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An overview of administrative data as sources for migration data

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Abstract

With migration continuing to be at the centre of public and policy debates, the need for good quality data on migration has increased. Administrative data, collected primarily to support administrative processes rather than to produce official statistics, are traditional sources of migration data. For example, most countries issue visas and work or residence permits for foreigners to legally visit or remain in their territories. Border data collection systems can track flows of nationals and non-nationals entering and leaving through official border posts. In the case of involuntary/forced migration and internal migration, countries have records of asylum applications and city registrations. Even though these sources are not always recognized as a credible source of migration statistics in many countries, they can help the analysis of migrant stocks and flows, to some extent. Statistics from these sources provide a range of detailed and continuous information such as demographic and socioeconomic characteristics of people who change their country of usual residence. However, due to differences in definitions, these sources do not generate data that are comparable across countries or across different ministries within the same country. This paper assesses the different types of administrative data, identifying their strengths and limitations and providing an overview of national administrative sources in a global context.

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Introduction

With migration continuing to be at the centre of public and policy debates, the need for good quality data on migration has increased. Target 17.18 of the Sustainable Development Goals, the 2030 Agenda for Sustainable Development and the Global Compact for Migration have renewed the interest in alternative sources of reliable and sound migration data. This briefing paper assesses the different types of administrative data by identifying their strengths and limitations and providing an overview of national administrative sources in a global context.

Administrative data collected primarily to support administrative processes, rather than to produce official statistics, are traditional sources of migration data. For example, most countries issue visas and work or residence permits for foreigners to legally visit or remain in their territories. Border data collection systems can record numbers of nationals and non-nationals entering and leaving through official border posts. In the case of involuntary/forced migration and internal migration, countries also keep records of asylum applications and, in some cases, city registrations.

Even though these sources are not always recognized as reliable sources of migration statistics, they can support the analysis of migrant [stocks](#) and [flows](#)ⁱ to some extent. Data from such sources provide a range of detailed and continuous information such as the demographic and socioeconomic characteristics of people who change their country of usual residence. However, due to differences in definitions, legislative systems and data collection methods, these sources do not generate data that are comparable across countries or between different ministries within the same country.

Types of administrative sources

The appropriate use of administrative data, combined with survey and census data, can improve the accuracy of migration statistics as well as cover a broader range of objective and subjective variables. Therefore, National Statistical Offices are creating programmes to incorporate administrative data in their calculation of migration data. For example, the Office for National Statistics (ONS) in the UK is currently undertaking such a programme to “put administrative data at the core of [their] evidence on international migration (UK)... by 2020” (Office for National Statistics, 2019). See Sumption (2019) for a detailed commentary on how this enables policymakers and practitioners to evaluate both immediate and long-term impacts of policy changes.

The following table lists the types of migration data that can be obtained from administrative data sources.



Table 1: Administrative data as sources of migration

Type of source	Type of migration data
1. Administrative registers	
a. Population registers	Stocks of foreign/foreign-born residents
b. Registers of foreigners	Stocks of foreigners resident in country; based on residence/work permits
2. Border data collection systems	
a. Passport control	Number of border crossings, citizenship, exit and entry
b. Migration cards	Passengers' sex, date of birth, citizenship, purpose of entry
3. Specialized administrative systems	
a. Residence and/or work permits	Stocks of migrants and their socioeconomic characteristics
b. Official clearances of citizens to work abroad	Outflows of nationals
c. Asylum applications	Administrative records on asylum seekers
d. Registration in embassies and consulates overseas	Stocks of nationals living abroad
e. Registration with tax and social security authorities	Size of the foreign labour force in country
f. Insurance and/or medical records	Patterns and trends in immigration

Administrative registers

Population registers maintain a list of persons residing in a country and the data are usually collected at the municipal level. Therefore, these registers can potentially offer data on flows and stocks of both nationals and foreigners. Population registers are continuously updated with demographic changes such as civil status and change of permanent residence. They also often have information on the place of birth and



parental place of birth, offering data on the number of persons with a migration background (UN Economic Commission for Europe, 2016).

Centralized **registers of foreigners** are maintained by some countries. They include data on the number of applications filed, the number of successful applications and the type of permit issued. Some countries' registers include all foreigners whereas others include only foreigners with a certain length of residence and type of residence and/or work permit. They do not always keep records on dependent children because they tend to be added to parental records (ibid.). Additionally, education and labour departments of countries often maintain records of all students and foreign workers disaggregated by citizenship.

Border data collection systems

Information based on legal documents, such as **passports**, and statistical forms such as **migration cards** (also called embarkation/disembarkation cards), collected at borders can record both entries and exits.

Passport control data record the number of border crossings or migration events, country of citizenship, exit and entry. Additionally, some countries use **migration cards**, completed by travellers at entry and occasionally at exit, to complement the information obtained through passport control. These cards often have questions on the passenger's sex, date of birth, citizenship (for foreigners), country of departure (for nationals) and the purpose of entry (UN Economic Commission for Europe, 2016).

Specialized administrative systems

Residence and/or work permits issued in a given period can produce statistics on migrant flows and stocks, reasons for migration and socioeconomic characteristics. In traditional 'settlement countries', persons with permanent residence permits may generally be considered immigrants whereas some countries count both temporary and permanent residence permit holders as immigrants (OECD, 2018). Although nationals who leave the country are not recorded in permit data, **official clearances of citizens to work abroad** can be used to measure their outflows (Global Migration Group, 2017; IOM Global Migration Data Analysis Centre, 2018).

Statistics on asylum seekers are often based on administrative records of asylum applications. Some countries count asylum seekers only when their applications are successful, whereas other countries keep records of all applicants and applications at the primary processing stage. Additionally, some countries count all the family members or dependents, whereas some countries do not include such data (OECD, 2018).



In the case of countries where **registration in embassies and consulates overseas** is required to receive social benefits, these administrative data can allow the estimation of the stock of nationals living abroad. Since such registration is not mandatory in a lot of countries, data coverage is limited. In countries considered to have higher levels of risk for foreigners, foreign citizens may register themselves at their embassies and consulates even for short stays, and this can lead to overestimation of the numbers of nationals living abroad. As is the case with population registers, people do not always deregister and this can also lead to overestimation. (Dumont & Lemaître, 2005)

Administrative sources can also be integrated with national statistical estimates to derive estimates of immigration. Even though these sources are particularly relevant for countries that do not have a population register or do not enforce municipal registrations, they require additional steps in place to safeguard the privacy of migrants' confidential data.

In several countries, migrant workers who are employed or self-employed **register with tax and social security authorities** to receive tax credits and social benefits. These records can be used to obtain information on the size of the foreign labour force in the country. However, these registers exclude irregular migrants who are employed as well as students and migrants who are not employed or are not claiming benefits (UN Department of Economic and Social Affairs, 2017).

Additionally, by means of proportional distributions, **insurance records and medical records** can be used to estimate patterns and trends in immigration (Boden & Rees, 2010), but this requires adequate data anonymization. Without clear steps to anonymize migration status obtained from medical records, data protection and ethical concerns arise especially when immigration authorities use these records to identify undocumented immigrants (Kim, Molina, & Saadi, 2019).

Gaps and challenges

Administrative registers

When different types of administrative registers are linked using unique IDs, they can offer disaggregated data on a range of variables. However, population registers cannot be used for measuring flows because they have a time gap between arrival/exit and registration/deregistration. Population registers are better suited to measure inflows than outflows because temporary emigrants who plan to return may prefer to remain on the registers (OECD, 2018). Some countries also register temporary immigrants as well as asylum seekers. These could lead to potential overestimation. Additionally, countries have differences in the duration of minimum stay required to be registered, which leads to comparability issues at the regional



and global levels. Minors are often missed in these registers when they are on the same record as their parents (ibid.).

Border data collection systems

As it is usually not possible to identify migrants separately from visitors, passport control data alone are not the best sources to measure migration flows. Even though passport control data can be useful for estimating flows, they are often unsuitable for measuring migration because they cannot be used to identify people who have changed their country of residence for a specific period. They are also limited because they cannot capture the exits and entries of nationals between countries within areas of free movement, such as in the Schengen area (UN Department of Economic and Social Affairs, 2017; UN Economic Commission for Europe, 2016), or the Economic Community of West African States (ECOWAS).

Combining information obtained from passport control and migration cards can offer more accurate statistics on aspects of movement such as mode of transport as well as date and port of entry/exit. However, migration cards, which are completed by hand and are often not legible, are difficult to process automatically. This leads to higher costs and chances of manual error (UN Economic Commission for Europe, 2016).

Further, the information obtained from migration cards may not be highly reliable if it has not been verified. This is not easy to solve because a verification of the information on migration cards against documentary evidence could compromise the independence of statistical observations from administrative requirements. Additionally, such verifications rarely capture migrants who enter regularly but might overstay as it is “unlikely that foreigners requested to report their intended length of stay would state that it is considerably longer than that allowed by the visa or residence permit that they hold” (UN Department of Economic and Social Affairs, 2017). A migrant can exit and enter several countries, some of which get cancelled out in net terms when the movement is in and out of the same country. A comparison of records at different points in time and at different locations can allow a more accurate measurement using border data (Boden & Rees, 2010).

Specialized administrative systems

National statistics often consider residence and work permits as administrative records rather than as individuals. Therefore, these statistics may not reflect the actual number of migrants. For example, the number of people holding permits can be overestimated if the same person was issued several permits during the same reference period or underestimated if minors are not counted when they are on the same permit as their parents. Likewise, a simple enumeration of the number of asylum applications can lead to



underestimation when a single application is filed for the whole family (Global Migration Group, 2017; OECD, 2010). By using residence permit data alone, the share of permanent residence holders who are actively in the labour market cannot be identified because they often have unrestricted access to the labour market. Cross-border workers who are not legally expected to hold work permits because of free movement borders as well as temporarily unemployed migrant workers are also not covered by work permit records (OECD, 2010, 2018). Specialized administrative sources are also limited in the event of permit renewal or change of permit type because new permits are issued both to newly arriving foreigners as well as those who are already in the country (Global Migration Group, 2017).

Corroborating data obtained from work permits with employment survey data is also challenging because data reference periods vary (usually the end of December for register data, and the end of the first quarter of the reference year for employment survey data). Additionally, there might be breaks in the data when certain types of work permits are removed from the policy framework or when people switch between different types of permits (OECD, 2010).

Conclusion

When linked with each other and combined with census data, administrative data sources have the potential to make migration statistics more comprehensive. Additionally, such linkages lower costs by reusing existing information and improve data quality by offering disaggregated data and making them verifiable. However, special care needs to be taken to ensure data privacy and protection since administrative records are not designed specifically for statistical purposes.

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¹ International migrant stocks are estimates of "the total number of international migrants present in a given country at a particular point in time" whereas migrant flows capture "the number of migrants entering or leaving a given country during a given period of time, usually one calendar year." (UN SD, 2017)

