.60	1.21	3.30
max	1.86	0.87	1.60	1.21	3.30
min	0.34	0.27	0.43	0.21	0.55
All Ethnicities	0.64	0.33	0.52	0.33	0.73
Female					
White	0.68	0.32	0.52	0.29	0.65
Black Caribbean	0.33	0.40	0.44	0.19	1.16
Black African	0.46	0.79	0.90	0.45	2.68
Black Other	0.60	0.31	0.50	0.28	0.99
Indian	0.75	0.45	0.60	0.75	1.24
Pakistani	1.02	0.52	0.67	0.55	1.17
Bangladeshi	0.69	0.59	0.77	0.23	1.45
Chinese	1.00	0.65	1.05	0.54	1.46
Other Asian	0.54	0.46	0.60	0.73	1.62
Other	1.53	0.97	1.66	1.34	3.39
max	1.53	0.97	1.66	1.34	3.39
min	0.33	0.31	0.44	0.19	0.65
All Ethnicities	0.71	0.38	0.59	0.37	0.83

Source: GLA calculations of ethnic migration statistics using 2001 Census data.

Application to Ethnic Group Population Projections Methodology

The most important aspect of migration data from the point of view of GLA Ethnic Group Population Projection (EGPP) modelling is their borough-level ethnic male and female age structures (age-specific probabilities for out-migration and age-specific rates for in-migration). It is also important that the age structures that are applied in the modelling process are reasonably smooth in order to avoid irregular effects on outcomes of projected age-specific ethnic populations, as this can lead to unrealistic projections over longer time-frames.

The data and analysis in this report indicate that ethnic age structures (mainly BAME age structures) for both out-migration and in-migration for the grouped Central Boroughs area, derived directly from 2001 Census observed data, are typically not smooth enough for application in ethnic projection modelling and it also follows that migration age structures (mainly BAME) derived at borough level would be even less smooth and less suitable. However, it is necessary to reflect the borough-level ethnic migration structures in the ethnic projection modelling process and this was achieved by deriving smoother structures for application.

For out-migration, borough-level probability age structures for the White ethnic group were found to be smooth due to sufficiently high figures and these were used directly in the modelling process. For BAME groups, their structures at Inner London and Outer London levels were considered sufficiently smooth and also showed ethnic differences between Inner London and Outer London. The Inner London and Outer London ethnic age structures were therefore applied to borough-level ethnic flows to produce smoother borough-level ethnic probability age structures for application.

For in-migration, smoother borough-level ethnic rate age structures for inflows from the United Kingdom and from overseas were derived by applying London-level rate age structures for each ethnic group (including White) to borough-level ethnic total (male + female) flows where the borough-level ethnic total number of flows was less than 500. For total flows of 500 or more, borough-level ethnic rate age structures as derived from the Census data were considered sufficiently smooth and used directly.

These adjustments are described in more detail in *DMAG Briefing 2006/22 GLA 2005 Round: Interim Ethnic Group Population Projections*.

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Contact details for the Data Management and Analysis Group

Rob Lewis (020 7983 4652) is **Head of the Data Management and Analysis Group**. rob.lewis@london.gov.uk

John Hollis (020 7983 4604) is the **Demographic Consultant** responsible for the work of the **Demography, Education and Social Exclusion Teams**, and particularly for demographic modelling. john.hollis@london.gov.uk

Eileen Howes (020 7983 4657) is responsible for the work of the **Census, SASPAC and General Statistics Teams** and particularly for census analysis. eileen.howes@london.gov.uk

Gareth Baker (020 7983 4965) is the **GIS Manager** with responsibility for leading work on GI including strategy, the development of data holdings, analysis and dissemination. gareth.baker@london.gov.uk

Steve Forgan (020 7983 4185) is the **interim London Analyst Support Site (LASS) Manager** and is responsible for data exchange & analysis projects for crime reduction in London. stephen.forgan@london.gov.uk

Kelly Rump (020 7983 4655) is the **Business Coordinator**. kelly.rump@london.gov.uk

Demography Team

Baljit Bains (020 7983 4613) is responsible for the analysis of ethnic demography, including ethnic group demographic projections. baljit.bains@london.gov.uk

Jessica Chamberlain (020 7983 4347) is responsible for ward level projections, the Demography Extranet and borough liaison. jessica.chamberlain@london.gov.uk

Ed Klodawski (020 7983 4694) specialises in ethnicity and health issues. His post is joint with the London Health Observatory. edmund.klodawski@london.gov.uk

Social Exclusion Team

Lorna Spence (020 7983 4658) is responsible for labour market data analysis, mainly using national surveys. lorna.spence@london.gov.uk

Lovedeep Vaid (020 7983 4699) is responsible for benefits and income data and maintains the Social Exclusion Extranet. lovedeep.vaid@london.gov.uk

Rachel Leeser (020 7983 4696) is responsible for deprivation indicators, ad-hoc surveys and the Social Exclusion Data Users Group. rachel.leeser@london.gov.uk

Education Team

David Ewens (020 7983 4656) is responsible for education research and data analysis. david.ewens@london.gov.uk

Shen Cheng (020 7983 4889) is responsible for school roll projections. shen.cheng@london.gov.uk

Please use the above descriptions in deciding whom to contact to assist you with your information needs. For further details of DMAG staff please contact richard.walker@london.gov.uk