

## Estimating London's new migrant population Stage 1 - review of methodology



September 2006

Professor Phil Rees  
Dr. Peter Boden



UNIVERSITY OF LEEDS



**MAYOR OF LONDON**

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**Professor Philip Rees  
Dr Peter Boden**

## **Acronyms**

The report uses a large number of abbreviations (acronyms) as convenient shorthand for information systems, databases and organisations. We define the meaning of these acronyms on first appearance in the text. However, to facilitate reading of the document we have assembled a glossary of terms in Appendix 3.

### **Drafting date**

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## Foreword by the Mayor of London

London's emergence as a world city includes the arrival of people from abroad over many generations to work, find refuge from persecution, join family or friends, and make a better life.

In the 21<sup>st</sup> century more than ever before, this process is a key determinant of London's social and economic development. The capital now receives most of the UK's net international immigration, at historically high levels since the late 1990s and not expected to fall substantially in coming decades.

London's potential gains from this movement are huge. It helps to underpin economic development. New Londoners from abroad are a mainstay of our economy and public services, offering the city skills, energy and ideas. They renew its diversity and vibrancy, key factors in its appeal as a place to live and invest. Many offer civic leadership, strengthening social cohesion.

But to realise its potential, for the benefit of all Londoners, London and its institutions must get better at adapting to this dynamic process of change. This means being better informed about it. Across most areas of my strategic responsibility - from economic development, planning and housing to equalities, health and community safety - we need reliable, up-to-date information on the demography of London's communities of recently-arrived migrants: their size, make-up and pattern of change over time. From current data sources, it is simply not available.

I commissioned this review of methodology from the Leeds University team as a first step towards making such estimates for London. They conclude that to get the estimates we need at regional and sub-regional level, a range of existing sources have to be assembled in a national databank where they would - in combination - allow for statistical analysis which none of them could support individually.

It is a cogent and ground-breaking report. The databank it recommends should help us reach a much better understanding of how international migration relates to social and economic change at regional level. Though clearly a national resource, it offers major long-term benefits to London, giving a new dimension to regional strategic planning.

I look forward to exploring with partners in London and nationally how we can jointly pursue this important proposal. It is right that London should lead the way towards more objective analysis of immigration, which plays such a vital part in our city's future.



**Ken Livingstone**  
Mayor of London



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## 1 SUMMARY

Context	<p>There is an increasing desire for more comprehensive and more consistent information on new migrants at an international, national, regional and local level. International migration is now the dominant driver of population change in the UK and is set to remain so for at least the next 25 years.</p> <p>New migrant populations are a key component of the socio-economic composition and development of local labour markets across the UK, yet their size, distribution and profile is difficult to measure and to monitor.</p>
Objectives	<p>This project has sought to complete a thorough review of the datasets and methodologies applicable to the estimation of new migrants. As Stage 1 of a two-stage process, the review has sought to identify the most appropriate approach to meeting GLA's ultimate, Stage 2 objectives:</p> <p><b>Primary:</b> to provide flow and stock estimates of new migrants (for a range of flow and stock definitions) for GLA and LBs.</p> <p><b>Secondary:</b> to provide profiles of new migrants by socio-demographic attributes for GLA and LBs.</p> <p>To meet these aims, GLA seeks a new migrant estimation process that is both robust and repeatable, providing a statistical framework within which future initiatives could be managed and potentially shared with other stakeholder organisations.</p>
Concepts and definitions	<p>At all geographical levels, conceptual and definitional issues between datasets and the sheer complexity of the migration process hamper the derivation of statistics to measure the impact of new migrants.</p> <p>This report summarises these issues and argues that the conceptual differences between the datasets are a key reason why they <i>should</i> become part of the estimation process and not an excuse for them to be excluded. The use of a range of alternative sources can only help to provide better intelligence on what is a complex and multi-dimensional phenomenon.</p>
National Statistics	<p>In recognition of the increasing importance of international migration statistics, both ONS and the Home Office have undertaken Quality Reviews of their respective statistical publications. The results of the respective review processes are included here.</p> <p>The TIM methodology, used to produce National Statistics on long-term migrants, is subject to a programme of enhancements, to improve its robustness in the face of increasing demands for more reliable statistics on new migrant activity. A fundamental part of this process of improvement is better integration of alternative datasets into the estimation process.</p>
The data sources	<p>This report has compiled a detailed review of the sources of statistical information on new migrant activity. It is hoped that the completion of this process is the first step towards a more integrated approach to the measurement and reporting of new migrant statistics in the UK.</p>

The study has identified that, although there are a number of alternative sources of international migration data available in the UK, there is no common, integrated framework from which datasets are made available and no evidence of alternative methods for providing robust statistical estimates from them.

Differences between the datasets exist but collectively they provide a more informed picture of new migrants.

It is only through a more formal integration of these datasets that the true nature of conceptual, definitional and geographical discrepancies can be determined and that better use can be made of each in the migrant estimation process. Table 9 in the report (set out in miniature below) summarizes the attributes of the extensive range of datasets which provide some information on new migrants.

Dataset	Organisation	Year	Status	Place	Profile	Migrant Population	Site			Immigration			Emigration		
							Start	Long	UK	GLA	LB	UK	GLA	LB	
<b>Composites</b>															
TDH	ONS	2001-		✓		Migrants + L2m		✓	✓	?		✓	?		
<b>Census</b>															
UK Census	ONS	2001	✓	✓	✓	All	✓	✓	✓	✓	✓				
National Pupil Dataset/PLASC	DfES	2001-	✓	✓	✓	School pupils	✓	✓	✓	✓	✓				
Sample of Anonymised Records	ONS	2001	✓	✓	✓	All	✓	✓	✓	✓	✓				
<b>Surveys</b>															
International Passenger Survey	ONS	2001-		✓	✓	All migrants	?	✓	✓	?			✓		
Labour Force Survey	ONS	2001-	✓	✓	✓	All	✓	✓	✓	✓	✓				
Integrated Household Survey	ONS	2000-	✓	✓	✓	All	✓	✓	✓	✓	✓				
London Household Survey	GLA	2002	✓	✓	✓	All	✓	✓	✓	✓	✓			✓	✓
London Housing Needs Survey	GLA	2004		✓	✓	All	✓	✓	✓	✓	✓				
<b>Administrative Datasets</b>															
MIGR	MIG	2001-		✓		All	✓	✓	✓	✓	✓				
IRDS	MIG	2001-		✓		All	✓	✓	✓	✓	✓				
Asylum Seekers	HO	2001-		✓		Asylum	✓	✓	✓	✓	✓				
National Asylum Support	HO	2001-		✓		Asylum	✓	✓	✓	✓	✓				
Entry Control	HO	2001-		✓		non-EEA			✓						
Work Permits	HO	2001-		✓		Workless	✓	✓	✓	✓	✓				
Worker registration	HO	2004-		✓		All workers	✓	✓	✓	✓	✓				
After-entry Control	HO	2001-		✓		non-EEA	✓	✓	✓	✓	✓				
HESA	HESA	2001-	✓	✓	✓	Students	✓	✓	✓	✓	✓				
NHS Applications	DfAP	2001-		✓		Workless	✓	✓	✓	✓	✓				
Electoral Roll	LSA	2001-		✓		Emigrants						✓	✓	✓	✓

Recommendations This report recommends the following series of steps towards deriving the reliable and authoritative estimates which the Mayor of London seeks through his project *Estimating London's new migrant population*:

- The New Migrant Databank (NMD) should be established, together with an appropriate 'reporting' framework, to create a unique and integrated source of intelligence on new migrant activity.
- Given its long-term value to users across regions, and the data inputs it would need, construction of the NMD should be planned as a partnership venture to include ONS.
- Using the NMD, comparative analysis of alternative datasets should be completed at a detailed geographical level and for specific migrant demographic profiles. This will establish the precise differences between the datasets and facilitate the integration of new data into the migrant estimation process when robustness and reliability are assured.

- Relative levels of short-term and long-term migration should be explored through partnership work on the NMD, using statistics from the IPS and LFS. This intelligence can be used to better interpret the various registration statistics that capture but don't differentiate these flows, in addition to satisfying the increasing demand for more information on short-stay migrants.
- To improve the robustness of statistics derived from TIM, the LFS should be used (in preference to the IPS) to derive revised estimates of new migrant flows for London, subject to validation against the NHSCR. Age-sex profiles should be applied to these new estimates using migrant profiles from the NHSCR/LFS, validated against the Census.
- Finally GLA and partners should explore the scope for using the LFS to derive migrant stock profiles at the level of the London Borough, subject to acceptable confidence limits being maintained.
- This methodology is compatible with planned enhancements of surveys by ONS and can be replicated across other regions of the UK, where there is a need for information on the new migrant population.
- Through the partnership venture proposed here, it is recommended that GLA ask ONS to consider the possible enhancement of existing data sources and/or changes in data delivery which – as identified by this report – could improve the quality of estimates generated from the NMD.

## 2 INTRODUCTION

### 2.1 Objectives and context

**Background** The London Plan (GLA, 2004) has projected that the city's population will increase by 800,000 people between 2001 and 2016. This increase will be driven by the continued net inflow of migrants from abroad, a key determinant of the city's economic and social development.

An accurate and robust estimation of the volume, distribution and variety of this net inflow of new migrants is a fundamental input to the development of a broad range of socio-economic strategies for London and its constituent Boroughs.

Given the increasing importance of international net in-migration, the Greater London Authority (GLA) has commissioned this review of the methodologies and data sources used to produce the existing estimates of new migrants.

Specifically, the GLA has sought to:

- Requirements**
- Review rigorously the methods and data sources that might be used to produce estimates of the size and characteristics of London's new migrant population.
  - Appraise the methodology used in other current UK attempts to estimate the effect of immigration and the numbers they have generated.
  - Identify from this review, the methodology best suited to generating estimates that fulfil the core purpose and a set of secondary criteria set by the GLA (see Section 2.2).
  - Give an assessment of time and resources needed to apply the selected methodology for London in a subsequent stage of the project.

**The ideal** In a world of perfect data quality and availability, a continuously updated and comprehensive register of the location, characteristics and movement of the UK population would be available for policy makers, planners, statisticians and researchers, providing key information on new migrants:

- When migrants come to the UK and when they leave.
- Where migrants come from and where they go to.
- How long migrants stay in the UK.
- The socio-demographic characteristics of these migrants.

**The reality** However, although the UK has a variety of census, survey and administrative datasets that all measure some aspect of new migrant activity:

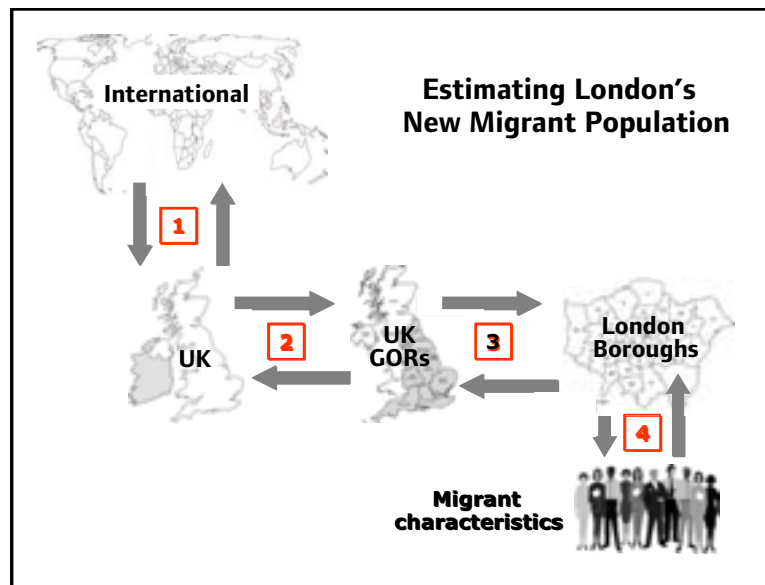
*'There is not a single, all-inclusive system in place to measure movements of population into or out of the UK.... None of the data sources used, while offering the best data currently available, are especially designed to capture information solely on international migration'. (ONS, 2005a)*

It is within this context that this review has been completed.

### Scope of the Review

Core purpose The GLA's core requirement is to make reliable estimates of the number of residents of Greater London who have arrived from outside the UK, distinguishing between those who sought UK asylum and others.

**Figure 1: Estimating London's New Migrant Population**



Secondary criteria The review has also considered how a set of secondary criteria for the new migrant estimates may be derived, to meet the strategic needs of Greater London. Specifically, in order of importance:

- To be replicable over time
- To provide distribution by London Borough
- To analyse the aggregate population by specific characteristics of age, gender, length of time in the UK and region of origin
- To be capable of linking the estimates with standard datasets on key socio-economic issues
- To indicate secondary migration to London within the UK

The review has sought to provide a summary of existing and future capability within this scope of requirements.

## 2.3 Report structure

- Section 3 The UK is a significant node in the increasingly global networks that channel international migrants between nations, driven by the gravitational effects of economic, technological and political change. The desire to better understand the size and shape of international migration flows is not unique to the UK and Section 3 briefly summarises the initiatives being introduced to attempt to harmonise data collection internationally and illustrates how this desire for better information is reflected at national and local levels.
- Section 4 The definition and measurement of a migrant and the process of migration is a complex science. Section 4 introduces the key concepts and definitions and summarises the characteristics of the main instruments of new migrant data collection that are in operation in the UK and internationally.
- Section 5 The UK has an enviable source of National Statistics, subject to rigorous review and renewal to ensure they are of the highest quality and fit for purpose. The cornerstone of new migrant statistics is the Total International Migration (TIM) methodology, managed by the Office of National Statistics (ONS). Section 5 reviews this methodology and outlines the improvement process that is underway at ONS. In a similar vein, the Home Office has recently undertaken a thorough review of its published immigration statistics. This section summarises Home Office data availability and its future developments.
- Section 6 There is no perfect solution to the improved measurement and estimation of new migrant activity in the UK but Section 6 provides a proposed Action Plan, from which the GLA in particular can begin to gain an improved understanding of this dynamic phenomenon, both in the short-term and over the next decade.
- Section 7 This Section presents a provisional timetable and a summary of the resources required to implement the recommendations detailed in Section 6.
- Appendix 1 Although there is no single data collection instrument for the measurement of international migration there are a wide range of sources, which provide intelligence about the movement of population into and out of the UK. This section provides a detailed description and evaluation of each of these data sources.
- Appendix 2-4 A comprehensive list of references, a glossary providing definitions of acronyms used in the report and supplementary information on the research team for this project are included as additional Appendices to this document.

### 3 INTERNATIONAL AND UK CONTEXT

#### 3.1 International data requirements

**Global process** The international movement of people between countries is now a very global phenomenon. The huge growth in the capacity for rapid air travel and the massive technological change of the last twenty years has left few areas of the world inaccessible. The UN Population Division estimates the international migrant population in 2005 at around 190 million, approximately 2.9% of the total global population.

Political and economic changes continue to have a gravitational push-and-pull effect upon the international movement of migrants. Significant wage disparities, the availability of jobs, development and disruption in home countries and regional conflict, all contribute to the forces driving population redistribution. At the same time, the increased threat of international terrorism has intensified the focus on improved national security and the effective management of entry control procedures to individual states.

Migrant populations, although relatively small in percentage terms, have a typically high profile in receiving countries. The International Organisation for Migration (IOM, 2005) in its global study of the local impact of new migrants, has emphasised the need to recognise both the costs and benefits associated with international migration and has reinforced the need for receiving countries to ensure effective socio-economic policies to facilitate inclusion of migrants into local communities for mutual benefit.

**European Picture** In Europe, economic migrants and political refugees and asylum seekers have, and continue to have, a significant impact upon regional and local socio-economic structure. The EU's process of enlargement has had an immediate impact, with regional disparities in wages and opportunities (Table 1) fuelling a major flow of inter-country migration.

**Table 1: European GDP per Capita in PPS, 2005 (EU-25=100)**

Country	GDP per capita	Country	GDP per capita
<b>EU (25 countries)</b>	<b>100</b>	Netherlands	123
Belgium	118	Austria	123
Czech Republic	73	Poland	50
Denmark	123	Portugal	71
Germany	108	Slovenia	81
Estonia	55	Slovakia	54
Greece	83	Finland	113
Spain	98	Sweden	119
France	109	United Kingdom	116
Ireland	138	Bulgaria	32
Italy	101	Croatia	47
Cyprus	85	Romania	33
Latvia	46	Turkey	29
Lithuania	51	Iceland	128
Luxembourg	231	Norway	156
Hungary	62	Switzerland	131
Malta	69		

Source: Eurostat (2005)

EU Draft Regulation



In September 2005 the European Union Commission adopted a proposal for a new EU Regulation on the collection of data in the field of 'migration and international protection' (Council of The European Union, 2005). This new regulation, now under discussion in the EU Parliament, would require EU

Member States to produce annually, a full and consistent set of statistics on international migration and asylum.

This drive towards statistical harmonisation is sound, in principle, but is subject to an array of obstacles, not least the variety of measurement instruments that are in place within EU countries (Censuses, Surveys, Registers etc.) and the difficulty of defining precisely what a migrant or migration actually represents.

At present, Eurostat and OECD collate similar statistical databases and produce similar publications detailing the picture of international migration in Europe (Eurostat, 2002 & OECD, 2005). Data is drawn from each respective National Statistical Office (NSO) and with no attempt to standardise, the information is subject to inconsistencies of definition and concept and therefore of interpretation.

THESIM

Michel Poulain and his team at the Université Catholique de Louvain (UCL) in Belgium have recently completed a thorough review of the implications of the new draft EU regulation, entitled 'Towards Harmonised European Statistics on International Migration', (THESIM, 2005).

The report identifies a whole series of issues that will need to be addressed in the process of harmonisation. A few recommendations that are significant in the UK context include the following.

- The use of different and complementary data sources for migration measurement is encouraged;
- The derivation of statistics on population stocks, should give consideration to measures derived from both Census and Register databases;
- The measurement of migration flows should clearly define the nature of a 'migrant' and the concept of a 'migration'.

Section 4 of this report expands on these definitional and conceptual issues in more detail.

CEFMR

Through an examination of individual country datasets and the creation of a comprehensive picture of inter-country flows, the team at the Central European Forum for Migration Research (CEFMR) in Warsaw have further highlighted the issues associated with data harmonisation (Kupiszewska & Nowok, 2005).

EMIN

The desire for a coordinated view of migration data and research across Europe has spawned a range of new initiatives for improved data management and awareness.

The European Migration Information Network (EMIN, 2005) is an EU-funded initiative at the Migration Research Unit (MRU) at University College London (UCL), creating a 'Gateway to information on International Migration', that provides metadata on European sources of International Migration data.

European Migration Network

In a similar vein, the European Migration Network, headquartered in Berlin and with UK representation through the Home Office, has been established to:

*'Provide the Community, its Member States, and in the longer term the public, with objective, reliable and comparable information on the migration and asylum situation at the European and Member State levels'* (EMN, 2005)

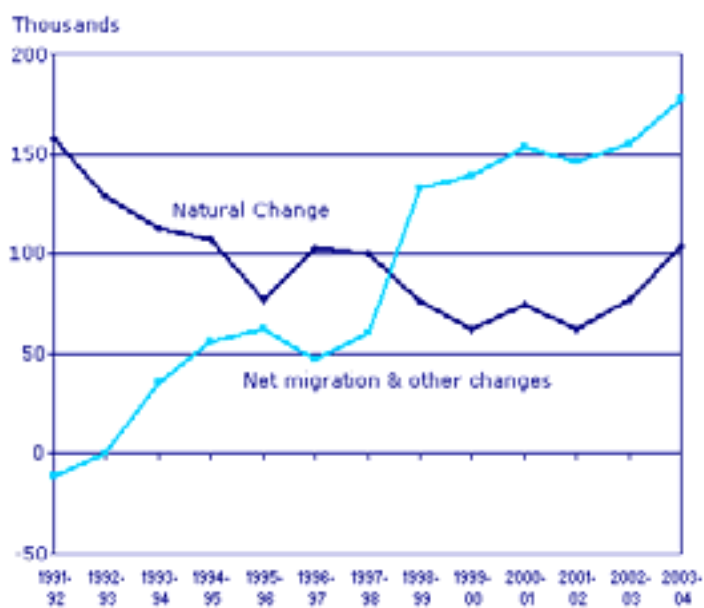
The requirement for better, more consistent and more accurate data on international migration is being driven by its increasing impact upon the changing economic and socio-demographic composition of receiving countries. But migration measurement is much more complex than the relatively simple recording of births and deaths.

The international pressure for harmonisation and improved measurement is a reflection of the desire for national, regional and local bodies to better understand and manage a process that will dominate demographic change in EU countries over the next 20 years.

### 3.2 The UK picture

Population Change In the UK, the requirement to better understand the dynamics of international migration is becoming increasingly acute. Since 1998, migration has been the dominant component of population change, comprising 65% of the total in 2004.

**Figure 2: Components of Population Change, UK**



Sources: Population estimates: ONS, GRO for Scotland, NISRA

In 2004, a total of 582,000 people were classified as new migrants to the UK, giving a total net-inflow of 223,000 (ONS, 2005b). This net international inflow is projected to remain at a relatively high level for the next 25 years (GAD, 2005a & b).

**Table 2: GAD Population Projections**

	High migration variant	Principal projection	Low migration variant	<i>thousands</i> Natural change variant
<b>Population at mid-2004</b>	59,835	59,835	59,835	59,835
Population change (2004-2031)				
Births	19,719	19,219	18,719	17,320
Deaths	16,189	16,141	16,093	16,093
Natural change	3,530	3,078	2,626	1,226
Net migration	<b>5,690</b>	<b>4,100</b>	<b>2,510</b>	<b>0</b>
Total change	9,220	7,178	5,136	1,226
<b>Population at mid-2031</b>	69,055	67,013	64,971	61,061

Source: GAD (2005c)

## National Statistics

Despite the increasing importance of net international migration gains, there is not a single, all-inclusive system in place to measure movement of the population into or out of the UK.

ONS and the Home Office administer the primary sources of statistics on international migration in the UK. These sources and the methods used to measure and estimate migration, are discussed in more detail in Section 5 of this document.

There is no definitive measure of the total number of migrants who enter and leave the UK in any single year. There are a number of datasets that contribute to the total estimate but, in the absence of a comprehensive population register that records all movements into, out-of and within the UK, the 'estimate' will always be subject to scrutiny at a time when the issue has significant political, economic and social implications.

In the face of the difficulties of adequately measuring international migration and its many dimensions, Local Authorities are being encouraged to look at sources of information which complement those produced as National Statistics.

## UK Patterns & Trends

On behalf of the Home Office, John Salt and his colleagues at University College London (UCL) produced a definitive review of international migration patterns and trends in the UK (Dobson et al., 2001, RDS Occasional Paper No. 75). Completed prior to the release of 2001 Census data, the review presented a picture of stocks and flows of migrants within the UK and their impact upon the labour market. The team provided a review of the conceptual, definitional and data consistency issues that add significant complexity to the migration measurement process.

The report draws together data from a number of sources; specifically Home Office Immigration and Work Permit Data, ONS data from the International Passenger Survey and Labour Force Survey statistics. The report provides a picture of immigration over an extended period, largely at a National level but also including a number of illustrations at a Regional scale.

The report warned that a significant rise in the level of immigration would warrant a review of the recording systems capable of reporting on international migration. The rise has happened and although a variety of old, new and improved datasets are available, there has been little attempt to integrate these sources since the report was produced in 2001.

## Greater London

The need for accurate statistics about new migrants is particularly important to Greater London, where, since 1994, there has been a net inflow of over 700,000 migrants, approximately two-thirds of the national total. The London Plan is now in the process of being updated and demographic estimation is a key part of this process.

The GLA, through its DMAG group, has an unrivalled team of data specialists, providing analytical support to the policy formulation and planning process. The GLA produces its own population estimates and projections (GLA, 2005a&b), combining local intelligence (e.g. The London Development Database) with National Statistics. The London Boroughs tend to follow a similar line, taking GLA estimates and applying local intelligence to modify as appropriate.

In its estimation process, the GLA uses the latest Census as the basis for the

allocation of ONS immigrant totals by geography, age and other characteristics. The emigration estimation is more difficult and GLA use the profile of internal migration as a proxy for the distribution of emigrants, again derived from ONS estimates. At present, there is no additional use of other datasets, such as the Labour Force Survey or NHS local statistics, in this estimation process. The lag between a new migrant entering the UK and registering with a GP, has been highlighted as a major drawback to the more extensive use of the NHS registration statistics.

In addition to the new migrant estimates produced by ONS, GLA has relied heavily on statistics produced from a number of other sources, particularly those reviewed in Dobson et al. (2001). This paper, combining a discussion of new migrant measurement issues with the collation of data from a variety of datasets has been particularly useful as a reference document to the GLA but has not been repeated on the regular basis which it demands.

Additional intelligence has been produced that includes the refugee and asylum statistics analysis, produced as part of the 'Health of Londoners' project. This analysis estimated a total of between 340-420 thousand refugee and asylum seekers, depending upon the emigration assumptions that were employed. The statistics produced by this report were verified using a crude but effective telephone sample of London Schools.

A more comprehensive study of country of birth and labour market outcomes has been completed (GLA, 2005c) using the 2001 Census and the Local Labour Force Survey in combination. Over 2 million of London's inhabitants were born outside the UK (29% of the total population) with 23% of these arriving before 1970, 32% between 1970 and 1990 and 45% after 1990. This study demonstrates the immense value of these two datasets in understanding the migrant stock picture, recognising the inherent sample size limitations of the LFS and the inability of the Census to identify 'year of entry'.

The GLA uses a range of other datasets to provide analytical support to its planning process. The National Pupil Database (NPD) and its local equivalent, the London Pupil Database (LPD) is now being analysed to understand attainment patterns and trends across ethnic groups in the capital. In addition, the dataset provides a potentially valuable source of information about 'new pupils (migrants)' entering the schools system. This is discussed in more detail in Appendix 1.

London-wide surveys have been employed to provide focused information, specifically on housing provision and needs. These are also discussed further in Appendix 1. Although they provide an illustration of how gaps in information requirements may potentially be filled through a sample survey approach, specific to London Boroughs, there remains uncertainty as to the ability of such surveys to adequately capture a representative sample of new migrants and at the level of imputation that may be required to derive accurate population estimates.

London  
Boroughs

Across the London Boroughs and within other London bodies, there are a variety of different requirements for more information on the new migrant population but there is no consistency of approach or in the datasets used. Haringey, for example has a particular issue as a 'gateway' to new migrants, with consequent high levels of population mobility and clear differences between geographical areas to the east and west of the Borough. It has used its own language

database to monitor changes in the population mix over time.

Westminster also, has a particular issue with transient, short-term stayers who quickly make subsequent moves to other parts of London. The impact of 'short-term' migrants is of considerable significance to the capital, at both extremes of the socio-economic spectrum, most likely responsible for the increase in average household size in the capital, in addition to putting pressure on housing and general service provision in key areas.

In Brent and Newham, analysts have tried innovative approaches to better understanding local populations. In Brent, a number of different sources of information (NHS, Council Tax register, Electoral Roll, benefits data and PLASC) have been used to derive a single view of the resident population (Mayhew & Harper, 2006). This approach has shown how issues of data compatibility and data quality can be overcome to derive better statistical intelligence at a local level. In Newham, IPS in-migration statistics have been compared directly with NHS registration data drawn from PCT administrative systems, identifying some significant differences between the two recording systems.

Other bodies, such as the Learning and Skills Council (LSC), the London Development Agency and the Association of London Government all have specific interest in better understanding the new migrant picture, with more detail a priority. The LSC has a particular issue in trying to better understand the 16-18 year old age group, which it believes is significantly under-estimated based upon its own FE college cohort information.

Generally, a more common approach to the availability and reporting of new migrant statistics would be of value to the Boroughs, using the variety of complementary datasets that do exist to produce a single view of activity. In the short-term the data available is unlikely to provide all the 'detail' that would ideally be required by the Boroughs but it would provide a framework around which future surveys and methodologies could be formulated.

#### UK Regions

In the UK Regions there is little evidence of any alternative methodologies that are being employed to measure and monitor new migrant activity, although a variety of datasets are being employed to different effect.

In Birmingham, which, like other metropolitan areas, is experiencing population growth due to net international in-migration, has attempted data integration from different sources on a limited scale. Its most useful statistics are those provided by the National Asylum Seekers System (NASS) and it has also begun to use the PLASC data to try and better understand immigration to the city.

In Manchester, the city has been attempting to identify new migrant activity using the Department of Works and Pensions' (DWP) National Insurance Number (NINo) dataset, whereas in Glasgow the PLASC dataset has again proved to be of some value in illustrating new immigrant profiles in the city.

#### General UK view

The general view is one of increasing interest in the new migrant picture, matched by fairly limited use of datasets other than the ONS TIM estimates and NASS statistics.

A harmonised view of sub-national statistics could help to better inform at the local level and provide a coordinated framework for ongoing improvements in the measurement of the different aspects of international migration activity.

## 4 MEASURING NEW MIGRANTS

### Migration Picture

The pattern of passenger journeys in the UK is a complex phenomenon (Figure 3), with visitors and migrants coming into and out of the country for a variety of stay durations and a variety of reasons. Those staying for less than three months are classed as visitors; those coming for three up to twelve months can be regarded as short-term migrants (see full definition below); those coming for twelve months or more are long-term migrants. Most enter legally, some illegally; some come to find work, some to study, others to join existing family members and some to seek protection from persecution. Some migrants will come to the UK as visitors and then decide to stay for a longer period, sometimes for more than 12 months (these are visitor switchers). Others will come as migrants with the intention of staying for a long period but then change their mind and return within 12 months (these are migrant switchers). Some migrants will be highly skilled, others less so, seeking manual and semi-skilled employment. Some will emigrate permanently from the UK; others will leave for a short or extended length of time but then return. Some migrants will come to the UK, stay in one place for only a short period but then move on to a more permanent residence.

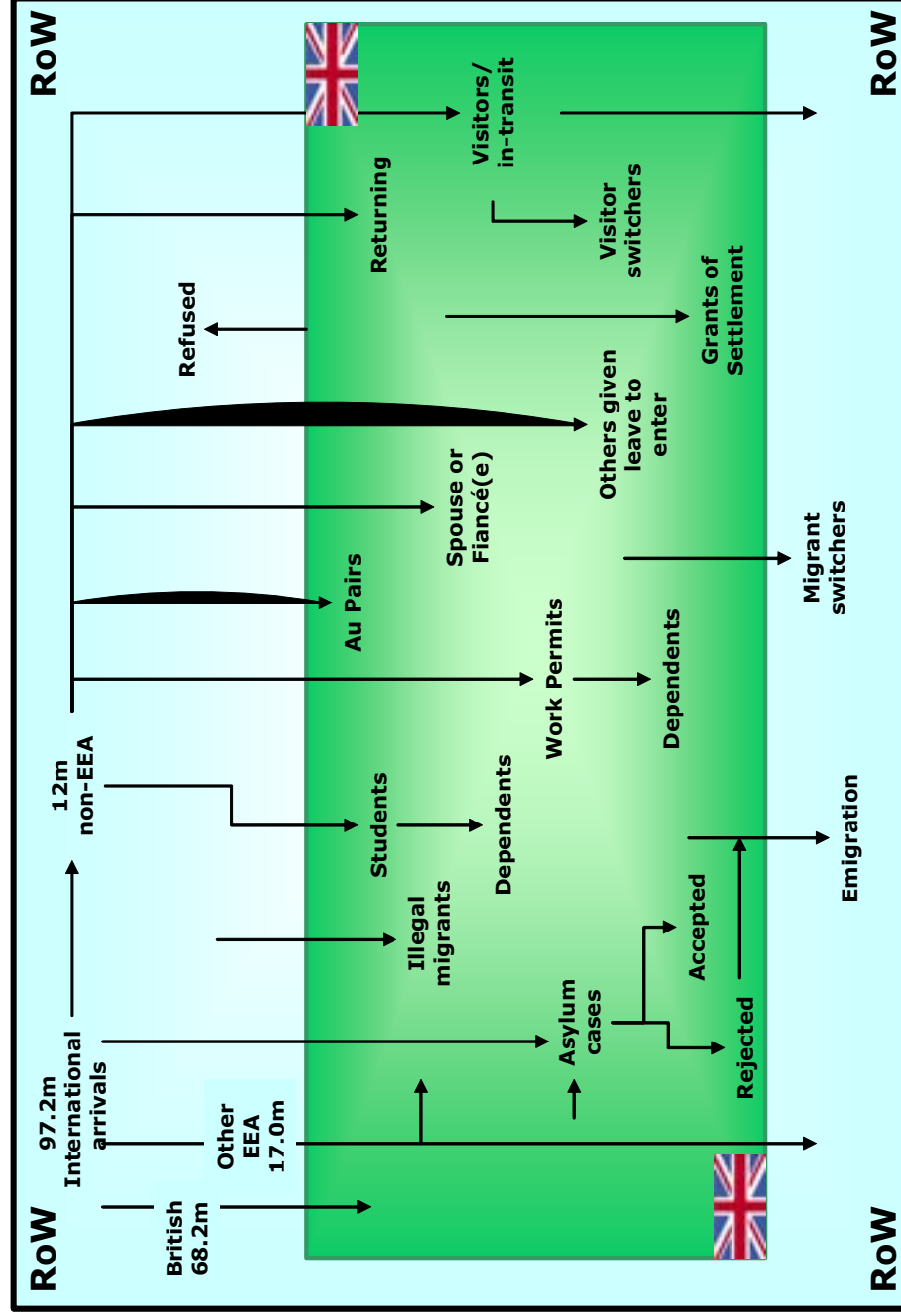
In addition to the complexity of the migration picture, there is a range of terminology in regular use, which describes the same concepts in slightly different ways (Table 3).

**Table 3: Synonyms for International Migration**

	Definition	Synonym		
In	Migration Flows to the UK from the RoW	Total International Migration Inflow	Immigration to the UK	External In-migration to the UK
Out	Migration Flows from the UK to the RoW	Total International Migration Outflow	Emigration from the UK	External Out-migration from the UK
Net	Difference between flows to and from the UK	Total International Migration Net Flow	Net International Migration to the UK	Net External Migration to the UK

In the absence of a comprehensive population registration system, the complexity of this picture makes accurate recording and measurement of international migration activity difficult.

Figure 3: UK International Passenger Arrivals and Departures Including Migration Flows



Source: Home Office (2005), Tables 2.1, p.29.

**Stocks and Flows** The GLA and other stakeholder bodies have emphasised the need to understand both ‘stocks’ and ‘flows’ of migrants.

Stocks provide a count of the total number of resident migrants. Resident migrants can be counted in many different ways — as persons with a different country of birth, as persons who have immigrated to the UK within a specified past period of lengthy duration. Returning British citizens or permanent residents would not normally be included as “new migrants”, though they contribute to the demographic flows that connect one population estimate with the next.

Flows provide a count of the number of new migrants that come to or leave the UK in a specified period of time. Migrant flows increase or decrease the size of the resident stock of migrants, depending upon the balance of emigration to immigration.

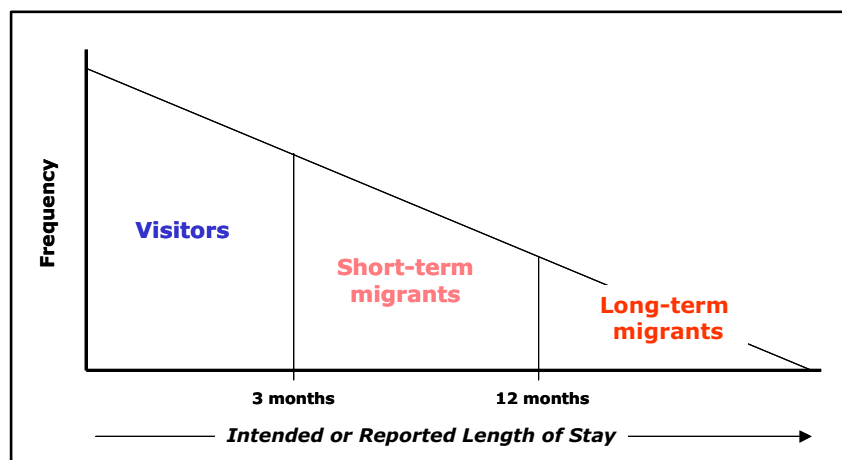
**Long-term or short-term migrant**

The length of time a migrant stays in the UK is a particular issue when interpreting migration statistics.

A ‘long-term migrant’ has a recognised UN definition and is a person whose country of usual residence changes for a period of 12 months or more. It is this migrant definition that is the basis for UK statistics on total annual immigration and emigration via a question on intended duration of stay in the International Passenger Survey.

A ‘short-term migrant’ (United Nations Statistical Division, 2006) is defined as, ‘a person who moves to a country other than that of his or her usual residence for a period of at least 3 months but less than a year, except in cases where the movement to that country is for purposes of recreation, holiday, visits to friends and relatives, business, medical treatment or religious pilgrimage’ (Figure 4). Data on short-term migrants are not included in published UK statistics.

**Figure 4: Visitors and Migrants - Duration of Stay**



**Moves or Transitions**

The interpretation of migration data from a statistical source needs to also recognise the method by which the ‘flow’ is being captured.

Migration can be measured in two ways: (1) as counts of persons experiencing

migration between two points in time or *transitions* and (2) as counts of border crossing events or *moves* (Figure 5).

**Figure 5: Transitions and Moves**

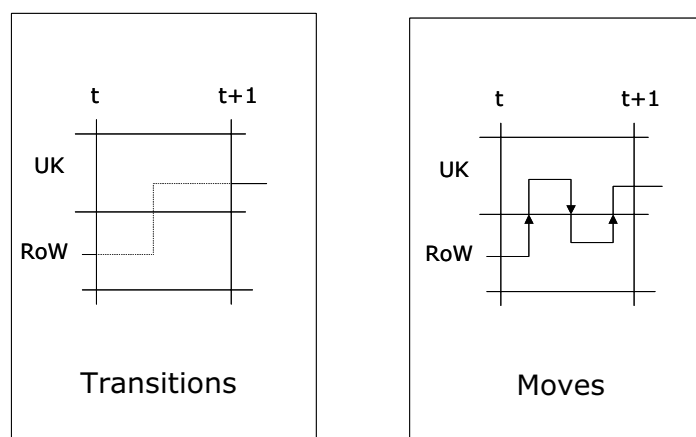


Figure 5 illustrates the difference between the two concepts using two graphs. The vertical axis divides space into two parts, the UK and the Rest of the World (RoW). The horizontal axis divides space into two parts and captures one annual interval (time  $t$  to time  $t+1$ ). Each graph shows one person's life line.

In the left hand graph all we know about the person is that they were located in the UK at time  $t+1$  and in the RoW at time  $t$ , one year earlier. We know the *transition* made in the year. Data sources such as the Census, Labour Force Survey and the Patient Register Data System record migration in this way. For example, the Census will typically ask, 'where were you living twelve months ago?'. This defines a 'transition' from one state to another over a specified time period. Each source is discussed in Section 7.

In the right hand graph is represented the life line of a single person again but all we record is the events of crossing the border between the UK and the RoW. The person in the graph makes two inward *moves* and one outward. Data sources such as the Passenger Arrival Statistics or the National Health Service Central Register record migration in this way. Each source is discussed in Section 7.

Note that both types of data provide us with a correct count of net additions to the migrant stock, as long as the statistics are handled correctly. In Figure 5 the UK gains one new migrant. It is helpful to use the term *migration flow* as a collective term to refer to migration counted in either of these two ways.

Measurement Instruments	<p>Migration data in the UK may be derived from three different types of data source, each providing an alternative view of migrant activity depending upon the question asked, the purpose of the data collection and the population covered.</p>
Census	<p>The Census of Population provides an enumeration of the entire population, with details being recorded on residence, age, sex, occupation, ethnic group, marital status, and relationship to head of household.</p> <p>The UK Census question on migration asks 'where were you living twelve months ago?' and so records a transition from one year prior to the enumeration date and not number of moves in the intervening period.</p> <p>The Census provides a snapshot view of international migration flows. It also provides a comprehensive view of the population stock using country of birth and ethnicity classifications.</p>
Survey	<p>Migration data is also available through specific individual and household surveys designed to record demographic characteristics or trends for a larger segment or all of the population.</p> <p>Surveys normally capture transitions through the use of a census-type question (such as the Labour Force Survey) or through a question on intention to stay for a specified period (e.g. the International Passenger Survey). Occasionally surveys may ask for the comprehensive migration history of respondents from which either transitions or moves could be completed. However, the resulting statistics are subject to more survivor bias than the one-year question. Other surveys ask about time of previous residence, from which migration in time intervals can be deduced if a suitable estimation is used.</p> <p>Depending upon the questions asked and the method of data collection, surveys can provide information on both migrant flows and migrant stocks.</p>
Administration & Registration Systems	<p>A number of countries, Denmark, Sweden, for example, maintain universal registers for demographic purposes — recording major events (birth, marriage, moves, death) that happen to each individual, providing up-to-date information on the whole population from a single, continuously updated source. Registers can be used to count migration either as transitions or moves, though most National Statistical Offices report migration using the latter concept.</p> <p>The Citizen's Information Project (CIP) (ONS, 2006a) has introduced the concept of a population register to the UK. Its exact relationship with the Identity Cards Bill (The United Kingdom Parliament, 2005) currently passing through Parliament is still to be defined. It could potentially, in the next decade, provide the basis for a source of complete and continuous information of population movement into, out of and within the UK.</p> <p>In the absence of a formal population registration mechanism, there are a number of administrative systems that, directly or indirectly, provide information on migrant activity (Home Office, NHS, DWP). The data from these systems will record events or moves but will typically only provide information on in-migrants to the UK, will only provide 'flow' information but not a stock picture, will not distinguish between long-term and short-term moves and may only capture a subset of the migrant population.</p>

The variety of administrative systems in operation in the UK is discussed in more detail in Section 7 of this document.

New migrants:  
who are they?

So far we have discussed the concepts and measurement instruments that underpin the production of statistics on international migration in the United Kingdom. However, we must also be clear what is meant by the term “New Migrants” on which this study is focused. It has several possible meanings, which need to be clarified before the adequacy of the existing data sources can be assessed.

“New”, for the purposes of this project, is taken simply to mean “those who have arrived in this country in a recent period”. The recent period might be within the last year, or within the last five years or within the last ten years. The interval could be interpreted as referring to a stock (the cumulative number of new migrants who are still present in the population at a particular date) or to a flow (for example, the number of new migrants arriving in 2001, or between 2001 and 2005). Rather than lay down one interpretation in advance, this study aims to identify an approach to estimation that will allow alternative criteria for ‘new’ to be adopted for different applications.

For purposes of population estimation and forecasting, it is necessary to know about all migrants, irrespective of where they were born. So, to implement the demographic accounting equations that give us population (stock) estimates, we need to know about the numbers of British Citizens immigrating and emigrating or the numbers of people born in the UK entering or leaving.

But returning British citizens or UK-born people are of limited interest in most policy analysis and for the present project. Interest focuses rather on new migrants of non-UK origin. These are the migrants whose particular characteristics (language, skills and qualifications which are not properly recognised, insecure housing or residence rights, stereotyping by employers etc.) may open up a relatively large gap between actual socio-economic status and their potential contribution to the UK and London economy and society.

We therefore propose the following framework of target meanings of the term “new migrants”, that can be used to assess what each national and local data source provides.

**Table 4: New Migrant Definitions**

Definition	Flows or Stock	Characteristics	How it would be used
<b>DEMOGRAPHIC</b>			
New migration, all	Flows	All international migration to/from UK & London over 12 month periods	Updating population estimates
New migration, labour	Flows	All international migration to/from UK & London with 3-<12 month duration	Labour and housing market intelligence
New migration, cumulative	Stock	Population that has migrated to the UK & London over (say) past 5 years, past 10 years	Monitoring changes in population composition
<b>ORIGINS</b>			
Non-British migration	Flows	Non-British citizen migration to/from UK & London over 12 month periods	Monitoring changes
Non-British migration	Flows	Migration by country of origin or country of birth to/from UK & London over given period e.g. last 12 months	Identification of new communities
Non-British migration	Stock	Population by country of citizenship or country of birth	Monitoring changes
<b>PROFILES</b>			
Non-British migration	Stock	Population of non-British origin by social and economic attributes	Monitoring changes

## 5 NATIONAL STATISTICS

### 5.1 ONS & TIM

**Summary of ONS initiatives** The Office for National Statistics (ONS) is responsible for the production of National Statistics on International Migration (ONS, 2005a). Given the lack of a single source of information, ONS combine data from a number of sources, with different attributes and characteristics, to produce Total International Migration (TIM) estimates for the UK. The TIM methodology is summarised below.

IMPS (Improving Migration and Population Statistics) is a wide ranging ONS initiative that is focused on the recommendation of improvements to key statistics and data estimation methodologies.

Included within the IMPS programme has been a comprehensive review of the data and methodology that supports the TIM estimation process. The National Statistics Quality Review of International Migration Statistics (NSQR), recognising the increasing importance of net in-migration to the UK and the difficulty of its accurate measurement and estimation, has recommended a whole series of improvements to the TIM methodology. The detail and proposed timings of these improvements are summarised below.

**TIM** ONS uses the United Nations definition of a long-term migrant as the basis for its statistical output on international migration. A migrant is an individual whose country of usual residence changes for a period of 12 months or more. The large number of short-term moves of people only staying in the UK for between 3 and 12 months are, intentionally, not captured by the TIM estimates.

The structure of the TIM model is illustrated in Table 5.

**Table 5: Total International Migration (TIM) Estimation**

Total Immigration	Total Emigration	Net Total International Migration (TIM)
= IPS Inflows	= IPS Outflows	= Net IPS Flows
+ Inflows from Ireland	+ Outflows to Ireland	+ Net Ireland Flows
+ Visitor Switcher Inflows	+ Visitor Switcher Outflows	+ Net Visitor Switcher Flows
- Migrant Switcher Inflows	- Migrant Switcher Outflows	- Net Migrant Switcher Flows
+ Asylum Seeker Inflows	+ Asylum Seeker Outflows	+ Net Asylum Seeker Flows

Note: Ireland=Republic of Ireland (Eire)

TIM combines data from the International Passenger Survey with additional statistics from the Home Office on asylum seekers and their dependants and from the Irish Central Statistical Office on estimates of migration between the UK and the Irish Republic based on the Labour Force Survey in Ireland. Visitor switchers, those people whose original intention was to stay for less than twelve months but who subsequently stay for longer, are estimated from IPS visitor data. Migrant switchers, those people who intended to stay for more than 12 months but decide to leave within a year, are derived from Home Office data on

non-EEA citizens.

In 2003, the components of TIM were estimated as follows.

**Table 6: Components of TIM estimation model, 2003**

	Inflow	Outflow	Netflow
<b>Total International Migration (TIM)</b>	<b>512,600</b>	<b>361,500</b>	<b>151,000</b>
IPS migrants	431,500	314,000	117,500
Irish CSO migrants	5,000	13,100	(8,100)
Asylum seeker adjustments	53,600	16,800	36,800
Visitor switcher adjustments	44,100	20,800	23,200
Migrant switcher adjustments	(21,600)	(3,100)	(18,400)

Source: ONS (2005a)

IPS

The key data source used by the TIM model is the International Passenger Survey (IPS) (see Section 8.4 and Figure 12). The IPS is a large sample survey of all passengers arriving at or departing from UK ports. The IPS does capture some migration flows between the UK and the Republic of Ireland, but they are not used in TIM estimation. It was originally established as a method for measuring levels of expenditure of UK visitors and for providing information on international tourism (ONS, 2005c). It is the only data collection instrument in the UK that measures both in-migration to the UK (immigration) and out-migration from the UK (emigration).

Given its unique sampling capability and the present absence of any suitable alternative, the value of the IPS as a source of information on international migration is unquestionable. However, its suitability as the *primary* source of data is under intense scrutiny, now that international migration is such a dominant driver of population change in the UK.

There are two specific issues with the IPS estimates that raise particular concerns about its robustness. The first is the reliance upon a migrant question that asks for ‘intention’ to stay in the UK, depending upon the certainty and honesty of the respondent to ensure accuracy of the data. Secondly, the relatively small sample size that is captured by the survey process implies that IPS in-migration and out-migration estimates are based upon approximately 3100 observations (2400 for in-migration and 700 for out-migration). Boosting the sample of migrants is not straightforward and also resource intensive, but is currently done for inflows (and is being considered for outflows) through conducting ‘migration filter shifts’ - hence the larger sample size above.

The value of IPS estimates deteriorates rapidly with increasing spatial scale. The GOR is the most disaggregate geography for which data can be reliably used but even at this level, numbers are small. In addition, there is evidence that London is typically over-represented in the IPS sample given the importance of Heathrow and Gatwick as port sampling points.

	<p>The other major drawback of the IPS is its inability to capture most asylum seekers and its non-capture of migrants from the Irish Republic who arrive via normal land routes. Both of these discrepancies are compensated in the TIM by using alternative datasets which complement the IPS data.</p>
Visitor Switchers	<p>The adjustment made for visitor switchers is a significant element of total TIM estimates. Visitor switchers are those individuals whose originally stated intention was to stay/leave the UK for a period of less than 12 months but who subsequently change their mind and stay/leave for a year or more.</p> <p>TIM estimates visitor switchers using the count of respondents who state their intention of being 'long stay visitors (6-11 months duration)' and 'don't know, possibly 12 months'. For non-EEA respondents, 25% of long-stay visitors and 75% of 'don't knows' are classed as switchers. For EEA respondents, only 50% of 'don't knows' are captured. For outflows, 25% and 75% parameters are used for both EEA and non-EEA numbers for people travelling to non-EU countries, while 50% of "don't know" are used only for EEA citizens travelling to EU countries.</p> <p>These parameters have been derived from previous analysis of Home Office data. Their sensitivity could be tested further as it is unclear what the proportion of long-stay visitors and 'don't knows' is to the migrant total and to the additional category of visitors whose intention is to stay for less than six months.</p>
Migrant switchers	<p>Migrant switchers are those individuals whose intention was to stay/leave for more than a year but who decide to leave/return within the twelve month period. TIM applies a 5% and 1% parameter to in-migrants and out-migrants respectively to compensate for this switching process, statistics which again are worthy of further sensitivity testing.</p>
Asylum seeker adjustment	<p>The number of asylum seekers who migrate to and from the UK is estimated using data supplied by the Home Office. The data provided includes the principle asylum applicant and associated dependants. The Home Office also provides an indication of the number of applicants who are returned within twelve months of arriving in the UK, thus excluding them from any 'long-stay' migration totals.</p>
NSQR	<p>In recognition of the key role of International Migration Statistics, ONS has initiated a thorough Quality Review (NSQR) of the data sources available and methodologies employed in migration estimation.</p> <p>The scope of the NSQR has included all forms of migration between the UK and the rest of the world. It encompassed a review of statistics on 'all migrants' and also those non-EEA citizens subject to entry control. For this reason the review was conducted in collaboration with the Home Office. The final report was published in 2003 (ONS 2003b) together with a detailed Implementation Plan (ONS, 2003c). An update on progress towards meeting the targets set by the Improvement Plan was produced in March 2005 (ONS, 2005c). Drawing directly from the NSQR progress report and following discussions with ONS personnel responsible for the implementation plan, a summary of the key initiatives that are relevant to this review process are listed in Table 7 with those of particular significance identified as a, b, c and d.</p>
Short-term	<p>The improvements in the monitoring of short-term migrants (a) is of particular</p>

migrants	interest given the socio-economic impact that this sub-group appears to be having in Greater London, possibly including extra demand for housing, which may not be captured by standard assessments of housing need. Further analysis of the short-term migrant data generated by the IPS would be of significant value in understanding their impact. The data might also help to make better use of alternative administrative sources, within which it is difficult to distinguish between the short and the long-term migrants (e.g. NHS registration, NINo registrations)
LFS vs IPS vs Census	The use of household surveys in combination with the IPS to estimate sub-national distributions of migrants (b) could have significant benefits for the improvement of new migrant estimates within Greater London. Rendall et al. (2003) conducted a detailed comparison of the 2001 Census, IPS and the UK Labour Force Survey. The LFS was seen to underestimate the level of total annual immigration by 15 to 25 per cent, due mainly to under-estimation of the immigration of non-EU citizens. It did, however, provide a better estimate of the geographical distribution of migrant flows compared to the IPS (Table 8).

**Table 7: NSQR Implementation Issues**

Issue	Action Taken	
<b>1. Size and composition of UK total migration flows</b>		
Intended versus actual length of stay	New IPS question in 2004 asking overseas nationals leaving the UK (and UK nationals returning) how long they intended to stay for when they originally arrived.	a
Short-term vs long-term migrants	Introduction of new IPS question in 2004 to identify short-term migrants with an intended length of stay of 3-6 months	
Enhanced IPS sample size for emigration	No progress	
<b>2. Size and composition of migration flows of persons subject to immigration control</b>		
Combining IPS and Home Office information for total migration estimates	Initial review and minor developments but no significant analysis completed.	
Use of landing cards for estimation of migrant totals	Initial analysis but no significant progress on data linkages. In addition, there is no routine collection of address to facilitate allocation to UK residences for sub-national estimation. The Home Office is concentrating on the implementation of the e-borders system and does not have plans to invest in the improvement of landing card data (Barber,	
<b>3. Size and type of UK migration flows at sub-national levels</b>		
Use of household surveys in combination with the IPS to estimate sub-national distribution of migrants	Analysis completed by Rendall et al. (2003), comparing Census, LFS and IPS. Complementary analysis by NSQR implementation team considering the use of LFS is well advanced.	b
Use of NHS administrative data for estimation of sub-national distribution of migrants	Initial investigation looks promising for in-migrant estimation but not for emigration due to poor coverage.	c
Use of Home Office data for estimation of sub-national distribution of migrants	No progress. Restrictions on access and lack of adequate name and address data make this an unlikely short-term solution.	
<b>4. Numbers and characteristics of foreign-born UK residents, including socio-economic characteristics of migrants</b>		
Consistent Stock and Flow estimates of Migrants	International Migration data requirements have been fed into the IHS and Census 2011 consultation process. Stock estimates are to be produced, rolling forward census estimates, once flow estimation process has been refined.	
<b>5. Estimates of the number of unauthorised immigrant entrants and current population</b>		
Estimating unauthorised migrant stocks and flows	Home Office report produced (Pinkerton et al., 2005)	d

**Table 8: Census, IPS and LFS compared, 2000/01**

International Migration (000s)								
	Census		LFS 2000/01			IPS 2000/01		
	Number	%	Number	%	Sample	Number	%	Sample
England	360.5	88.6	264.6	88.3	524	337.1	92.5	2162
London	121.0	29.7	88.3	29.5	147	130.7	35.9	1028
Rest of England	239.5	58.9	176.2	58.8	377	206.4	56.6	1134

Source: Rendall et al. (2003)

The NSQR team has continued this work and produced an additional analysis of LFS and Census migrant data for 2001 at GOR level.

The Census and LFS gave similar proportional inflows to London that were lower than the IPS. If we assume that the Census provides the “gold standard” estimate, then these results for 2000/1 suggest the LFS should be used to estimate the subnational distribution of total international immigration to the UK.

Results of this analysis suggest that the LFS could provide an improvement to the estimation of new migrants, specifically in Greater London. An assessment of the differences between new migrant flows estimated from this improved process against the existing process should be undertaken specifically for Greater London.

**NHS data**

NHS administrative data is used extensively in the estimation of internal migration in the UK but its use as a proxy for international migration estimation has been little tested (c).

ONS has conducted some preliminary analysis of registration data from NHS sources. This is explored further in Section 7.

Given the size of the NHS database and its availability, an outline analysis of NHS registration data against alternative sources of migration for London Boroughs is a logical first step in the evaluation of the source as a viable alternative for estimating new migrants to the UK.

**5.2 Home Office**

**Summary**

The Home Office through its Research Development and Statistics Directorate (RDS) regularly publishes National Statistics on immigration and asylum. The Immigration Research and Statistics Service (IRSS) provides the research and statistical support to the Home Office and other Government Departments covering key areas that include: longitudinal studies of migrants; managed migration and international research; asylum process research; community relations and integration; asylum statistics and migration, immigration, citizenship and enforcement statistics.

The Home Office, through its Research Development and Statistics Directorate (RDS), regularly publishes National Statistics on asylum and control of immigration. British Citizens, those Commonwealth Citizens who have freedom of entry to the UK and nationals from the extended European Economic Area (EEA) are not subject to immigration control and are not included in Home Office statistics.

National Statistics produced by the Home Office fall into three broad categories:

1. Asylum
2. Control of immigration
  - a. Pre-entry control abroad (published separately by UK Visas).
  - b. Entry control at ports
  - c. After-entry control
  - d. Acceptances for settlement
3. Persons granted British Citizenship

The Home Office does not produce statistics on emigration from the UK. There is no mechanism for capturing or recording those people leaving the UK for an extended or permanent period.

#### Statistical Publications

The Home Office produces an annual Command Paper on Control of Immigration Statistics UK (Home Office, 2005a) together with a series of Statistical bulletins, for example on Asylum (Home Office, 2005b) and Grants of Citizenship (Home Office, 2005c).

A more detailed illustration of the collection, format and completeness of Home Office immigration statistics is provided in Section 7 of this document.

#### National Statistics Review

During 2005, the Home Office initiated a Quality Review of its Control of Immigration Statistics Publications (Home Office, 2005d). The Project Initiation Document recognised quite clearly that:

*'A number of publications describe different themes of immigration and migration, such as the control processes, flows and stock of migrants and their characteristics, international data and the social and economic impacts. However, no one publication covers all these areas in a comprehensive way or summarises the relevant links or references'*

*'Questions such as the following cannot easily be answered when the information is presented in disparate reports:*

- *What are the characteristics of migrants who come to the UK?*
- *How do they get here?*
- *Why do they come to the UK?*
- *How long do they stay?*
- *Why do they leave?'*

A consultation questionnaire (Home Office, 2005e) was circulated to all interested parties as part of this Quality Review process and GLA submitted its own set of requirements and recommendations (GLA, 2005c). Its response highlighted the need for an accurate and timely understanding of the net impact

of international migration and emphasised the need to explore greater availability of statistics by age, gender and, particularly, by region within the UK.

An initial summary of the consultation process has been produced (Home Office, 2005f) and the Final Report has now been completed (although it is not yet available for review). Summary findings, presented at a GLA National Partners Seminar, identified four main categories of use for the National Statistics on immigration control:

- Monitoring the volume and nature of immigration.
- Monitoring the effects and efficiency of control procedures.
- Planning and focusing the activities, services and briefing of several external agencies.
- Input to the production of total migration statistics

Recommendations

The Report has eleven recommendations, the implementation of which would all be subject to resource constraints. These recommendations cover:

- Data review
- Improved user consultation
- More use of the web for publication
- Timing of publication
- More cohort based statistics
- Transparent links with net migration
- More data analysis
- Better figures on children and dependants
- More comparable international statistics
- More QA for statistics outside the scope of National Statistics
- More record matching

Future initiatives

The Quality Review has focused on existing statistics and systems and their ongoing improvement to better accommodate the extended community of users who increasingly require better information on the international migration picture. There are also a number of longer-term initiatives, which could impact significantly upon the way that UK immigration (and emigration) is captured and produced as statistical output.

e-Borders

The e-Borders Programme (Home Office, 2005g) has been established to deliver modernised border control for the UK. In September 2004 a three-year contract to deliver Project Semaphore, the first stage in the Government's e-Borders programme was signed with IBM. On selected routes, Semaphore was established to test the technical ability to record details of passengers intending to enter or leave the UK before they begin their journey.

A key part of the initiative is Project IRIS (Iris Recognition Immigration System), a secure, automated border entry system using iris recognition technology to speed up the admission of pre-assessed bona-fide travellers.

The e-Borders system will identify people who have boarded transport destined for the UK, check them automatically against databases of individuals who pose a security risk, and keep a simple electronic record of entry into the country. The system will also enable authorities to record people leaving the UK, helping to identify those who overstay

Full implementation of e-Borders is planned from 2008 to rapidly expand to encompass all movements in and out of the country. It will enable tighter controls of those who may pose a security risk and ensure that there are clearer records of those entering and leaving the UK.

Data Protection will restrict access to data, and it is not yet clear how summary statistics might be produced to complement the existing publications and to assist in the measurement of international migration flows.

#### Clandestine Migrants

There have been a number of attempts to estimate migrants to the UK who have not been captured in any Home Office immigration procedure. The School of Geography at the University of Leeds has made estimates of hidden and transient populations for a UK water company but the derived totals are subject to wide guessed confidence intervals.

Pinkerton et al. (2004) conducted a review of the methods used in other countries for measuring the extent of the illegal population. They concluded that the 'Residual Method' used in the USA was likely to be the most appropriate for estimation purposes.

This recommendation has resulted in the production of a Home Office estimate of the unauthorised migrant population resident in the UK in 2001 (Home Office 2005j). The Residual Method uses the total foreign-born population of the UK in 2001 as its benchmark. It then deducts an estimate of the foreign born population that is legally resident from this total to derive the estimated number of unauthorised migrants in the UK.

Using this methodology, the Home Office 'central estimate' of unauthorised migrants in 2001 was 430,000 or 0.7% of the total UK population (which compares to a US estimate of 2.5% unauthorised migrants) with a likely range of between 310,000 and 570,000.

Although the pressure group Migration Watch ([www.migrationwatchuk.org](http://www.migrationwatchuk.org)) claims that the likely number is much higher, the only feasible way to reveal this migrant sub-population would be to have a programme of periodic amnesties, which recognise the reality of successful avoidance of immigration control.

#### ID Cards and NIR

The ONS-led initiative for the development of a Population Register, through the Citizen's Information Project (ONS, 2006a) appears to be moving closer to integration with the proposed development of ID Cards in the UK (Home Office, 2006b). Underpinning the ID Card will be a new National Identity Register (NIR), which will build up slowly as passports are renewed, developing the Population Register in the process.

A fully operational Population Register, recording information on all UK residents, provides the ideal basis for capturing additional statistics on international migration but this is a long-term initiative and as yet there is no clarity of information regarding implementation or future statistical output.

## 6 SUMMARY & RECOMMENDATIONS

### 6.1 Recap on the aims and achievements

Summary	<p>The objective of this project has been to complete a thorough review of the datasets and methodologies applicable to the estimation of new migrants. The detail of the review of alternative datasets is provided in Appendix 1 but is summarised here in Tables 9 &amp; 10.</p> <p>At the initiation stage of this project, two specific aims were identified:</p> <p><b>Primary aim:</b> to review the ways in which flow and stock estimates of new migrants (a range of flow and stock definitions) for GLA and LBs could be provided.</p> <p><b>Secondary aim:</b> to review the ways in which profiles of new migrants by socio-demographic attributes for GLA and LBs could be provided.</p>
Statistical harmonisation	<p>In meeting these aims, GLA seeks a process that is both robust and repeatable, providing a framework within which future initiatives could be managed and potentially shared with other stakeholder organisations.</p> <p>There is an increasing desire for more comprehensive and more consistent information on new migrants at an international, national, regional and local level. International migration is now the dominant driver of population change in the UK and is set to remain so for at least the next 25 years.</p> <p>New migrant populations are a key component of the socio-economic composition and development of local labour markets across the UK yet their size, distribution and profile is difficult to measure and monitor.</p> <p>At all geographical levels, the use of statistics to measure the impact of new migrants is hampered by conceptual and definitional differences between datasets and the sheer complexity of capturing statistics from the multi-dimensional migration process.</p> <p>ONS maintains its TIM methodology, producing National Statistics on long-term immigration and emigration to and from the UK. In recognition of the increasing importance of international migration, ONS has an ongoing process of improvements to TIM to enhance its reliability and robustness, although the pace at which these improvements are operationalised remains an issue for end-users of the data.</p> <p>The wider THESIM study has encouraged the use of a range of alternative sources to derive the best measure of international migration and ONS itself is advising users of its National Statistics to seek complementary datasets to evaluate alongside the TIM estimates, wherever possible.</p> <p>This study has identified that, although there are a number of alternative sources of international migration data available in the UK, there is no common, integrated framework from which datasets are made available and no evidence of alternative methods for providing robust statistical estimates from them.</p> <p>Definitional and conceptual issues are often cited as reasons why a dataset</p>

cannot be used, primarily because of the desire for a 'one number' view of new migrants. We argue that the differences that exist between the datasets, are the reason why the data *should* be used, as the development of a common view of statistics will not only provide the most informative picture of international migration but will also provide the basis for establishing precise relationships between them. In addition, this integrated approach may have the additional benefit of assisting ONS in the production of its annual statistical contributions to meet the new EU regulation for harmonised statistics from 2007 onwards.

Review of data sources	In the absence of a single instrument for capturing information on international migrant activity in the UK, this study has examined a range of available data sources that provide statistics on some aspect of new migrant activity. The review has provided the first, structured assessment of each source, identifying the definitional and conceptual issues associated with each. The key features of each dataset have been summarised (Table 9) and key data items available within each source have been illustrated (Table 10).
Emigration	<p>The most striking feature of these two summary tables is the absence of statistics that measure emigration from the UK. Only the IPS has a formal process for capturing migrants as they leave. The London Household Survey (LHS) could provide a derived measure of emigration but from a very small sample and for only a single-year snapshot. The Electoral Register/Roll (ER) has been identified as a possible source of additional intelligence on emigration flows, using the overseas registration statistics that are held within local ER datasets. Further analysis of the data for specific LBs will help to clarify the value and restrictions on its use.</p> <p>This lack of information on emigration has obvious implications for the estimation of net international and net total migration at a sub-national level.</p>
TIM	TIM provides a composite measure of migration flows, producing estimates across the complex migration picture, specifically for long-term migrants. It incorporates other datasets (asylum seekers, flows to and from the Irish Republic) to compensate for non-coverage of its core data input (the IPS) and it includes assumptions to calculate migrant and visitor switching, both of which have a significant impact upon estimates produced. Given its dependence upon a relatively small sample, TIM estimates are less robust at any scale below the national level.

Table 9: Migration Data Sources: Key Features

	Availability (since 2001)	Stocks	Flows	Profiles	Migrant Population	Stay		Immigration			Emigration						
						Short	Long	UK	GLA	LB	UK	GLA	LB				
<b>Administrative</b>																	
<b>TIM</b>	ONS 2001-	✓	✓		Migrants > 12m		✓			?		✓			?		
<b>Census</b>																	
UK Census	ONS 2001	✓	✓	✓	All	✓	✓			✓	✓						
National Pupil Dataset/PLASC	DFES 2002-	✓	✓	✓	School pupils	✓	✓			✓	✓						
Sample of Anonymised Records	ONS 2001	✓	✓	✓	All	✓	✓			✓	✓						
<b>Surveys</b>																	
International Passenger Survey	ONS 2001-	✓	✓	✓	All migrants	?	✓			?	✓				✓		
Labour Force Survey	ONS 2001-	✓	✓	✓	All	✓	✓			✓	✓						
Integrated Household Survey	ONS 2008-	✓	✓	✓	All	✓	✓			✓	✓						
London Household Survey	GLA 2002	✓		✓	All	✓	✓			✓	✓			✓			✓
London Housing Needs Survey	GLA 2004		✓	✓	All	✓	✓			✓	✓			✓			
<b>Administrative Datasets</b>																	
NHSCR	NHS 2001-		✓		All	✓	✓				✓	✓					
PRDS	NHS 2001-		✓		All	✓	✓				✓	✓					
Asylum Seekers	HO 2001-		✓		Asylum	✓	✓				✓						
National Asylum Support	HO 2001-		✓		Asylum	✓	✓				✓	✓					
Entry Control	HO 2001-		✓		non-EEA						✓						
Work Permits	HO 2001-		✓		Workers	✓	✓				✓	✓					
Worker registration	HO 2004-		✓		A8 workers	✓	✓				✓	✓					
Grants of Settlement	HO 2001-		✓		non-EEA	✓	✓				✓	✓					
HESA	HESA 2001-	✓	✓	✓	Students	✓	✓				✓	✓					
NINo Applications	DWP 2002-		✓		Workers	✓	✓				✓	✓					
Electoral Roll	LAs 2001-		✓		Emigrants									✓	✓		✓

Table 10: Migration Data Sources: Key Variables

		Key Variables										
		Year of Entry	Intended length of stay	Previous address	Country of Birth	Citizenship	Ethnicity	Date of Birth	Age	Sex	Occupational Status	Dependants
<b>Composite</b>												
	TIM	✓	✓	✓	✓	✓			✓	✓	✓	
<b>Census</b>												
	UK Census			✓	✓		✓	✓	✓	✓	✓	✓
	National Pupil Dataset/PLASC						✓	✓	✓	✓		
	Sample of Anonymised Records			✓	✓		✓	✓	✓	✓	✓	✓
<b>Surveys</b>												
	International Passenger Survey	✓	✓	✓	✓	✓			✓	✓	✓	✓
	Labour Force Survey	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
	Integrated Household Survey	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓
	London Household Survey	✓		✓	✓		✓		✓	✓	✓	✓
	London Housing Needs Survey			✓			✓		✓	✓		✓
<b>Administrative Datasets</b>												
	NHSCR				✓			✓	✓	✓		
	PRDS							✓	✓	✓		
	Asylum Seekers					✓			✓	✓		
	National Asylum Support					✓			✓	✓		
	Entry Control	✓			✓	✓		✓		✓	✓	
	Work Permits					✓		✓	✓	✓		
	Worker registration					✓		✓		✓	✓	
	Grants of Settlement	✓			✓	✓		✓	✓	✓	✓	
	HESA	✓			✓				✓	✓		
	NINo Applications	✓						✓	✓	✓		
	Electoral Roll			✓				✓	✓	✓		
	LAs											

IPS	<p>The IPS was not initially established as an instrument for measuring international migration but by default it has become an integral part of the estimation process as the only regular source of information on immigration and emigration that samples across the complete spectrum of migrant activity (asylum flows and Irish flows excepted). The IPS also has the potential to provide more information on the split between short-term and long-term flows. It is capturing information on both but at present only reports on the long-term migrant view.</p>
Census	<p>The 2001 Census provides only a single-year, snapshot view of migrant flows but it also provides a picture of new migrant stocks using country-of-birth statistics, albeit in the absence of an indicator of year-of-entry to the UK. The Census remains the benchmark against which alternative datasets should be compared and, given its coverage of the UK population, the source of robust statistical tabulations on migrant profiles at the most detailed geographical level.</p>
NPD/PLASC	<p>The National Pupil Dataset (NPD) is an alternative 'census' dataset, which does not provide a direct measure of new migrant flows but does provide a view of both changing stocks and flows of school-age children within the grant maintained education sector. The statistics that can be derived from the NPD, that include 'first language' of each pupil, may only be a proxy for new migrant activity but, potentially, they can provide a powerful picture of socio-demographic change at a local level. Statistics can be derived from a robust population sample that will help to confirm patterns and trends derived from complementary sources.</p>
Labour Force Survey	<p>The Labour Force Survey (LFS) is a key alternative source of new migrant information that has so far been little used. It is a key component of ONS' survey data strategy, and an integral part of the development of the new Integrated Household Survey (IHS) from 2008, providing a continuous source of robust local area statistics for the UK.</p> <p>The LFS can provide both stock and flow statistics. Stocks are derived using a 'year-of-entry' question, absent from the Census. Its flows statistics can also identify both short and long-term activity.</p> <p>The value of the LFS has been tested against the Census and, as a minimum, it should be used to produce an improved allocation of IPS in-migration flows at a regional level. This report recommends more extensive use of the LFS, benchmarking it against the Census, comparing it directly to alternative sources and using it for sub-national estimation of the level and profiles of new migrant totals, subject to acceptable confidence limits being maintained.</p>
Administrative datasets	<p>This study has also evaluated a range of data sources under the banner of 'administrative' datasets. Most of these sources only provide information on immigration flows, although a number provide statistics on both short-term and long-term-migrants.</p>
Home Office	<p>The Home Office provides immigration statistics as a by-product of its border control activities. The Home Office manages asylum seeker data. This dataset is a key input to the TIM model and is used in its own right by local authorities to understand the impact of asylum activity on local markets.</p> <p>The majority of other statistics produced by the Home Office, are only provided at a national level and only for non-EEA passengers. The geographical</p>

	<p>disaggregation of Home Office data would be of considerable value to confirm patterns and trends but these data are either not captured or are simply not available from Home Office systems. Joint initiatives between the Home Office and ONS are in progress but, given the focus on e-borders and the developing National ID card initiative, it is unlikely that any substantial time and effort will be expended on the provision of more detailed <i>subnational</i> statistics from the Home Office in the foreseeable future.</p>
Worker Registration Scheme	<p>The Home Office, in collaboration with other Government Departments, also administers the Worker Registration Scheme (WRS). Although only a temporary solution to managing the integration of A8 migrants into the UK labour market, since 2004, the scheme has captured a large amount of information on the origin, destination and profile of this sub-set of new migrants. The time series of statistics and the geographical distributions evident from the data provide an important source of comparison against other new migrant datasets.</p>
National Insurance Numbers (NINo)	<p>Similarly, the NINo application process, administered by the DWP, provides valuable intelligence on the profile and distribution of new migrants. Its time-series of statistics is available from 2002. Importantly, the NINo statistics also provide a direct link to other socio-economic summary data on level of benefits and tax credits applicable to new migrant registrations. The NINo database can provide summary data for each individual London Borough using country-of-origin statistics to identify new migrant characteristics.</p>
HESA	<p>The HESA dataset is likely to be of most value outside of Greater London. It records information on all international students entering the UK but only links these individuals to an institution and not to a domicile. The inter-borough dynamics of living and studying in Greater London would make these statistics difficult to interpret but they could be of some value in providing control totals at a regional level.</p>
NHS Datasets	<p>NHS registration data is a fundamental component of the <i>internal</i> migration estimation process in the UK. It has been little used in the field of international migration despite recording new migrant registrations in its databases. A number of definitional and conceptual issues have to be overcome in using the NHS data to inform the analysis of international migration. As a comprehensive registration process that encapsulates a large majority of the UK population, including children, it has to be made available as a key alternative source of new migrant statistics at a local level.</p> <p>Initial investigations of the use of NHS data for international migration estimation have been completed, both by ONS and at a more informal level in the London boroughs. This report recommends that a more formal framework for illustration and analysis of the data is established to enable its use and application to the new migrant estimation process to be fully assessed.</p>
Illegal Migrants	<p>A key issue to address is whether the estimate of new migrant flows and stocks should include an allowance for illegal migrants. Although some estimates have been made (Section 5.2), there is no consensus at the moment about the level of the hidden population or whether an estimate of its size should be included in the official mid-year estimates (with consequent implications for local authority funding). So, here we would recommend further investigation of methods for illegal migrant estimation and how they complement the accumulated NMD evidence. At present, an estimate of illegal migrants is far from being a "National Statistic".</p>

## 6.2 The New Migrant Databank (NMD)

To date, no one has put together a picture of what is known about new migrants to the UK, London and London boroughs in a way that enables comparison. We propose a simple common framework:

### the **New Migrant Databank (NMD)**

The NMD will assemble tables of counts and derived indicators (geographic shares, population composition, time series indicators) for the whole country (UK), one major region (Greater London) and a set of local authorities (the London boroughs).

We will be able to learn more precisely what the different data sources reviewed provide by assembling for recent years (2001 to 2005) total flow and stock data for the UK, London and LBs. From the more detailed analysis it will be possible to identify the population covered, the precise flow/stock definition and the extent to which the different datasets provide competing, overlapping or separate pictures of new migrants. At the same time, the tables and maps of the variables derived through this analysis, would provide individual London Boroughs with new information about where each borough was located in the new migrant "picture"/"system".

The NMD can be developed as a rolling annual series of statistics, starting in 2001, where possible, to indicate trends through time series indicators. Such a view of new migrants has not been developed hitherto. The datasets can be compared through statistical analysis of levels/counts and distributions/proportions (UK to London, London to LB) and by mapping at LB level. The NMD would also include visualisations of the table data in the form of bar charts, line graphs and maps as appropriate.

In Figure 6, a 'worked example' is provided to illustrate the format of data and type of analyses that the NMD could facilitate. Here we present two example tables from the NMD: (1) Counts & shares for UK, London and LBs for 2005, (2) Time series for one LB. These data are invented but some expected attributes of the data are represented (e.g. greater volatility of LFS based estimates, smoother PRDS estimates). Each column/row/cell would have associated metadata indicating source, definition, estimation model, where relevant.

The first table in Figure 6 sets out the sets of alternative counts that might be available in 2005. Note that these often cover different populations (e.g. all migrants, school age migrants) or different migration measures (long term, short term). The first column of counts contains the ONS 2001 Census immigrant data and GLA emigrant estimates for comparison purposes and time series construction. The right most columns provide averages of counts and shares using comparable variables: TIM, LFS Long term, PRDS, NINo for long term migrants and IPS Short term and LFS Short term for short term migrants. Note that for most of the sources, emigrants will need to be computed. The percentage share indicators can be used as alternative estimates of distributions: mean, median, maximum and minimum can be reported.

The second table re-assembles the data in a time series for a London Borough and relates flow estimates to the 2001 Census counts. Note that the series start at different years in the "noughties". We might find, for example, that the

growth of long-term inflows to Westminster from the different source statistics clustered around the 120 TIM figure except for LFS short term migrants (well above, because of a massive construction project in Belgravia) and for NPD migrants (well below, all schools in Westminster were nearly full and could not admit many new migrants).

It should be stressed that these tables are “fictional” but we hope provide a flavour of the value of the NMD.

Once the sets of tables and statistical analyses have been developed in a common framework, it will be possible to explore different methods of improving the new migrant input to population estimates and different ways of profiling new migrants. Below we propose one feasible method for distributing control totals of immigration and emigration to London across LBs. However, the assembly of a range of statistics in the common framework may suggest alternative approaches, which might be important for particular population groups.

Figure 6: New Migrant Databank (NMD): Worked Example

(1) Counts & Shares for UK, London and LBs for 2005

YEAR SOURCE	2001 Census	2005 TIM All	2005 IPS Long term	2005 VS Visitor switchers	2005 MS Migrant switchers	2005 NASS Asylum Seekers	2005 IPS Short term	2005 Q2 LFS Long term	2005 Q2 LFS Short term	2005 NPD Pupils	2004-5 PRDS Over 12 mths	2004-5 NINo Over 12 mths	2004-5 WRS Regist'ns	2005 Indicators	
FLOW	Migrants	migrants												Long term	Short term
<b>COUNTS</b>															
<b>INFLOWS</b>															
UK	600,000	582,000	523,000	60,000	- 1,000	40,000	700,000	650,000	400,000	85,000	555,000	425,000	200,000	553,000	550,000
London	212,000	190,000	179,000	20,000	- 300	20,000	213,000	180,000	150,000	40,000	215,000	139,000	70,000	181,000	181,500
Barking and Dagenhar	5,000	4,000	3,800	500	- 10	300	5,000	3,000	1,000	1,000	1,250	500	2,000	2,188	3,000
Westminster	8,000	10,000	9,000	1,000	- 5	1,000	6,010	10,000	5,000	4,000	6,000	4,500	3,000		
<b>OUTFLOWS</b>															
UK	400,000	385,000	370,000	30,000	- 700	2,000	680,000	450,000	320,000	-	-	-	-	417,500	500,000
London	100,000	95,000	90,000	11,000	- 200	800	190,000	150,000	80,000	-	-	-	-	122,500	135,000
Barking and Dagenhar	3,000	5,000	4,800	100	- 5	30	5,000	2,000	2,000	-	-	-	-	3,500	3,500
Westminster	5,000	4,500	4,400	300	- 20	50	6,039	3,000	6,000	-	-	-	-	3,750	6,020
<b>NETFLOWS</b>															
UK	200,000	197,000	153,000	30,000	- 300	38,000	20,000	200,000	80,000	85,000	555,000	425,000	200,000	198,500	500,000
London	112,000	95,000	89,000	9,000	- 100	19,200	23,000	30,000	70,000	40,000	215,000	139,000	70,000	62,500	46,500
Barking and Dagenhar	2,000	1,000	1,000	400	- 5	270	-	1,000	1,000	1,000	1,250	500	2,000	0	(500)
Westminster	3,000	5,500	4,600	700	15	950	- 29	7,000	1,000	4,000	6,000	4,500	3,000	6,250	(515)
<b>SHARES</b>															
<b>INFLOWS</b>															
UK	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	Average (3) Long term	Average (4) Short term
London	35.33	32.65	34.23	33.33	30.00	50.00	30.43	27.69	37.50	47.06	38.74	32.71	35.00	32.90	34.00
Barking and Dagenhar	0.83	0.69	0.73	0.83	1.00	0.75	0.71	0.46	0.25	1.18	0.23	0.12	1.00	0.40	0.50
Westminster	1.33	1.72	1.72	1.67	0.50	2.50	0.86	1.54	1.25	4.71	1.08	1.06	1.50	1.30	1.10
<b>OUTFLOWS</b>															
UK	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	na	na	na	na	100.00	100.00
London	25.00	24.68	24.32	36.67	28.57	40.00	27.94	33.33	25.00	na	na	na	na	29.00	26.50
Barking and Dagenhar	0.75	1.30	1.30	0.33	0.71	1.50	0.74	0.44	0.63	na	na	na	na	0.90	0.70
Westminster	1.25	1.17	1.19	1.00	2.86	2.50	0.89	0.67	1.88	na	na	na	na	0.90	1.40
<b>NETFLOWS</b>															
UK	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
London	56.00	48.22	58.17	30.00	33.33	50.53	115.00	15.00	87.50	47.06	38.74	32.71	35.00	31.60	101.30
Barking and Dagenhar	1.00	0.51	0.65	1.33	1.67	0.71	-	0.50	1.25	1.18	0.23	0.12	1.00	0.00	(0.60)
Westminster	1.50	2.79	3.01	2.33	5.00	2.50	- 0.15	3.50	- 1.25	4.71	1.08	1.06	1.50	3.10	(0.70)

Notes  
 1 & 3 Average of all migrant source estimates = TIM, LFS long term, PRDS, NINo  
 2 & 4 Average of short term migrants estimates = IPS short term, LFS short term

(2) NMD Time Series for one LB

LB Westminster							
INFLOWS: Baseline = 2001							
SOURCE	2000	2001	2002	2003	2004	2005	2006
TIM	98	100	150	140	140	135	120
IPS-LT	95	100	140	130	140	138	115
VS	99	100	150	140	140	140	135
MS	95	100	112	106	134	121	111
IPS-ST						100	120
NASS	90	100	160	150	140	140	122
Census		100					
LFS-LT	85	100	200	50	150	75	125
LFS-ST	75	100	55	155	33	233	177
PRDS	98	100	105	110	105	105	105
NINo	95	100	105	110	112	112	113
WRS						100	110
NPD			100	101	112	108	95

### 6.3 Short-Term and Long-Term New Migrants

We have identified in our consultation with GLA and national stakeholders a need to understand the level and nature of short-term migration to the UK as well as long-term. By long-term we mean people with intentions to stay for 12 months or more (the prospective view) or people who have migrated between locations over a 12-month interval (the retrospective view). By short-term we mean people who come to the UK and stay for a period of between 3 and 12 months in duration. These short-term migrants are a very important contribution to labour supply, for example.

Few statistics are published on short-term new migrants but our work has identified that many data sources hold data that would be helpful in making estimates of short-term migration. In some cases this would mean working with the supplier organisation (e.g. ONS) to obtain the relevant tables (e.g. from the IPS). In other cases (e.g. the LFS) it will involve producing tables using variables already in the database (e.g. country of residence 3 months ago) that help identify short-term new migrants.

The generation of statistics on short-term and long-term new migrants will help to clarify the nature of migration data in some of the larger administrative datasets. In particular, we need to understand the differences between statistics based on registrations and statistics based on statuses at fixed points in time. For example, the NHSCR data may report, for a borough, far more new registrations of people with overseas origins than the IPS reports new international migrants to that borough. Part of the difference may be due to difference in migration concept measured, part due to difference in sample size/population and part due to detailed definition differences.

## 6.4 A Better Estimate of Flows of New Migrants to London and boroughs

We consider here how a follow on project might make better estimates of some key flow statistics that are vital to the year-by-year population estimates for London and LBs. The target will be an estimate of immigration and emigration for London and LBs, preferably by age and sex. Immigration and emigration need to be considered separately, mainly because there is little information on emigration and more approximate methods will be needed for international outflows.

### Immigration

We suggest, at the moment, before the NMD analysis described in Section 7.2 has been completed, that the IPS statistics for the UK should remain the control totals for any year-by-year estimation. There are two reasons for this view: (1) it is the only dataset that measures immigration and emigration using the same method in a reliable way; (2) ONS are committed to improving the accuracy of the dataset through increased and targeted samples. However, there is the possibility that immigration control totals might be altered in the light of the comparative NMD analysis.

Geographical level of control total

One issue is then the geographical level at which IPS figures, because of their small sample size, become too unreliable. To distribute the control totals to lower geographical levels will need use of one or more datasets which have been shown to be more reliable. The question to be addressed is whether to accept a UK or a London total from the IPS and use one or more other datasets to distribute to London and/or boroughs. The ONS comparison of IPS, LFS and Census distributions of immigrants to regions has shown that the LFS shows a closer fit with the Census than the IPS and should be used to distribute a UK total to a London level. The use of the LFS data for LB is not recommended at present because of the small sample size.

Confidence limits

It would be important to work out the confidence limits around London and LB proportions of national totals to gain an idea of their uncertainty. Here we illustrate, roughly, what confidence we might have in the finding that say 34% of immigrants to the UK in 2003 had their destination in London (computed from ONS 2005a, Table 2.8). We apply the standard formula for confidence limits for a percent statistic,  $p$ , and a sample size  $N$ . The standard error of the percent is

$$SE_p = \sqrt{[p \times (100-p)]/N}$$

The LFS sample size for a quarter of a year is about 60000 (only one quarter of the LFS has questions on migration). The rate of immigration to the UK in 2003 is 512.6k (IPS total)/59554k or 0.86%. The number of immigrants in the sample is therefore about  $60,000 \times (0.86/100) = 516$ . So the confidence limits around a finding that 34% of these immigrants had a destination in the GLA would be computed as follows.

The standard error for a  $p$  of 34% is

$$SE_{50} = \sqrt{[34 \times (100-34)]/516} = 2.085$$

This means that the 95% confidence limits for the 34% statistic are  $34 + 1.96 \times 2.085$  or 38% (upper) and  $34 - 1.96 \times 2.085$  or 30%. This is not a narrow range but we comment below on further analysis.

Careful study of the LFS documentation would be needed to derive proper confidence limits and known biases in the LFS (no communal establishments, under-enumeration of non- EU immigrants) would need to be adjusted for. The confidence intervals would need to be weighted, for example, by a sampling design factor to account for the household basis of the sample. The migrant behaviour of household members is likely to be highly correlated (Giles Horsfield, ONS, personal communication).

We would need to explore how confidence limits change with aggregation from a single year to rolling combinations of the sample for the quarters with migrant questions for two or three years.

However, it may be possible to do better than these standard inferential statistical measures suggest, by adopting a Bayesian statistics approach. In this approach you might have a prior belief about a phenomenon: e.g. the share of UK immigrants that go to Greater London is decreasing. Bayesian statistics will help you to evaluate whether new evidence (e.g. from a new LFS) supports this prior belief or not. Involvement of a Bayesian statistics expert would be needed to establish that Bayesian inference can be used to improve knowledge using small samples. Wikipedia (2006) provides a brief introduction. Bijak (2005) provides examples of how Bayesian inference can be used to forecast international migration flows between Germany and Poland.

Age-sex  
disaggregation  
of control total

A second issue is the level of age-sex detail that should be used for the control totals. The IPS data are published with a broad age-sex breakdown. The IPS tables can be carefully compared to the Census immigrant tables in 2001, LFS tables for 2001 and the NHSCR 2001 data, all of which have age-sex breakdowns. The IPS emigration tables can be compared with the census internal out-migration tables though, of course, they are different flows.

### Emigration

The accurate estimation of emigration statistics is more difficult given the dearth of available data. We recommend that the IPS figures for the UK are again used as control totals (by broad age-sex).

Data from the Census and LFS on out-migration *within* the UK could be used to give an indication of the probability of emigration by age and sex. These probabilities, applied to the population estimate by age and sex will derive totals that can be adjusted/controlled to the IPS totals.

This proxy methodology for estimating emigration flow distributions implies that the relative rates at which the different ages migrate is the same in emigration and internal out-migration and that the distribution of emigrants from the GLA and LBs is the same as the distribution of internal out-migrants.

Alternatively, we could explore the use of country of birth data in the IPS to pick up the greater propensity of British natives to emigrate. This method would derive rates/shares with the census data populations by country of birth that

would again be adjusted/constrained to IPS UK totals.

Given the paucity of emigration statistics, it is recommended that a more detailed investigation of Electoral Register/Roll data is undertaken for a selected London Borough to ascertain the viability of using this source as a proxy for emigration data capture.

## 6.5 Using the LFS for Profiling New Migrants

The LFS provides an opportunity to profile new migrants for London. However, we must distinguish here between using the LFS for stock information and using it for flow information. For stocks, it would offer a total sample size of 450 per LB, whereas for flows the sample falls to just 6-7 new migrants per Borough. So profiles would only be possible for stocks of new migrants.

It is important to explore what the confidence limits are for different aggregations of the LFS across years and across boroughs (e.g. borough groups or the GLA as a whole). Most researchers dismiss use of surveys at a local scale with only casual observation of a few statistics.

Are LFS data available?

The Labour Force Survey is available as a dataset (with an ordinary End User Licence) that identifies Government Office Region of residence. There are no confidentiality restrictions. The approximate sample size for this is approximately 32 times 450 economically active respondents, which equals 14,400.

The Quarterly/Local Labour Force Survey, which provides a code for Local Authority, is only available under Special Licence or through requests for tables from the LFS Data Service. The LFS Data Service has indicated that it would be possible to produce, for LBs, tables of immigrants, of grouped country of birth (i.e. quite simple tables) for London Boroughs but that more complex profiles might be regarded as disclosive. So the QLFS/LLFS could be used for distribution of new migrant totals to London Boroughs but perhaps not beyond that level of detail. Confidence limits would not be provided so these would need to be computed. Advice would need to be sought from the LFS Data service about the right method, given boosts and weightings of various kinds.

Even if these explorations suggest that use of the LFS is not viable, it will prove valuable experience for use of the IHS from 2008 onwards. The IHS might well have a sample size 5-10 times larger than the QLFS.

We now conclude this report with a summary of recommended actions.

## 6.6 New Migrant Population Estimates – Short, Medium & Long-Term

Short-term Initiatives	<p>This report recommends the following series of steps towards deriving the reliable and authoritative estimates which the Mayor of London seeks through his project <i>Estimating London's new migrant population</i>:</p> <ul style="list-style-type: none"> <li>• The New Migrant Databank (NMD) should be established, together with an appropriate 'reporting' framework, to create a unique and integrated source of intelligence on new migrant activity.</li> <li>• Given its long-term value to users across regions, and the data inputs it would need, construction of the NMD should be planned as a partnership venture to include ONS.</li> <li>• Using the NMD, comparative analysis of alternative datasets should be completed at a detailed geographical level and for specific migrant demographic profiles. This will establish the precise differences between the datasets and facilitate the integration of new data into the migrant estimation process when robustness and reliability are assured.</li> <li>• Relative levels of short-term and long-term migration should be explored through partnership work on the NMD, using statistics from the IPS and LFS. This intelligence can be used to better interpret the various registration statistics that capture but don't differentiate these flows, in addition to satisfying the increasing demand for more information on short-stay migrants.</li> <li>• To improve the robustness of statistics derived from TIM, the LFS should be used (in preference to the IPS) to derive revised estimates of new migrant flows for London, subject to validation against the NHSCR. Age-sex profiles should be applied to these new estimates using migrant profiles from the NHSCR/LFS, validated against the Census.</li> <li>• Finally GLA and partners should explore the scope for using the LFS to derive migrant stock profiles at the level of the London Borough, subject to acceptable confidence limits being maintained.</li> <li>• This methodology is compatible with planned enhancements of surveys by ONS and can be replicated across other regions of the UK, where there is a need for information on the new migrant population.</li> <li>• Through the partnership venture proposed here, it is recommended that GLA ask ONS to consider the possible enhancement of existing data sources and/or changes in data delivery which – as identified by this report – could improve the quality of estimates generated from the NMD.</li> </ul>
Medium-term initiatives	<p>The Integrated Household Survey (IHS) will go live at the beginning of 2008 as a successor to the LFS, GHS, EFS and NSOS. It will provide a new rolling source of local area statistics derived from a larger sample base. In principle, this improved sample will provide more reliable local information than LFS, but with similar content.</p>

The GLA and partners should plan to move to the IHS in place of LFS for tasks described above, once it has been successfully launched.

ONS is expected to continue developing its international migration estimation methodologies broadly along the lines indicated above, in particular to meet the needs of the proposed EU harmonisation process. Flexibility should be built into the NMD so that it can swiftly reflect these changes in ONS methodology.

Longer-term initiatives

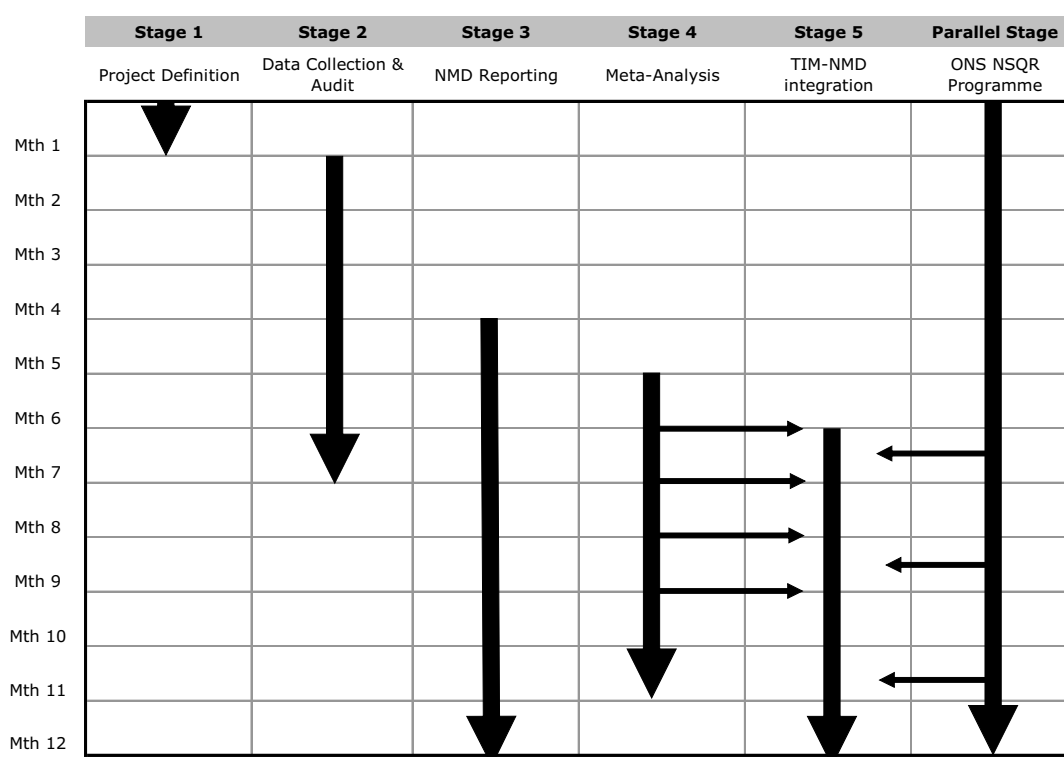
The two major Home Office initiatives, e-borders and the National ID Card scheme will both impact significantly upon the way migrant information is captured. A watching brief and periodic consultation are recommended.

## 7 TIMETABLE & RESOURCES

### 7.1 NMD Timetable

Introduction Included here is a provisional timetable for the development and implementation of the NMD (Figures 7 & 8). The timetable is very much for guidance only, as any future implementation will depend upon the project scope defined by GLA and its partner organisations. However, it is hoped that the illustration gives an indication of how the NMD concept may work in practice.

**Figure 7: NMD Implementation Plan**



Stage Definition Six overlapping and integrated Stages have been identified, running in parallel during *Year One* of NMD implementation. The operation of the NMD in subsequent years will again depend upon the requirements defined at the outset of Phase 2 of this NMPOP initiative.

Throughout the development of the NMD, it is assumed that ONS will continue to develop its NSQR initiative on international migration (Parallel Stage). Improvements to the TIM methodology introduced by ONS will complement those derived from the NMD development process and thus derive an enhanced new migrant estimation methodology that has full stakeholder support.

**Figure 8: NMD Stage Definition**

<b>Stage 1</b>	<b>Project Definition</b>
	Requirements definition (Database, Reporting, Meta-Analysis, NMD-TIM integration) Project scope Stakeholder definition Partnership arrangements (GLA, ONS, ANO)
<b>Stage 2</b>	<b>Data Collection &amp; Audit</b>
	Establish relationships (ONS, HO, DWP, NHS, DfES) and data feeds Priority 1 TIM/IPS Priority 2 Census (benchmark) Priority 3 NHSCR/PRDS & LFS Priority 4 NINo & WRS Priority 5 NPD Derivation of NMD Data Dictionary NMD database development NMD Audit Report
<b>Stage 3</b>	<b>NMD Reporting</b>
	Create delivery mechanism Frequency of reporting Content/format NMD report delivery to Stakeholders defined in Stage 1
<b>Stage 4</b>	<b>Meta-Analysis</b>
	Stream 1 Validation of regional (GLA) new migrant <i>distribution percentages</i> Confirmation of regional (GLA) time-series trends Derivation of local authority (London Borough) <i>distribution percentages</i> Confirmation of LB time-series trends  Stream 2 Evaluation of regional (GLA) new migrant <i>counts</i> to identify key differences between sources Evaluation of local authority (London Borough) new migrant <i>counts</i> to identify key differences between sources  Stream 3 Use of NHSCR/PRDS in combination with IPS and LFS to examine short-term / long-term migrant split  Stream 4 Evaluation of regional (GLA) new migrant <i>profiles</i> Evaluation of local authority (London Borough) new migrant <i>profiles</i>
<b>Stage 5</b>	<b>TIM-NMD integration</b>
	Regional <i>distribution</i> LB <i>distribution</i> Regional <i>counts</i> LB <i>counts</i> Regional <i>profiles</i> LB <i>profiles</i>
<b>Parallel Stage</b>	<b>ONS NSQR Programme</b>
	Regional <i>distribution</i> LB <i>distribution</i> IPS enhancements IPS short-term migrants

Stage 1 of the NMD development will require a clear definition of requirements and project scope. There are likely to be a number of stakeholders/partners represented in the project and their relationship, responsibilities and ownership will need to be clarified at the outset.

Stage 2 will be focused on the development of the NMD database. It will be necessary to establish working relationships with each of the data providers but the partnership arrangement with ONS will be particularly crucial. Data will be collected in a prioritised order. A full audit of the data will need to be completed and a thorough 'Data Dictionary, together with the NMD database will be a key output of the Stage. It is envisaged that data will be collected for geographical units which are no smaller than a 'local authority' and that the data will be acquired in this aggregated format from each of the data providers. Although the focus of this NMPOP report has been on London, it is recommended that the GLA consider extending the NMD concept to encapsulate other metropolitan areas for whom the new migrant issue is of particular significance.

Stage 3 will deliver a suite of NMD Reports to all Stakeholder organisations and ultimately to a user base of 'interested' parties which, given the increasing interest in international migration, could be wide and varied. These Reports will provide an integrated picture of new migrant activity using the various datasets, producing a picture of patterns, trends and profiles at a national, regional and local authority level. The frequency of NMD Reporting will be determined by the frequency of refresh of the key datasets. The delivery mechanism (printed documents, website etc.) will be defined in the project scope.

Stage 4 is the key analytical phase of the project. It has been given the title 'Meta-Analysis', to reflect the fact that information is being drawn from a wide range of sources in an attempt to distil common themes, patterns, trends and distributions. It is hoped that the various 'streams' of analysis will not only contribute to an improved understanding of differences between the datasets, but also provide the basis for the implementation of improvements to new migrant estimation at a local level. Section 6.2 has provided a brief worked example of the type of analysis that will be completed using intelligence gathered from alternative data sources.

Stage 5 of NMD development will involve the integration of results derived from the meta-analysis with improvements to TIM introduced by ONS. It is recommended that these two parallel Stages provide the basis for future enhancements to the estimation of new migrants in terms of distributions, counts and profiles.

## 7.2 NMD Resources

The precise definition of the scope of a future NMD initiative and the 'partnership' arrangements within which the initiative is launched will ultimately determine the scale and type of resources required to ensure its successful implementation. The information presented here is for guidance only and does not constitute a formal specification of resource requirements

For the 'Year One' implementation programme detailed above, the resource requirements for NMD could include the following:

- Stakeholder Team / Project Board
- NMD Director (part-time)
- NMD Implementation Manager
- Database Specialists (\*2)
- Demographic Analysts (\*2)
- Software Developer (if NMD Reporting options require it)

In addition, an IT infrastructure would need to be in place to support database development, data analysis, report distribution and linkage with each stakeholder body.

It is estimated that Year One costs for NMD implementation will be in the order of £15-25K per month.

## Appendices

## APPENDIX 1 - REVIEW OF DATA SOURCES

### Summary

Objective	<p>The objective of this section is to draw together the full range of datasets which, collectively, provide a picture of new migrant activity in the UK and which may contribute to future improvements in estimation methodology.</p> <p>There is a range of statistics produced to measure a number of different aspects of UK International Migration but there is no single instrument for recording and reporting on the inflow and outflow of citizens to and from the UK.</p> <p>There is no single source publication or dataset that brings together each of the available sources into a common reporting framework. In addition, there are a number of alternative sources of migration information, which have yet to be fully exploited.</p>
Structure	<p>This section takes each of the data sources in turn, classifying them into three groups:</p> <ul style="list-style-type: none"><li>• Census            coded green and identified with 'C'</li><li>• Survey            coded blue and identified with 'S'</li><li>• Administrative    coded red and identified with 'A'</li></ul> <p>A simple template has been constructed to provide a consistent view of data available from each source. Summary information about key characteristics and future developments is provided where relevant.</p>

## UK Census

Introduction	<p>The UK Census is conducted every ten years. Its aim is to collect a comprehensive statistical snapshot of all people and households.</p> <p>In 2001, data were collected through self-enumeration. Although targeted at all UK households, the level of under-enumeration in 2001 was approximately 6%, higher in Greater London at 15%. Statistical imputation has been used to compensate for these gaps in the data, providing what is the most comprehensive and detailed source of socio-demographic information on UK households.</p>
A measure of migration?	<p>The Census provides both a view of migrant flows for the year prior to enumeration and a measurement of migrant stocks present in the usually resident population.</p> <p>The migration 'flow' data is a transition statistic, derived from a question, which asks for an individual's address twelve months prior to enumeration day. This allows a count of international migration flows for the year of the census to be derived. Only in-migration is measured; there is no attempt to capture information on individuals who have left the address (emigrated) during the Census year.</p> <p>The stock picture is derived from detailed country of birth statistics, although in the absence of a question on year of entry to the UK, it is not possible to gauge the timing of the migration event.</p> <p>Census country of birth data provides information on individual country of birth, an additional level of detail compared to the Labour Force Survey, which captures more aggregate country statistics (GLA, 2005c)</p> <p>Data on Nationality are not captured and the use of the ethnicity statistics is increasingly blurred by the fact that many of the minority group populations captured are British Citizens, born in the UK.</p>
Benchmark	<p>The Census provides a snapshot of the UK population and its characteristics. Its biggest drawback is the ten-year time-period between successive enumerations, during which considerable socio-demographic changes can occur, such as the dramatic impact of international migration in the UK since 2001.</p> <p>It remains, however, the benchmark against which alternative datasets should be compared. It provides the most reliable geographical and socio-demographic data available because of its comprehensive coverage and inclusion of both household and communal establishment populations. It is used in subnational projections for England, which provide forecast populations for post-census years and which can be used to fill the gap between the latest roll forward population estimate and the current date.</p>
Commissioned tables	<p>Census data analysis may be constrained by the format of its published tables, with stringent confidentiality thresholds maintained on the data. ONS has a process for producing specially commissioned tables, of which the GLA is a large user.</p> <p>To assist in its analysis of international migration, GLA has recently</p>

commissioned a table of migrants by individual country-of-residence twelve months prior to enumeration. This will facilitate more detailed benchmark analysis for each individual London Borough and could provide the basis for comparative analysis of statistics derived from alternative sources.

Sample of  
Anonymised  
Records

The Sample of Anonymised Records (SAR), derived from the 2001 Census, contains very detailed information on a sub-set of the UK population. Three separate SAR files have been produced: the 'Individual' SAR, the 'Household' SAR and the Small Area Microdata (SAM). The SAM has yet to be made fully available.

The individual file provides GOR coding, whilst the SAM provides information coded at Local Authority level. The datasets provide a facility for producing very detailed, unpublished cross-tabulations of Census variables, specifically related to migrant activity. Preliminary analysis using SAR files is a logical first step before formally commissioning special tables from ONS.

Figure 9: Profile: UK Census

Census			
<i>Administration</i>	ONS	<i>Sample Size</i> Population	
<i>Collection Method</i>	Household and Communal Establishment Enumeration	<i>Frequency</i> 10 year intervals	
<i>Migration Measure</i>	FLOW (Transition) - Where were you living one year ago? STOCK - Comprehensive country of birth and ethnicity statistics		
<i>Key Data</i>	Address	*	Comment
	Year of Entry		
	Intended length of stay		
	Previous address	*	One year ago
	Country of Birth	*	128 countries/groupings
	Citizenship/Nationality		
	Ethnicity	*	
	Date of Birth	*	
	Age	*	
	Gender	*	
Occupational Status	*	Based on SOC 2000	
Dependents	*		
<i>Comments</i>	Despite issues of under-enumeration, particularly in Great London, the Census is the most reliable and comprehensive source of socio-demographic statistics in the UK.  Its migration question provides a measure of migrant in-flows during the Census year but does not provide statistics on emigration.  A migrant stock picture is available using country of birth statistics, although in the absence of nationality and year of entry statistics this does not provide the full picture of when migrants arrived and where from.  Specially commissioned tables will provide additional detail for individual London Boroughs, subject to confidentiality thresholds.		

## National Pupil Database / PLASC

Introduction	<p>The National Pupil Dataset (NPD) and its sub-set the London Pupil Dataset (LPD) contains individual pupil records for all children in grant maintained schools in the UK. The dataset is managed by the Department for Education and Skills (DfES) and collected from individual schools within each Education Authority. A total of 8 million pupils are included on the dataset each year.</p> <p>NPD has been available in its current, nationally consistent format, since 2002 but, to date, its use as a tool for research and analysis has been little tested. A comprehensive briefing document on the NPD/LPD has been completed by the GLA, providing guidance and advice on its format and potential application (GLA, 2005g).</p> <p>The GLA has managed its own copy of the LPD since its inception in 2002, under special licence from the DfES. The LPD covers all pupils who attend grant-maintained schools in London, even those who reside outside the Greater London area. It excludes those pupils who live in the capital but attend schools outside its borders.</p>
Composition	<p>The NPD is made up of a number of different datasets: The Pupil Level Annual School Census (PLASC), Key Stage (KS) 1-4 statistics and school-level data. Although the attainment statistics are of significant value in their own right, the PLASC dataset is of most interest to this project.</p> <p>For each of the 8 million pupils in PLASC, a full postcode and Local Education Authority (LEA) identifier is provided, together with the date that each pupil first entered the education system.</p> <p>'First language' is recorded, together with ethnicity. Date of birth, age and gender are also routinely captured.</p>
A measure of migration?	<p>PLASC does not directly record when a pupil leaves the system and does not provide any information on where a pupil has come from. In addition, it only covers schools in the maintained sector so is not a complete census of all school age children.</p> <p>However, the dataset has the potential to provide an informed picture of the <i>changing composition</i> of local areas based on language, ethnicity, age and gender profiles, using 'entry to the education system' as a proxy for new migrant activity.</p> <p>Comparing successive annual PLASC datasets, pupils who have entered or left the system during a year can be identified, thus providing an indicator of local demographic change and its characteristics (GLA, 2006). Some of this change may be driven by new migrant activity, both as inflows and outflows.</p> <p>The GLA's analysis of the 2002 and 2003 datasets was specifically focused on an examination of attainment levels across Greater London. Linking unique pupil reference numbers, the analysis was able to identify those pupils who had entered or left the system in the course of the year.</p> <p>Analysing the ethnic heritage of these pupils, illustrated that the Black African sub-group comprised the largest percentage of the 'inward mobility' to London,</p>

with White British as the second largest. In terms of 'outward mobility', the White British sub-group was the largest.

A direct comparison of the 'inward' population with the full LPD, demonstrated that, in all London Boroughs, the difference between the two in terms of ethnic profile, first language and free school meals entitlement, was statistically significant. This type of analysis, repeated annually, across each of the London Boroughs could help to provide a more informed view of changing socio-demographics due to inward migration from outside the UK.

For households with children, the LPD dataset has the potential to provide a comprehensive picture of local change over the period of the time series and, potentially, to take a more longitudinal view of selected cases to evaluate movement patterns within Greater London.

**Figure 10: Profile: National Pupil Database / PLASC**

c National Pupil Database / PLASC			
<i>Administration</i>	DfES	<i>Sample Size</i>	All maintained schools (8m pupils)
<i>Collection Method</i>	School enumeration	<i>Frequency</i>	Annual since 2002, but to be three times p.a. from 2006
<i>Migration Measure</i>	FLOW (Transitions): Pupils who have entered or left the system during a year (derived by comparing successive years of data) STOCK: Number of pupils classified by 'first language'		
<i>Key Data</i>	Address	*	LEA and postcode
	Year of Entry		Pupil date of entry
	Intended length of stay		
	Previous address		
	Country of Birth		First language is recorded
	Citizenship/Nationality		
	Ethnicity	*	
	Date of Birth	*	
	Age	*	
	Gender	*	
Occupational Status			
Dependents			
<i>Comments</i>	London Pupil Dataset has a record for over 1 million London pupils The dataset does not directly record when a pupil leaves the system and does not provide information on where a pupil has come from. The dataset only covers maintained schools. GLA holds the data under special agreement with the DfES and is able to use the anonymised dataset for specified research purposes.		

## International Passenger Survey

Introduction	<p>Despite its inherent limitations as a sample survey, the IPS is the only instrument for measuring UK immigration and emigration, for nearly all types of migrant. It applies a sampling mechanism across the dynamic and multi-dimensional picture of inter-country migration.</p> <p>The annual sample size for migrants in the IPS is relatively small – in 2003 this was roughly 2,400 for in-migrants and 700 for out-migrants. The larger sample size for in-migrants is as a result of conducting additional ‘migration filter shifts’ for arrivals to boost the immigrant sample size.</p> <p>As the following sections will illustrate, there is no alternative census, survey or administrative source that has the <u>breadth</u> of coverage of the IPS, although many have far greater depth of population capture.</p>
Data capture	<p>The IPS surveys approximately 250 thousand passengers each year: about 1 in 400 of the total number entering or leaving at the UK ports. Of this sample, about 1% are migrants, approximately 3,000 respondents; 70% are immigrants, 30% are emigrants.</p> <p>The IPS is a multi-dimensional survey, of which the migrant questions are just one part. A detailed illustration of the IPS survey form is provided in an Appendix to the annual ONS TIM publications (ONS, 2005a).</p> <p>The survey itself takes no more than five minutes. The key identifier of a ‘migrant is the capture of information on the ‘intended length of stay’ of the respondent. Migrants are asked to identify the main reason for their visit: work related; formal study; accompanying or joining a partner or immediate family; ‘other’ reasons, such as ‘looking for work’ or working holidaymakers; and ‘no reason stated.</p> <p>Final destination in the UK (town and county or London Borough) is recorded and previous address is identified by ‘country of residence’. Additional details are recorded on ‘country of birth’ and ‘nationality’. Age, gender and occupational data are captured, as are details of a respondent’s dependants.</p> <p>The IPS does not capture most asylum seekers and it excludes direct routes between the UK and the Irish Republic.</p>
Improvements	<p>In recognition of its importance to the official estimates of international migration, the IPS has been subject to significant review and a programme of process and methodology improvements is in place that includes the following:</p> <ul style="list-style-type: none"> <li>• A new question has been introduced to better identify shorter-term migrants;</li> <li>• New questions have been introduced to allow investigation of the relationship between intended and actual length of stay: a key determinant of the level of migrant and visitor ‘switching’.</li> <li>• The IPS has made an assessment of methods to improve the capture of migrants through shift optimisation.</li> </ul>

- ONS continues to evaluate improved integration between the IPS and Home Office statistics (specifically asylum seeker data and information captured from landing cards).

Short-term and long-term migrants

IPS estimates that feed directly into TIM, relate only to migrants whose intended length of stay is in excess of 12 months, in accordance with the UN definition of a long-term migrant.

Information on long-term visitors, who intend to stay or leave for a period of 6-12 months, or whose intended length of stay is 'don't know, maybe 12 month', also feed into the TIM estimates. Using additional statistics from the Home Office, these data are used to calculate the adjustment for visitor switchers: those individuals who initially intend to enter or leave the UK for less than a year, but eventually stay or leave for longer.

Since 2004, the IPS has also captured additional information on short-term migrants: those individuals whose intended length of stay is between three and six months. At present, this information has not been subject to specific analysis but could be of considerable value, particularly in London, where the impact of short-term stayers is particularly acute.

The information on short-term migrants and their relationship to longer-term migrants, both in terms of level and distribution could help to provide guidance on how to best interpret alternative migration statistics, such as the NHS registration systems. These statistics make no distinction between what is a short-term and what is a long-term move, therefore making direct comparison with sources such as the IPS more difficult.

Sub-national allocation

The volume of flows generated by the IPS has been particularly questioned in relation to numbers allocated to Greater London. The predominance of Heathrow and Gatwick as entry points from which survey data is captured, may produce an over-estimate of the proportion of flows destined from Greater London. In addition, there may be a tendency for respondents to state 'London' as a generic destination or as their 'first' destination, from where they may move on relatively quickly.

None of these issues has been definitively proven but the sub-national allocation of flows generated by IPS/TIM requires greater statistical verification using alternative datasets. The Census/LFS/IPS comparative analyses reported in Section 5.1 are the first step to the production of an improved geographical allocation of new migrant flows.

Figure 11: Profile: International Passenger Survey

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 6px;">S</span> <b>International Passenger Survey (IPS)</b>																																								
<i>Administration</i>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">ONS</td> <td style="width: 50%;"><i>Sample Size</i></td> </tr> <tr> <td colspan="2" style="text-align: right;">250K p.a. (1 in 400 passengers). 1% migrants - 3,000 p.a.</td> </tr> </table>	ONS	<i>Sample Size</i>	250K p.a. (1 in 400 passengers). 1% migrants - 3,000 p.a.																																				
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<i>Migration Measure</i>	<div style="border: 1px solid black; padding: 5px;">                     FLOW (MOVE) - Passengers are asked for their intended length of stay in the UK. If more than 12 months then they are classified as a migrant.                 </div>																																							
<i>Key Data</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 10%;"></th> <th style="width: 30%; text-align: center;">Comment</th> </tr> </thead> <tbody> <tr> <td>Address</td> <td style="text-align: center;">*</td> <td>Town &amp; county or LB</td> </tr> <tr> <td>Year of Entry</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Intended length of stay</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Previous address</td> <td style="text-align: center;">*</td> <td>Country of residence</td> </tr> <tr> <td>Country of Birth</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Citizenship/Nationality</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Ethnicity</td> <td></td> <td></td> </tr> <tr> <td>Date of Birth</td> <td></td> <td></td> </tr> <tr> <td>Age</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Gender</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Occupational Status</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Dependents</td> <td style="text-align: center;">*</td> <td></td> </tr> </tbody> </table>			Comment	Address	*	Town & county or LB	Year of Entry	*		Intended length of stay	*		Previous address	*	Country of residence	Country of Birth	*		Citizenship/Nationality	*		Ethnicity			Date of Birth			Age	*		Gender	*		Occupational Status	*		Dependents	*	
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<i>Comments</i>	<div style="border: 1px solid black; padding: 5px;">                     The only UK data source that records both immigration and emigration.                      Does not include most asylum seekers.                      Excludes land routes from the Irish Republic.                      Subject to uncertainty due to sample size.                      Estimates are based on 'intentions' of respondents.                 </div>																																							
<i>Future developments</i>	<div style="border: 1px solid black; padding: 5px;">                     New question introduced to better identify shorter-term migrants.                       New questions introduced to allow investigation of the relationship between intended and actual length of stay.                      Assessment of methods to improve capture of migrants through shift optimisation.                       Evaluation of improved integration between IPS and Home Office statistics (specifically asylum seeker data and information captured from landing cards).                 </div>																																							

## Labour Force Survey

**Introduction** The Labour Force Survey (LFS) is a quarterly sample survey of households living at private addresses in the UK. Its primary purpose is to provide detailed statistics on the UK labour market. To maintain consistency with equivalent LFS in other EU countries, the UK survey collects information using international definitions of employment, unemployment and economic inactivity.

The LFS questionnaire is split into two main sections. The first section includes questions on the household, family structure, housing and demographic details of other family members. The second section includes questions on economic activity, education and health.

Individual households are interviewed on five occasions at quarterly intervals. The first interview is typically face-to-face, subsequent interviews are normally by telephone. Each of the five waves of the survey contains approximately 12 thousand households, giving a sample of around 60,000 households.

The main, quarterly LFS is supplemented by local boost samples, which have the advantage of providing more robust information at a local level

**A migration measure?**

Like the Census, the LFS asks the question, 'where were you living one year ago'. Its migrant flow data is therefore a record of transitions from one time period to the next. Previous address, if outside the UK, is recorded as country of residence. The migration question is asked only in the Spring quarter of survey data collection.

The LFS also records information on year of entry to the UK, which, unlike the Census, provides a picture of the length of time migrants have been resident in the UK – a more informed picture of migrant stock.

The main drawback of the LFS is its sample size. All derived data will be estimates subject to sampling error. The issues is reduced through use of the local LFS in Greater London and ONS encourage users to use rolling quarters of data to obtain more representative statistics for more disaggregate analysis.

The analysis of the characteristics of migrant flows and stocks is constrained by the fact that sample migrant numbers are relatively small, even at regional level, making it difficult to derive sub-regional estimates with confidence.

However, the comparison of LFS with Census and IPS statistics has demonstrated that it provides an improved method of sub-national allocation of IPS flows and one that should, as a minimum, be applied to the future estimation of Greater London new migrant totals.

Care will be needed to adjust for known biases in the LFS immigration variable. Rendall et al. (2003), cited in Home Office (2005j), state that the LFS underestimates total inflows from the Rest of the World, mainly because immigration of non-EU citizens is underrepresented. Use of census data was recommended to overcome this bias.

Access to the LFS Use of the regular LFS data is possible using a normal licence arrangement with ONS. This will provide access to LFS statistics at a regional (GLA) level.

Use of the Local Labour Force Survey (LLFS) is possible but only with a special licence to enable access to specially commissioned tables of information.

**Figure 12: Profile: Labour Force Survey**

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">S</span> <b>Labour Force Survey (LFS)</b>																										
<i>Administration</i>	ONS	<i>Sample Size</i> 60K households/quarter																								
<i>Collection Method</i>	Face-to-face and telephone interviews	<i>Frequency</i> Continuous fieldwork and data available on a quarterly basis.																								
<i>Migration Measure</i>	FLOW (Transition): Address one year ago? STOCK: Which year did you arrive in the UK?																									
<i>Key Data</i>	Address Year of Entry Intended length of stay Previous address Country of Birth Citizenship/Nationality Ethnicity Date of Birth Age Gender Occupational Status Dependents	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;"></th> <th style="width: 50%; text-align: center;">Comment</th> </tr> </thead> <tbody> <tr><td style="text-align: center;">*</td><td></td></tr> <tr><td style="text-align: center;">*</td><td></td></tr> <tr><td style="text-align: center;">*</td><td>Address one year ago</td></tr> <tr><td style="text-align: center;">*</td><td>140 categories</td></tr> <tr><td style="text-align: center;">*</td><td>140 categories</td></tr> <tr><td style="text-align: center;">*</td><td>ONS standard</td></tr> <tr><td style="text-align: center;">*</td><td></td></tr> <tr><td style="text-align: center;">*</td><td></td></tr> <tr><td style="text-align: center;">*</td><td></td></tr> <tr><td style="text-align: center;">*</td><td>Based on SOC 2000</td></tr> <tr><td style="text-align: center;">*</td><td></td></tr> </tbody> </table>		Comment	*		*		*	Address one year ago	*	140 categories	*	140 categories	*	ONS standard	*		*		*		*	Based on SOC 2000	*	
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<i>Comments</i>	Sample size limits geographical analysis and availability of individual country of birth information, although enhanced sample size is available from the 'local' LFS dataset.  LFS regional immigrant estimates have been shown to be consistent with those derived from the 2001 Census and potentially more accurate than those accurate than those directly from the IPS.																									

## London Household Surveys

Introduction	<p>An alternative to the reliance upon <i>national</i> survey systems and processes is the delivery of statistics from sample surveys that are commissioned locally. These have the advantage of being able to target specific geographies, issues or sub-groups of the population but they are constrained by the cost of implementation and their, typically, 'snapshot' view.</p> <p>The London Household Survey and the amalgamated Housing Needs Survey provide two examples of local survey data collection that have been commissioned by the GLA to drive evidence-based policy formulation at a local level. Neither survey was targeted specifically at new migrants but, between them, they contain some limited information on the inflow, outflow and stock of migrants in Greater London.</p>
London Household Survey	<p>The London Household Survey (LHS) was sponsored by the GLA and administered by TN Sofres Ltd (GLA, 2005d). The survey, completed during 2002, provides detailed statistics on housing, household characteristics and income.</p> <p>The sample size of 8,158 households and 21,000 individuals provides a small dataset, designed to support GLA strategies and policy formulation and better inform at the local level. The survey had an additional remit of supplementing 2001 Census data with more detailed data on household income.</p> <p>The LHS contains data on year of entry to the UK, which in combination with country of origin, provides a measure of migrant stock linked to length of time in the UK.</p> <p>The survey also includes a question on people who have left the household in the previous twelve months, an alternative, if incomplete, view of local emigration.</p>
Housing Needs Survey	<p>On behalf of the GLA, Fordham Research Ltd has carried out a series of Housing Needs Surveys. Over a five-year period, 27 separate surveys have been completed with a total sample size of 40,000 households (GLA, 2005e).</p> <p>Data for all 27 surveys has since been amalgamated into a single survey database that has facilitated the production of a series of regional and sub-regional reports, specifically focused on aspects on local housing provision.</p> <p>Within the survey, data captured on previous address and length of time at current address provides a derived measure of migrant flow, linked to ethnicity but not to country of birth.</p>
Summary	<p>The Local LFS provides a detailed and repeating view of the socio-demographic profile of sub-regional geographies. Surveys such as the LHS and the Housing Needs Survey, complement the LFS and can deliver data that is bespoke to local needs, not part of a generic questionnaire that may not provide the precise coverage or content required.</p> <p>Both of these London surveys provide only a 'snapshot' view. The LHS sample size is small and interpretation of the Housing Needs Survey is a little more difficult given the amalgamation of consecutive years of data. However, both</p>

may add something to the picture of new migrant patterns and trends at a regional and local level. If statistics can be drawn relatively easily from the respective datasets, they should be used as direct comparisons for validation against alternative sources.

**Figure 13: Profile: London Household Survey**

S		<b>London Household Survey</b>	
<i>Administration</i>	TN Sofres	<i>Sample Size</i>	8,158 households, 21K individuals
<i>Collection Method</i>	Household Interviews	<i>Frequency</i>	2002 Survey
<i>Migration Measure</i>	Stock: Year of entry to UK combined with country of origin		
<i>Key Data</i>	Address	*	Comment
	Year of Entry	*	
	Intended length of stay		
	Previous address	*	Outside UK
	Country of Birth	*	Country of origin
	Citizenship/Nationality		
	Ethnicity	*	
	Date of Birth		
	Age	*	
	Gender	*	
Occupational Status	*		
Dependents	*		
<i>Comments</i>	Also includes a question on people who have left the household in the previous 12 months, a measure of emigration.		

**Figure 14: Profile: London Housing Needs Survey**

<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">S</span> <b>Housing Needs Survey</b>			
<i>Administration</i>	Fordham Research Ltd	<i>Sample Size</i>	40,000, amalgamated from 27 separate surveys
<i>Collection Method</i>	Household interviews	<i>Frequency</i>	27 surveys conducted over a five-year period
<i>Migration Measure</i>	FLOW: Measured through combination of previous address and length of time at current address.		
<i>Key Data</i>	Address	*	Comment
	Year of Entry		
	Intended length of stay		
	Previous address	*	Also includes intended address and reasons for moving to/from current address
	Country of Birth		
	Citizenship/Nationality		
	Ethnicity	*	Census classification
	Date of Birth		
	Age	*	
	Gender	*	
	Occupational Status		
	Dependents	*	
<i>Comments</i>	Primary focus is on London's housing needs.  Missing Boroughs have been infilled through statistical modelling		

## Annual Population Survey & Integrated Household Survey

### Annual Population Survey

ONS continues to develop its survey methodologies and approaches to both refine the breadth of coverage and to obtain suitable depth of coverage of the UK population.

The status of the Annual Population Survey (APS) and the data derived from it remain a little unclear but a description is included here for completeness.

The APS was established as a major new survey comprising key variables from the Labour Force Survey (LFS) and from English Local LFS. Fieldwork for the survey was conducted from January to December 2004.

The survey is designed to provide enhanced annual data for England, covering a target sample of at least 500 economically active individuals per Local Authority and at least 450 economically active individuals in each London Borough.

At present, APS statistics have not been made generally available, having been withdrawn by ONS due to issues regarding local confidentiality of the data produced.

### Integrated Household Survey

The Integrated Household Study (IHS), formerly known as the Continuous Population Survey, is a major ONS initiative due to go live in January 2008.

The aim of the IHS is to integrate all of the Government household surveys into a single rolling survey. The surveys to be included are:

- Labour Force Survey and associated local boosts
- General Household Survey
- Expenditure and Food Survey
- National Statistics Omnibus Survey

The aim of the survey is to increase the range and quality of statistics available whilst maintaining the existing time series. It is intended that the IHS will have a 'core' set of questions that are asked of all respondents, plus a series of modular questions that are asked of specific groups of the population. At present, discussion is continuing on the contents of the 'core' and it is not yet clear how the questions relating to international migration are to be included.

Consultation with stakeholder bodies is planned to ensure that statistical collection and output meets the needs of the research and analysis community.

## NHS Sources

Internal Migration	<p>In the UK, there is no compulsory system to record the internal movement of the population. To produce estimates of <u>internal</u> migration, which feed into the official population estimation and projection methodologies, ONS uses NHS administrative datasets to derive a proxy measure of population movement (ONS, 2005e)</p> <p>This proxy is based upon information derived from patient re-registration following change of address (or change of GP). In addition to the record of an 'internal' GP transfer, NHS systems also provide explicit information on registrations that result from immigration to the UK and de-registrations (temporary or permanent) resulting from emigration from the UK. These patient registration statistics are held in two separate systems, although both are driven by individual patient registration at a GP surgery.</p>
NHSCR	<p>The National Health Service Central Register (NHSCR) records the transfer of patients between (former) Health Authorities (HA). It is administered centrally, by ONS, in Southport. Each record in the register contains an NHS number, name, age, gender, date of birth and date of registration with the HA. The HA is the lowest geographical area that can be identified in the data.</p> <p>An 'internal migrant' is identified in the system when a re-registration corresponds with a change in HA. An 'immigration from outside the UK', is identified when a new NHS number is issued, assigning a specific code based upon information provided at time of registration.</p> <p>If a patient informs a GP that he/she will be leaving the UK for 3 months or more, an embarkation code is created: a record of immigration. A specific flag will be given to a returning migrant who was previously assigned an embarkation record.</p> <p>The NHSCR will record one of four broad categories of country-of-birth: UK; Eire; Elsewhere and Unknown.</p>
Patient Registration Databases	<p>In addition to the NHSCR, there are local (PCT) patient databases, derived from the same registration process but containing slightly different data items. These are known as National Health Applications and Infrastructure Services (NHAIS)/Exeter systems.</p> <p>The individual databases are downloaded on an annual basis and provided to ONS to form the Patient Register Data System (PRDS).</p> <p>Registration records in the PRDS are recorded at postcode level (for internal migration estimates, PRDS is combined with NHSCR to give estimates for lower geographical levels). An immigrant is identified, upon registration, as an individual whose previous address was outside the UK and who has spent more than three months abroad. No information is captured on patients who have emigrated. The PRDS records age and gender but does not provide country of birth. The raw NHAIS/Exeter databases do contain country-of-birth, first UK address when registered and information on returning migrants but this information is not processed into the ONS PRDS system.</p>

Quality issues	<p>There are a number of issues that need to be highlighted when considering these NHS datasets as an alternative source of information on international migration.</p> <p>The 'migrants' captured within the registration process will not conform to the UN standard definition of an international migration as the registration process will include short-term migrants in addition to those resident for at least twelve months. It is not possible to identify actual or intended length of stay from the data.</p> <p>There will clearly be a time-lag between entering the UK and registering with a GP and some may never complete the registration process. Work on internal migration derived from the NHSCR has shown that young men, in particular, delay registration after migration more than older men or women. This will mean bias across age/sex groups in the timing and volume of migration.</p> <p>A PDRS database record will lose its immigration 'flag' once a patient moves within the UK and registers with a new GP. This may also lead to possible 'list inflation', with the same individual appearing on two GP systems.</p> <p>The number of emigrants who complete the embarkation-code process is very small and does not provide a useful proxy for emigration. To a certain extent, this may also affect immigration statistics for those individuals who return to the UK, without the necessity for a new GP registration.</p>
An alternative source?	<p>Recognising that there are specific issues with NHS registration data, there is no doubt that, as a large population registration system, it could add significantly to an understanding of new migrant patterns and trends in the UK. In 2001, the international in-migrant count in the NHSCR was 541 thousand; the out-migrant count was 59 thousand. Its potential impact is clearly as an improved source of immigration, rather than emigration data. Furthermore, it provides only a picture of annual flows but not of migrant stocks.</p> <p>At the very least, a regional analysis of immigration and emigration data drawn from the NHSCR/PRDS since 2001 should help to provide a comparison of patterns and trends to compare against TIM estimates. A similar analysis at the level of London Borough would significantly enhance the picture of local dynamics and help to inform the forecast of future population change.</p> <p>As part of its NSQR programme of improvement for International Migration statistics, ONS has begun to conduct some preliminary analysis of the NHS datasets to evaluate their suitability as proxy measures of immigration and emigration. In addition, the possibility of using the ONS Longitudinal Study to track new migrants has been mooted, with the objective of better understanding the pattern of 'first onward move' that is of particular importance in Greater London.</p>
NHS Data Analysis	<p>Within the London Boroughs there has been some experimental analysis of the use of patient registration data for estimating new migrant totals. In LB Brent, a number of different datasets, including GP registration statistics have been combined to attempt to derive a consistent view of population totals. In LB Newham, Patient Registration Databases have been acquired and data compared directly to statistics derived from the official TIM estimates. This analysis, in particular, should be completed for all London Boroughs to provide a basis for</p>

assessing the value of the NHS datasets as a true proxy for measuring international migration, recognising its inherent strengths and weaknesses.

#### NHS Developments

The NHS is undertaking an unprecedented restructure of its IT and information infrastructure (NHS, 2006). The Connecting for Health initiative will transform the way patient information is handled in the UK. Summary patient statistics will be held centrally; more detailed information will be held locally. A central 'spine' will deliver core database services to all nodes on the health network (GPs, Hospitals, Trusts). Each point of access will be linked via the new national network (N3), creating a system that delivers data directly to point of use, regardless of location.

At the core of the project is a new Personal Demographic System (PDS) containing summary information on each individual registered with the NHS. In time, this system will completely replace the NHSCR and the local patient registration systems. The timescales for this are, as yet, unclear and the nature of immigrant and emigrant data capture are also uncertain.

Figure 15: Profile: NHSCR

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <b>NHS Central Register (NHSCR)</b>																													
<i>Administration</i>	ONS (Southport)	<i>Sample Size</i>	Population																										
<i>Collection Method</i>	Registration with a GP	<i>Frequency</i>	Continuous registration feed to NHSCR at Southport. ONS take weekly feed into Migration Statistics Unit																										
<i>International Migration Measure</i>	FLOW (MOVE): New migrant is identified by place of previous residence and then categorised by country of birth (E1-E4, ER)																												
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<i>Comments</i>	<p>The registration process will capture all age-groups, including children as separate records of information.</p> <p>Data captured only provides information aggregated by former Health Authority.</p> <p>'Abroad' is a generic identifier for country-of-birth.</p> <p>There is a time-lag between immigration and registration. This lag may be longest for younger males.</p> <p>The process captures all registered moves and not just those of migrants moving for more than 12 months.</p> <p>Emigration data is inadequately captured due to the reluctance of migrants to inform their GP of a move abroad.</p> <p>Returning UK-born migrants will be under-recorded as a result of non-recording of the original emigration.</p>																												
<i>Developments</i>	<p>The Connecting for Health initiative will ultimately overhaul the NHS registration process, replacing it with a single national registration system, accessible at all locations, for all care. This should theoretically make summary data on new migrant activity more available and more consistent.</p>																												

Figure 16: Profile: PRDS

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <b>Patient Register Data System (PRDS)</b>																																								
<i>Administration</i>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">NHAIS - Exeter</td> <td style="width: 50%; text-align: center;"><i>Sample Size</i></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">Population</td> </tr> </table>	NHAIS - Exeter	<i>Sample Size</i>		Population																																			
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<i>Collection Method</i>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Registration with a GP</td> <td style="width: 50%; text-align: center;"><i>Frequency</i></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%;">Continuous registration but annual download to ONS Migration Statistics Unit.</td> </tr> </table>	Registration with a GP	<i>Frequency</i>		Continuous registration but annual download to ONS Migration Statistics Unit.																																			
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<i>International Migration Measure</i>	<div style="border: 1px solid black; padding: 5px;">                     FLOW: On registration, 'flag 4' indicates previous address overseas and time spent outside UK of more than 3 months.                 </div>																																							
<i>Key Data</i>	<table border="1" style="width: 100%;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 5%;"></th> <th style="width: 35%; text-align: center;">Comment</th> </tr> </thead> <tbody> <tr> <td>Address</td> <td style="text-align: center;">*</td> <td>Postcode</td> </tr> <tr> <td>Year of Entry</td> <td></td> <td>Date of registration only</td> </tr> <tr> <td>Intended length of stay</td> <td></td> <td></td> </tr> <tr> <td>Previous address</td> <td></td> <td>Overseas</td> </tr> <tr> <td>Country of Birth</td> <td></td> <td>Not available in ONS extract</td> </tr> <tr> <td>Citizenship/Nationality</td> <td></td> <td></td> </tr> <tr> <td>Ethnicity</td> <td></td> <td></td> </tr> <tr> <td>Date of Birth</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Age</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Gender</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Occupational Status</td> <td></td> <td></td> </tr> <tr> <td>Dependents</td> <td></td> <td>Included as individual registrants</td> </tr> </tbody> </table>			Comment	Address	*	Postcode	Year of Entry		Date of registration only	Intended length of stay			Previous address		Overseas	Country of Birth		Not available in ONS extract	Citizenship/Nationality			Ethnicity			Date of Birth	*		Age	*		Gender	*		Occupational Status			Dependents		Included as individual registrants
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<i>Comments</i>	<div style="border: 1px solid black; padding: 5px;"> <p>The registration process will capture all age-groups, including children as separate records of information.</p> <p>Data are captured by postcode, allowing aggregation to alternative geographies.</p> <p>No country-of-birth information is available. Country-of-birth, first UK address when registered and information on returning migrants are captured but not processed into the ONS PRDS system.</p> <p>There is a time-lag between immigration and registration. This lag may be longest for younger males.</p> <p>The process captures all registered moves and not just those of migrants moving for more than 12 months.</p> <p>A PDRS database record will lose its immigration 'flag' once a patient moves within the UK and registers with a new GP.</p> <p>Emigration data are inadequately captured due to the reluctance of migrants to inform their GP of a move abroad.</p> <p>Returning UK-born migrants will be under-recorded as a result of non-recording of the original emigration.</p> </div>																																							
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## Home Office – Immigration Statistics

Summary	<p>Home Office statistics on immigration and control have been briefly summarised in Section 5.2 of this document (Home Office, 2005a). They provide a comprehensive view of UK visitors who are subject to UK immigration control but as a source of detailed migration data there are a number of limitations:</p> <ul style="list-style-type: none"> <li>• Only non-EEA Citizens are subject to immigration control;</li> <li>• Most statistics are only available at a national level, with no sub-national provision;</li> <li>• Statistics are collected on immigrants only and not on people leaving the UK.</li> </ul>
Asylum applications	<p>On application for asylum, either at a UK port or airport or after entry to the UK, individuals are entered onto the Home Office's CID system. 78% of applications for asylum are made in-country (that is by people who had already entered the UK) (Home Office, 2005b).</p> <p>The process captures a fairly limited amount of information for migration measurement purposes, recording nationality, age and gender. No address details are captured.</p> <p>A number of asylum datasets, not just applications, feed directly into TIM estimates of inflows and outflows.</p> <p>Post-decision, there is no contact history maintained by the Home Office, although those individuals that are ultimately refused asylum need to provide address details whilst they are in the UK.</p>
National Asylum Support Service	<p>A more comprehensive set of statistics are held by the NASS system, which records information on asylum applicants who are awaiting a decision and who qualify for available support services. This will cover the Local Authority in which the applicant is resident, nationality, age and gender.</p> <p>In 2003, 72% of asylum seekers took up NASS support, which means that 28% of asylum seekers are not recorded in the dataset.</p> <p>Outside London, NASS provides useful information to Local Authorities on number, location, nationality and status of dispersed asylum seekers whom it is accommodating locally at any given time. But this source has less value for London, where most asylum seekers are either outside the NASS regime entirely, or get only cash support (subsistence-only) from it and find their own accommodation.</p>
Entry Control	<p>Each year, approximately 12 million passengers from non-EEA countries are subject to border control. The Home Office produces a comprehensive set of statistics, derived from a sample of landing cards completed by passengers prior to entry to the UK.</p>

Data captured from the landing card identify purpose of journey. Over 60% of the 12 million non-EEA admissions in 2004 were of ordinary or business visitors. In addition, information on country of birth, nationality, age, gender and occupational status are all captured.

The major limitation of the entry control statistics is that they do not routinely capture 'address in the UK' from the landing card, although a passenger will always enter this information.

As a source of migration information, these statistics produce a summary view of the total number of passengers arriving by purpose of journey but in the absence of information on UK address and intended length of stay they have limited value at a sub-national level.

Grants of Settlement

Following entry to the UK, the Home Office will record applications and decisions on extensions of leave to remain and settlement. Grants of settlement statistics identify those people, subject to immigration control, who are allowed to remain in the UK indefinitely. They are a main source of information on longer term immigration to the UK

Grant of settlement figures include people granted settlement on arrival at a UK port and those admitted to the UK on a time limit which was subsequently removed on application.

As with other Home Office immigration statistics, their availability at a sub-national level would add greatly to our understanding of international migration activity, particularly in direct comparison with estimates derived from the IPS. At present, statistics are only available at a UK level.

Work Permits

Work Permits UK is the coordinating agency for this process, recording people who have applied, been granted a Work Permit or refused. The Highly Skilled Migrants Programme (HSMP) provides a points-based application process, specifically targeted at migrants with specific skills and expertise for the UK labour market.

Work Permit applications are made by employers and not by the individuals themselves. Once a permit is granted, an individual applies either for Entry Clearance to the UK at an Embassy, or leave to remain in the UK via IND. Details captured include nationality, age and gender but only address of employer is recorded, not address of employee.

Summary

The Home Office compiles a detailed and continuous view of passengers and their purpose of entry to the UK. Whereas the IPS is attempting to capture a representative sample of all 'migrants' entering and leaving the UK, the Home Office systems are not explicitly capturing information to identify length of stay in the UK. In addition, Home Office statistics relate only to immigration and do not register emigration of UK-based passengers.

The lack of geographical detail in the available Home Office statistics is a major drawback, preventing a view of the final destination of individuals entering the UK that could help to refine the measure of regional (and sub-regional) estimates produced by the IPS.

Data capture at border control through the e-borders system could be a more

efficient method than existing systems for providing information specifically on migrants. It could potentially record all movement into and out of the UK, regardless of nationality, though it will not necessarily help in the distribution of national totals within the UK. The technological developments of the e-borders system and the future implementation of the National ID scheme in the UK are longer-term initiatives that may provide more comprehensive migrant statistics based upon border administration systems.

**Figure 17: Profile: Asylum Seekers**

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <b>Asylum Applications</b>																											
<i>Administration</i>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Home Office IND</td> <td style="width: 50%; text-align: right;"><i>Sample Size</i></td> </tr> </table>	Home Office IND	<i>Sample Size</i>																								
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<i>Migration Measure</i>	FLOW: New asylum applications and decisions																										
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Address																											
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Dependents																											
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**Figure 18: Profile: National Asylum Support**

<span style="border: 1px solid black; border-radius: 50%; padding: 2px;">A</span> <b>National Asylum Support Service (NASS)</b>																																								
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Asylum Seekers																																								
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<i>Migration Measure</i>	FLOW: Asylum applications awaiting a decision and entitled to NASS																																							
<i>Key Data</i>	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 5%;"></th> <th style="width: 35%; text-align: center;">Comment</th> </tr> </thead> <tbody> <tr> <td>Address</td> <td style="text-align: center;">*</td> <td>Local Authority</td> </tr> <tr> <td>Year of Entry</td> <td></td> <td>Year of application</td> </tr> <tr> <td>Intended length of stay</td> <td></td> <td></td> </tr> <tr> <td>Previous address</td> <td></td> <td></td> </tr> <tr> <td>Country of Birth</td> <td></td> <td></td> </tr> <tr> <td>Citizenship/Nationality</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Ethnicity</td> <td></td> <td></td> </tr> <tr> <td>Date of Birth</td> <td></td> <td></td> </tr> <tr> <td>Age</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Gender</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Occupational Status</td> <td></td> <td></td> </tr> <tr> <td>Dependents</td> <td></td> <td></td> </tr> </tbody> </table>			Comment	Address	*	Local Authority	Year of Entry		Year of application	Intended length of stay			Previous address			Country of Birth			Citizenship/Nationality	*		Ethnicity			Date of Birth			Age	*		Gender	*		Occupational Status			Dependents		
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<i>Comments</i>	<p>In 2003 72% of asylum seekers took up NASS support. The NASS database captures the Local Authority in which the applicant is resident, nationality , age and gender.</p> <p>No change of address details are recorded during the application process.</p> <p>Post-decision, there is no contact history maintained by the HO, although those refused asylum need to provide address details whilst they are in the UK.</p>																																							

**Figure 19: Profile: Entry Control Statistics**

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <span style="font-size: 1.2em; font-weight: bold; margin-left: 10px;">Entry Control</span>																																				
<i>Administration</i>	Home Office IND	<i>Sample Size</i>	non-EU Passengers (12 million p.a.)																																	
<i>Collection Method</i>	Landing Cards	<i>Frequency</i>	Continuous																																	
<i>Migration Measure</i>	FLOW: Passengers identified by purpose of journey.																																			
<i>Key Data</i>	Address Year of Entry Intended length of stay Previous address Country of Birth Citizenship/Nationality Ethnicity Date of Birth Age Gender Occupational Status Dependents	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 80%;">Comment</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>Completed but not captured</td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>Purpose of journey recorded</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Comment			Completed but not captured	*					Purpose of journey recorded				*			*						*			*						
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<i>Comments</i>	60% of the 12m admissions are of ordinary/business visitors. No 'address in UK' details are captured.																																			

Figure 20: Profile: Grants of Settlement Statistics

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 6px;">A</span> <b>Grants of Settlement</b>																													
<i>Administration</i>	Home Office IND	<i>Sample Size</i>	non-EU Passengers																										
<i>Collection Method</i>	Administration	<i>Frequency</i>	Continuous																										
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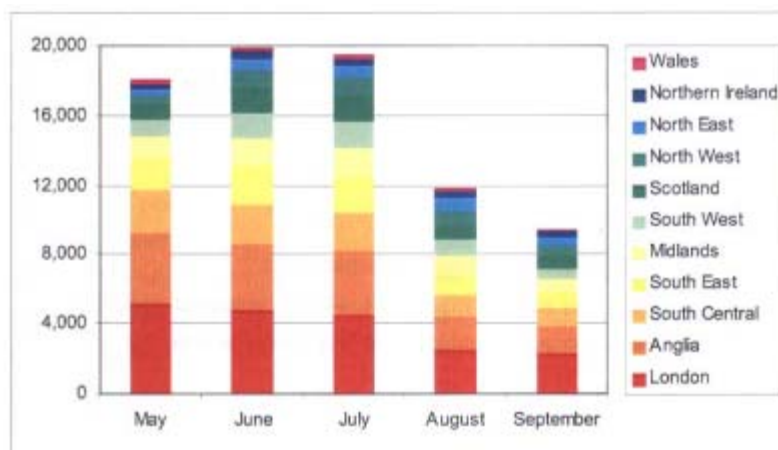
Figure 21: Profile: Work Permits

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <span style="font-weight: bold; font-size: 1.2em;">Work Permits</span>																																								
<i>Administration</i>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Work Permits UK</td> <td style="width: 50%; text-align: center;"><i>Sample Size</i></td> </tr> <tr> <td style="width: 50%;"></td> <td style="width: 50%; text-align: center;">New Migrant workers</td> </tr> </table>	Work Permits UK	<i>Sample Size</i>		New Migrant workers																																			
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Dependents																																								
<i>Comments</i>	<p>No residential address is recorded, only the address of the employer who makes the application</p> <p>A Work Permit has a six-month life. No residential address is recorded.</p>																																							

## Home Office – Worker Registration Scheme (WRS)

Introduction	<p>On 1 May 2004, ten new countries joined the European Union. Nationals from two of these countries, Malta and Cyprus, have had full free movement rights and rights to work, throughout the EU since that date. Nationals from the other eight countries – the Accession 8 of Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia – are subject to regulation in the labour markets of member states (Home Office, 2003).</p> <p>In the UK, the Government put in place the Worker Registration Scheme (WRS) to regulate access to the labour market and to restrict access to benefits. The scheme is administered by the Home Office and is a joint initiative with the Department of Works and Pensions (DWP), HM Revenue and Customs (HMRC) and the Office of the Deputy Prime Minister (ODPM).</p>
Data capture	<p>Nationals of the A8 countries are generally required to register with the WRS in order to take employment in the UK. A new registration is required when a person changes employment or an applicant is employed by more than one employer.</p> <p>Duplication of individuals in the database is an issue, although statistics are published for individual applicants (first job) rather than for applications.</p> <p>The WRS does capture a residential address but statistics are only produced by location of the employer and not the domicile of the applicant. Year of registration is held, as is nationality of the individual. Date of birth, gender and occupational status are also routinely captured.</p> <p>There is no method for tracking how long each applicant stays in the UK as, like most other administration systems of this type, there is no de-registration process necessary.</p>
A measure of migration?	<p>The WRS provides an alternative view of in-migration for Accession 8 Nationals, identifiable by nationality and by basic demographic classifications of age and gender. The non-capture of residential address implies that geographical aggregations of the data may provide a picture that is biased towards areas of employment rather than domiciles.</p> <p>A detailed statistical picture of the WRS has been produced (Home Office, 2004b) which illustrates the profile of applicants and of registered workers, detailing type of employment, hours of work and wages and a regional disaggregation (Figure 22).</p> <p>The WRS has also been linked directly to NINo statistics to illustrate the extent of benefit and tax credit claims from registered individuals.</p> <p>Data extracts from the WRS are available on request to the Home Office.</p>

**Figure 22: WRS distribution: May-September 2004**



Source: Accession Monitoring Report May-Sept 2004 Home Office, DWP, HMRC, ODPM © Crown Copyright 2004

Future developments

The WRS has been established as a temporary solution to the management of A8 in-migrant activity. Its data is useful in that it provides an additional, complementary view of a key sub-group of the in-migrant population.

The value of the data derived from WRS will change as the regulations governing A8 migrant integration into the UK labour market change. The scheme may ultimately extend to cover Bulgaria, Romania and Turkey as these countries reach the transition status that the A8 countries have at present (Home Office, 2005h).

**Figure 23: Profile: Worker Registration System**

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <b>Worker Registration Scheme</b>																									
<i>Administration</i>	Home Office	<i>Sample Size</i>	8 EU Accession Countries																						
<i>Collection Method</i>	Voluntary registration using Form WRS	<i>Frequency</i>	Continuous from 1/5/04																						
<i>Migration Measure</i>	FLOW: New migrant registration																								
<i>Key Data</i>	Address Year of Entry Intended length of stay Previous address Country of Birth Citizenship/Nationality Ethnicity Date of Birth Age Gender Occupational Status Dependents	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="text-align: center;">Comment</th> </tr> </thead> <tbody> <tr> <td style="width: 50%;"></td> <td style="text-align: center;">Address of employer only</td> </tr> <tr> <td></td> <td style="text-align: center;">Year of registration</td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td></td> <td></td> </tr> </tbody> </table>	Comment			Address of employer only		Year of registration			*				*				*		*				
Comment																									
	Address of employer only																								
	Year of registration																								
*																									
*																									
*																									
*																									
<i>Comments</i>	<p>Residential address is entered on application but statistics are grouped by address of employer.</p> <p>There is no method for tracking how long an applicant stays in the UK. No de-registration process exists.</p> <p>The WRS has been established as a short-term solution to the monitoring of A8 migrant activity. Its value will fluctuate as the A8 status changes and as Romania, Bulgaria and ultimately Turkey achieve a similar status to the A8 group.</p>																								

### National Insurance Number (NINo) Registrations

**Introduction** The allocation of NINos to new migrants is the responsibility of the Department of Works and Pensions (DWP, 2005b). The initial application for a NINo is made through the offices of a local Jobcentre Plus and once verification of identity and validation of employment have been satisfactorily obtained a NINo is acquired. HMRC complete the process, adding the NINo to the National Insurance Recording System (NIRS).

Acquiring a National Insurance Number (NINo) is a necessary first step for employment/self-employment purposes or to claim benefits or tax credits. Employment can begin without a NINo but employers are asked to ensure a number is obtained at the earliest opportunity.

**Data Captured** The information captured during the registration process includes a full domicile postcode of the applicant (not of the employer), together with an indication of declared 'date of arrival' in the UK and the actual date of registration. In addition, 'country-of-origin' plus demographic information on age and gender are recorded.

The two captured dates allow separate data series to be generated from the database, one for 'arrivals' and one for 'registrations'; the latter being an indication of when migrants become active in the labour market (Table 11).

**Table 11: NINo registrations of overseas nationals**

thousands

Year of Registration	Year of arrival						
	Pre 6/4/00	2000/01	2001/02	2002/03	2003/04	2004/05	Post 5/4/04
<b>All</b>		<b>274</b>	<b>279</b>	<b>306</b>	<b>306</b>		
Unknown		4	3	3	3		
2000/01		104					
2001/02		83	66				
2002/03	<b>349</b>	36	47	147	119		
2003/04	<b>371</b>	24	21	42	139	144	
2004/05	<b>440</b>	13	13	17	38	146	212
Post 5/4/2005			2	3	6	14	

Source: DWP (2005b)

The arrivals series provides a much smoother profile because of periodic bottlenecks experienced with the batch processing of NINo registrations within DWP administrative systems.

The time lags evident between arrival and registration provide complexity to the interpretation of NINo statistics. DWP evidence suggests that many migrants take 'at least' a year to register (they may be dependants or initially come to the UK as students) so an accurate picture of a particular twelve-month period will not be fully available until, at a minimum, twelve months later.

**A migration measure?** The latest DWP NINo report (DWP, 2005b) includes a comparative analysis of the NINo registration data, aligning it with statistics from the WRS and the IPS, for comparable, non-EEA migrant groups.

The WRS statistics for 2004/05 were higher than corresponding NINo data due to the high number of registrations of migrants already resident in the UK when the WRS was first initiated. The nationality breakdown of both sets of statistics are, however, very similar (50-60% Poles, 15% Lithuanians, 10% Slovakian).

The IPS statistics were also higher than corresponding NINo totals for non-EEA migrants. The IPS will capture a wider group of migrants, including non-working students and others not requiring a NINo. Although the IPS totals only record migrants who intend to stay for more than twelve months, these population differences are sufficient to maintain the NINo totals at a lower level overall.

Despite these differences, the DWP NINo series does provide a large sample of data for economically active migrants, for both short and long-term stays and for any aggregation of geography above the postcode level at which data is captured (Table 12). It provides the country-of-origin of migrants, together with their age and gender profile.

**Table 12: NINo registrations of overseas nationals by GOR (year of arrival)**

	Percentages		
	2002/03	2003/04	2004/05
<b>All</b>	<b>100</b>	<b>100</b>	<b>100</b>
North East	2	2	2
North West	6	6	7
Yorks & Humber	5	5	5
East Midlands	4	4	5
West Midlands	7	6	6
East of England	8	7	8
London	43	42	39
South East	11	12	12
South West	4	4	5
Wales	2	2	2
Scotland	4	4	5
Northern Ireland	1	1	1
Unknown	4	4	2

Source: DWP (2005b)

In addition, the NINo identifier allows a linkage with other datasets, specifically benefits and tax credit databases, which again can provide a complementary picture of socio-economic profiles of sub-national migrant geographies.

NINo statistics are readily available from the DWP, on application, specifying type of data and level of geographical aggregation. Individual level data is not accessible, however.

**Figure 24: Profile: NINo Registrations**

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <b>NINo Registrations</b>																																							
<i>Administration</i>	DWP - Newcastle	<i>Sample Size</i>	Working population																																				
<i>Collection Method</i>	Registration via CA5400 at Jobcentre Plus Office	<i>Frequency</i>	HMRC continuously update the National Insurance Recording System (NIRS)																																				
<i>Migration Measure</i>	Flow: New migrant (arrival date and date of registration)																																						
<i>Key Data</i>	Address Year of Entry Intended length of stay Previous address Country of Birth Citizenship/Nationality Ethnicity Date of Birth Age Gender Occupational Status Dependents	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 80%;">Comment</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">*</td> <td></td> <td>Postcode and above</td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td>Date of arrival and of registration</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td>Country of origin</td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Comment	*		Postcode and above	*		Date of arrival and of registration						Country of origin							*			*			*									
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<i>Comments</i>	<p>A full residential postcode allows aggregation to alternative geographies.</p> <p>Migrant flows may be analysed by year of arrival and year of registration. The time lags involved in registration make the statistical picture more complex to interpret.</p> <p>Migrants may be identified by country of origin, age and sex.</p> <p>The NINo allocation allows linkage to other information, specifically benefits and tax credit information.</p> <p>NINo statistics are readily available from the DWP, on application, specifying type of data and level of geographical aggregation. Individual level data are not accessible, however.</p>																																						

## HESA Database

Introduction	<p>The Higher Education Statistics Agency (HESA) is the central source for the collection, management and dissemination of data and statistical publications about publicly funded UK higher education.</p> <p>HESA maintains time series of information on a variety of topics, including HE students, qualifiers, the destination of leavers, staff and finances. Aggregate statistics are very accessible via the HESA website, either as data or as publications (HESA, 2006).</p>
Student Population	<p>HESA maintains a record of all students in the UK, including those whose country of usual residence is outside the UK. These students comprise a large percentage of the annual total of immigrants coming to the UK (294,000 from outside the EEA alone, in 2004, according to Home Office statistics).</p> <p>All students must register at their individual educational establishments on arrival. HESA takes a feed from each institution and aggregates the information into a single database repository.</p>
Data Captured	<p>The registration process for international students does not capture residential address of the student but rather records address of the institution as the 'location'.</p> <p>Students will provide information on their expected length of stay and the system will progressively record the year of study of the student.</p> <p>Country of domicile is captured and although Nationality is asked for it is not a mandatory field and coverage is typically poor. Age and gender are recorded. Ethnicity is only provided on students with a UK domicile.</p>
A Migration measure?	<p>Although HESA only provides information on a sub-set of the population, it is an important sub-set when analysing the impact of international migration.</p> <p>A 'flow' picture can be produced, recording all students who arrive and depart in a particular year. In addition, by looking at all students who are studying during a particular year, a 'stock' picture can be produced. The picture is dynamic because of the constant churn of students by institution. The data is available for an 11-year time-series up until 2004/05.</p> <p>Information can be provided at an aggregate Local Authority level, although the biggest drawback of HESA data is that aggregation is based upon postcode of institution and not student domicile. Furthermore, the institution postcode is that of its administrative centre; a particular issue for the universities with split sites (e.g. Greenwich).</p> <p>These issues make the data of relatively limited value at a sub-regional level in London, given the dispersed nature of students in relation to their university locations.</p>

Figure 25: Profile: HESA Database

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <b>Higher Education Statistics Agency (HESA)</b>																																	
<i>Administration</i>	HESA	<i>Sample Size</i>	International student population																														
<i>Collection Method</i>	Collected at individual institutions	<i>Frequency</i>	HESA receive an annual feed from each institution																														
<i>Migration Measure</i>	FLOW: New international students, departing international students STOCK: Total number of international students																																
<i>Key Data</i>	Address Year of Entry Intended length of stay Previous address Country of Birth Citizenship/Nationality Ethnicity Date of Birth Age Gender Occupational Status Dependents	<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 10%;"></th> <th style="width: 10%;"></th> <th style="width: 80%;">Comment</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>Postcode of institution</td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td>Expected length of stay and year of programme</td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td>Country of domicile</td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td>Not compulsory so limited</td> </tr> <tr> <td></td> <td></td> <td>Only on UK domicile</td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td style="text-align: center;">*</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> </tbody> </table>			Comment			Postcode of institution	*		Expected length of stay and year of programme	*		Country of domicile	*		Not compulsory so limited			Only on UK domicile	*			*									
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		Only on UK domicile																															
*																																	
*																																	
<i>Comments</i>	Covers the complete international student population. Available for an 11-year time-series up until 2004/05. Data can be provided at a Local Authority level, although all students are identified by their institution postcode and not their residential postcode.  The two main drawbacks of the data are that; students are identified by address of institution and not domicile; and an institution's postcode is the address of its administrative centre, a particular issue for split site Universities (e.g. Greenwich).																																

## Electoral Register/Roll

Introduction	<p>The Electoral Register/Roll (ER) lists the names and addresses of everyone who has registered to vote. Registration is completed through a postal process, with each individual Local Authority responsible for the collection and management of its own ER information.</p> <p>At present, there is no central coordination of the ER. An organisation that holds its own copy of the data, compiles it through application to each individual Local Authority.</p> <p>By law, it has been necessary for Local Authorities to provide full access to the ER and organisations were able to purchase a copy of the full register. New restrictions on use have been introduced however and there are now two versions of the register: the full register and the edited register.</p>
Full and edited	<p>The full register maintains a list of every individual who has registered and is updated monthly. This is the file that is made available to Credit Reference Agencies, providing key name and address details for credit checks and money laundering prevention purposes.</p> <p>The edited register excludes those individuals who have explicitly asked for their details not to be passed on to other third parties. This file is generally available for purchase and is used in a variety of credit and marketing activities.</p>
A measure of migration?	<p>The tracking of international in-migration is not possible with the ER but it does provide a potential alternative view of emigration activity through its overseas registration process.</p> <p>To retain voting rights overseas, UK emigrants must register as an overseas citizen. The registration process captures new address outside the UK and previous address prior to leaving. It also records the date at which the individual was last registered in the UK.</p> <p>Accessing the full ER from data agencies, even in an aggregated format, is likely to be expensive. But as ER data are managed locally, it should be possible to seek summary statistics from individual Local Authorities. This may be a useful option in London. For specific London Boroughs, levels of emigration estimated from alternative sources could be evaluated against ER statistics for a specific time period. Some preliminary analysis has already been done in certain Boroughs, linking the ER to other local datasets.</p> <p>As a source of data on migration from the UK, the ER is far from perfect. But with such a dearth of information on UK emigration, it is worthy of further investigation at a local level, possibly building on initial work in some Boroughs. Any such exercise will need to allow for high and rising levels of non-registration on the ER, especially in Inner London and among younger age-groups.</p>

Figure 26: Profile: Electoral Register/Roll

<span style="border: 1px solid black; border-radius: 50%; padding: 2px 5px;">A</span> <b>Electoral Register/Roll</b>																																								
<i>Administration</i>	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%; text-align: center;">Local Authorities</td> <td style="width: 50%; text-align: center;"><i>Sample Size</i></td> </tr> <tr> <td style="width: 50%; text-align: center;">Completion of ER form</td> <td style="width: 50%; text-align: center;"><i>Frequency</i></td> </tr> </table>	Local Authorities	<i>Sample Size</i>	Completion of ER form	<i>Frequency</i>																																			
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Completion of ER form	<i>Frequency</i>																																							
<i>Collection Method</i>	Adult Population (17+)																																							
<i>Migration Measure</i>	Updated monthly																																							
<i>Key Data</i>	<p>FLOW: ER potentially provides an alternative indication of emigration from the UK based on overseas voter records.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 60%;"></th> <th style="width: 5%;"></th> <th style="width: 35%; text-align: center;">Comment</th> </tr> </thead> <tbody> <tr> <td>Address</td> <td style="text-align: center;">*</td> <td>Full address and postcode</td> </tr> <tr> <td>Year of Entry</td> <td></td> <td>Last ER registration date</td> </tr> <tr> <td>Intended length of stay</td> <td></td> <td></td> </tr> <tr> <td>Previous address</td> <td style="text-align: center;">*</td> <td>Last UK registration address</td> </tr> <tr> <td>Country of Birth</td> <td></td> <td></td> </tr> <tr> <td>Citizenship/Nationality</td> <td></td> <td></td> </tr> <tr> <td>Ethnicity</td> <td></td> <td></td> </tr> <tr> <td>Date of Birth</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Age</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Gender</td> <td style="text-align: center;">*</td> <td></td> </tr> <tr> <td>Occupational Status</td> <td></td> <td></td> </tr> <tr> <td>Dependents</td> <td></td> <td></td> </tr> </tbody> </table>			Comment	Address	*	Full address and postcode	Year of Entry		Last ER registration date	Intended length of stay			Previous address	*	Last UK registration address	Country of Birth			Citizenship/Nationality			Ethnicity			Date of Birth	*		Age	*		Gender	*		Occupational Status			Dependents		
		Comment																																						
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Date of Birth	*																																							
Age	*																																							
Gender	*																																							
Occupational Status																																								
Dependents																																								
<i>Comments</i>	<p>ER is collected and managed by each individual Local Authority.</p> <p>Full ER is the basis for definitive list of UK voters and is used for other puposes such as credit referencing.</p> <p>Edited ER is a reduced file, excluding those who have opted 'out' from allowing their details to be provided to other third party organisations for a variety of purposes such as marketing activity.</p> <p>Overseas citizens must register to vote and provide both their new address and previous address in the UK, together with date of last registration.</p> <p>ER statistics for overseas registrations could be access at Local Authority level to assess its value as an alternative view of emigration from the UK.</p>																																							

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**APPENDIX 3 – GLOSSARY**

<b>Acronym</b>	<b>Definition (Main Organisation Responsible)</b>
A8	Accession Eight countries in central Europe that joined EU in 2005: Estonia, Hungary, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Slovenia
APS	Annual Population Survey (ONS)
ASAP	Applied Spatial Analysis and Policy Research Cluster (School of Geography, University of Leeds)
ASYS	Asylum Information System (Home Office)
CCSR	Cathie Marsh Centre for Census and Survey Research (University of Manchester)
CEFMR	Central European Forum for Migration Research (Polish Academy of Sciences)
CID	Control of Immigration Database (HO)
CIP	Citizen’s Information Project (ONS, HMT)
CL	Confidence Limit
CPS	Continuous Population Survey (replaced by IHS)
DfES	Department for Education and Skills (HMG)
DMAG	Data Management and Analysis Group (GLA)
DoH	Department of Health (HMG)
DWP	Department of Work and Pensions (HMG)
e-borders	Electronic Programme for Modernised Border Control (HO)
EC	European Commission (Council of Ministers, European Parliament)
EEA	European Economic Area (EU plus Iceland, Liechtenstein, Norway with Switzerland)
EFS	Expenditure and Food Survey
EMIN	European Migration Information Network
ER	Electoral Register/Roll (The Electoral Commission)
ESRC	Economic and Social Research Council (OST, DTI)
EU	European Union (Council of Ministers, EC, European Parliament)
<b>Acronym</b>	<b>Definition (Main Organisation Responsible)</b>
Eurostat	Statistical Office of the European Communities (EC)

FE	Further Education (LSC)
GAD	Government Actuary's Department (HMT)
GLA	Greater London Authority (ODPM)
GOR	Government Office Region (HMG)
GP	General Practitioner (NHS)
HA	Health Authority (NHS)
HEFCs	Higher Education Funding Councils (DfES)
HESA	Higher Education Statistics Agency (DfES)
HMG	Her Majesty's Government (UK Parliament)
HMRC	Her Majesty's Revenue and Customs (HMT)
HMT	Her Majesty's Treasury (HMG)
HO	Home Office (HMG)
HIS	Integrated Household Survey (ONS)
HSMP	Highly Skilled Migrant Programme (HO)
IMPS	Improving Migration and Population Statistics (ONS)
IND	Immigration and Nationality Directorate (HO)
IOM	International Organisation for Migration (NGO)
IPPR	Institute for Public Policy Research (NGO)
IPS	International Passenger Survey (ONS)
IRIS	Iris Recognition Immigration System (HO)
IRSS	Immigration Research and Statistics Service (HO)
JISC	Joint Information Systems Committee (HEFCs, LSC)
LA	Local Authority (ODPM)
LB	London Borough (ODPM)
LFS	Labour Force Survey (ONS)

<b>Acronym</b>	<b>Definition (Main Organisation Responsible)</b>
LLFS	Local Area Labour Force Survey (ONS)

LPD	London Pupil Database (DfES)
LSC	Learning Skills Council (DfES)
MRU	Migration Research Unit (UCL)
N3	New National Network (NHS)
NASS	National Asylum Support Service (HO)
NHAIS	National Health Applications and Infrastructure Services (NHS)
NHSCR	National Health Service Central Register (NHS, ONS)
NHS	National Health Service (DoH)
NINo	National Insurance Number (DWP)
NIR	National Identity Register (HO)
NIRS	National Insurance Recording System (DWP)
NMD	New Migrant Databank
NMPOP	New Migrant Population
NPD	National Pupil Database (DfES)
NSO	National Statistical Office
NSOS	National Statistics Omnibus Survey
NSQR	National Statistics Quality Review (ONS)
ODPM	Office of Deputy Prime Minister (HMG)
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics (HMG)
PCT	Primary Care Trust (NHS)
PDS	Personal Demographic System (NHS)
PLASC	Pupil Level Annual School Census (DfES)
PPS	Purchasing Power Standard (Eurostat)
PRDS	Patient Register Data System (ONS)
<b>Acronym</b>	<b>Definition (Main Organisation Responsible)</b>
QLFS	Quarterly Labour Force Survey (ONS)

RDS	Research, Development and Statistics Directorate (HO)
RoW	Rest of the World
SAM	Small Area Microdata (ONS, CCSR)
SAR	Samples of Anonymised Records (ONS, CCSR)
SE	Standard Error
THESIM	Towards Harmonised European Statistics on International Migration (EC)
TIM	Total International Migration (ONS)
UCL	University College London (HEFCE)
UCL	Université Catholique de Louvain
UK	United Kingdom

**APPENDIX 4 – RESEARCH CONSULTANT PROFILES**

Professor  
Philip Rees

Professor Philip Rees is recognised as one of the most eminent population geographers in the world today. His research output is exceptional, with an enviable list of publications that covers a wide range of demographic disciplines: population projection and estimation methodologies, ethnic populations, the geography of mortality and a particular specialism in the analysis and estimation of sub-national migration.

Phil has been a very active member of the UK demographic community for many years, combining this with a variety of international collaborations to position him at the forefront of his field.

Phil has been a Professor in the School of Geography since 1990, including three years as Head of the School between 2001 and 2004. Between 1992 and 2002 he was co-ordinator of the ESRC/JISC Census of Population Programme.

In 2003, Phil was awarded a CBE in recognition of his contribution to the field of population geography in the UK

Dr Peter Boden

Peter Boden is a Visiting Research Fellow at the University of Leeds and a former PhD student of Professor Rees. His research specialism (an ESRC CASE award in collaboration with ONS) was the analysis of UK migration, evaluating its impact upon local population dynamics and assessing the relative merits of Census and NHSCR statistics as inputs to the UK's population projection methodology.

Upon completion of his PhD, Peter joined GMAP Ltd and spent 15 years delivering bespoke geographical modelling solutions to a range of businesses that include WHSmiths, Asda Walmart, Ford Motor Company, ExxonMobil, BP, NS&I and HBOS.

In 2002, Peter became a Director of the Skipton Information Group, one of the UK's largest information services businesses, encompassing GMAP Ltd, database marketing specialist EuroDirect and the UK's third Credit Reference Agency, Callcredit.

Peter now works as an independent consultant, through his own business, Edge Analytics and retains an association with the Skipton Information Group, the School of Geography and its Applied Spatial Analysis and Policy (ASAP) group, in particular.

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### Vietnamese

Nếu bạn muốn có văn bản tài liệu này bằng ngôn ngữ của mình, hãy liên hệ theo số điện thoại hoặc địa chỉ dưới đây.

### Greek

Αν θέλετε να αποκτήσετε αντίγραφο του παρόντος εγγράφου στη δική σας γλώσσα, παρακαλείστε να επικοινωνήσετε τηλεφωνικά στον αριθμό αυτό ή ταχυδρομικά στην παρακάτω διεύθυνση.

### Turkish

Bu belgenin kendi dilinizde hazırlanmış bir nüshasını edinmek için, lütfen aşağıdaki telefon numarasını arayınız veya adrese başvurunuz.

### Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਸ ਦਸਤਾਵੇਜ਼ ਦੀ ਕਾਪੀ ਤੁਹਾਡੀ ਆਪਣੀ ਭਾਸ਼ਾ ਵਿਚ ਚਾਹੀਦੀ ਹੈ, ਤਾਂ ਹੇਠ ਲਿਖੇ ਨੰਬਰ 'ਤੇ ਫ਼ੋਨ ਕਰੋ ਜਾਂ ਹੇਠ ਲਿਖੇ ਪਤੇ 'ਤੇ ਰਾਬਤਾ ਕਰੋ:

### Hindi

यदि आप इस दस्तावेज की प्रति अपनी भाषा में चाहते हैं, तो कृपया निम्नलिखित नंबर पर फोन करें अथवा नीचे दिये गये पते पर संपर्क करें

### Bengali

আপনি যদি আপনার ভাষায় এই মলি়েলর প্রতিলিপি (কপি) চান, তা হলে নীচের ফোন নম্বরে বা ঠিকানায় অনুগ্রহ করে যোগাযোগ করুন।

### Urdu

اگر آپ اس دستاویز کی نقل اپنی زبان میں چاہتے ہیں، تو براہ کرم نیچے دئے گئے نمبر پر فون کریں یا دیئے گئے پتے پر رابطہ کریں

### Arabic

إذا أردت نسخة من هذه الوثيقة بلغتك، يرجى الاتصال برقم الهاتف أو مراسلة العنوان  
أناها

### Gujarati

જો તમને આ દસ્તાવેજની નકલ તમારી ભાષામાં જોઈતી હોય તો, કૃપા કરી આપેલ નંબર ઉપર ફોન કરો અથવા નીચેના સરનામે સંપર્ક સાધો.

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