Current data on international migration and migrants in the UK: implications for the development of the Migration Observatory at Oxford

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June 2010
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## Glossary

| A8     | Accession 8 – the Central and Eastern European countries which joined the EU in May 2004 (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, Slovenia) |
| APS    | Annual Population Survey |
| BIA    | Home Office’s Border and Immigration Agency |
| BSA    | British Social Attitudes |
| CDU    | Census Dissemination Unit |
| CLG    | Department for Communities and Local Government |
| DCSF   | Department for Children, Schools and Families |
| DWP    | Department for Work and Pensions |
| EEA    | European Economic Area |
| ESDS   | Economic and Social Data Archive |
| ESRC   | Economic and Social Research Council |
| FoI    | Freedom of Information |
| Flag 4 | Indicator on GP registration statistics showing that an individual’s previous address was outside the UK |
| GHS    | General Household Survey |
| GLF    | General Lifestyle Survey |
| GP     | General Practitioner |
| GROS   | General Register Office Scotland |
| HE     | Higher Education |
| HESA   | Higher Education Statistics Agency |
| HMRC   | Her Majesty’s Revenue and Customs |
| IMPS   | Improving Migration and Population Statistics |
| IPS    | International Passenger Survey |
LFS  Labour Force Survey
LTIM  Long Term International Migration
MAC  Migration Advisory Committee
MSIP  Migration Statistics Improvement Programme
NatCen National Centre for Social Research
NINo  National Insurance number
NISRA  Northern Ireland Statistics and Research Agency
NMD  New Migrant Databank
NPD  National Pupil Database
Nomis  National On-line Manpower Information System
OECD  Organisation for Economic Co-operation and Development
ONS  Office for National Statistics
PBS  Points-Based System
PLASC  Pupil Level Annual Census
PLUG  PLASC/NPD User Group
PRDS  Patient Registration Data System
RSS  Royal Statistical Society
SARs  Sample of Anonymised Records
SAWS  Seasonal Agricultural Workers Scheme
SBS  Sector Based Scheme
UKSA  UK Statistics Authority
UN  United Nations
UPN  Unique Pupil Number
WPLS  Work and Pensions Longitudinal Study
WRS  Worker Registration Scheme
1. Introduction

This paper provides a critical overview of the key data sources for the measurement of international migration and the migrant population in the UK. First, it describes the data sources currently used to estimate international migration flows and the stock of migrants in the UK, and highlights their main strengths and limitations. Access to each source is also reviewed. Sources are classified into three types depending upon the method of data collection: census, survey, or administrative. The main official estimates which build on a combination of data sources to make up for the weaknesses of a single source of information (e.g. the ONS estimates of long-term international migration) are also considered. The central part of the paper discusses how the main national household surveys can be used to measure the different aspects of economic, social and family life of the migrant population in the UK. Finally, the paper discusses some initiatives for the improvement of migration statistics that have been recently implemented or are under consideration.

Definitional issues are not dealt with in this paper – see Bilsborrow et al. (1997) for a comprehensive review. The definitions used to identify migration (as an event) and migrants (as a status) have clear implications for the type of data sources that can be relied upon. While the UN definition of international migrant\(^1\) is being increasingly adopted in national statistical systems thereby improving the cross-national comparability of migration statistics, the complexity and variety of contemporary migration patterns – e.g. 'circular' or 'transit' migration – hardly lend themselves to one-fit-all definitions. In this paper we refer to the most common proxies used to identify migrant stock and flows in statistical systems: country of birth, nationality, and previous place of residence. In addition, we refer to the main visa categories used in the UK to regulate admissions of new migrants (e.g. work permits, dependants, asylum seekers, students).

This review is based on the main statistical reports, online statistics and documents on the quality of the statistical information published by the Office for National Statistics, the Home Office and the Department for Work and Pensions. It is also widely informed by four recent reviews of UK migration statistics and data sources: the review (Rees et al. 2009) commissioned by the UK Statistics Authority for its recent report ‘Migration Statistics: the Way Ahead? (UKSA 2009); the UK country report produced for the European project PROMINSTAT (Lenoël et al. 2010); the guide on local migration statistics prepared by the Institute for Employment Research (University of Warwick) for the Local Government Association (Green et al. 2008); and the annual report of the UK correspondent for the OECD Sopemi (Salt 2010).

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\(^1\) A person who moves to a country other than that of his or her usual residence for a period of at least a year (12 months), so that the country of destination effectively becomes his or her new country of usual residence.
2. Censuses

The most comprehensive data source on the characteristics of the population is the decennial Census of Population carried out by the ONS in England and Wales, the General Register Office for Scotland and the Northern Ireland Statistics and Research Agency (NISRA) in Northern Ireland. Censuses aim to achieve complete coverage of the population in all parts of the country. Hence, unlike all other data sources, they can provide accurate demographic and socio-economic data for small geographical areas across the UK.

The Census can yield information on both migrant stocks and migration flows:

- The stock of migrants with usual residence in the UK at the time of the census can be measured through the information on country of birth\(^2\). At the 2001 census no questions on nationality and year of entry in the UK were asked, so the foreign-born population captured only lifetime migration.

- A snapshot view of migration flows can be derived from a question on place of residence twelve months prior to the census date. Only in-migration is measured as there is no attempt to capture information on individuals who have left the UK over the same period.

Another possibility to measure net migration over an intercensal period is to compare results of two censuses, making allowance for the survival rates and ageing of the corresponding population groups at the previous census.

A key weakness of decennial census for the study of migration is that the information becomes quickly out-dated, particularly in periods of dynamic migration trends. Also, recent migrants are more likely to escape the census operations or refuse to participate because of their greater mobility, language difficulties, and fear of being persecuted.

The increased mobility of the population has led to additional challenges to the way international migration flows are captured by the census. The quality of the 2001 census statistics has been questioned. Large discrepancies were found between the population captured by the 2001 census and the 'expected' population - estimated by 'rolling-forward' the population at the 1991 Census accounting for births, deaths and migration estimates. Further investigation revealed substantial under-enumeration in the 2001 census in some urban centres, leading to a correction of the 2001 census data. This uncertainty led to public criticism of the official population and migration statistics and doubts were raised about the cost-effectiveness of expensive census operations (UKSA 2009).

Census data have also been used as a basis for estimating irregular migration in the UK. The Home Office produced estimates of the irregular migrant population in the UK using a residual method based on the 2001 Census and other immigration data. They provided a 'central estimate' of 430,000 unauthorised

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\(^2\) There are however plans to include a question on nationality in the 2011 Census.
migrants in 2001 with a likely range of between 310,000 and 570,000 (Woodbridge, 2005). Since the Home Office report there were few other attempts by academics and independent experts to estimate the stock of irregular migrants in the UK, mostly derived from extrapolations and updates of the 2001 Census-based estimate\(^3\). The latest estimate (Gordon et al. 2009) suggests that 618,000 irregular migrants (including UK born children) were living in the UK at the end of 2007 - with a range of between 417,000 and 863,000.

Most Census statistics are disseminated in the form of standard pre-specified tables for a hierarchy of geographical areas – Output Areas were the smallest geographical units at the 2001 Census. Researchers at UK institutions can readily access 2001 and previous census statistics through:

- the CASWEB interface provided by the ONS Census Dissemination Unit (CDU) (http://casweb.mimas.ac.uk/);
- Nomis labour market statistics (http://www.nomisweb.co.uk);
- the Neighbourhood Statistics web site (http://neighbourhood.statistics.gov.uk);
- the SCROL website for Scotland (http://www.scrol.gov.uk);
- the NISRA website for Northern Ireland (http://www.nisranew.nisra.gov.uk/census/start.html);
- SASPAC (http://www.saspac.org/).

Online census data for the country of birth provide a breakdown 70 separate countries, for the entire hierarchy of Census areas. However, there is limited number of cross-tabulations including the country of birth alongside other variables (age, sex, ethnicity and religion). Data on migration in the year preceding the 2001 census - by age, gender, household composition, ethnic group and economic activity - are also available in these outputs.

In addition to the standard tabular outputs from the Census, a 3 per cent sample of Census returns (the Sample of Anonymised Records, SAR) is made available for further analysis in a completely anonymous form. This can be used to produce ad-hoc tables, e.g. country of birth can be cross-tabulated with any other census variable. However, no data for areas smaller than Government Office Regions can be extracted. A different version with greater level of spatial detail (the Controlled Access Microdata Sample, CAMS) can be accessed under conditions of strict confidentiality. For details of access to the SAR and CAMS see: http://www.ccsr.ac.uk/sars/2001/.

Another method of obtaining customised census data is to request commissioned tables. These can be purchased from ONS for 2001, 1991 and 1981 census rounds. Commissioned tables remain available for other users on request - a number of Commissioned Tables including country of birth have been

\(^3\) These estimates are reviewed in the HWWI database on irregular migration produced as an output of the Clandestino project (http://irregular-migration.hwwi.net/United_Kingdom_Data.6157.0.html).
provided (especially for London) and can now be requested for no charge from ONS Census Customer Services.

3. Survey data

Household surveys are a relatively cost-efficient means of data collection as they collect very rich information about specific themes and the various characteristics of the population. The main national surveys are also run on a continuous basis, thereby providing data on trends and changes over time (particularly in the case of longitudinal surveys). The key shortcoming of a survey approach is its sampling basis, i.e. surveys produce estimates rather than counts and the robustness of these estimates depends on the sampling errors. This typically means that estimates cannot be produced for small population sub-groups or small geographical units. Another problem is that long and/or complex questionnaires represent a burden for households and individuals to provide survey responses. A lower propensity of the public to participate in UK national surveys has become apparent in the last decade, resulting in lower response rates and higher risk of non-response bias (UKSA 2009).

3.1 International passenger survey

The International Passenger Survey (IPS) is a sample survey of people arriving at and departing from UK main airports and sea routes and the Channel Tunnel. It collects information from about 250 thousand passengers each year (about 1 in 500 of the total number entering or leaving at the UK ports). The survey questionnaire covers these three main areas: expenditure, tourism and migration. Although the IPS was not designed primarily to derive information on international migrants, the survey asks respondents about their migration intentions and yields information consistent with the UN definition of international migration: in 2008 5,117 respondents (2.2% of the sample) stated intention is to stay or leave the UK for more than 12 months (2886 immigrants and 2231 emigrants) (ONS 2009a). Data collection on people leaving the UK is one of the key advantages of the IPS – it is the only data source measuring emigration. Another strength of the IPS is the relatively rich information on the type of migration and characteristics of the migrants. Interviewees are asked about the main reason given for movement in or out of the country (definite job, looking for work, accompany / join, study, working holiday, other). Data can be broken down by nationality, sex and age group.

On the other hand the survey has a number of limitations.

1) Its coverage is not comprehensive. The IPS excludes migration over the land border between the UK (Northern Ireland) and Ireland due to the existence of the Common Travel Area (CTA) between the two countries. It also excludes most asylum seekers and their dependants.

2) Migration estimates are based on respondents’ initial intentions, which may not accord with what they do in practice, e.g. in terms of duration of stay. The IPS typically underestimates the extent of labour migration inflows (many migrants who do not report work as their primary reason for migration
may take up work soon after migrating\(^4\) and misrepresents the geographical distribution of migrants across the UK (London is overrepresented as final destination).

3) As the number of migrants in the sample is relatively small, estimates for subsets of the sample are subject to substantial uncertainty. For example, sampling errors are too large to measure with a reasonable degree of accuracy the number of migrants to a single region of the UK, or from a single country of origin (aside from the 4-5 largest national groups) or from a single age group\(^5\).

The International passenger Survey is used by the Office for National Statistics to produce its Long-Term International Migration (LTIM) estimates. IPS data are adjusted to make its coverage of migration flows more comprehensive and take into account possible changes of the intended duration of stay. The poor coverage of asylum seekers (and their dependants) and migrant in- and out-flows between the UK and Ireland is addressed by combining IPS data with Home Office statistics on asylum seekers and their dependants and with estimates from the Irish Central Statistical Office. Further adjustments are made to account for ‘visitor switchers’ (i.e. those whose original intention was to stay for less than one year but who subsequently stay longer), and for ‘migrant switchers’ (i.e. those who intended to stay for more than twelve months but left within a year). A full description of the LTIM methodology is provided by ONS (2009a). With these adjustments, the LTIM series provides the most accurate estimates of long-term immigration and emigration at a national level. However, they provide more limited breakdowns by migrant characteristics than the unadjusted IPS data.

LTIM estimates for Scotland are produced in the same way as for England and Wales, i.e. data from the International Passenger Survey (IPS) are adjusted to take into account visitor and migrant switchers and asylum seekers. The IPS figures are allocated to Scotland by applying the Labour Force Survey distribution. The General Register Office Scotland (GROS) then distributes the migrant inflows to a local area level using the health administrative systems within Scotland (http://www.gro-scotland.gov.uk/statistics/migration/methodology.html). Estimates of international migration for Northern Ireland are not based on the IPS figures. Instead international migration statistics are based on data from the Central Health Index which records registrations and de-registrations with local GPs and on the Quarterly National Household Survey in Ireland (NISRA 2005).

LTIM estimates for the years 1991 to 2008 are available in the Long-Term International Migration (LTIM) tables published annually by the ONS (http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15053). These tables present estimates by: citizenship; country of last or next residence; country of birth; main reason for migration; usual occupation; area of destination or origin within the UK; age, sex and marital status; and length of stay.

\(^4\) Economic activity prior to moving to the UK may be a better measurement of the scale of labour migration since it records whether or not a person was in the labour market at that time (Salt 2010).

\(^5\) Salt (2010) suggests that by merging the IPS datasets for two years it is possible to reduce sampling error and obtain more accurate estimates.
Unadjusted IPS estimates for the years 1991 to 2008 are also published annually by the ONS (see http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15054) and contain more detailed cross-tabulation than the LTIM series (including intended length of stay; actual length of stay; and route). The IPS survey micro-data are deposited with the UK Data Archive and can be accessed with a UK Federation account via the ESDS website.

3.2 Labour Force Survey

The Labour Force Survey (LFS) is the major household survey carried out by the Office for National Statistics and provides quarterly estimates of the UK resident population and workforce. It is based on a quarterly household sample of about 60,000 UK private households. Participants are interviewed in five consecutive quarterly ‘waves’ either face-to-face or by telephone. The sample is weighted to the most recent ONS population estimates and is treated as representative of the UK population as a whole, although due to its household basis there is under-representation of those who do not live in households (e.g. students in halls of residence who do not have a UK resident parent and population in communal establishments). People who have been in the UK for less than six months are also excluded.

The LFS uses internationally agreed definitions and classifications to collect data on education, economic activity, occupation, industry and remuneration. It has the remarkable advantage of providing comparable data on a consistent set of variables over long timeframes. LFS estimates are commonly used in the analysis of the migrant population and workforce as they can provide information on both country of birth and nationality, as well as ethnicity, and year of entry. However, it does not collect any information on immigration status at the time of the interview or on arrival in the UK. In the second quarter (April-June), the LFS asks about location one year and three months before the survey, so it can also identify migrants on the basis of change of address. The sample is bigger than in most other EU countries, allowing one to analyse outcomes for major sub-groups of the foreign-born or foreign national population – but not necessarily for single countries of birth/nationalities. ONS and Eurostat statisticians recommend that no (weighted) estimates should be trusted for groups smaller than 10,000 (standard error higher than 20%)\(^6\).

The LFS is likely to under-represent recent migrants in the UK. People who have moved to the UK in the six months preceding the survey are excluded because the definition of ‘usually resident’ population adopted by the survey requires at least six months of stay in the country. Recent migrants are also more likely to refuse to answer the survey or provide incomplete information because of language barriers and mistrust of the interviewers – especially if their residence or work status is not entirely compliant with immigration regulations. They are also more mobile than the long-term resident population, and therefore are less likely to fulfil the requirement of six months’ continuous residence at the current

\(^6\) This problem can be reduced by aggregating data over several surveys. Adding data from successive quarters, while selecting individuals who are in wave 1 or 5 in order to avoid counting the same individual more than once, increases the sample size and reduces the sampling error. For an example of LFS data pooling see IPPR (2007).
address needed to be included in the LFS sample. For all these reasons the estimates provided by the LFS are likely to be conservative, although their level of inaccuracy is hard to predict (Walling 2006).

Furthermore, estimates of immigration flows based on the previous place of residence are likely to be less reliable than stock estimates of lifetime migration based on country of birth or nationality. LFS figures measuring inflow between spring quarters are considerably lower than the unadjusted estimates derived from the IPS (which are already conservative, excluding some migrant inflows – see above). This is partly due to the difference in timing and the exclusion of most people living in institutional accommodation. However, the main factor underlying the difference between the two sources is probably that migrants who entered the UK in the 12 months before the survey are significantly underrepresented in the LFS sample (Rees et al. 2009). For a full comparison of estimates of net migration flows based on the LFS and APS see ONS (2008a).

In addition to the core variables which are kept broadly the same so as to generate comparable data over time, the LFS includes every year a different sets of questions collecting detailed information on specific workforce groups or topics. The 2008 ad hoc module focuses on the 'Labour market situation of migrants and their immediate descendants', and provides for the first time data on country of birth of parents, reasons for migration, expiry date of work/residence permit, year of citizenship acquisition and restrictions attached to immigration status. The combination of these variables offers an unprecedented opportunity to analyse in great detail the employment outcomes of the different categories of migrants.

The LFS sample also provides the core data of the Annual Population Survey (APS), a combined survey of households in Great Britain. The APS sample is obtained by merging waves one and five of four LFS quarters and data from the Annual Local (Area) Labour Force Survey (LLFS) Boosts for England, Scotland and Wales. There are approximately 350,000 individuals per dataset, which makes estimates based on the APS more robust than those obtained from a single LFS quarter. The APS data should therefore be preferred for analyses looking at single national groups or small geographical areas.

The ONS provides population estimates by country of birth and nationality by UK region from the Annual Population Survey (http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=15147). ONS also had a system in place (a software called SuperCROSS) to run cross-tabulations of LFS micro-data through remote online access. The system has been discontinued in February 2010 – the reasons for that were not stated in the ONS notice (http://lfs.ons.gov.uk/Citrix/NFuse17/login.asp). Some LFS and APS aggregate data are also available via Nomisweb and the Neighbourhood Statistics websites (see above), but available tables focus on labour market indicators and none of them include country of birth or nationality (only ethnicity).

LFS and APS micro-data can be accessed through the Economic and Social Data Service (ESDS) / UK Data archive. The ONS also provides access to LFS and APS data via its LFS Customer Service (SOS) team (LFS.datataset@ons.gov.uk). Both datasets are released on a quarterly basis - the APS dataset contains the last 12 months of data. There are ‘special licence’ agreements controlling the release of certain variables, specifying who has access to the data and restricting their use (ONS controls the approval
process). Most importantly for migration researchers, the variables with detailed countries of birth (cryox7) and nationalities (natox7) have been removed from the APS unrestricted datasets (but not from the LFS) and are now released only under the special licence agreements. Special licence version of LFS datasets include variables identifying local authority of residence (standard access datasets include only breakdowns by Government Office Regions). Researchers from academic institutions are normally granted special access within three months from their application. Micro-data of the 2008 ad-hoc module on migrant workers (for all EU-27 countries) will be available from Eurostat later this year (see http://epp.eurostat.ec.europa.eu/portal/page/portal/microdata/lfs). The UK module will be deposited at the UK data archive - but the previous ad-hoc module has not yet been released, so possibly access through Eurostat may be timelier7.

4. Administrative sources

Administrative sources provide information on migrants who register to comply with particular regulations. Therefore, each data source covers only those migrants who fall within the remit of the scheme concerned. Most administrative data sources only capture migrants when they register with the scheme, i.e. they do not record when a person leaves the UK (de-registration is not mandatory). Similarly, movements of foreign migrants within the UK are usually not recorded.

Most administrative statistics in the UK are collected by the Home Office's Border and Immigration Agency (BIA). The BIA manages entries and administrative procedures related to the legal status of persons subject to immigration control (non-EEA nationals without right to reside permanently in the UK). Administrative statistics processed by the BIA’s different systems include: people given leave to enter the UK and people refused entry at borders; asylum applications and their procedural course; settlement data (i.e. grants and refusals of leaves to remain in the UK); applications for British citizenship; persons subject to enforcement action (i.e. migrants in detention and migrants removed from the UK). The BIA has also shared responsibility (with HMRC, DWP and DCLG) of the Worker Registration Schemes, a transitional scheme regulating access to the UK labour market and public benefits of EU accession country (A8) nationals. Other administrative sources providing useful statistical information on immigration and migrants in the UK are the National Insurance Numbers (NINo) allocated by the Department for Work and Pensions (DWP); registrations with local GPs recorded by the National Health Service (NHS); electoral registrations administered by Local Authorities; the records of students in higher education maintained by the Higher Education Statistical Agency (HESA); and the National Pupil Database managed by the Department for Children, Schools and Families (DCSF).

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7 Currently only UK Government agencies have access to the 2008 EU-LFS ad hoc module. A descriptive analysis of the key variables has been carried out by the ONS (2009).
4.1 Visa applications

Apart from EEA and Swiss nationals, those wanting to come to the UK for over 6 months, or to work, require a visa. All visa applications made worldwide for entering the UK are managed via the UK Border Agency Proviso-Central Referencing System (CRS) visa case-working system. Statistics on visas issued show intentions to visit rather than actual arrivals – a minority of people may obtain a visa without actually using it. UK BA Entry Clearance Statistics are published annually and provide details of all visa applications, issues, refusals, and appeals world-wide (http://www.ukvisas.gov.uk/en/aboutus/statistics/). The statistics are based on the UK Border Agency Financial Year (1 April to 31 March) and go back to 2001-02. Detailed breakdowns by type of visa, duration, nationality, and processing post are provided.

4.2 Landing cards

Landing cards represent a source of information on non-EEA nationals seeking to enter the UK from outside the common travel area (UK, the Channel Islands, the Isle of Man, and the Republic of Ireland). The statistics from the landing card system are used to measure the number of passengers granted entry to the UK by both category of entry (visitors, students, work permit holders, spouses and fiancées, refugees, returnees) and nationality, but only few additional variables are recorded at the moment. Another limitation of this source is that a landing card is completed for each journey, so individuals making more than one journey are counted on each occasion. Furthermore, no information is available on people leaving the UK, although information on intended duration of stay is now collected. An electronic system of border management (e-Borders) is currently being developed (see par. 6.1) which will provide a new IT-based source for processing data on entries into (and exists from) the UK. The statistical data from the Home Office landing card database are published quarterly and annually in the 'Control of immigration' statistical bulletins (section 1 on border control) (http://rds.homeoffice.gov.uk/rds/immigration-asylum-stats.html).

4.3 Labour-related admissions

Administrative files related to the permission to work in the UK for labour migrants provide useful sources of statistical information for the measurement of labour migration. These are flow statistics, i.e. there are no data on the stock of labour migrants on the different schemes working in the UK at a given time. The main caveat in the use of data is that changes in regulations strongly affects their trends over time, so the continuous changes in the UK immigration systems in the last decade have created significant discontinuities in the series. Available data for the various schemes are collected by the UK Border Agency in different archives and can be summarised as follows:

- The Work Permit system (Tier 2 of the PBS from November 2008) was the main route of entry into the UK labour market for non-EEA skilled workers. The work permit database, managed by the BIA, was derived from employer applications. There were four basic types of application: 1) work permits (for foreign worker residing outside the UK); 2) first permissions (for foreign
workers already in the UK); 3) extensions (for when an employer wishes to extend the duration of a work permit); and 4) changes of employment (for when work permit holders change their employer or the terms and conditions of employment). Data were available by employer’s postcode, nationality, occupation, industry and gender from 1995. Permits granted for intra-company transfers were also singled out. It is not clear so far whether the transition to the PBS will imply significant changes in the way the statistical information is collected and processed.\textsuperscript{8} The backlog of applications meant that they continued to be processed after the official start of the PBS. By consequence, progress on processing statistics based on the new system has been slow. Early published statistics show that, besides intra-company transfers, separate data are available for permits obtained under the shortage occupation list and permits issued following a resident labour market test (MAC 2009a: 73).

- The **Highly Skilled Migrant Programme (HSMP)** was launched in January 2002 for non-EEA nationals with exceptional professional skills and potential to come to the UK and seek work or take up self-employment. In the new points-based system, HSMP has become Tier 1. The former International Graduate Scheme (a channel for non-EEA students in higher education to stay in the UK for one year after graduation) has also converged into Tier 1. Like for Tier 2, data production for the new system is still in its early days. The first data released were published in the MAC report on tier 1 of the PBS (MAC 2009b: 48).

- The **Sectors Based Scheme (SBS)** was introduced in May 2003 to address shortages in food processing and the hospitality sector. The scheme, operated on a quota basis, has undergone significant changes - in 2005 the hospitality sector was withdrawn and from 2007 the SBS has been reserved for citizens of Bulgaria and Romania. With the advent of the PBS the SBS may be replaced by Tier 3 - if and when it will be activated.

- The **Seasonal Agricultural Workers Scheme (SAWS)** is a quota based scheme used to manage the movement of young people to take up seasonal work in agriculture. Prior to 2008, SAWS was a major route of entry for citizens of those countries of Eastern Europe and the former USSR that were not A8 members. After the 2007 EU enlargement the UK Government assumed that Bulgarian and Romanian citizens would fill the quotas.

- The **Worker Registration Scheme (WRS)** was introduced in May 2004 to regulate access to the labour market of migrants from the Accession 8 countries (Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia and Slovenia) and to restrict their access to benefits. The scheme has been administered by the UK Border Agency (UKBA), the Department for Work and Pensions (DWP), HM Revenue and Customs (HMRC) and Communities and Local Government (CLG). The scheme was scheduled to terminate in April 2009 but has been extended until April 2011. A8 nationals are allowed to take up work with a UK employer but are required to register

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\textsuperscript{8} Salt (2010) suggests that direct comparison between work permit and Tier 2 statistics will not be entirely possible for both conceptual and practical data reasons.
with the scheme and pay a registration fee to the Home Office; a new registration is required when an individual changes employment or is employed by more than one employer until 12 months of continuous employment have been reached. WRS data can be used to measure inflows of A8 citizens coming to work. Year of registration, nationality, date of birth, gender, occupation, industry, initial wage and location of the employer are routinely recorded. However, WRS data underestimate labour migration from A8 countries because not all A8 migrants register with the scheme - the registration fee is a disincentive and the self-employed are not required to register. Another weakness is that there is no requirement to de-register, so the dataset does not yield any information on the actual length of stay or the number of A8 migrants working in the UK at any point in time. Note that ‘A2’ migrants from Bulgaria and Romania (which joined the EU in January 2007) are subject to greater restrictions on entry to the UK than A8 migrants and are not covered in the WRS.

- The Working Holiday Makers Scheme (WHMS) was designed to allow young people from Commonwealth countries coming to the UK for a holiday of up to two years to work for part of their stay. The Scheme has been incorporated within Tier 5 of the PBS. Working holidaymakers are potentially a significant group in the labour market, although available data provide very little information. It is not possible to know what jobs they take and how many of them work at any one time. Nationality is recorded but little is known about other characteristics. There is no regional breakdown in the statistics.

- Domestic worker visas are available to non-EEA nationals to come to the UK with an employer and work in a private household. Domestic workers are issued (renewable) fixed duration visas and can change employers while in the UK but are not allowed to take up a different type of employment. The Home Office publishes data on the number of domestic worker visas issued but no other statistical information on this group is released.

A comprehensive overview of labour migration statistics is published annually in the report of the UK SOPEMI correspondent (Salt 2010). In particular Work Permit data were reported with breakdowns by industry, nationality and occupation. A detailed statistical picture of WRS data was published quarterly by the UK Borders Agency in its Accession Monitoring Reports, illustrating the profile of applicants and of registered workers by nationality, age and gender, intended length of stay, type of employment, hours of work, wages and a regional disaggregation (Home Office, various years). The report is no longer published - the last quarter covered was January-March 2009 - and aggregate data are now only released in the Home Office’s ‘Control of immigration’ quarterly statistical summaries. Similarly, the reports on Bulgarian and Romanian Accession Statistics are not published anymore. WRS Local authority level data are made available in Excel format to users with a ‘.gov.uk’ e-mail address via the website of the Local Government Association (http://www.lga.gov.uk/lga/core/page.do?pageld=1095225).

Administrative files of the various labour-related admission schemes are subject to high standards of confidentiality in accordance with the Data Protection Act. However, data can be obtained via a Freedom of Information (FoI) request to the UK Border Agency
4.4 National Insurance numbers

An alternative data source on foreign nationals newly entering the UK labour force is provided by the allocation of National Insurance numbers (NINOs). New numbers are issued to all non-UK nationals aged 16 or over working, planning to work legally or claiming benefits in the UK, regardless of how long individuals intend to stay. NINO statistics, managed by the Department of Works and Pensions (DWP), provide a pretty good indication of the number of economically active foreign nationals entering the UK. Nevertheless, some caveats should be considered when using this source:

- there is no information on the length-of-stay, no requirement to de-register when leaving the country, and NINOs do not expire, so this source does not capture out-migration. Cumulated flows are not a reliable measure of the stock of migrants working in the country at a specific point in time because of the temporary nature of much recent immigration;
- NINO records take no account of the length of time spent in employment during the year;
- data refer to year of registration, not year of arrival in the UK and there may be a significant delay between the two events;
- migrants who already have an existing National Insurance Number (for example returning UK nationals or foreigners who have already worked in the UK) are not counted;
- there is no indication of internal movements within the UK. Therefore, data at local level may be biased - i.e. NINO registrations may underestimate the actual presence of overseas nationals in local areas receiving large secondary migration flows, while in ‘gateway’ areas NINO registrations may be inflated.

The DWP makes available data on the NINO allocations to overseas nationals via its online cross-tabulation (http://research.dwp.gov.uk/asd/tabtool.asp). Statistics can be compiled by age, gender, nationality, world area of origin, and a wide range of territorial units (GORs, Local Authorities and Parliamentary Constituencies). Data are available from January 2002 by calendar and financial year of registration. The DWP also produces an analytical report and summary tables - which can be found on the same webpage.

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9 Attempts are being made to estimate when a person has left the UK from their contributions and benefits history (see par.)
4.5 Asylum applications

The Home Office maintains an administrative database of individual cases relating to asylum applications, extensions to leave to remain and permanent settlement, and acquisition of citizenship – the Casework Information Database (CID). The archive contains information relating to personal information on the applicants as well as to their claims and how they are progressing through the system, thereby providing longitudinal data on asylum applications. There are however some issues with the quality of the information – duplications due to different name spellings or other misreported biographic details, ineffective record linkage between asylum claims and the following applications for settlement and nationality (Lenoël et al. 2010).

Asylum statistics are by far the most comprehensive in the Home Office reporting system. Detailed statistical data on asylum seekers are reported in the Home Office annual reports and quarterly statistical summaries 'Control of Immigration: Statistics United Kingdom', which include supplementary tables downloadable in Excel format (http://rds.homeoffice.gov.uk/rds/immigration-asylum-stats.html)\(^\text{10}\). Data on asylum applications and decisions are reported with extensive information on both the administrative procedure and the applicant. Almost 30 tables have been published for 2008 including time series for the last decade of asylum applications (plus a comparison of EU-27 countries) and outcomes of initial decisions (granted asylum, granted humanitarian protection, granted discretionary leave to remain, refusals); a number of cross-tabulations breaking down applicants by type (principal applicants, dependants, and unaccompanied minor), age, sex and single countries of nationality; and tables on and regional distributions by local authorities of asylum seekers receiving support (by type of support).

4.6 Visa extensions, settlement and acquisition of UK citizenship

Non EEA nationals without indefinite leave to remain in the UK are required to apply for an extension of their visa or change in status before their existing permission to enter or stay has expired - unless they intend to leave the country. Statistics on non-asylum after-entry applications to extend leave to remain or change immigration status are reported in the section 'Managed migration' of the Home Office immigration statistics. Data are shown by immigration status (including status of the main applicant for dependants) for the last five years (2004-08) and by nationality (for 2008).

More detailed figures are provided for the specific subgroup of non-EEA nationals subject to immigration controls who apply for indefinite leave to remain (settlement) after a time limit and/or other conditions have been fulfilled. Data for grants of settlement are grouped into four categories: employment-related (on completion of 4-5 years), asylum-related (principal applicants and their dependants), family formation and reunion (by family relationship), and on discretionary basis (grants after a long period of continuous residence in the UK and, from 2007, aimed at clearing the backlog of unresolved cases). In the supplementary tables these categories are also broken down by nationality.

\(^{10}\) Asylum data were previously included in the Home Office report 'Asylum Statistics United Kingdom'.
Settlement statistics can be used as a proxy measure of long-term immigration of non-EEA nationals. They have the advantage over the ONS LTIM estimates (based on stated intentions on entry) of effectively capturing people who migrate to the UK permanently (or at least for a long period). They have of course some limitations, i.e. they only measure immigration (there are no comparable data on British residents settling abroad) and they provide a delayed measure of immigration, lagging net migration flows by about 4-5 years.

The Home Office annual report on the control of immigration also includes administrative data on removals, voluntary departures and assisted returns. Data are available by age, sex, nationality and country of destination.

A separate report is produced by the Home Office with statistical information on naturalisations and acquisitions of British citizenship - the annual Statistical Bulletin 'British Citizenship Statistics'\(^\text{11}\) (http://rds.homeoffice.gov.uk/rds/immigration-asylum-stats.html). Applications received, grants and refusals are reported. Grants are further disaggregated by basis (residence, marriage or minor children) Data on grants are also published by previous nationality, age and gender.

### 4.7 GP registrations (Flag 4)

The Patient Registration Data System (PRDS), managed by the NHS, holds records of all patients registered with General Practitioners (GPs) in England and Wales (data are not available for Scotland). When individuals whose previous address was outside the UK and who have spent more than three months abroad register with a local GP, they are attributed a specific code (Flag 4). The use of GP registrations for statistical purposes is debated among experts - some are critical of their well-documented weaknesses while others advocate an improved use of these records, particularly in relation to ‘Flag 4’ data (UKSA 2009). In theory, because all migrants are allowed to register with the local GP, regardless of their age and employment status, this source could provide the most comprehensive coverage of immigration flows. For example, a definite advantage of GP registration is that, unlike other administrative sources, migrant children are likely to be recorded. On the other hand, there are issues affecting the quality of Flag 4 statistics as a method for counting immigration. Some are common to most other administrative data - there is no indication of the delay between arrival and registration and no information is captured on patients who have left the UK. Other problems are specific to this data source:

- Some migrants may not register for GP services at all - particularly short-term and/or younger economic migrants, especially healthy males. This has particular implications for local area statistics, i.e. GP registrations underestimate migrant inflows in areas with relatively high levels of short-term migration;

\(^\text{11}\) The report was previously named 'Persons Granted British Citizenship'.
• the Flag 4 code is not retained once a patient moves within the UK and registers with a new GP (a relatively frequent occurrence even for short-distance moves). As the Flag 4 estimates are based on a mid-year ‘snapshot’ of the PRDS files, if this internal migration occurs within the year of first registration, i.e. before the following mid-year snapshot, the in-migration will not be recorded;

• Age and gender are recorded, but information on nationality and country of birth is not systematically collected.

Flag 4 data for local authorities, including explanatory notes, are available on the ONS websites for the period 2001-08 [http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15283].

4.8 Electoral Registers
The Electoral Register is a record of all individuals aged 18 or older resident in a local authority who registered to vote in national, European or local elections. Theoretically, electoral register data can be a source of information on both internal and international migrants who are entitled to vote in the UK. However, an effective statistical exploitation of the registers is prevented by the absence of a centralised, IT-based system. Each local authority manages its own data collection process, and the information varies significantly between local authorities. Attempts to use the source to produce data on immigration at local level have produced mixed results. The London Borough of Barking and Dagenham is trying to develop its own estimates of in-migration based on the electoral register. Using the monitoring forms, detailed information was collected (age, gender, country of birth, nationality, ethnic group, first language, current and previous address, number of people under 18 in the household, and type of housing tenure). However, limitations in the coverage of the register have emerged, e.g. short-term migrants and those with the most limited eligibility to vote (i.e. non-EU citizens) were less likely to register (Lenoël et al. 2008).

4.9 Data sources on migrant students
As mentioned above the Home Office releases figures on the number of students granted leave to enter the UK and on student visa extensions. These data include all student entries and not just those coming for higher education. A source of statistical data on foreign students in Higher Education institutions is the record maintained by the Higher Education Statistics Agency (HESA). HESA administrative systems aggregate the information provided by all UK institutions into a single database which can generate both stock data (students enrolled in a given year) and flow data (students who arrive and depart during the year). Information on nationality is collected but because it is not a mandatory field the coverage is typically poor (Boden & Rees 2010). Proxy information on the duration of stay of a student can be derived from the year of study. Ethnicity is only recorded for students with a UK domicile. For international students only the location of the institution (not residential address) is recorded.
HESA produces statistical reports which include the demographic breakdown of students, only publish broad totals for overseas-domiciled students (i.e. EU and non-EU) in their standard statistical outputs (http://www.hesa.ac.uk/index.php/content/view/600/239/). However, there is potential for making use of commissioned tables generated (for a fee) from the HESA database – and this is likely to be of particular interest for local areas with higher education institutions.

The School Census – which has replaced the Pupil Level Annual School Census (PLASC) – provides a count of all pupils in maintained education in Britain. It is used to compile the National Pupil Database (NPD) managed by the Department for Children, Schools and Families (DCSF) – now Department for Education. It is based on statutory electronic returns from schools and includes individual records of about 8 million pupils each year. Pupils are identified by a unique pupil number (UPN) so they can be followed throughout their school careers. Their records include details of age, gender, ethnicity, first language (since January 2007), and (home) postcode. The NPD does not provide a direct data source on migrant children as there is no information on country of birth/nationality of pupils and their parents. However, it has been suggested that first language could be used to identify children of international migrant families (Lenoël et al. 2008; Rees et al. 2009). Migrant children could also be captured by looking at those who joined the system at an age above the start of schooling (Lenoël et al. 2010).

The DCSF regularly published research and statistics on ethnic minority pupil attainment. Access to the NPD dataset is very restricted – it is mainly shared only within education authorities and other Government departments. However, researchers can require access. Applications are assessed on an individual basis and the dataset is released only subject to the approval of the department's chief statistician. Support for users is provided by the PLASC/NPD user group (PLUG) based at the University of Bristol (http://www.bris.ac.uk/cmpo/plug/)

5. Data sources on migrant integration

This section provides a brief overview of data on migrant integration – intended as measurable outcomes\(^\text{12}\) in various domains of family, social and economic life.

\(^{12}\) The legal framework defining the economic, civil and political rights of different categories of migrants and regulating their access to the welfare state is not considered in this section. Integration policies can obviously have great impact on migrant opportunities to settle and participate in the host society. A European comparative project produced multi-dimensional indices measuring policies which shape integration of third-country nationals across EU countries – the Migrant Integration Policy Index (MIPEX) (see http://www.integrationindex.eu/). MIPEX covers six policy areas: labour market access, family reunion, long-term residence, political participation, access to nationality and anti-discrimination.
5.1 Employment

The LFS is by far the most useful data source on migrant labour market performance because of its focus on employment characteristics and outcomes. The LFS also includes data on alternative sources of income, and reception of public benefits. The Census also collects information on economic activity and employment but in much lesser details and providing only a decennial snapshot – the main advantage of using Census statistics is of course its quasi-universal coverage.

5.2 Education

The National Pupil Database (NPD) can be used to do analyses of educational outcomes and pupil attainments for different groups (by language spoken or ethnicity). The Higher Education Statistics Agency (HESA) database includes information on student outcomes (qualification obtained). HESA also conducts a survey of former students three and a half years after they left higher education (Destinations of Leavers from Higher Education Survey, DLHE) exploring their outcomes in the labour market. The OECD Programme for International Student Assessment (PISA) collects data on school outcomes of children born to foreign-born parents - further divided between those born in the country of origin who migrated with their parents (first generation) and those who were born in the country of destination (second generation). Results of the 2006 PISA assessment on science competences of migrant children in the UK were not published in the national reports for its constituent countries, but were included in the comparative tables in the overview report (OECD 2007). The latest data collection was carried out in 2009 and results will be published in December 2010. The LFS/APS is also a useful source of information on educational attainments, qualifications held by respondents and workplace training.

5.3 Social participation and community cohesion

The Citizenship Survey is the main source of information on race and faith, civic participation and community cohesion. It was conducted on a biennial basis since 2001, previously under the responsibility of the Home Office (known as HOCS) and since 2006 by the Department for Communities and Local Government. The survey moved to a continuous design in April 2007, i.e. data became available on a quarterly basis. Once collection for the four quarters is complete, a full aggregated dataset is made available. The main topics covered by the survey include religion, identity and social networks, feeling about the community (including of people of different ethnic backgrounds), civic engagement, political participation, race and religious prejudice, perceptions of discrimination, and values. Questions on experiences of immigration authorities are also asked. The 2008-2009 dataset included a total sample of nearly 15 thousand people aged 16 and over resident in England and Wales. This comprised a minority ethnic boost, so BME groups make up over 40% of the sample. For this reason, the foreign-born population is also over-represented (34%). One advantage of the Citizenship survey is that information on the country of birth of parents is collected, allowing one to identify
migrants with British ancestry. The aggregated Citizenship Survey datasets (including four quarters from April to March) are available through the UK Data Archive (http://www.data-archive.ac.uk=findingData/hocsTitles.asp). However, some variables are available only with special access, including the detailed breakdown by country of birth. The main problem with the aggregated categories included in the unrestricted database is that they do not allow one to identify EU migrants (they are included in a broad residual group).

5.4 Housing

The most important source of information on housing and residential patterns in the UK is the national Census which identifies respondents’ tenure, type of accommodation and amenities. A survey which provides more comprehensive data (but much less detailed geographical coverage) is the English Housing Survey (EHS): it currently identifies only ethnicity but it will be integrated in the IHS (see par. 6.4) so it will be possible to link the data with the core module which include questions on country of birth, nationality and year of entry. The Labour Force Survey currently collects information on housing tenure. The CORE database is another potentially valuable data sources on persons letting or buying supported / low cost accommodation from Housing Associations and Local Authorities, and the information on nationality is included (https://core.tenantservicesauthority.org/index.cfm).

5.5 Language

The Citizenship Survey collects information on language spoken in the household and proficiency in the use of the English language – speaking, reading and writing. The Labour Force Survey also asks about language spoken at home, and includes questions about language difficulties experienced in education and employment.

5.6 Health and lifestyle

The General Lifestyle Survey (GLF), formerly known as the General Household Survey (GHS), is a multi-purpose survey conducted on an annual basis by the ONS, sampling around 20,000 individuals living in private households across Britain. The GLF questionnaire covers a wide range of topics which are relevant for analyses of migrant social integration, such as accommodation type, housing tenure/costs, consumption habits, child care, health, smoking, and drinking. The survey collects information on country of birth and nationality, although mainly for groups of countries. The GLF datasets are deposited with the UK Data Archive but from the 2007 wave onwards they have been made available only to Approved Researchers under Special Licence access conditions.

The national Census also includes general data on health conditions. More detailed information on health outcomes and access to health care is provided by the Health Survey for England, but this source collects only ethnicity data. The Labour Force Survey also includes a number of questions on health.
5.7 Fertility and family formation

Birth statistics by country of birth of parents are available from compulsory birth registrations. Cross tabulations of the country of birth of mother with age, area of residence, marital status and birth party are published in the ONS annual birth statistics series (see http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=5768 and http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=14408). A research paper analysing in great detail trends of births to foreign-born mothers was also recently published by the ONS (Tromans et al. 2009). Marriage, divorce and adoption statistics (registrations of events) are not available by country of birth of spouses. Information on marriage and family patterns of the foreign-born population can be derived from main stock data sources which collect household data (Census, Annual Population Survey). Data on grants of settlement on basis of marriage are published in the Home Office 'Control of Immigration: Statistics'.

5.8 Attitudes toward migrants and ethnic minorities

The British Social Attitudes (BSA) survey series has been running since 1983 to produce annual measures of public opinions and attitudinal perspectives towards a number of key topics. BSA is carried out by the National Centre for Social Research (NatCen). It is designed to complement large-scale government surveys measuring outcomes and behaviour patterns such as the GLS and the LFS (although with a much smaller sample, about 4,000 respondents), as well as the data on party political attitudes produced by the polls. Micro-level datasets are accessible via the UK Data Archive (http://www.data-archive.ac.uk/findingData/bsaTitles.asp). Questions exploring different aspects of public attitudes to immigration and migrants were occasionally included. The 2003 survey questionnaire had a full module exploring attitudes to immigrants administered to a subsample (one quarter) of respondents. In the BSA 2008 questions on whether immigration is a threat for national identity and on how many immigrants should be admitted to Britain were asked in the questionnaire module on faith and religion. The same question on the preferred levels of immigration has been included from 2007 in the Citizenship Survey, generating comparable results between the two sources.

Attitudes towards migrants and ethnic minorities have also been explored in the Eurobarometer, a European comparative survey series on public social and political attitudes in the EU. Questions on attitudes towards immigration and immigrants were often included although they were typically phrased differently across the various waves. A detailed list of questions on immigration asked in the different waves can be found on the Leibniz-Institute for the Social Sciences website (http://www.gesis.org/en/services/data/survey-data/eurobarometer-data-service/eb-trends-trend-files/list-of-trends/immigrants/). While the Eurobarometer currently cover all EU-27 member states, the sample for single countries is small (in the UK n=1,000 for Great Britain and n=300 for Northern Ireland). Access to the Eurobarometer can be gained via the GESIS ZACAT portal (http://zacat.gesis.org/), including primary data for statistical analysis and related documentation (questionnaires, codebooks, etc.). UK data can also be ordered through the UK Data Archive (but are not available for online access).
Opinion polls focusing on or including attitudes towards immigration and asylum are also produced by UK companies for market research. IPSOS-MORI (http://www.ipsos-mori.com) surveyed public opinions on immigration and immigration policy several times in the past two decades, producing also data series comparable over time for some specific questions such as the desired number of immigrants in Britain or the preferred changes in immigration policy. YouGov (http://www.yougov.co.uk) has also included questions on immigration in its opinion polls on voting intentions, and carried out some commissioned surveys on the topic.

5.9 Other data sources

Other national studies potentially providing data on migrant integration are the major longitudinal datasets – e.g. the British Household Panel and the Millennium Cohort Study, the latter focusing on children. These surveys collect information following a group of participants over time, thereby representing the best type of datasets for analysing cause-effect relationships. However, while variables identifying migrant respondents (country of birth and year of entry) are normally collected, their usefulness in providing data on international migrants is actually limited for a number of reasons. First, samples are relatively small, so analyses focusing on migrant participants are constrained by high sampling errors. Second, new migrants arriving in the UK are by definition excluded, so longitudinal surveys can mainly provide information on long-established migrant residents (people who were already in the UK at the beginning of the data collection). Third, drop-out rates are typically higher for migrants because of a higher probability of leaving the UK, and return and secondary migration are selective processes (e.g. depending on success of migratory plans). Therefore, there is limited scope for analyses of migrant outcomes based on existing panel datasets.

In addition to the major national surveys and international datasets, the UK Data Archive also stores a large number of datasets produced by academic research - e.g. all research projects funded by the ESRC are required to deposit original data collected. Few of these studies provide (mainly qualitative) data on migrants, typically focusing on specific groups or topics.

6. Recent developments and initiatives

In 2006, an Inter-departmental Task Force on Migration with the objective to suggest timely improvements that could be made to estimates of migration flows and migrant populations in the UK (ONS 2006). Building on the Task Force recommendations, and following the publication of the Treasury Committee’s report into UK population statistics (House of Commons Treasury Committee, 2008) a cross-government initiative led by the ONS – the Migration Statistics Improvement Programme (MSIP) – was established to deliver the improvements as set out by the review (UKSA 2009). The remit of the programme, running until 2012, is to produce better estimates of international migration from the International Passenger Survey; more robust estimates of the geographic distribution of international migrants at local level (particularly with a view to minimise the divergence between the rolled-forward,
mid-year population estimates and the 2011 Census results); stock and flow estimates of short-term migration; and a new set of migration questions for the 2011 Census. The programme is also exploring the potential for improving migration statistics through using administrative sources and record linkage procedures, taking forward the recommendation of the Inter-departmental Task Force on Migration that access and statistical exploitation of the Work and Pensions Longitudinal Study (WPLS), NHS Patient Registration Data System, the School Census, and the Higher Education Statistics Agency (HESA) should be facilitated. A progress report of the implementation of the MSI programme has been published by ONS (2010a). This section reviews the main ongoing initiatives aiming to improve the availability and quality of migration statistics in the UK.

### 6.1 International Passenger Survey and e-Border system

From January 2009 the IPS design has been revised with a view to strengthen its reliability as a data source on immigration and emigration. A new survey design was implemented with a larger sample of migrants, greater coverage of air and sea ports and new questionnaire content. A new data processing system was also developed to support the new survey design, with a new weighting methodology and procedure for the imputation of missing responses. The revisions have been designed to have minimal impact on comparability with previous estimates but may result in some discontinuity (particularly in relation to travel and tourism estimates). ONS are planning to publish a report on the impacts of the IPS sample redesign in August (ONS 2010a).

The Migration Statistics Improvement Programme is also committed to the improvement of administrative data that could be used in conjunction with the IPS in order to produce more robust estimates of migration flows. In particular MSIP is focusing on the statistical use which might be made of the e-Borders system. The e-Borders system is currently being established with the primary aim of securing the UK borders. It will eventually record all people travelling in and out of the UK (except across the Irish land border) by requiring carriers arriving in or departing from the UK to provide passport details of all passengers to the UK Border Agency in advance of travelling. Long-term migration statistics based on data from the e-Borders system will not be available until 2013, while short-term migration estimates should be available earlier (UKSA 2009). It is expected that the e-Borders system will enable an improvement in the way international migration is estimated at a national level. However, it will not be able to contribute to improved allocation at a local area level. Moreover, e-Border data will not provide as much information as the IPS questionnaire (e.g. on intended length of stay), so a passenger survey will still be needed for the monitoring of migration flows. Therefore, MSIP is currently exploring

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13 Interestingly, MSIP does not see the production of data on migrants entering the UK on the Points-Based System as a priority to improving the migration data (UKSA 2009).

14 The implementation of the e-Border system is being delayed by data protection problems, as concerns were raised about its compliance with EU rules on freedom of movement.
in more detail how the two sources could be integrated highly reliable and cost-effective migration statistics (ONS 2010b).

6.2 Short term migration estimates

Estimating the likely ‘length of stay’ is a key element to improve the quality of almost all sources of migration statistics. A major shortfall in UK migration data collection has been the lack of information on short-term movement. Unsurprisingly, a key recommendation put forward by both the Inter-departmental Task Force on Migration Statistics and the House of Commons investigation on population statistics was to produce reliable estimates of short-term migration at sub-national level which could feed into mid-year population estimates (ONS 2006; House of Commons Treasury Committee 2008).

In 2008 the ONS published its first set of experimental estimates on short-term migration at national level in England and Wales (for mid-2004 and mid-2005). Since they were first published, ONS have undertaken a research programme to develop these estimates, with a view to improve their quality and timeliness, make them consistent with estimates of long-term migration from the IPS and counts of migrants from administrative sources, and produce statistics at lower geographical levels. At the end of 2009 the first set of short-term immigration statistics at local authority level were published – including extensive discussion of the methodology used (ONS 2009c). The latest estimates for mid-2008, with a revised methodology, were published in February 2010 (http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=15363). They include estimates of short term inflows and outflows, for two distinct lengths of stay (1-12 months and 3-12 months), and by major reason (employment, study, other). Despite progress made, short-term migration estimation at local level remains problematic due to inadequate information on length of stay. For example, the scale of recent migration to London that is evident from other administrative data sources (e.g. National Insurance registrations) does not seem to be adequately captured (Rees et al. 2009).

6.3 The local distribution of long-term immigration

As mentioned above, one of the main weaknesses of the International Passenger Survey is its inability to produce robust estimates on the final destination of immigrants within the UK. In order to improve local area estimates of long-term migration ONS has developed alternative models for distributing international migration to local areas (ONS 2008b). The focus of these methods has been on the final stage of distribution, replacing census data with administrative data (NINOs and GP registrations) as the basis for allocating LTIM flows. As part of this exercise, the ONS has produced a package of Local areas migration indicators which provide a comparison of all major data sources and estimates (ONS estimates, NINOs, APS, Flag 4, WRS) for local authorities In addition to absolute figures the package includes some composite measures, such as the population internal and international turnover (http://www.statistics.gov.uk/statbase/product.asp?vlnk=15239). An alternative model for the estimation of immigration at local level has also been proposed, also relying on a combination of administrative data for the sub-national distribution (Boden & Rees 2010). An independent review
comparing the two approaches concluded that neither of them was systematically leading to better estimates and identified trade-offs in the use of either method (Bijak 2010).

6.4 Integrated Household Survey (IHS)

The Integrated Household Survey (IHS) - also known as the Continuous Population Survey (CPS) - is a composite survey combining questions asked in a number of national social surveys to produce a dataset of core variables. It consists of two sections: a core module and thematic survey modules. Asking the core questions to all participants allows the IHS Core to have the largest sample size of any other single ONS household survey. This will enable higher quality estimates to be produced on IHS topics, at a lower geographical level. The Core on the IHS currently contains around 100 questions, including nationality, country of birth, year of entry and ethnicity. Other themes also include economic activity, income, education and health. The main IHS output will be a series of annual rolling quarterly datasets. The planned first release will be for the survey period of April 2009–March 2010, due for publication in September 2010 and available on the UK Data Archive.

6.5 Migrant Workers Scan

A new approach based on the statistical exploitation of the NINO records is being developed by the ONS. The Migrant Workers Scan is an extract of the DWP National Insurance Recording System (NIRS-2) capturing the cumulated flow of NINOs allocated to overseas nationals during a given time period. ONS has conducted a feasibility assessment of the potential of these records to improve the quality of migration statistics (ONS 2009d). This assessment has shown that successful linkage of successive data extracts from the MWS can capture some internal moves of overseas nationals and provide some evidence on the lag between their arrival in the UK and registering for a NINO. Nevertheless ONS has identified a number of issues with these data, including out-of-date addresses, definitional difficulties (e.g. in relation to the length of stay) and misreported information (e.g. previous country of origin rather than nationality). ONS is currently investigating possible procedures of record linkage of MWS data and patient register data using date of birth, gender and postcode, in order to identify onward moves captured by one or both sources. ONS is also exploring the potential for MWS to improve data collection on migrants within the 2011 Census.

6.6 Works and Pensions Longitudinal Study (WPLS)

The Work and Pensions Longitudinal Study (WPLS) is a database combining information on benefit payments with earnings data drawn from HM Revenue & Customs income tax systems. It provides comprehensive coverage of all individuals who are active in the labour force. WPLS contains records of all contacts with DWP (since 1998), which are matched through the individual national insurance number thereby providing longitudinal data on individual career pathways. The database has great potential to be exploited as a source of data on labour migration and migrant workers (Rees et al. 09). DWP is currently exploring the possibility to identify overseas NINO holders who have left the country
based on the dates of the last contact with the system (Lenoël et al. 2010). Access to the database is currently restricted to DWP officials only.

6.7 Census 2011

In the 2011 Census a number of new questions will be included and changes to definitions will be made in order to improve the data collection on migrants in the UK, including information on visitors present in the household, year and month of entry into the UK (for foreign born), and intended length of stay in the UK. These additional variables will be used to improve estimates of the ‘usual resident’ status of migrant respondents, and will enable data to be produced on short-term migrant residents.

While these ad-hoc questions will certainly improve the quality of the information on migrants, more general concerns have been raised about the coverage of the 2011 Census and its capacity of to produce precise population estimates - and the cost-effectiveness of investing almost £ 500 million in this operation. The UK Statistics Authority has envisaged the risk that, as for the previous census, significant discrepancies will emerge between rolled-forward population estimates, administrative data and the 2011 Census results. Such a mismatch could make cross-checking between data sources problematic and impact on the credibility of the 2011 Census itself (UKSA 2009).

Full outputs of 2011 Census will be available in 2013 - the official timetable for data release will be made public in October 2010.

6.8 Beyond 2011

As discussed in this paper the UK demographic and migration statistics are based on a combination of traditional censuses, a range of surveys and administrative data. However, the fitness for purpose of this approach is being questioned (ONS 2010c). For example, the Statistics Commission recommended that the 2011 Census should be the last traditional census, and that alternative methods based on administrative data should be found to measure the population and its characteristics (UKSA 2009). Experts on demographic statistics have made the case for a setting up a population register inspired by the Scandinavian model (e.g. Coleman 2007; Rees et al. 2009) and used for statistical purposes as well as public service delivery, a view which has been endorsed by House of Commons Treasury Committee15.

In order to assess the feasibility of improving UK demographic and social statistics through alternative data sources which could complement or replace existing approaches the Beyond 2011 project, led by the Office for National Statistics, was launched (http://www.ons.gov.uk/about-statistics/methodology-and-quality/imps/beyond-2011/index.html). The project will investigate alternative census and survey

15 One of the recommendations of the House of Commons Treasury Committee inquiry on ‘Counting the population’ was that «the Statistics Authority establish a pilot project enabling a population register to be operated alongside the 2011 Census in order to compare the effectiveness of such a system with that of the Census» (2008: 44).
designs, as well as the potential of administrative data sources for replacing a traditional census in the future. The combination of different administrative sources by linking individual records via a common identifier (such as NHS number or National Insurance number), and the related data protection requirements, will also be explored. However, it is not a strategic priority of Beyond 2011 to build and maintain a population register in its own right (ONS 2010c).

6.9 Other ongoing initiatives

The UK Border Agency is investigating the feasibility of conducting a large-scale survey of migrants. The survey is intended to provide richer information on reasons for migrating to or from the UK, on migrant work and education, and the economic and social impacts of migration on the UK. The feasibility study was commissioned via competitive tender to Ipsos-MORI in partnership with the Institute for Education. The fieldwork is expected to start in autumn 2010 but the full implementation of the survey is dependent on obtaining sufficient co-funding.

As part of an ESRC funded project on the demographic profile and dynamics of the UK’s ethnic groups a New Migrant Databank (NMD) combining alternative sources of international migration data has been developed by the School of Geography at the University of Leeds. The NMD combines and compares data sources to present patterns and trends in international migration at a national and local level. Results of the comparison of administrative data at different geographical levels pointed to several inconsistencies, showing the difficulty of combining alternative measures to obtain a coherent picture of migrant flows at local level (Boden & Rees 2008). The project was due to end in March 2010. It is not stated whether the NMD will be made public for wider use.

7. Conclusion

There is no single data source which provides comprehensive and robust estimates of international migration and the migrant population in the UK. Censuses provide the most geographically comprehensive and migrants but data ages rapidly between decennial censuses. Surveys are rich in information but their estimates are often constrained by small sample sizes and by the difficulty of adequately capturing migrants (particularly international migrants) in the data collection. Administrative sources generally provide comprehensive geographical coverage and a timely source of statistics but the information they collect is limited and often refers only to a sub-set of the population (e.g. workers or asylum seekers). Therefore, understanding the strengths and limitations of each data source is essential to a correct interpretation of migration statistics, and the comparison of different data sources can give a more representative picture of migration and migrants than a single source can offer.

In absence of a population register, the UK statistical system is characterised by a relatively high reliance on sample surveys in comparison with other countries. The fitness for purpose of this approach has been questioned, particularly in the light of the increased international and internal mobility of the UK
population. However, in the last decade progress has been made in the statistical exploitation of administrative records. Much collaborative working and data sharing practices is ongoing across government departments and local authorities, with the potential for improving significantly the quality of migration data. In addition, the 2011 Census could provide detailed and updated statistics on both short term and long term migrants – if its coverage of the migrant population will be large enough.

Yet this review showed that, despite some progress made, many gaps remain at all levels of the statistical production of migration data: data collection, statistical exploitation of the existing records, harmonisation and comparability of different data sources, and dissemination. In particular, there currently is no gateway available to final, non technical users of UK migration statistics providing systematic access to the information available and guidance on how it should be interpreted – a role that the Migration Observatory could well fulfil. An ongoing initiative at the University of Leeds, the New Migrant Databank, will possibly contribute to fill this gap, but it is unclear at this stage if and to what extent a continuous system of data reporting will be established for wider use – no outputs have been made available so far.

Based on the gaps identified by this review, the Migration Observatory may want to consider the following strategic priorities to focus its first three years of activity.

1) There is no systematic attempt to reconcile different data sources capturing migrants entering the UK on different immigration statuses. For example, information on non-EEA national work permit holders is available from visa applications processed at UK Embassies; from border statistics; from employer applications (including renewals); and from settlement applications. Likewise, various sources capture dependants at different stages of the migratory experience. A systematic comparison and integration of the different sources could provide new evidence on the legal pathways of non-EEA migrants within the UK immigration system, with significant impact on migration policy-making. This could ultimately lead to producing estimates of the stock of foreign nationals by immigration status at any point in time.

2) Migrant students are a category deserving particular attention because of their central position in the current immigration policy debate. HESA statistics and the National Pupil Database are not exploited to their full potential in the measurement of international student and school children migration. The quality of the statistical information on students could also be significantly improved by combining the different sources available on migratory patterns and of educational/labour market outcomes.

3) Contemporary migration trends, particularly within the EU, cannot be effectively measured without capturing short term migration. Although significant initiatives led by the ONS are already underway to improve estimates of short term migration flows, it seems important that the Migration Observatory at Oxford contributes to this area by engaging with the methodology, quality and policy implication of these statistics.

4) The information on migrants available from national household surveys has large unfulfilled potential. Only limited estimates are regularly produced from the LFS/APS (the ONS population estimates by country of birth and nationality). While the LFS is largely used by researchers for labour market analyses
of the migrant workforce, no estimates of migrant employment outcomes are regularly published and available for wider use. For example, the 2008 EU-LFS ad-hoc module on migrant workers (so far restricted in access and available for wider use later this year) includes a number of additional variables allowing one to identify more precisely different target groups (e.g. migrant with restricted access to the labour market or second generations). Also, estimates could be produced from the other national household surveys, such as the Citizenship Survey and the General Lifestyle Survey. While analyses for small groups may be limited by smaller samples, these surveys include information on various aspects of migrant lives in the UK relevant for understanding migrant integration and informing public service delivery.

5) The 2011 Census will provide significant new evidence on migration and migrants in the UK. Yet the ONS is likely to make available on the Census online portals only a limited number of cross-tabulations including information on the migrant population. The Migration Observatory could engage in broader dissemination of census statistics on migrants by commissioning additional tables to the ONS or producing its own estimates based on samples of anonymised records.
Main publications and online resources on UK migration statistics


NOMIS, Official labour market statistics, [https://www.nomisweb.co.uk/Default.asp](https://www.nomisweb.co.uk/Default.asp)


http://www.statistics.gov.uk/statbase/Product.asp?vlnk=15230


UK Data Archive, http://www.data-archive.ac.uk/
References


Home Office (various years). *Accession monitoring reports*. Joint online reports between the UK Border Agency, Department for Work and Pensions, HM Revenue and Customs, and Communities and Local Government (no longer available online).


### Synoptic table of UK international migration statistics

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<td>X</td>
<td>All</td>
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<td>ONS (SARs)</td>
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<td>International Passenger</td>
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<td>survey (IPS)</td>
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<td>Labour Force Survey</td>
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<td>Adults living in private households $^{(d)}$</td>
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<td>(Mar, Jun, Sep, Nov)</td>
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<td>Annual Population</td>
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<td>X</td>
<td>Adults living in private households $^{(d)}$</td>
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<td>Survey (APS)</td>
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<td>Citizenship Survey</td>
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<td></td>
<td>Adults living in private households $^{(d)}$</td>
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<td>General Lifestyle Survey</td>
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<td>(GLF, former GHS)</td>
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<td>(BSA)</td>
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<td><strong>Composite estimates</strong></td>
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<td>Long Term International</td>
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<td>Long-term migrants</td>
<td>CB, Nat, YA, PR, Dur, RM</td>
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<td>UK visas</td>
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**Synoptic table of UK international migration statistics (continued)**

| Source: | adapted from Lenoël et al. (2010) and Rees et al. (2009) |
| Notes: | (a) CB = Country of Birth; Nat = Nationality; PR = Country of previous residence; YA = Year of arrival; YR = Year of registration; Dur = duration of stay; RM = Reason for migration; TP = Type of permit; FL = first language. (b) England & Wales only. (c) Including border statistics, asylum statistics, and statistics on extensions and settlements. (d) Including people living in NHS accommodation. (e) Including boost sample of ethnic minority respondents. (f) Excluding self-employed. (g) Information not systematically recorded. |

<table>
<thead>
<tr>
<th>Stocks</th>
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